

GLOBAL BUSINESS REPORTS & APLA

# LATIN AMERICA

## PETROCHEMICALS AND CHEMICALS

### 2023

Macroeconomic Overview - Sustainability - petrochemicals - Specialty Chemicals - Chemical Distribution - Logistics





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## Dear Reader,

We are delighted to bring you the 2023 edition of our annual *Latin America Petrochemicals and Chemicals* report, a joint GBR and APLA publication. This year's edition could not be more different than that of 2022, when the industry boasted record-breaking performance. The following pages paint quite the opposite picture, detailing challenging market corrections that have thrown the industry into what is feared to be a prolonged downcycle. Yet, if we can summarize this 96-page report under one theme, it is the truism that **where there is challenge, there is opportunity**. At this transformative time, our *Sustainability* coverage has expanded to span every sub-sector and sub-topic including sustainability-driven innovations as a driver of growth; bio-based, recycled products and the circular economy; and renewables as both feedstock and catalyzer of green products like fuels and fertilizers.

This year, we dive into the causes and consequences of the global downcycle, and look closely at how this affects Latin America. The region's chemical and petrochemical producers are particularly sensitive to the supply surplus and the fierce competition that the current oversupply of basic chemicals has created. Imports from both the United States and Asia have eroded the market share of local suppliers, which find themselves in a less competitive cost position. Shortages of feedstock and high prices, as well as a higher cost of energy have threatened the industry's competitiveness in Latam for years, and resulted in the lack of significant investments and below-capacity production over the last decade. Excess supply has made this worse. How fast this excess is absorbed depends largely on the economic recovery not only in the region, where the main economies seem to be on an upward path, but globally, with the US and China dictating much of the chemical consumption patterns.

To traverse this difficult part of the cycle, players must leverage their best attributes. In Brazil, chemical producers and distributors focus on scale in one of the world's biggest markets, while Mexico is all about location, as a proxy investment destination to its powerful neighbor. Most people agree that nearshoring could bring a huge boost in investment to the Central American region, which would both directly and indirectly benefit the chemical sector. The availability of renewable generating sources like wind, solar, or biomass is also identified as a significant opportunity for the growth of green chemistries. Meanwhile, the traditional chemicals are not in a bad spot either in the context of the energy transition, as they become a more prominent outlet for oil use. In Latam growth in bio-based, recycled or green-powered products parallels growth in oil and gas production. Most of our interviewees concede both are necessary.

In the following pages, you will also find an assessment of three main countries and their respective industries, economies and politics (Brazil, Mexico, and Argentina), together with up-to-date factsheets on nine countries, dedicated articles for the distribution and logistics sectors, and exclusive interviews with all the main players across the value chain, from producers to distributors, traders, freight forwarders, terminal and tank operators, key ports, consultancies, and market intelligence companies. We thank our 60 participants for taking part in this year's research, especially as the industry goes through a challenging period. At GBR and APLA, we stay committed to providing the industry with an objective analysis of the trends shaping the region, be they positive or negative, and we hope that the following pages will help to guide the industry through challenging times.



**Manuel Díaz**  
Executive Director  
APLA



**Alfonso Tejerina**  
Director and General Manager  
GBR



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### Extended value chain

#### Country overview

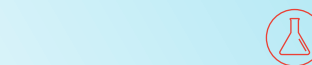
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LATIN AMERICA PETROCHEMICALS AND CHEMICALS 2023  
 APLA 2023  
 A Global Business Reports publication produced for APLA

This research has been conducted by Lorena P.Stancu, Carola Gómez and Felicia Coulter

Edited by Mungo Smith  
 Graphic design by Kaori Asato and Özgür Ergüney

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## REGIONAL OVERVIEW & SUSTAINABILITY



**“From Mexico to Patagonia,  
production capacity in the chemical industry has  
been declining over the past 15 years.”**

- Rina Quijada,  
VP Industry Executive Advisory -Latam,  
S&P Global

Image courtesy of BASF

# Introduction

## LATIN AMERICA'S COMPETITIVENESS CRITICALLY TESTED DURING DOWNCYCLE



Image courtesy of Chuttersnap (Unsplash)

⇒ Some have called it “the worst crisis since 2009.” They are probably not wrong. The global petrochemical industry goes through long cycles tied to GDP growth. The financial crisis of 2007-2008 wreaked havoc in the industry, but China’s record-breaking stimulus package the year after pushed demand for petrochemicals through the roof, polypropylene (PP) demand increasing by 35%, wrote ICIS. This time around, there seems to be no quick way out, and so the downcycle announces itself to last a lot longer. Global analysts predict we can probably talk about growth only from 2025 onwards.

Corrections in petrochemical prices have been long coming, yet the speed and sharpness of the relapse surprised the industry. A reduction in margins had started in 2019, but the pandemic distorted the cycle, putting on hold the construction of world-scale petrochemical plants and playing with consumption behaviors as economies closed and re-started. Today, those capacities in Asia and the US that have been years in the making have come onstream, oversupplying the market. These surpluses will take some time to be absorbed, especially since global demand has softened. China, at once the biggest maker and taker of petrochemicals, can no



**With new capacity coming onstream and relatively weak consumption patterns, it seems we are at the bottom of the cycle, South America itself being a net importer and therefore a direct recipient of excess supply.**

**Edison Terra, VP Olefins and Polyolefins – South America, Braskem**



longer bankroll the industry, especially after China’s debt control program has deflated its housing bubble, sales of commercial flats falling by 43% this

July. The Chinese real estate market represents almost a third of the country’s GDP and is therefore a key driver for petrochemical consumption. With China’s economic engine slowed down, and the rest of the world’s economies cooled off by tighter monetary policies, high stocks of product, coming especially from Asia and the US, floats in the global market.

### A sink for imports

As a net importer of chemicals, Latin America (Latam) is absorbing a fair share of that product, putting pressure on its own domestic producers. In the competition with Asian and American products, Latam producers are at a disadvantage due to a shortage of feedstocks, as well as more expensive feedstocks.

The biggest players in Latam are state-owned, integrated oil and gas companies like Argentina’s YPF (producer of aromatics and methanol), Colombia’s Ecopetrol and Esentia and Mexico’s Pemex (large producers of polyethylene), or Brazil’s Petrobras (main producer of solvents and fertilizers), with the exception of Braskem, the region’s biggest player, which is part-owned by Petrobras. Other local private companies like Unipar and OCQ Group in Brazil, Pampa Energia and Petroquímica Rio Tercero (PR3) in Argentina, Alpek, Grupo Idesa, and Braskem Idesa in Mexico, are among the biggest local suppliers of petrochemicals in the region. Over the past 15 years, petrochemical production has been declining in the region, with the only sizeable grassroots investment being Braskem Idesa’s ethane cracker in Mexico, which added 1 million ton (MT) of ethylene and 1 MT of polyethylene (PE), to supply both local and export markets.

Higher costs resulting from feedstocks, energy, and also logistics have left the Latam’s petrochemical production vastly consecrated to itself. Local players preponderantly supply domestically, exporting only excess or selected product to neighboring jurisdictions. While the Latam industry does not have many other outlets for

exports, its competitors have a global outreach and have crowded the Latam markets. Latam has always been a sink for US product, mostly via Houston. GBR spoke to John Moseley, chief commercial officer at Port Houston, the largest resin export gateway in the US and the main hub for US exports into Latam. Moseley said resin exports to Latam were 2% higher year-to-date, surpassing the record volumes of last year.

In 2022, 70% of its PE and PP imports for Latam came from North America, informs ICIS. But now, the region is also facing higher imports from Asia, given China’s inability to capture more of the stuff. The competition with Asian products is impacting local producers in more than one way: “It is not just the lower prices that our customers can find choosing Asian products, but also that the price of the finished products sold by Asian suppliers could be the same as the raw material that our customers purchase – this means custom-

ers can skip a step in the production process, buying the finished product or part of that finished product instead of buying raw materials. Therefore, demand for raw materials in the region is not healthy, even as demand for finished products is actually not necessarily slowing down,” said Patricio Gutiérrez, chairman and CEO at Grupo Idesa, a Mexican producer.

To Martina Azcurra, the executive manager for chemicals at YPF Química, Argentina’s biggest player, the final selling prices of Asian products do not add up. It is indeed difficult to crunch the numbers when one considers Asian players are transporting from the other side of the world, incurring high logistics costs, but that only goes to show their world-scale competitiveness. Nevertheless, Azcurra remains confident that YPF will continue to leverage its long-term customer relationships and quality products, while the price battles take place in on the spot markets.

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### The cards left to play

Competition with imported product puts the strength of the industry to a great test. With high stocks built during the supply chain disruptions of last year, and with margins compromised, it will largely be a volumes' game. In the cost-first battle, Latin America lacks the cheap feedstock advantage of the Middle East or the US. Brazil, which has a majority naphtha feed, is particularly vulnerable, since naphtha prices are pegged to crude oil prices, which have been consistently high in the past two years. Additionally, the price of energy, and in particular of natural gas, is also up 10 times higher than in Asia, said Marina Mattar, director of corporate affairs at Unigel, the country's largest ammonia producer and the only manufacturer of urea and ammonium sulfate: "We are paying around US\$14 per million btu, while in the US it is between US\$1.5 and US\$2, and in Asia it is US\$1.5 or even less. While there has been new regulation in the gas market, there is not enough infrastructure to distribute the gas, so new companies are not investing."

However, ethane-crackers, which dominate in Mexico and Argentina, do bring a cost advantage over naphtha crackers. "As producers of PE from ethane, we have a very important competitive advantage against naphtha crackers, which represent about 70% of all global crackers," commented Stefan Lepecki, CEO at Braskem Idesa, which supplies almost a quarter of Mexico's PE.



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Some countries have imposed import restrictions and anti-dumping duties to protect the local market, but the effectiveness of such policies is questionable, and has often backfired: "The Latin American market is heavily influenced by the political landscape, to a much greater extent than what we see in the US or Europe. In Argentina, the third largest consumer of PP and PE in the region after Mexico and Brazil, the current government has increased protection measures to limit dollars leaving the country; this has brought on a higher domestic products consumption, but it has also led to shortages of important feedstocks, not to mention, one of the highest inflation rates globally," observed Simone de Faria, head of Latin America at Townsend Solutions, a US-based consulting firm.

At the same time, when the Brazilian government reduced the tax requirement for plastic resin imports from 11% to 3%, plastic resin imports went up by 136% over the following months, André Passos Cordeiro, president at ABIQUIM (Associação Brasileira da Indústria Química), told GBR.

Restricting imports is a tricky endeavor in an import-dependent region. Between 2019 and 2021, Latam chemical and pharma imports had quadrupled compared to what they were between 2000-2002, while exports within the same compared periods doubled in dollar terms, according to a study by Economic Commission for Latin America and the Caribbean (ECLAC). Feedstock shortages render the region dependent on imports, since many of its plants run below capacity without enough feed. The Mexican industry runs at around 60-70% capacity, inform leaders in the country.

Braskem Idesa, a Mexican-based PE producer, has managed to ramp up 86% capacity utilization this year, the highest in six years, only after implementing an import "fast-track" program to supplement ethane supply from Mexico's national company, Pemex. This, of course, reinforces a vicious cycle, with more imports on the horizon. According to the Oil and Gas Journal, the region imported 4.9 bcfd of gas, a deficit that is expected to widen to 7-12 bcfd, forecast various sources.

In the current environment, there are few cards left to play. Investments have narrowed in on productivity improvements. Latam has been notorious for one of the lowest productivity levels globally, with annual productivity growth since 2000 between 0.2-0.5%, versus over 2% in other developing regions like East Asia. The region has prioritized job creation over digitalization, as one can see in trivial examples on the streets or in the supermarkets where people fill menial jobs that could be easily automatized. But companies are starting to pay more heed to digital solutions to optimize their production and reduce costs. For example, Brazilian chlorine and caustic soda production leader Unipar managed to improve capacity utilization from 70-75% average before the pandemic to above 80% in the first semester of this year through an operational excellence program that involved the use of AI and data.

Capex investments have not been completely scrapped either. Unipar continues with a new plant construction in

Camaçari, in the state of Bahia, with a capacity of 20,000 t/y of chlorine and 22,000 t/y of caustic soda, expected to come onstream in 2024. This year, the Brazilian company has increased its capex allocation to a company record of R\$178 million, by far beating last year's record of R\$75 million. Commenting on the company's strategy, Unipar's CEO Mauricio Russomano said: "We are a capital-intensive company and cycles of low and high prices are part of the company's multi-year plan."

Modernization work is also carried out by BASF at its São Bernardo do Campo unit in Brazil, with R\$35 million spent to localize the production of nylon salt intermediates, used in the polyamide 6.6 chain, as part of a program to boost the polymer's supply capacity in south America by 15%.

### Differentials matter

In a low-commodity market, better-off are those companies with clear differentials and added-value solutions, that can offer something different instead of chasing buyers for the same molecules. Oswaldo Cruz Química (OCQ) Group, a Brazilian conglomerate with interest in 21 production and distribution companies, has recently completed the acquisition of Elekeiroz, the market leader in oxo-alcohols, plasticizers, phthalic and maleic anhydrides, and sulfuric acid,

which products OCQ will integrate into its wider network. "As producers of chemicals ourselves, we face difficulties in this tighter-margin market, but as buyers of basic chemicals, we also benefit. This double market exposure gives us a balanced performance, with one side of the business doing better than the other. For that matter, the acquisition of Elekeiroz proved highly advantageous," said Francisco Fortunato, CEO of OCQ Group.

For specialty players, the current downturn could also be an opportune time for co-creation with their customers. With an eye on more value-addition, Dow has also recently inaugurated its first innovation center, which the company calls "Inspiration Center," in the region, in Jundiá, close to São Paulo. With more than 50% of the company's portfolio focused on specialty plastics for the packaging industry, Dow is leaning in on close-knit collaborations with customers.

In the end-markets, from packaging to agriculture, food, pharma, automotive, construction, and others, demand is not altogether that bad. In fact, there are pockets of opportunities in selected markets, with broad variations between durables and consumables, the former category naturally being more reactive to high interest rates, whereas the latter remains generally steady. Growth in the region is expected to speed up

in 2024, with positive GDP growth projections in the top largest economies at 1.2% (Brazil), 2.1% (Mexico), 1.1% (Argentina), and 1.8% (Colombia), according to OECD.

The US' Inflation Reduction Act (IRA), which is the largest climate investment in the US history, is also expected to bring a demand stimulus in the areas of energy transition, including EVs, but also renewables infrastructure, which, we must not forget, uses significant petrochemicals. But its impacts may not be immediate: "We know US\$ billion are invested. Demand should permeate into many industries and indirectly boost demand for selected petrochemicals. The industry should follow IRA progress closely and look for emerging opportunities," said Rina Quijada, VP industry executive advisory for Latam at S&P Global.

Differentiated products allow local companies to make bigger strides outside of the region. YPF exports specialty products to the US and Europe; Ecopetrol has opened new offices in Houston and Singapore, Asia absorbing 60% of its crude exports; and Braskem made headlines with its new partnership with Thai company SCG Chemicals to build the first-of-its-kind green ethylene plant in Asia. The more local players develop a presence outside of Latam, the stronger they will be at home. ■



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## Performance Snapshot across Key Chemical Segments

INDUSTRY LEADERS REFLECT ON MARKET CONDITIONS



PE

"My view is that we reached the bottom of this cycle and we are slowly heading towards a better 2024, when margins will be recovered. Growth, however, may not come until 2025."

**Stefan Lepecki, CEO, Braskem Idesa**



PVC

"High interest rates have burdened the financing of construction projects, leading to a drop in PVC consumption, and, consequently, in PVC prices. The PVC-S market tends to grow with the adoption of federal government incentive policies such as the Minha Casa, Minha Vida program, Marco do Saneamento and the PAC (Growth Acceleration Program), in addition to municipal initiatives such as the new Strategic Master Plan of São Paulo."

**Mauricio Russomanno, CEO, Unipar**



PU

"Demand for plastics used for more expensive items using PU like cars, houses, or mattresses has weakened with high interest rates. The consensus is that interest rates are coming down, allowing more money to be injected. When this happens, a strong rebound in demand is usually unleashed."

**Javier Constante, President, Dow Latin America**



Styrene and styrenic polymer

"All market segments have suffered from oversupply coming from Asia with bigger declines observed in the construction industry, small appliances, and food service packaging. On the other hand, the automotive sector has been steady, and although it is not yet at pre-pandemic levels, we can see a continued year-over-year improvement that points to stable recovery."

**Ricardo Cuetos, VP Americas Polymers Sales Management, Ineos Styrolution**



Solvents and aromatics

"Demand for aromatics and solvents remains strong, and international prices for aromatics have been sustained since record peaks in July 2022."

**Martina Azcurra, Executive Manager, Chemicals, YPF Química**



Chlor-Alkali

"The buoyant lithium industry in Argentina presents us with a terrific growth opportunity. The chloralkali products are being used in the production of lithium hydroxide for battery cathodes. This is a very promising growth pillar, and we want to make sure to tap into its potential early on."

**Juan Pablo Ceballos, CEO, Petroquímica Rio Tercero (PR3)**



## Manuel Díaz

EXECUTIVE DIRECTOR  
APLA



*We are not innovating if we do not think about the final destination of a product or material. As an industry we have a great opportunity to continue moving in this direction.*



### What are the key agenda points for the 2023 APLA Annual Meeting in São Paulo?

The focus of this year's meeting can be boiled down to three big themes: First, a geopolitical analysis of the global energy markets and their specific impact on Latin America in order to understand the evolution of prices and availability of raw materials.

Then, we look at sustainability, with presentations on topics such as the reduction of carbon dioxide and new technologies available, the energy transition and adoption of renewables, and the circular economy.

Finally, the third is a detailed analysis of the socio-political landscape in the region. By delving into this theme, we want to help industry actors across the value chain to gain concrete perspectives on what the next years might bring.

### What were the main goals of APLA's Sustainability Meeting in Santiago?

During our third sustainability meeting held this year in Santiago de Chile, we delved into projects with a core sustainable focus, as part of our vision at APLA to facilitate sustainable business development for the petrochemical and chemical industry in Latin America. Two major themes were brought to the fore: The regulatory frameworks currently in place and those being drafted both at the global level and at the UN with specialist speakers from our sister associations such as ASIPLA and ASIQUIM. Secondly, we looked at specific projects related to recycling and carbon abatement, taking as case studies advances in chemical recycling presented by YPF Química and Methanex's projects for the reduction of carbon emissions and the use of methanol as an alternative fuel. We also heard from CCU about the impact of the recycling law in Chile and the company's own sustainability plans, both in plastic recycling and in the use of alternative energies. Moreover, we hosted a panel on green hydrogen where Unigel showed its initiatives in Brazil.

### What are the most pressing concerns faced by your members in 2023?

First of all, new regulations implemented in different countries, which have prompted industry players to implement measures to provide effective compliance. On the other hand, there is the social impact, an aspect that differentiates sustainability in our region from Europe or the US. In Latin America, many people make a living out of waste separation and recycling. For this reason,

the social aspect can never be ignored when putting together sustainability projects. Our challenge is to make the circular economy truly effective, including the cooperatives or groups that have managed to convert these processes into their livelihood, and provide them with a longer-term perspective.

### How do you think Latin American chemical players can leverage opportunities opened by the energy transition?

We believe that our industry can take great advantage of these opportunities by continuing investment projects that already exist in this field, such as the development of alternative energies and the optimization of industrial energy consumption.

### What product segments present the most growth potential in the region?

Today we are seeing new opportunities within our industry, which generally relies on imports. With the development of Vaca Muerta, we believe that there will be a mix of raw materials available, and that can be an opportunity for the development of other industries and for the reduction of trade deficits. In the Santiago meeting we examined an interesting case: Proferetil, which shows a sustainable business approach within food production through efforts to make land more productive.

### What is your outlook for the petrochemical industry in the coming years?

Beyond the complex socioeconomic situation that presents its share of challenges to overcome, the outlook for the coming years is very positive. We begin to see a gradual improvement in economies, with a greater participation of our products, particularly in sectors such as automotive, construction and mass consumption.

### Would you like to share a final message?

At APLA we have a strong commitment to promoting joint work between brand owners and the industry to seek the development of increasingly sustainable products, reduce the use of some components, and develop new ones that are even more environmentally friendly. This is a clear approach to sustainable innovation, which means that any product improvement, discovery or optimization must consider the full life cycle. We are not innovating if we do not think about the final destination of a product or material. As an industry we have a great opportunity to continue moving in this direction. ■

## Rina Quijada

VP INDUSTRY EXECUTIVE ADVISORY  
LATAM  
S&P GLOBAL



### ➔ What vulnerabilities does the current supply downcycle expose in the Latam chemical industry?

If we look at Latin America, we notice that from Mexico to Patagonia, production capacity in the chemical industry has been declining over the past 15 years, Braskem Idesa's investment in Mexico being the only grassroots capacity addition during this time. Across the region, although there are large reserves of crude and gas, we have not seen large investment to tap into these natural resources and supply competitive and abundant feedstock to support additional capacity in recent years. Latin America is a net importing region for thermoplastics and most petrochemicals and derivatives. Hence, lower resin and petrochemical derivatives prices due to oversupply should support growing demand of finished products for regional demand, albeit somewhat limited by lower economic growth in most countries in Latin America.

### What do you make of the effectiveness of import control measures imposed by countries in the region?

Most countries in the region have, at some point, introduced import control measures when they have felt imported product entered their domestic market at a very discounted rate, making local production less competitive. On the other hand, when unexpected local shortages of selected products occurred, import controls were eliminated, hence, reducing import barriers to meet local demand of a specific product that was not locally available. I personally think that markets, at the end, will self-adjust, given a long enough period of time to adjust.

The COVID-19 pandemic, geopolitical and social unrest, as well as climate change, among other external issues, have caused a tremendous impact on world economic growth and have disrupted supply chains and global fuels demand. These changes resulted in an unprecedented level of uncertainty when trying to foresee market trends. ■

## Dewey Johnson & Carlo Barrasa

DJ: SVP & GLOBAL LEAD, CHEMICAL  
MARKET ANALYTICS  
CB: VICE PRESIDENT  
OPIS, A DOW JONES COMPANY



DL



CB

### ➔ What are the main disruptors for the industry in 2023?

DJ: The main spotlight is commodity fundamentals; people ask how broad and how deep the current downcycle is, and what the recovery looks like?

But when we come out on the other side, it is going to be a different world. Carbon is a massive disruptor with several implications on feedstock availability, cost structure, and even the reconfiguration of refineries. All of this means change across different dimensions, and with change comes market volatility. As fuel demand declines, energy companies will look for another outlet. They find it in chemicals. The other element of the energy transition is the decarbonization of energy and of the industry itself, driven by goals and aspirations at the country level; these measures will create operational constraints. Then, the valuation of carbon, be this in the form of taxes or incentive structures, will affect the competitive positioning of chemical companies.

CB: Plastics represent another significant disruptor. Currently, the recycling rate across all the high-volume plastics is at 7% worldwide. In our base study, by 2050, this may increase to 15%. The world has spent 50 years optimizing scale and technology in traditional plastics production, so we are very early in the development of circular technologies; but the industry is responding. At CMA/OPIS, we are tracking over 100 technologies in chemical recycling at different development stages.

Finally, another key disruptor is geopolitics. Different regions are generally separated by freight and duty in terms of commodity pricing, but with trade restrictions (via cross-border carbon mechanism, self-sufficiency policies enacted by different governments, etc.) the world's geographies will separate further in terms of pricing, the market becoming more opaque, less efficient, and with a higher arbitrage between regions, which raises the risk level for market participants. ■



## Marina Mattar

DIRECTOR OF CORPORATE AFFAIRS  
UNIGEL



### Could you summarize Unigel's footprint and your recent investment in green hydrogen and green ammonia?

We are active in three main business lines: acrylics, styrenics and agrochemicals, with units in several states in Brazil (Sergipe, Bahia and São Paulo) as well as Mexico. We are the largest manufacturer of ammonia in Brazil, and the only manufacturer of urea and ammonium sulphate in the country. We are investing in the first industrial-scale green hydrogen and green ammonia production plant in Brazil, with output starting in 2024. During the first phase, we will produce 10,000 t/y of green hydrogen and 60,000 t/y of green ammonia. The total investment will be US\$1.5 billion, of which US\$120 million will go into the first phase.

### What was the rationale behind this investment?

The location in Camaçari petrochemical pole offers certain advantages, notably we own one of the only two ammonia ports that exist in Brazil. Also, Brazil's electrical matrix is powered from renewable sources.

Our plant will be the largest green hydrogen and green ammonia facility in the world. There will soon be bigger plants in China and the Middle East, but it is certainly an important milestone.

### Could you give more figures about the energy required and the production costs?

Unigel's project will be a zero carbon solution for countless applications. For the initial stage of the project, Unigel purchased three electrolyzers from thyssenkrupp with a total output of 60 MW of energy.

The products will be offered to clients that see green hydrogen and green ammonia as an important solution to their decarbonization challenges. The potential applications include using hydrogen as a raw material in steel production and oil refining and as fuel for several types of vehicles, as well as the use of ammonia as a replacement for fossil fuels in bulk carriers and container ships.

Green ammonia can also be used to strengthen Unigel's portfolio of sustainable products, as it is also a raw material in the production of fertilizers and acrylics. In addition to using ammonia as a raw

material, Unigel also began producing this input last year, after opening the two fertilizer plants that gave rise to Unigel Agro. The company also operates one of the only two ammonia terminals in Brazil, at the Port of Aratu, in the state of Bahia.

These products are already an offshoot from other initiatives promoted by Unigel, including its partnership worth over R\$1 billion with Casa dos Ventos – one of Brazil's largest generators of energy from renewable sources for the production of wind energy.

### What are the main challenges for Brazil's chemical industry?

The main challenge is the price of natural gas, which is very expensive compared to other countries, and this is despite the fact that Brazil is rich in oil and gas resources. While there has been new regulation in the gas market, there is not enough infrastructure to distribute the gas, so new companies are not investing. As a result, end users have very few options to source the gas. In Brazil, we only produce 20% of the country's demand for nitrogen-based fertilizers, so in theory there is an opportunity there to invest and grow, but the price of natural gas is a serious obstacle.

Additionally, energy prices are expensive, and for green hydrogen we need very strong energy infrastructure, which is also lacking in Brazil. Finally, logistics is a big challenge in the country. We have poor rail infrastructure, and shipping is not competitive, so most transportation is by road, which is very costly if you consider the continental size of our country.

### Would you like to add a final message for the readers of GBR and the delegates of APLA?

We are very proud to be investing in low-carbon energy, but also in global food security by producing fertilizers. Brazil can currently feed one billion people, and by strengthening our investments we will be able to feed even more. Besides, Unigel has strongly invested in schools for many years in Bahia and Sergipe. We have strong circular economy programs, and now the investment in green hydrogen is going to create 500 jobs in Bahia just in the first phase of the investment. ■



*In Brazil, we only produce 20% of the country's demand for nitrogen-based fertilizers, so in theory there is an opportunity there to invest and grow, but the price of natural gas is a serious obstacle.*





## Manfredo Rübens

PRESIDENT SOUTH AMERICA  
BASF



### ➔ What have been the recent developments at BASF in South America?

In 2022, we had our best year in South America in our 112-year history in the region and achieved 35% growth in sales compared to the same period in 2021, reaching €5.6 billion. The main drivers were price increases, a favorable currency impact and increased sales volumes, especially for the Agricultural Solutions, Nutrition & Care, and Industrial Solutions segments. In addition, we are getting closer to the goal of neutralizing our CO<sub>2</sub> emissions by 2050. In South America, between 2018 and 2022, the reduction has already reached 16%.

### **BASF has recently invested R\$35 million at its São Bernardo do Campo plant to localize the production of nylon salt intermediates. Can you elaborate on the Patriot project?**

This investment reinforces BASF's efforts to remain a leader in the polyamide 6.6-based engineering plastics segment. The figures in question increase the polymer's supply capacity to the market throughout South America by 15%.

This project is part of a chain integration strategy to increase security of supply and reduce effluents and CO<sub>2</sub> emissions at the site, reinforcing our customer-at-the-center strategy.

### **What are the key demand trends across BASF's core business divisions in South America?**

Circular economy, sustainability and digitalization are strong pillars of the Chemicals business areas.

We have developed a corporate database to calculate the Product Carbon Footprint (PCF) of over 60,000 products from "cradle to gate." BASF teams around the world are developing innovative approaches to three primary areas in more than 35 initiatives: alternative raw material pathways, innovative material cycles and new business models for the circular economy - which also include digital and service-based concepts.

In this sense, among the examples of launches and renewed initiatives, we announced an investment of R\$50 million in the São Bernardo do Campo unit for our modernization project developed 100% in Brazil, which promotes the re-

## Ana Cristina Paiva

POLYETHYLENE REGIONAL SALES  
MANAGER (LATIN AMERICA)  
EXXONMOBIL



### ➔ Could you remind our audience of ExxonMobil's presence in Latam?

Our capabilities span upstream operations in five Latam countries, most prominently Brazil and Guyana, a lubricant blending plant in Mexico, and two global business centers - located in Curitiba, Brazil, and in Buenos Aires, Argentina, both providing support functions to our global operations.

### **Could you comment on the Low Carbon Solutions portfolio and how these align with the traditional oil and gas/petrochemical business?**

Our global CEO, Darren Woods, has recently given an interview with McKinsey where he discusses at length how the energy transition is often misperceived - people do not fully appreciate the magnitude of today's energy system, which includes about 100 million bpd in demand, and 70 million bpd of gas equivalent. As Darren has said, transforming this enormous system is a big job, expected to last decades. Within

the transformation, oil and gas will continue to play a vital role given its characteristics - convenience, reliability, and affordability. The way people define the issues as "We need to get rid of oil and gas" is problematic and does not tell the full story. The problem statement should be, in Darren's words, "We need to address the emissions associated with the combustion of oil and gas," by reducing emissions, finding the right technology that is both affordable and effective. The cost of converting today's system to a new one will be much determined by technological breakthroughs, but also by economies that are ready to pay for carbon reduction, through investment incentives, and, last but not least, policies. Within these discussions, ExxonMobil brings the capabilities developed in 140 years of existence to transform hydrogen and carbon molecules through carbon capture and storage, hydrogen production, and biofuels. We are already starting these new value chains around the world. For example, in carbon cap-

duction from 25 to 15 in the number of raw materials needed to manufacture products, with a 65% drop in CO<sub>2</sub> emissions and 60% in the generation of solid waste, in addition to offering improvement in the ergonomic efforts of employees, as well as reducing the exposure of these professionals to chemical elements of production.

Looking at post-consumption, we have developed the Reverse Logistics program that receives leftover paints and packaging of any brand for co-processing and recycling, respectively, and reinserts the materials into the production chain. So far, more than 11 tons of waste have been collected.

In the Agriculture Solutions Division we have recorded growth in all segments of our pesticide portfolio, with fungicides, insecticides, herbicides, and seed treatment. By 2030, we will have in Latin America approximately 200 launches of solutions for crop protection, seed treatment, biotechnologies (traits) and digital tools. Added to this total are varieties of soybean, cotton, rice, and vegetable seeds (under our fruit and vegetable seed brand, Nunhems). ■

ture and storage, we can use our ability to model reservoirs, inject CO<sub>2</sub> underground, and drill the wells - skills that also apply to our traditional businesses.

### **Could you share more details about ExxonMobil's Manaus waste collection project?**

In 2022, ExxonMobil started to support the YouGreen Cooperative in Manaus, Brazil. The US\$65,000 allocated by our company will help the cooperative to buy new equipment, improve working conditions, and boost capacity, with a forecast to recycle 100 tons of waste/month. This will triple the income of collectors in the capital of the Amazonas state. YouGreen is the first waste management franchise in Brazil and comprises 60 members with income three times higher than the average in the country. Brazil has more than 1 million active recyclable waste collectors. At ExxonMobil, we are committed to supporting the work of this important link in the recycling value chain. ■

## Elvira Neves

LATIN AMERICA LEADER  
EASTMAN



### **How is Eastman organized in Latin America?**

Eastman is an S&P 500 specialty company with US\$10.6 billion in revenue (2022), of which 40% is consecrated to transportation, consumables, and construction. The rest of our portfolio is completed by a diverse range of markets, including agriculture, personal care, and electronics. Latam contributes 6% of total revenues, with an annual revenue of around US\$600 million. We employ 400 people in the region.

### **Could you exemplify how Eastman's solutions have shifted to embrace a sustainability focus?**

We have many examples illustrating this innovation focus. Eastman's Naia™ Renew is a fibre made with 60% sustainably sourced wood pulp and 40% certified recycled waste material. Eastman Naia™ portfolio of sustainable fibres is biodegradable and compostable and it is helping fashion brands to embrace circularity. Another example is our biobased Acetate Renew, used by Ben & Frank, a leading Mexican eyewear brand for its new line of optical frames. Eastman Acetate Renew diverts hard-to-recycle plastic waste from landfills and reduces GHG by up to 50% versus traditional materials. Ben & Frank were so impressed with the product that they are planning to include it into a fifth of their glasses; all made possible through Eastman's recycling technology CRT (Carbon Renewal Technology).

Our commitment to sustainability goes much further. We have also responded to safety concerns surrounding bisphenol (BPA) exposure by developing BPA-free alternatives for different applications. Our Eastman Tetrashield is a BPA-free resin system that replaces the traditional epoxy resins that contain BPA for coatings in the food and beverage packaging industries. Eastman Tritan and Eastman Cristal are other BPA-free products that support more than 50 brands around the world to comply with regulations and ensure a safe environment.

In Latin America we came up with a solution to address the challenge of birds colliding with glass in buildings by introducing Saflex Flysafe 3D PVB interlayers, which provide protection to birds, reducing the risk of injury caused by collisions.

### **What are some of the particularities of operating in Brazil and Mexico?**

One of the overlooked aspects of manufacturing in Latin America is the access to exceptional talent that we are lucky to have and further develop in the region. Eastman is proud of our inclusion & diversity (I&D) journey, which helps to identify and nurture talents that may have not been as visible before. Our staff understands the complexity of the region, and behind that complexity lies abundant opportunity. In each of our business segments, we leverage the expertise of our teams to differentiate ourselves and provide a unique value proposition.

### **What are the main growth priorities for Eastman Latin America going forward?**

Eastman will continue to pursue strong organic growth, as well as innovation, to maximize results for all our stakeholders - employees, customers, and shareholders. Eastman announced a US\$2.25 billion investment in three new molecular recycling facilities globally, two in the US and one in France, to bring circularity to hard-to-recycle plastics, where we will grow our recycling capabilities and which will bring more innovations to the market. In addition to our focus on growth and innovation, I&D is deeply ingrained in our corporate DNA. By embracing diversity and fostering an inclusive environment, we can harness the full potential of our workforce in the region. ■

# Sustainability

## BETTING ON BIO-BASED PRODUCTS

⇒ If there is a light at the end of the long, winding tunnel of the petrochemical downcycle, it flickers green. Or at least, this is what every petrochemical player we interviewed for this edition seems to think. For every negative figure in the sales of olefins, aromatics, and other basic chemicals, there is a ray of hopeful growth in products with a green component. The bioplastic market has been growing at around 14% yearly, but it is poised to triple over the next five years, informs Townsend, a consultancy. For Braskem, the region's biggest player, sales of products with a recycled con-

tent grew by 144% in 2022 versus the year before. For Eastman, sustainable materials have also seen double-digit growth recently. In the specialty space, Vantage noted a high demand for sustainable beauty and personal care items.

Sustainability is one steady growth driver across the board, and companies are reacting accordingly, investing dutifully in their "handprint" – a term I borrow from Evonik – to differentiate between a company's footprint (impact of their assets) and handprint (impact of their products). In terms of their footprint, most local companies are at a di-

agnosis stage, with many companies producing their first sustainability reports, now a mainstay for most European chemical companies, and making the necessary updates to optimize production, which is the lowest hanging fruit in reducing both emissions, and costs, the latter being a potent motivator.



**South America is a green powerhouse, with the potential to become a global reference in renewable energy and sustainable production. This helps to extract value from green chains, such as biofuels and renewable raw materials from the Amazon.**

**Manfredo Rübens,  
President South America, BASF**



Meanwhile, the focus on handprint manifests in those next-generation products and technologies meant to support customers efforts to achieve their environmental objectives. This takes different forms for different companies, and it tends to be underpinned by big budgets. For Air Liquide, 40% of its capital allocations in new projects is tied to the energy transition, including carbon capture and utilization, renewable hydrogen, ammonia, and methanol. For Ineos, this focus is formalized under its new "Eco" line of post-consumer recycled (PCR) or bio-attributed high-performance styrenics. For Honeywell, a technology licensor, 60% of its R&D goes to solutions that address customers' ESG. Unipar is to spend R1.4 billion by 2030 in sustainability projects.

The green opportunities pursued by Latam players can be divided in three main separate but related categories: producing green products (fuels, feedstocks, and chemicals) from a bio-based source; greenifying the production process by switching to renewables (which then also results in green products like green hydrogen, green caustic soda, etc.); and recycling, by making waste into a feedstock for new plastics which inherit that "green" component. At least in the first two cat-

egories, Latin America brings surprising advantages it is only just starting to take stock of. For the region might not have the most competitive natural gas or naphtha in the world, but it does have some of the cleanest energy mixes and an abundance of bio raw materials for green chemistry.

### Bio-based

"When ethanol vessels coming from the northeast of Brazil were attacked by German vessels during the Second World War, Rhodia bought a coffee farm and turned it into a sugar cane farm, sugar becoming the raw material for our green chemistry up to this day," said Daniela Manique, CEO of Latam & president global business Coatis at Solvay, the parent company of Rhodia.

Brazil's history in sugar-based ethanol production is one of both resilience and opportunism. Today, the country is the second largest producer of ethanol, after the US, the two countries together accounting for 82% of the world's product. While the US's ethanol comes from corn, Brazil relies on its vast sugarcane plantations.

Besides sugar, Brazil is also the biggest producer of soy and one of the biggest suppliers of animal fat, both raw materials in the production of biodiesels. In the last decade, Brazil has quadrupled its biodiesel production to 6.8 million cubic meters in 2021. Also, Colombia, Guatemala, Honduras, Brazil and Ecuador are in the top 10 largest palm oil producers. A higher demand for animal fats, used cooking oils, and vegetable oils has been noted by terminal operators like Vopak, which has a dominant market share of 80% in heated capacity for bio-based feedstocks in Brazil. Analysts expect an annual growth of 10% CAGR in the biodiesel market (according to GrandView Research).

The region is understandably excited by the opportunities created in these new niches, but challenges abound. For example, regulations in the blending requirements for biofuels have been inconsistent and contradictory for refiners; Experts at OPIS comment that regional governments have updated these requirements depending on fluctuations in the oil price, leaving farmers confused.



Image courtesy of Manuchar

Brazil, however, has been generally consistent in its policy, raising the country's mandatory blend of biodiesel to 12% in April this year, up from 10%.

Moreover, the production of soybeans, which is the main feedstock for biofuels in Latam, is vulnerable to climate conditions. This year, the methanol market in Argentina, associated with the production of biodiesel, has suffered, said Martina Azcurra, executive manager chemicals at YPF Química: "A prolonged drought this year has severely affected soybean production. Adding to this the macroeconomic conditions in Argentina, biodiesel producers will not be profitable this year, which has pushed down methanol sales in the local market."

As for the ethanol-to-ethylene-to-polyethylene value chain, the largest producer of bio-ethylene in the world, Braskem, has increased its production by 30%, from 200,000 t/y to 260,000 t/y, but this is still 10 times smaller than the equivalent world's biggest petroleum-based ethylene plant, at around 2.5 million t/y capacity. But Braskem is keen to advance both the scale and value of its bio-based ethylene platform: First, it will almost double the production of bio-PE through a new plant in Thailand, as part of a JV with SCG Chemicals, one of the leading Thai petrochemical companies: "Sugar cane-based ethanol feedstock will be supplied from Brazil, with the possibility to eventually develop local value chains with ethanol from the Thai sugar cane industry to improve CO2 footprint even further," Edison Terra, VP

olefins and polyolefins South America at Braskem, told GBR.

Additionally, starting from its bio-ethanol technology, Braskem has made downstream advancements in more complex molecules like ethylene vinyl acetate copolymer, adopted by 60 footwear brands in the world, and it has launched Sustainea, a JV with Japanese player Sjitz, to produce bio monopropane glycol (MPG) and monoethylene glycol (MEG), a raw material for polyethylene terephthalate (PET). Next, it has announced partnerships to produce carbon negative bio-based PP in the US.

"Considering the demand potential for bioplastics in light of both regulatory developments and consumer trends, these capacities are barely scratching the surface. The next question is therefore whether these targeted markets for bioplastics can sustain the premium – and for how long – as investments in recycled options start to come online, competing with bioplastics," commented Barb Mitchell, managing director, Townsend Solutions.

The other constraint is, of course, cost. Bio-naphthas are significantly more expensive compared to their petroleum counterparts. The premium has to be covered by brand-owners, who pass it on to consumers. And finally, aggregating various sources of animal fat or vegetable oils and then transporting it to biorefineries around the world comes with its own carbon footprint, which needs to be weighed against the equivalent of producing from a fossil fuel source. ■

## Your partner in the energy transition



Vopak is developing infrastructure solutions for the energy transition, focusing on zero- and low-carbon hydrogen, ammonia, plastics recycling, CO2, long duration energy storage, biofuels and sustainable feedstocks.

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# A Wide Pool of Initiatives

AN OVERVIEW OF THE 2023 SUSTAINABILITY MEETING

⇒ With the aim of presenting the latest initiatives to promote the green and circular economy, the Latin American Petrochemical and Chemical Association (APLA) organized its 3<sup>rd</sup> Sustainability meeting in September 2023 in Santiago. The event covered themes including regional regulations for plastics recycling, investment projects in green methanol and green hydrogen, and the importance of Latin American industry for global food security.

The first panel on sustainable development by brand owners focused on recent regulations in Chile, most notably the recent law on producers' extended responsibility (REP is the Spanish acronym), which demands that producers manage and finance waste management schemes; but also the single-use plastics law (PUSU), that will require plastic bottles to contain at least 15% recycled plastic from 2025, a percentage that will increase in subsequent years.

In this context, Evelyn Peña, operations manager rPET at food and beverages company CCU, presented the company's US\$35 million investment project for a recycling plant in Renca that is expected to be operational in Q3 2024 and will have capacity to transform 19,000 t/y into the recycled resin rPET. Peña explained that increasing plastic collection will be essential to filling up the plant capacity, since Chile currently only recycles 10% of all plastic used.

Magdalena Balcells, general manager of Chilean plastics association Asipla, noted that there are huge differences among countries in the region. While Chile and Colombia share a similar context, she referred to Mexico's federal system as an obstacle to coordinate



country-wide initiatives, and pointed out that some countries in Latin America do not even have a formal waste management system at all.

Sergio Barrientos, general manager of Chile's chemical association Asiquim, warned that the issue of new taxes should be approached carefully, because the cost is often passed on to final users, and also they can disrupt value chains. He mentioned an example: If cement producers left the country based on CO<sub>2</sub> taxes, then the country would have no option but to import cement from other jurisdictions, so the country would be effectively importing the CO<sub>2</sub> it was trying to eliminate.

On the subject of food security and the importance of fertilizers, the theme was raised about the opportunity to invest in new fertilizer capacity in the region. Valeria Caliva, in charge of corporate communications at Profertil, explained that the company meets 50% of Argentina's demand for granulated urea, and emphasized that the role of fertilizers goes beyond improving actual yields per hectare, as they also prepare the soil for future crops. Now, the company is trying to improve its technology to eliminate scope 2 emissions with the use of wind energy, and also to reduce the amount of gas and water used per tonne of urea produced.

Other companies presenting at the event included YPF, Methanex and Unigel. Natalia Garabato, project manager at YPF, showcased the company's three sustainability axes (energy efficiency, low-carbon operations and sustainable

energy sources), as well as more specific programs including the reuse of ferrous waste and catalysts, a project to utilize used kitchen oil as feedstock for green diesel, and a plastics chemical recycling program using pyrolysis. Garabato explained that the regulatory framework for chemical recycling is widely insufficient or inexistent, considering that this technology has only been implemented for the last five years.

Alejandro Larrive, managing director for Methanex in Chile, outlined the company's vision to lead the transition towards low-carbon methanol. This includes three aspects: reduce emissions in conventional methanol production; move towards new ways of methanol production with lower emissions, for instance applying CO<sub>2</sub> capture and storage, or using renewable natural gas; and finally, promoting and growing new markets for these greener but, inevitably, more costly products. Larrive explained that, by 2027, there will be over 100 ships worldwide with dual fuel technology to use methanol, yet there will not be enough production capacity of green methanol available.

Finally, Marina Mattar, corporate affairs director at Unigel, presented the Brazilian firm's investment project in green hydrogen and green ammonia, a project divided into several phases that should see a total investment of US\$1.5 billion. The first step, expected to be completed in 2024, has a capex of US\$120 million for a capacity of 10,000 t/y of green hydrogen and 60,000 t/y of green ammonia. ■

# Renewables and Recycling

THE ACQUIRED GREEN

⇒ When it comes to the energy transition, Latam countries have not been at pains to commit to net zero targets in the manner of their counterparts in the northern hemisphere. If anything, they have under-committed given many can boast using the cleanest energy mixes out there, with Paraguay heading the list at 100% clean power, Uruguay at 91%, and Brazil in the top 10 with an 80% green grid. In fact, KPMG ranked Chile and Brazil in the top 20 globally in its "Net Zero Readiness Index." With vast lands, year-round sun, and huge windy coastlines, Latin America is the ideal spot for green electricity generation. Brazil leads the way with the most investments in the energy transition, with US\$12 billion worth of investments in 2021, the ninth largest in the world, according to the Visual Capitalist.

"Last year, consulting firm Whey Carbon conducted a study that measured the levels of GHG within the industry, with a focus on carbon dioxide, and found that the Brazilian chemical industry emits between 5% to 35% lower emissions compared to Europe, and between 15% and 51% compared to the US and Asia. But this is a double-edged sword: on one side, it shows a superior environmental standing, but, on the other side, our industry incurs higher costs, using more expensive energy sources. China, for instance, produces ammonia from coal, which is cheaper but much dirtier," commented André Passos Cordeiro, president at ABIQUIM (Associação Brasileira da Indústria Química).



**The emergence of the green hydrogen economy is one of the most topical issues discussed today. Producing locally green steel, green plastics, and other products from a green energy input will be revolutionary.**

André Salgado,  
CEO Brazil & VP Latam, EDF Renewables



Many companies in the region have signed power purchase agreements (PPAs) and invested in renewables in recent years, including Braskem, Ecopetrol, Profertil, Unipar, Unigel, PR3, and Air Liquide. But their focus goes beyond cleaning their footprint, targeting explicitly the production of hydrogen, ammonia, methanol, and chemicals, which become "green" when

produced from renewables. Electricity, in such examples, becomes a feedstock. For example, Argentinian player Petroquímica Rio Tercero (PR3) signed a PPA with energy supplier YPF Luz for 30% of its energy needs from solar power, which will also help it produce green chlorine and caustic soda. Similarly, Brazilian company Unipar, a leader in the production of chlorine and soda, and the second largest PVC producer in South America, has signed two JVs to produce renewable energy from two wind farms in Bahia and Rio Grande do Norte and a solar park in Minas Gerais, all to be ready by the end of 2023. Together, these will generate 600 MW/y, or 80% of the company's total energy needs: "To produce chlorine and caustic soda, we start from a mixture of salt and water (called brine), apply electricity to break the molecule into different inorganic compounds, and obtain hydrogen. By using green electricity, we therefore obtain green hydrogen," said Mauricio Rusomanno, CEO, Unipar.

One company that is going all the way to attain 100% renewable energy at its operations is Argentinian urea producer Profertil, which will power its Bahía Blanca site from wind power. This will allow Profertil, which supplies 50% of the country's urea needs, to bring its Scope 2 emissions to zero, something few players globally have achieved. "Roughly 40 million t/y of crops will be nourished with urea generated with renewable energy. To put it into perspective, our consumption that will be coming from wind sources is the equivalent of 78,000 homes," said Marcos Sabelli, Profertil's CEO.

Similarly in Brazil, Unigel, one of the biggest players in the region, with plants in Brazil and Mexico, is investing US\$1.5 billion in the first industrial-scale green hydrogen and ammonia plant in Camaçari, Brazil. Due to be ready in 2024, the plant will initially produce 10,000 t/y of hydrogen and 60,000 t/y of ammonia. "This is a very important investment not just from a Latin American perspective, but also worldwide. By the time we launch our first phase of production, our plant will be the largest green hydrogen and green ammonia facility in the world. There will soon be bigger plants in China and the Middle East, but it is certainly an important milestone. We are the first project of such a kind in Brazil, and the only one already under construction," said Marina Mattar, director of corporate affairs at Unigel.

The gamechanger for the region will be in the large-scale production of green fuels like hydrogen, ammonia, methanol, as well as bio-based fuels. Regulations that impose cleaner fuels on the roads and the sea have become common, causing a drastic shift in the transportation sector. Besides the fast growth in EV markets, especially in Europe, the maritime industry is on a path to transform, with companies like Maersk, one of the largest container shipping companies in the world, continuing to invest heavily in a methanol-powered vessel fleet. Now, new laws are starting to regulate air transport too. France, for instance, is introducing a compulsory SAF (sustainable aviation fuel) admixture requirement, while the rest of Europe is evaluating a proposal to achieve a compulsory SAF percentage of 2% by 2025 for all flights within the continent. The global aviation fuel market is estimated at a gargantuan US\$252.39 billion (2022), presenting immense opportunities for green fuel providers.

In Latin America, industrial and medical gases supplier Air Liquide has recently signed an MoU to supply the airport of Santiago, in Chile, with green hydrogen. Albert Correa, CEO for Latin America, told us about the progress made so far: "Last year, Air Liquide and Nuevo Pudahuel signed an MoU to study the use of hydrogen as a fuel to decarbonize the Santiago de Chile Arturo-Merino-Benítez Airport. The feasibility studies assessed the development and deployment of what I would call a complete hydrogen ecosystem, which includes renewable hydrogen production and fuel infrastructure to address, as a start, the needs of the airport's ground vehicles, before moving to aviation fuels. The airport aims to reduce its GHG emissions by 40% by 2040 and reach carbon neutrality by 2050. It is very exciting to think that hydrogen may be the next fuel used by airports in the future. Though Air Liquide has a history of over 120 years and six decades of experience in hydrogen, our experience is now shifting to a new way of thinking about hydrogen, which marks a generational shift."

Brazil is best positioned for the production of hydrogen. EDF Renewables has a portfolio of 1.4 GW of installed capacity, as well as a big pipeline of another 5 GW of solar and wind on-shore opportunities and almost 7 GW of wind offshore projects. Brazil and the Netherlands are also looking to develop a green hydrogen corridor between the Pecém Port (Brazil) and the Port of Rotterdam. The two ports have already established an ammonia corridor; ammonia producers currently use gray hydrogen, but if they plug into renewable sources, they could produce green hydrogen, which is highly demanded in Europe. In Brazil, Stolthaven Terminals has signed an MoU with the Pecém Port to study the development of a new storage terminal for green hydrogen and associated products. Also, TotalEnergies, Brazilian state-owned petroleum company Petrobras, and Casa dos Ventos, the leader in the supply of wind and solar energy in the country (with a 12 GW in the pipeline), also signed a JV to investigate opportunities in low-carbon hydrogen.

The transportation of green hydrogen from Brazil to end-markets like Europe, the US, or Asia, however, could be challenging and capital intensive, though solutions exist, according to José Fernandes, president for the performance materials & technologies business in Latin America at Honeywell, a technology licensor: "Transporting hydrogen, which is a very volatile gas, is dangerous and costly, therefore most hydrogen users will typically have a hydrogen production plant at their operations. We looked at a molecule that could saturate the hydrogen in a liquid form so that it can be transported just like any other product and identified this carrier in toluene (methylbenzene), which we saturate with green hydrogen, transforming it to methylcyclohexane (MCH), a more stable product similar to gasoline. The technology, called Liquid Organic Hydrogen Carrier (LOHC) allows us to transport hydrogen safely from Latin America to Asia. When hydrogen (in MCH form) arrives at its destination, the MCH needs to be broken back into toluene and green hydrogen, both products having commercial use."

While the importance of green energy is an opportunity for some countries like Brazil or Chile, for others is a challenge. Mexico, the region's second largest economy, lacks not only a renewable energy mix, but also the policy tools and incentives to address it: "Our customers may soon be demanding that part of our electricity be generated from renewables before purchasing our products. When that happens, the country will have a lot of catching up to do," Patricio Gutiérrez, chairman and CEO at Grupo Idesa, a diversified Mexican petrochemical company strong in ethanolamines, phthalic anhydride, and expandable polystyrene, told GBR.



*Latam can be a world leader in sustainable energy like hydrogen, with countries like Brazil, Chile, or Uruguay showing immense amounts of natural resources and a very green energy mix – for instance, 97% of Uruguay's natural grid comes from renewables.*

Albert Correa, CEO, Air Liquide Latin America



### Recycling

About 50% of all petrochemicals go into the plastics value chain. Only 7% of high-volume plastics are currently recycled, according to OPIS, a Dow Jones company. By 2050, this number can either go to 15%, on a base case scenario, or to about 23%, in a green case scenario, calculates OPIS. Most readers will agree, neither scenario sounds good, especially when, in theory, up to 90% of plastics are in fact recyclable.

As opposed to bio-based feedstocks and renewables, Latam does not possess any immediate advantages in plastics recycling. In fact, the region is one of the worst at recycling, with poor collection set-ups characterized by high levels of informality, few facilities, and generally lenient legislation. A report by Research and Markets found that recycling rates do not exceed 10% on average (for all waste) across the region. Exceptions and improvements are noted, however. Mexico has the largest PET recycling rate in the world (75%), and an elevated 35% for other resins, according to ANIQ (Chemical Industry Association of Mexico). Local sources report that Brazil reached its best yet recycling rate in 2022, with 25.6%, according to data compiled by MaxiQuim. The growth in recycling across the region will be determined by regulations, technology, and improvements in the collection of waste, linked to changes in waste disposal behaviors.

Regulations in the region are starting to look a lot more like in Europe. Modeled after similar legislation in Italy and Spain, two new legislations have entered into force in Colombia: a ban on single-use plastics and a tax of around 20% on single-use plastic packaging, but they both come with various exceptions, explained Daniel Mitchell, executive president at Acoplásticos, the association representing the plastics value chain: "A ban sounds alarming, but it does come with many exceptions, including on bags, cutlery, disposables, or straws, as well as products that meet certain circularity conditions.

Image courtesy of BASF



The tax also allows many exceptions, for example for vital products using plastic packaging as well as products that represent an HSE risk. If, after a lifecycle analysis, it can be proven that the substitutes for those plastic materials have a worse environmental impact, then both the ban and the tax do not apply. Different from what we see in Italy or in Spain, the Colombian government is also developing a circular economy certificate that, once granted, exempts companies from paying the tax."

Collection is the weakest link in recycling. It is because of poor collection that plastics like polystyrene (PS) have one of the lowest recycling rates globally, informed Ricardo Cuetos, VP Americas polymers sales management, Ineos Styrolution, who is defending PS's unjustified bad reputation. Styrenics are 100% recyclable, if only the collection is done properly. Ineos Syrolution has developed a network of partners to collect PS waste and convert it back into styrene monomer using a depolymerization process. In another difficult to aggregate waste, low-density PE bags, which have little commercial value for collectors and recyclers, Ecopetrol developed a modified low-carbon asphalt made with recycled low-density PE – using the equivalent of 5 million plastic bags to produce 1,000 tons of asphalt. While multinationals do not have recycling facilities in the region, they have become more invested in the collection part. BASF, for instance, runs a reverse logistics program to collect leftover paints and packaging – to date, it has collected 11 tons of waste. Dow, which is one of the biggest players in the region, with 15 manufacturing locations across four countries, has established various partnerships with collectors in both Brazil and Argentina.

Finally, the third constraint is technology. OPIS tracks 100 different recycling technologies under development globally. José Fernandes, VP performance materials technologies Latin America at Honeywell, thinks there is no perfect solution for the recycling of most plastics, but if mechanical and advanced recycling can be combined, most plastics are recyclable. Whereas only a small fraction of plastics can be currently recycled using mechanical recycling, advanced recycling will allow plastics like PE, PS, PP, and even PVC to be endlessly reconverted into new plastics: "With mechanical recycling, the material is shredded and then discarded in other materials (usually asphalt, concrete, steel mills), rather than being converted into new material. For rigid plastics, typically those used in electronics, this works perfectly fine, since these plastics can be remelted into a different shape, but for most plastics, chemical treatment is the best solution. Nevertheless, chemical recycling is a newly developed technology, which is why it has not been scaled up majorly."

As it is becoming more popular for brand owners to offer products with recycled content as part of their value proposition, multinationals like Eastman or Dow continue to add to their recycled products portfolios, bringing these into the region. For example, Ben & Frank, a Mexican eyewear brand is to use Eastman's Acetate Renew, obtained from 40% recycled content and 60% biobased content, for a fifth of their products. Eastman announced investments worth of US\$2.5 billion in three new molecular recycling facilities, two in the US, and one in France. Dow has a global goal to commercialize 3 MT of circular and renewable solutions globally, using both mechanical and advanced recycling.

However, multinationals rarely choose Latam to invest in large recycling facilities, prioritizing bigger markets like the US and Europe. The task to invest in local recycling goes to leading local players. Braskem has invested in its first fully owned mechanical recycling facility in Indaiatuba, where 250 million packaging units will be converted into 14,000 tons of PE and PP. Braskem also acquired a majority stake in Wise Plásticos, a Brazilian mechanical recycler, where it wants to double its capacity to 50,000 t/y by 2026. Braskem wants to sell 1MT of products with recycled content by 2030.

In Argentina, YPF is pivoting in advanced recycling, with two flagship projects: a modular pyrolysis plant with a capacity of 300-700 t/y and an industrial one, with a capacity of 30,000 t/y equivalent of crude yearly. Using a process called pyrolysis, YPF aims to obtain pyrolysis oil, a feedstock from which it can make petrochemicals. "One may wonder why a petrochemical company is focusing on plastics recycling when we are not producing plastics. This is intentional: while there are many uses for pyrolysis oil, there are few off-takers with the capacity to transform it into petrochemical products. We treat the CYQLO OIL (which is our registered trademark for pyrolysis oil) as a conventional fuel, going to the very beginning of the value chain to make petrochemicals," said Martina Azcurra, Executive Manager, Chemicals, YPF Química. ■

## José Fernandes

PRESIDENT, PERFORMANCE MATERIALS & TECHNOLOGIES, LATIN AMERICA  
HONEYWELL



**Could you explain Honeywell's global structure and how this is reflected in Latam?**

We have been in this region for more than six decades and have 13,000 people working with us. Mexico is the largest country (by employment) after the US. We have a presence in almost every single country and 25 production and office sites spread across the region.

**What have been the major trends driving demand for Honeywell's solutions?**

Sustainability is picking up fast in the region, translating to higher demand for solutions to measure and control the level of emissions, capturing GHG and improving efficiencies.

**What role does Honeywell play in plastics recycling?**

Honeywell Universal Oil Products (UOP) came up with a chemical solution to recon-vert plastics into pyrolysis oil, then naphtha and olefins, so that instead of producing more crude oil to make olefins and polyolefins, we can start from waste material and turn it into a pyrolysis oil within a closed loop and at huge CO2 savings. Called "Up-Cycle," this solution is a treatment that can be applied to all sorts of plastics, be it PE, PS, PP, or even PVC, endlessly.

**Could you walk us through Honeywell's key solutions for the hydrogen economy?**

To capture the hydrogen in the most efficient manner, Honeywell developed a catalyst-coated membrane that helps absorb and secure hydrogen better. Secondly, transporting hydrogen, which is a very volatile gas, is dangerous and costly. We looked at a molecule that could saturate the hydrogen in a liquid form so that it can be transported just like any other product and identified this carrier in toluene (methylbenzene), which we saturate with green hydrogen, transforming it to methylcyclohexane (MCH), a more stable product similar to gasoline. The technology, called Liquid Organic Hydrogen Carrier (LOHC) allows us to transport hydrogen safely from Latin America to Asia. When hydrogen (in MCH form) arrives at its destination, the MCH needs to be broken back into toluene and green hydrogen, both products having commercial use. ■

## Esteban Guáqueta

LATAM MARKETING DIRECTOR  
NALCO WATER (ECOLAB)



**What is the specific context of Latin America in terms of water use and climate change?**

As in most developing countries, agriculture plays a big role in Latin American economies, so 70% of the water used goes to agriculture in the region. Much of that water is lost (evaporated) due to poor management and bad infrastructure. Investments must be directed to redistribute resources; for example, the north of Mexico, where 80% of the population lives and 80% of GDP is generated, is severely water deprived, with a water availability of only 30%; meanwhile, the south, where only 20% of the people live, has 80% water availability. In the future, I believe it will become a normal for companies to have to treat water before using it, especially in water-stressed areas. Within Ecolab's "Water for Climate" solution, launched last year, we work in a holistic way to help our customers with auditing, consulting, engineering, and technologies to align with regulations.

**Could you explain in more detail the ways in which Ecolab supports petrochemical clients?**

The stakes in for refineries are very high. Any unplanned halt in production can cause losses of US\$1.5 million/day, which is why automatic control, through solutions like our Ecolab3D, is essential to make predictions. Due to the large-scale nature of the business, refineries can save a lot of money by optimizing different processes. For example, one challenge refineries have is to obtain uniform crude qualities from an extremely varied supply with various proveniences. Within our CrudeFlex program, Ecolab offers technologies like 3D TRASAR to determine the quality of the crude mix, understand those properties and differences, and reduce contaminations and variability. Latin America continues to depend on petroleum. McKinsey points to 2030 as a consumption peak for the oil economy, but investments in this space carry on for now, so Ecolab is here to support our customers in the energy space, both traditional energy but also hydro and geothermal. ■

## Barb Mitchell & Simone de Faria

BM: MANAGING DIRECTOR  
SF: HEAD, LATIN AMERICA  
TOWNSEND SOLUTIONS



BM



SF



**What are the current dynamics in the polymer markets in Latin America?**

SF: Like in other parts of the world, Latin American countries accumulated high inventories, given the unpredictability of supply chains that persisted post-pandemic. Therefore, the sudden drop in demand associated with the spike in interest rates to contain inflation left many companies with a restricted working capital which can impact sales.

**What are the main trends you noted in the bioplastics market?**

BM: Growth in the bioplastics market over the past few years has been very steady, hovering at about 14%, but poised to almost triple over the next five years. We are seeing advancements in applications across the board, ranging from water bottles to 3D printing, with new developments every day. Polylactic acid (PLA), for instance, has attracted massive investments like the new JV between TotalEnergies and Corbion (TotalEnergies Corbion) with a nameplate capacity of 75,000 t/y in Thailand. Braskem has increased biobased ethylene production in Brazil by 30%, producing now at 260,000 t/y and just announced a JV with Thai company SCG Chemicals to add bio-ethylene production in Thailand. Considering the demand potential for bioplastics, these capacities are barely scratching the surface. The next question is therefore whether these targeted markets for bioplastics can sustain the premium – and for how long – as investments in recycled options start to come online, competing with bioplastics.

**What are Townsend's priorities moving forward? Do you have a final message for our international audience and APLA members?**

SF: The petrochemical industry has changed so much in recent years, coming out of a few difficult years in terms of availability and prices into a completely opposite scenario today. We used to talk about getting back to normal, but I believe there is no longer a normal to return to. ■

## André Salgado

CEO BRAZIL & VP LATAM  
EDF RENEWABLES



**Could you give an overview of EDF's portfolio in the Latam region?**

EDF has been present in the region for almost 10 years, after starting operations in Chile in 2014 and in Brazil in 2015. Today, Brazil is our largest market in the region, with 1.4 GW of installed capacity in operations - 400 MW solar, 1,000 MW wind, and an additional 500 MW due to come onstream by beginning of 2025. In Brazil, EDF has a significant pipeline of both onshore and offshore opportunities, with 5 GW of solar and wind onshore projects and close to 7 GW of wind offshore projects under development. Meanwhile, in Chile we have two projects in operation; one solar and one wind, for a total capacity of around 300 MW. Colombia is an incipient market for renewables, where we develop a pipeline close to 1 GW that we hope to start constructing soon. Peru is at an earlier stage of development.

**What are the drivers for the wider adoption of renewables in the region?**

Even as government incentives like those of Brazil are to end in the next few years, the preoccupation of various industries with their carbon footprint is likely to continue driving the adoption of renewables. Moving forward, using green electricity to produce green hydrogen, which can then be transformed into green ammonia as well as other products, is one of the most topical issues. Producing locally green steel, green plastics and other products from a green energy input will be revolutionary.

**What are your objectives moving forward?**

Our main priority is to keep growing, capitalizing on the emerging trend of green energy demand and green hydrogen production as fossil fuel replacement. The demand for green products and local fertilizer production is also a driver. EDF Renewables is committed to carbon reduction for future generations, by producing clean energy in a socially responsible manner. ■

# Petrochemicals and the energy transition

## CAN'T TAKE THE "PETRO" OUT OF PETRO-CHEMICALS



Image courtesy of Honeywell

→ The global oil and gas market includes about 100 million barrels of oil per day (bdp) in oil demand and 70 million bpd of gas equivalent. Replacing the humongous system that is currently supplying this demand is a big job, deemed to last decades and cost trillions of dollars. More than that, the transition away from fossil fuels will, ironically, be heavily dependent on fossil fuels, necessary to secure the energy baseload and supply the chemicals required to build windmills and other infrastructure. For a region that produces oil and gas, as well as petrochemicals, such as Latin America, the energy transition does not mean the end of fossil fuels; at a first phase of the transition, it can even mean more demand, especially in LNG, as a transitional fuel, cleaner fuels, and certain petrochemicals.

Hydrocarbons are a main source of revenue for many countries in the region – for example, in Colombia, the extractive industries represent 50% of exports. The Inter-American Development Bank calculated that fiscal revenues in Latam could be reduced between US\$1.3 trillion and US\$2.6 trillion by 2035 if the world limits global warming to 1.5 Celsius. On the other hand, if existing reserves were strongly exploited, revenues could go as high as US\$ 6.8 trillion.

The chemical industry is starting to think beyond the here-and-now, the energy transition forcing an exercise to re-imagine the world in the next 10, 20, or 30 years. Demand for lower-carbon products should be longer-lived than that created by the oil, coal, and steel boom of the 2000s. Yet, one should not over-interpret the industry's keenness to provide bio-based, recycled, or cleaner products, which continue to represent only a fraction of their portfolios. In Latin America, investments in renewable energies or bio-based products do not even begin to measure against those in upstream oil and gas. In fact, the region has been growing its prominence on the world stage in oil and gas production in recent years.

The energy map in the region has started to shift; whereas in the past, Venezuela and Brazil were the biggest oil producers in Latam, now Guyana, and potentially, Argentina, are taking over. Argentina also seems to be moving into the natural gas space that Bolivia used to occupy as a key exporter in the region. Two bonanza oil discoveries in Guyana and Brazil, together with incremental increases in production at Argentina's Vaca Muerta fields, and on top of Mexico's own oil production, could add up to 11 million bpd produced between these four countries by 2030, suggests Rystad Energy. Also, the carbon

intensity of extracting the oil at Vaca Muerta, for instance, is one of the lowest globally, which is a significant operational attribute in the context of decarbonization.

Big oil companies and regional heavyweights are the ones driving the energy transition. ExxonMobil is leading both the traditional business of O&G and petrochemicals, and new businesses like carbon capture and sequestration. As Ana Cristina Paiva, polyethylene regional sales manager for Latin America said, "ExxonMobil brings the capabilities developed in 140 years of existence to transform hydrogen and carbon molecules through carbon capture and storage, hydrogen production, and biofuels. We are already starting these new value chains around the world. For example, in carbon capture and storage, we can use our ability to model reservoirs, inject CO2 underground, and drill the wells – skills that also apply to our traditional businesses."

» **Before we can fully switch to renewables, we are investing in the discovery of natural gas reserves in deep and ultra-deep waters. As the cleanest fossil fuel, LNG can bridge old and new energies.**

Felipe Trujillo, Manager Petrochemicals and Products, Ecopetrol

« Out of YPF's US\$5 billion capex in 2023, almost half will go into the development of Vaca Muerta. YPF wants to double crude production in five years and increase gas production 1.5 times. In Colombia, Ecopetrol committed US\$6.13 billion towards the energy transition by 2040, with a more immediate goal to produce green methanol by 2025, but, before switching to renewables, the company is investing in the discovery of natural gas in deep and ultra-deep waters. Before naphtha, natural gas or gasoline disappear, both YPF and Ecopetrol are investing in cleaner versions of the same stuff, like lower-sulfur naphtha and gasoline.

Countries in the region are poised to take different paths, on different timelines, when it comes to the energy transition. Countries that are rich in renewables and lack fossil fuels, like Chile, will follow a different trajectory than countries that have a strong oil and gas base, like Argentina. ■

# ESG Projects Worth Talking About

## A HANDFUL OF INSPIRING INITIATIVES FROM BRAZIL



### Biodiversity conservation Solvay's (Rhodia) Paulinia site

"Paulinia is preceded by its reputation as the site with the largest CO2 capture project in Latin America, re-burning 4.5 million tons of equivalent CO2 per year. This is known as 'Project Angela.' Our site is 95% carbon neutral, and we are soon closing the loop to make it 100% net zero. Solvay's Paulina is also well recognized for its success in preserving biodiversity. We continued to operate the site as a farm, using only 15% of the land for industrial activities while preserving the rest as native forest."

Daniela Manique, CEO Latam & President Global Business Coatis, Solvay (Rhodia)



### Social impact through collaborations with waste picker cooperatives by Dow

"Connecting circularity with social impact, we run an initiative called 'Recycling for a Change,' in collaboration with start-up Boomera LAR and NGO Fundación Avina. As part of this program, we strengthened the expertise of waste picker cooperatives, which divide the profits among workers. More than 214 families are now involved in this project in São Paulo, and productivity climbed by 70% shortly after implementing the program. The waste gathered by the workers is used as raw material for the PCR resins."

Javier Constante, President, Dow Latin America



### Funding teenage education, by Química Anastacio

"On the social side, we are running 10 projects, the most important being the program in partnership with Instituto Alicerce where we are funding education for 100 teenagers. To maximize our impact, we are asking our suppliers to join the project. Education is what Brazil most needs, and this is why the 'S' leg of our ESG will be education. There are many opportunities to help, at low investment and with immense impact."

Jan Krueder, CEO, Química Anastacio



### Investing in sanitation in the Brazilian slums, by Unipar

"Sanitation is a big problem in the Brazilian slums, with hundreds of communities living without running water or sewage systems, so we became involved in a program to map out those challenges and build bathrooms and sewage systems for different communities. Our plan is to invest around BRL 1.4 billion by 2030 in projects that permeate sustainability and are already in progress or that we will implement in the company."

Mauricio Russomanno, CEO, Unipar



### Cultural activities for youth development, by Vopak

"Vopak Brazil through the 'Vopak WeConnect Foundation' has empowered young people in our local communities. For example, in Vila Alemoa, a poor neighbourhood close to our terminal in Santos, we have organized 28 activities in sports, culture, and education, involving 3,600 individuals. The 'Go Alemoa Go' is designed to support young people between 10 and 24 years old, improving their future opportunities in a socially vulnerable district. Started in 2018, the project is here to stay. We can only see the impact by being there for the long run."

Ignacio González Crende, President, Vopak Brazil



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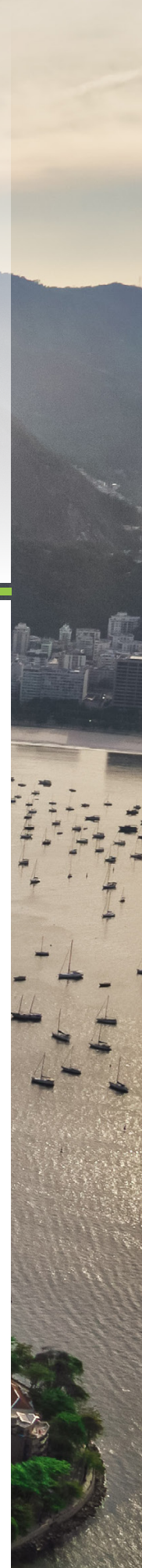
## COUNTRY OVERVIEW



**“If Brazil can stabilize its macroeconomic indicators and demand, we should see a continued rise of the middle class as well as higher living standards, associated with more consumption.”**

- Germán Torres,  
President,  
Brenttag Essentials Latin America

Image courtesy of Sergio Souza (Pexels)



# Brazil

## AN INDUSTRY PUNCHING BELOW ITS WEIGHT

→ In raw terms, Brazil has everything that the chemical industry could wish for: a large economy, powered by a proportionally large population and land area, as well as plenty of natural resources, of both the dirty and clean kind. The world's 11th biggest economy, seventh biggest population, and fifth biggest land area has groomed a suitably top-ranking industry, the sixth biggest globally, with net sales of US\$142 billion in 2022. But the sheer size of the Brazilian chemical industry belies stagnant production vol-

umes and underwhelming investments in the past 20 years; investments trended downward to a mere US\$600 million in 2021 from a peak of US\$4.8 billion in 2012, according to ABIQUIM (Associação Brasileira da Indústria Química).

The one figure that has been going resolutely up in the past 20 years is the industry's current trade deficit, climbing from US\$10.1 billion (2002) to US\$56 billion (2022). Brazil is both the largest exporter and importer of petrochemicals in the region. So why does the

country revert to imports instead of local production, allowing producers from the US and other parts of the world to cut deeper into the market share? High costs of feedstocks, energy, logistics, and taxation help explain the trend. Principally, the price of natural gas has been the bane of the local industry. At around US\$14 per million btu, the cost of natural gas is among the highest in the world.

Even though Brazil has increased its gas production threefold in the last 15

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## André Passos Cordeiro

PRESIDENT  
ABIQUIM (BRAZILIAN CHEMICAL  
INDUSTRY ASSOCIATION)



### How important is the petrochemical industry for Brazil?

The chemical industry is the third largest sector in the country, after food and oil. The industry recorded annual net sales of US\$142 million in 2022, the sixth largest in the world. The industry is incredibly complex, embedded in Brazil's manufacturing sector as a key supplier of raw materials, intermediates, and other products, as well as being a strong generator of high-level, qualified jobs.

### How is the Brazilian petrochemical industry performing in 2023?

A global downward cycle began in July, and Brazil was not immune to it. July 2022 marked a perfect storm, with three major changes taking place: first, import rates started dropping significantly, severely impacting industry productivity. The industry was working at just 67% capacity in the first quarter of 2023. By comparison, in 2022, we had record imports valued at US\$65 billion, which pushed the trade balance into a record deficit. Today, the chemical trade balance is at minus US\$56 billion, an alarming figure. The decline in productivity and the record rise of imports are underscored by higher feedstock, energy, and fiscal costs. Currently, almost 80% of nitrogen fertilizers (derived from methane) consumed in the country are imported, while 100% of methanol needs are met by imports.

### Could you elaborate on the competitiveness of Brazil's fiscal framework?

With a 45% tax on revenue, Brazil's fiscal requirements are more than double that of the US (20%). Last year, the government reduced the tax requirement for plastic resin imports from 11% to about 3%. This caused a rapid growth of 136% in plastic resins imports in the following months. The Brazilian industry are price takers, not price markers in the global market. The high prices of natural gas, which drive the high costs of propane, ethane and other basic products, leave us completely exposed and with little power to react, but ABIQUIM is working with the government to improve access to cheaper gas and defend ourselves against global volatility.

### What opportunities could the development of the pre-salt reserves could open for the petrochemical industry?

Right now, the price of natural gas in the country is three to four times higher than

in competitor countries. The exploration of the pre-salt layers could allow Brazil to develop new production chains, as well as additional energy sources, boosting the country's competitiveness. The development of gas would create opportunities in ammonia and urea (which would significantly reduce the country's vulnerability in agribusiness, for instance), but also methanol, hydrogen, methane-derived chemicals, as well as basic petrochemicals like ethane and propane. Moreover, gas, especially from the pre-salt layers, offers a transitional energy fuel with a lower carbon footprint than other fossil fuels. As demand for gasoline declines in the context of the energy transition, the supply of naphtha and propylene from gas could grow.

### How does the Brazilian industry fare in terms of sustainability on a global scale?

The Brazilian chemical industry is among the cleanest in the world. Last year, consulting firm Whey Carbon conducted a study that measured the levels of GHG within the industry, with a focus on carbon dioxide, and found that the Brazilian chemical industry emits between 5% to 35% lower emissions compared to Europe, and between 15% and 51% compared to the US and Asia. But this is a double-edged sword: on one side, it shows a superior environmental standing, but, on the other side, our industry incurs higher costs, using more expensive energy sources. China, for instance, produces ammonia from coal, which is cheaper but much dirtier.

Our members have various initiatives toward sustainability. Solvay, for example, has the largest carbon capture project in Latin America, project Angela. This large-scale GHG reduction plant, located in Paulinia, has eliminated over 5 million t/y of CO<sub>2</sub> equivalent (or 20% of the overall emissions of the Brazilian chemical industry).

### What are ABIQUIM's main priorities in the coming year?

Our priority is to devise robust sustainability and growth plans to successfully traverse the adverse market conditions and improve our competitiveness. Moving forward, we want to build a stronger commercial defence and become known as the world's cleanest chemical industry. The Brazilian chemical industry is well-positioned for the energy transition, but we must continue to identify the best technological and fiscal mechanisms to grow our comparative advantage. ■



*The Brazilian industry are price takers, not price markers in the global market. The high prices of natural gas, which drive the high costs of propane, ethane and other basic products, leave us completely exposed.*





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years, only about half of the gross production is commercialized, mostly due to a lack of available infrastructure, informs S&P Global. The chemical industry is the largest industrial gas consumer in Brazil, but with the industry stagnating, gas demand has also stagnated, disincentivizing further developments. It is due to this mutually-reinforcing, double investment apathy that the Brazilian industry is vulnerable not only to the high costs of natural gas, but also to import-dependencies on natural-gas derived raw materials like methanol and urea. Since Brazil is one of the largest agricultural producers globally, with a ravenous appetite for fertilizers (made from urea), the country has become the second largest importer of urea globally. Between 80% and 90% of Brazil's nitrogen-based fertilizers are currently imported.



**Brazil is an agriculture powerhouse, and our industry is shifting towards green chemistries as fossil fuels are phased out. To me, Brazil is a 'green Saudi Arabia,' and our focus as a group will be to tap into bio-based raw materials the country offers.**

Francisco Fortunato,  
CEO, OCQ Group



However, the development of three pre-salt discoveries by Equinor at the BM-C-33 project in the Campos basin in Rio de Janeiro state could finally give the long-awaited boost in the fertilizer sector. This year, energy giant Equinor, together with Repsol Sinopec Brasil and state-owned petroleum company Petrobras, announced a final investment decision for US\$9 billion to develop the project, while the two main gas operators in the country held tenders to develop a pipeline to bring the gas onshore, close to the Port of Açu. Joao Braz, chief commercial officer and head of commercialization at Port of Açu, the country's second largest port by cargo volume, sees the development as a game-changer: "Once in operation, 16 million m<sup>3</sup> of gas/day will reach the Cabiúnas shore close to our port. The GASINF and GASOG pipelines

will be a game-changer, giving us access to a much more competitive gas price expected around US\$5-8 versus the current US\$17-18 per million btu, and triggering the opportunity for heavy industrial development in the port area," he said.

The port is planning to start with an ammonia and urea plant with a capacity of 1.38 million t/y of urea, and eventually integrate the ammonia and urea plant within a green hydrogen cluster developed within the port area: "Leveraging the gas pipeline, but also the connection to the Southeast and Center, which are regions focused on agriculture and therefore big consumers of fertilizers, we will start with an ammonia and urea plant based on natural gas (at the first phase), and then move to green hydrogen production (at a second phase)," said Braz.

Today, the largest ammonia producer in the country is Unigel, which also has its eyes on the production of green fertilizers and has kick-started the construction of the first industrial-scale green hydrogen and green ammonia production plant in Brazil, due to begin production in 2024. "We are very proud to be investing in low-carbon energy, but also in global food security by producing fertilizers. Brazil can currently feed one billion people, and by strengthening our investments we will be able to feed even more," said Marina Mattar, director of corporate affairs at Unigel.

#### Promising reforms

Brazil is regarded as an agriculture powerhouse, as one of the world's largest producers of sugar, coffee, soybeans, maize, beef, chicken, pork, corn, and cotton. In fact, the food and beverage sector brings the highest value to GDP, together with the petroleum and chemical sectors, and it has been almost single-handedly driving the country's economy, especially since the pandemic, when Brazil's GDP turned negative. The agrobusiness has been Brazil's growth engine, outperforming all other sectors. This year, harvests are expected to yield 15% higher production, notes Euromoney, and the agribusiness is expected to record the best results since 1989, based on projections from the Ministry of Agriculture.



Image courtesy of Igor Justo (Pexels)

Soybeans alone account for a fifth of Brazil's growth this year, wrote Reuters. Running with the windfall performance of the crop sector, Brazil's Ministry of Finance revised Brazil's GDP growth projection from 2.5% to 3.2% in September. So far this year, Brazil's economic performance beat expectations, and economic indicators significantly improved. Annual inflation dropped significantly since last year, from a height of 12% in April 2022 to 3.9% today, after the Central Bank rigorously maintained interest rates at 13.75%, recently cut to 13.25%. Rating agency Fitch upgraded Brazil's long-term foreign-currency debt for the first time since 2018. Investors have started to look with different eyes at Brazil – last year, the country became the fifth largest recipient of FDI globally, according to Reuters.

The government of newly sworn-in president Luiz Ignacio Lula da Silva is gaining more credit from global observers, not least for its, so-far, successful reformist zeal. Reforms in taxation, gas,

and fertilizers bring encouraging signs for the Brazilian petrochemical industry. Expected to be approved this year, a tax reform that will merge five different taxes into two (one federal and one local) should bring much respite to the industry, which has been drowning in a hotch potch of tax regulations: according to Deloitte, Brazilian companies take 1,958 hours to comply with Brazilian tax, more than 10 times compared to the average in OECD countries. Locals call this the "Brazilian cost". "Regulatory changes consistently test us in taxation, the tax regime changing every 10 to 12 years. The 'Brazilian cost,' as we call it, is challenging for us locals brought up here, let alone for foreigners. Businesses need a big tax team and incur high costs to navigate these regulations," commented Francisco Fortunato, CEO of OCQ Group, a large Brazilian private producer and distributor of petrochemicals.

But the most important reform impacting the petrochemical sector is the "Novo Mercado do Gás" (New Gas Mar-

ket), which is promising to finally liberalize the energy sector, triggering the end of Petrobras' monopoly in natural gas production, transportation, and distribution. By allowing the entry of other players, Brazil hopes to increase the competitiveness of its gas market. Free-markets like the US have over 6,000 independent small players, according to ABIQUIM, which estimates the high gas price reduces the investment rate in the country by 1.4%.

A third key reform, most closely tied to the chemical industry, is the "National Fertilizer Plan," a program aimed at reducing the country's dependency on imports from the current 85% to 45% by 2050.

Brazil currently imports 96% of its nitrogen (entirely from Russia), 55% of phosphorous, and 97% of potassium, according to the US International Trade Administration. 100% of Brazil's ammonium nitrate imports also come from Russia. Meanwhile, Brazil has only one domestic producer of ammonium sulfate. Among its pillars, the new policy includes the

modernization and expansion of existing fertilizer plants, new investments in RD&I as well as logistics infrastructure, but also improving the fiscal conditions to make domestic production more attractive (and more competitive): "Changes in the Brazilian tax regime are also incentivizing the domestic production of fertilizers beginning 2024/25. Currently, imports of fertilizers are tax-free, while local producers and distributors pay taxes. This means local production is penalized," said Joao Braz, chief commercial officer and head of commercialization, at Port of Açu.



**Inflation in Brazil has come under control, but interest rates remain obstinately high, dampening the investment mood. On top of this, investors are more conservative during election periods, which has led to a slower-than-expected first half in the Brazilian economy. Nevertheless, we see improvement.**

Jan Krueder,  
CEO, Química Anastacio



I started this article talking about Brazil's size. It is appropriate to conclude by saying that the petrochemical industry in the country has been able to leverage this size and develop scale, not only in agrochemicals, and not only within Brazil's territory. The chemical industry is immersed in every sector, many of which are leading in the world: Brazil has the fifth largest beauty and personal care markets in the world; one of the biggest pulp and paper export markets; a giant home care industry; a booming food ingredients market; and a growing mining and energy sector. This has allowed local players to derive scale and expand globally. Braskem is the best example, as the biggest resin producer in the Americas. Recent acquisitions in the country, including of Oxiteno by Indorama Ventures, and Elekeiroz by Oswaldo Cruz Química Group, suggest the industry will continue to seek out scale – which makes it more resilient in a high-cost environment like Brazil. ■

**BRAZIL AT A GLANCE**

Source: IMF, data for 2023



**CAPITAL**

Brasília

**HEAD OF STATE**

Luiz Inácio Lula da Silva

**GDP**

US\$ 2.08 trillion

**GDP GROWTH**

0.9%

**TOTAL INVESTMENT (% OF GDP)**

18.2%

**GROSS NATIONAL SAVINGS (% OF GDP)**

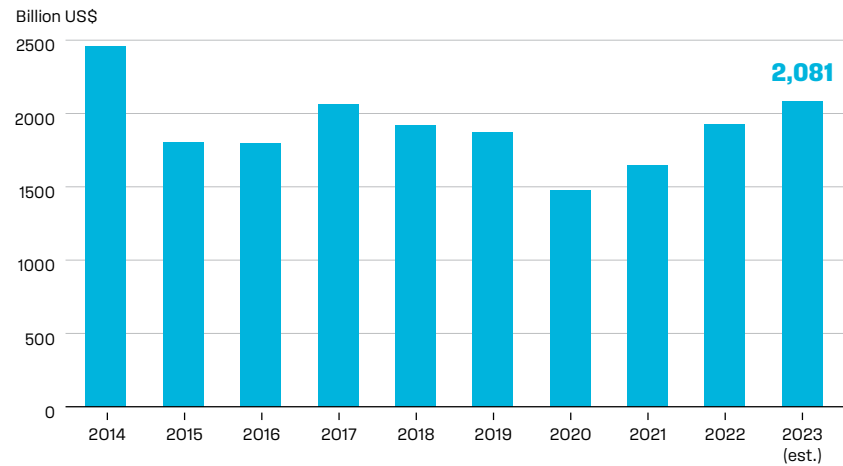
15.5%

**CURRENT ACCOUNT BALANCE (% OF GDP)**

-2.7%

**GDP EVOLUTION IN US DOLLAR VALUE**

Source: IMF



**DEMOGRAPHIC DATA**

Source: IMF, data for 2023

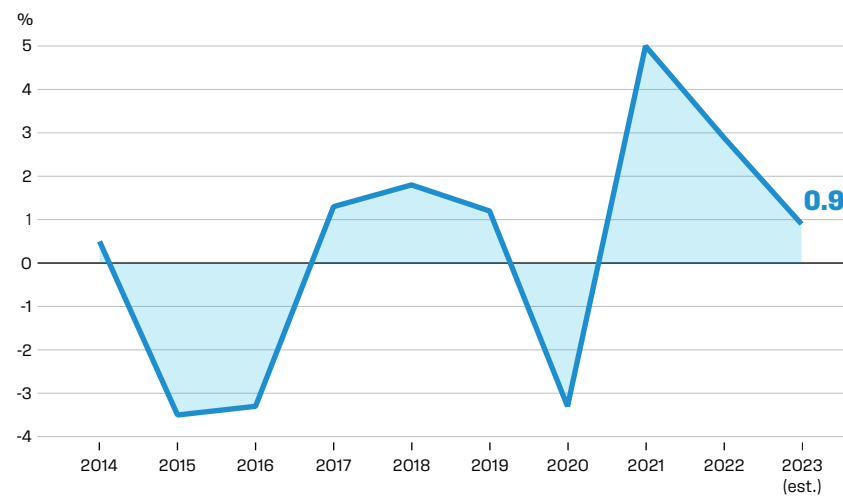
POPULATION  
**215 MILLION**



UNEMPLOYMENT RATE  
**8.2%**

**GDP GROWTH**

Source: IMF



**GDP PER CAPITA**

**US\$ 9,673**

**GDP PER CAPITA (PPP)**

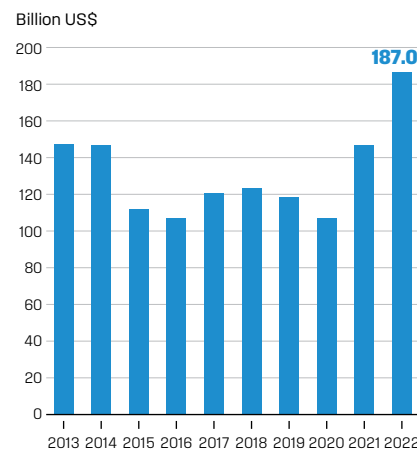
**US\$ 15,243**

**INFLATION RATE**

**5.0%**

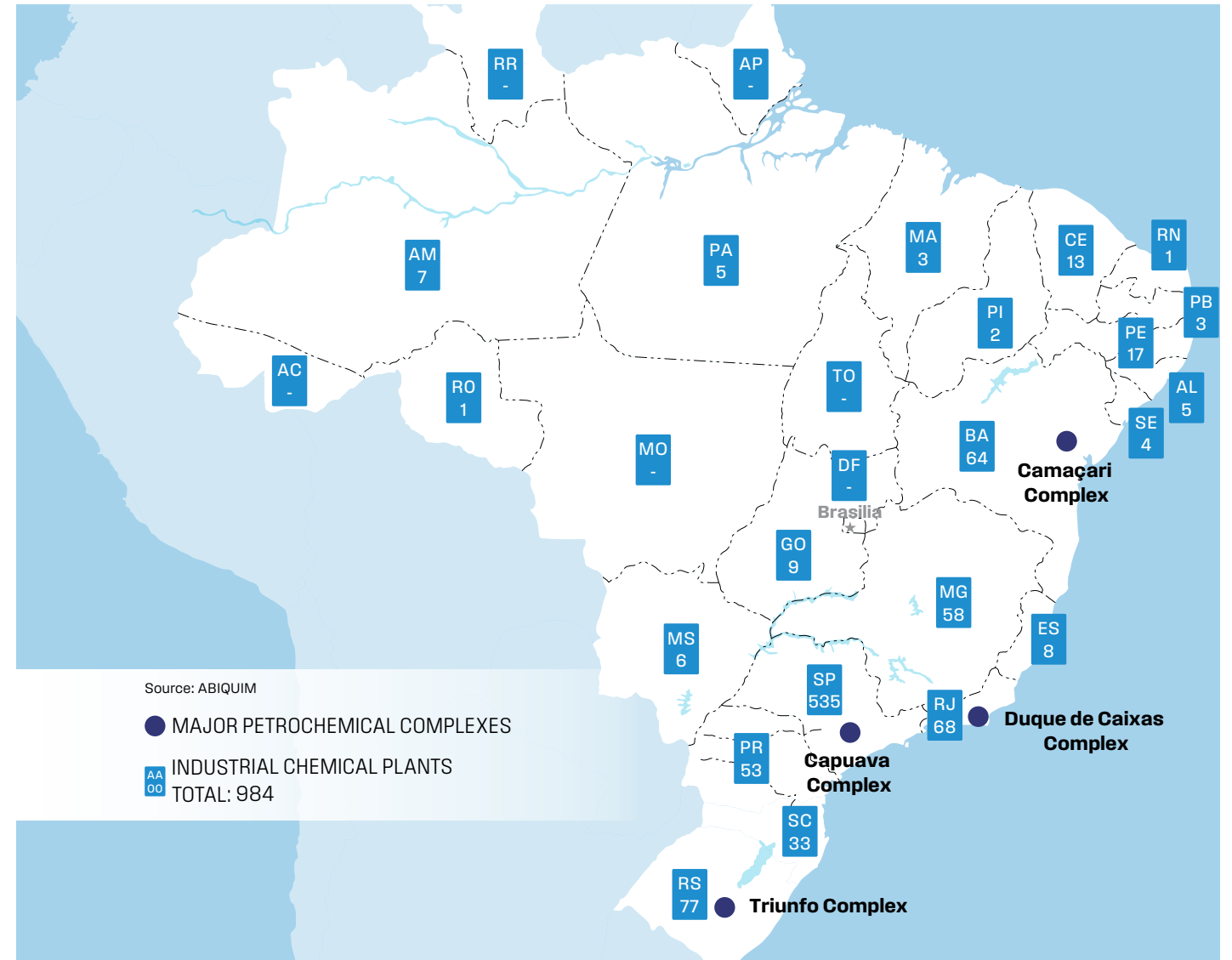
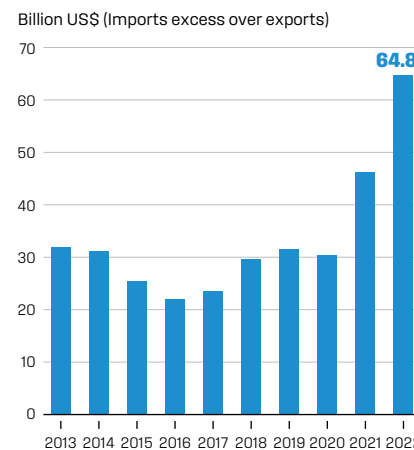
**CHEMICAL INDUSTRY NET SALES**

Source: ABIQUIM and other segment associations



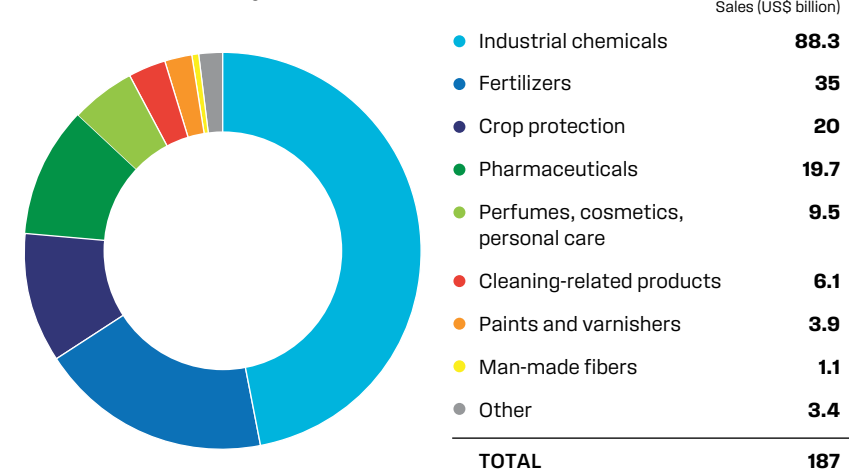
**CHEMICAL INDUSTRY TRADE DEFICIT**

Source: ABIQUIM / ME / Secex



**CHEMICAL INDUSTRY SALES BREAKDOWN (2022)**

Source: ABIQUIM and other segment associations



**CHEMICAL INDUSTRY AT A GLANCE**

Sources: ABIQUIM / MDIC / Secex 2022

NET SALES  
**US\$ 187.0 BILLION**

DEFICIT  
**US\$ 64.8 BILLION (+40% Y-O-Y)**



## Edison Terra

VP OLEFINS AND POLYOLEFINS - SOUTH AMERICA  
BRASKEM



*Sustainability, in all its forms, is not a passing trend - it is a megatrend. This is where we've directed most of our investments.*



### How do you observe the current cycle in the petrochemical markets?

Compared to last year, the petrochemical industry is facing a stronger downcycle. This started in 2019-2020, but it was disrupted by the pandemic, which postponed the addition of planned new capacity and created a special post-lockdown demand that lasted for 18 months. With new capacity coming onstream and relatively weak consumption patterns, it seems we are at the bottom of that cycle, South America itself being a net importer and therefore a direct recipient of excess supply. While the PP (polypropylene) market is more balanced, in PE (polyethylene), overcapacity is more pronounced and reverts to exports. I expect these fundamentals to rebalance in the medium term, especially as China's economy bounces and triggers more captive demand. Braskem is well-positioned within this environment thanks to our product, feedstock and regional diversification, our cost discipline, and our alignment with ESG. Sustainability, in all its forms, is not a passing trend - it is a megatrend. This is where we've directed most of our investments.

### Braskem set out to significantly increase its bio-based product volumes, as part of the I'm Green portfolio. Can you walk us through the different ways in which you are pursuing this goal?

Over the last year, we debottlenecked our green ethylene production facility in Brazil by 30%, increasing our production capacity to 260,000 t/y. Among the biggest drivers for our expanded production has been the growth in our green EVA (ethylene vinyl acetate copolymer) for the footwear industry. To support our growth in the bio-polymer market, we have recently announced a partnership with Thai company SCG Chemicals to build a green ethylene plant in Thailand. In a similar vein, in a partnership with Sojitz, a Japan-oriented global trading company, we launched Sustainea, which will produce and market bioMEG (monoethylene glycol) and bioMPG (monopropylene glycol). MEG is used as a raw material for PET. Besides these different partnerships for technology development and increased production, we also licensed our green ethylene technology with the help of Lummus, a tech licensor, to enable other players to use our proven technology for a better future, for all of us. Also, we announced a

project to evaluate an investment in producing carbon negative bio-based polypropylene in the US.

### Braskem has made various investments in recycling facilities. Can you share the latest?

Volume-wise, our sales of products with recycled content went up to 54,000 t in 2022, a 144% increase from 2021. Braskem has become more closely involved in the end-to-end plastics value chain, starting our first fully owned facility for mechanical recycling in Indaiatuba, close to São Paulo; operated by Valoren, this is able to transform 250 million packaging units into 14,000 t of recycled PE and PP. On top of this, we also acquired 61% of the shares of Wise Plásticos, a leading mechanical recycling company in Brazil, with a goal to achieve 50,000 t/y of recycling capacity by 2026, doubling the capacity of Wise today. Meanwhile, in Europe, Upsyde, a JV by Braskem and Terra Circular, is a company that turns hard-to-recycle plastic waste into durable goods like road plates, as well as pallets, used in the construction sector, with a patented technology. Last year, we also launched an innovation hub for developing sustainable packaging, called Cazoolo.

### What role do you think chemical recycling will play in closing the loop on plastics?

Even though mechanical recycling remains the low-hanging fruit today, I believe advanced (or chemical/molecular recycling) will be the most relevant in due time. Braskem has an agreement with Valoren, that is planning to build a chemical recycling facility on the same site as our mechanical recycling facility at Indaiatuba. Having both technologies available would enable us to sort between products amenable to mechanical and to chemical recycling, for better efficiency. Initially, they will start with a small, 6,000 t/y chemical recycling facility and work on perfecting the technology. The volume will be supplied to Braskem crackers. In this new technology realm, there are many technology routes being developed and that's why we have different initiatives. Braskem currently runs partnerships both in the US (with CWRU and Nexus Circular) and Brazil (with Senai and the University of Rio de Janeiro), as well as developing in-house innovations at our Centre in Pittsburgh, Pennsylvania. ■



## Daniela Manique

CEO LATAM & PRESIDENT GLOBAL BUSINESS COATIS  
SOLVAY (RHODIA)



*Latin America, and especially Brazil, has a bright future in front of it in terms of green energy and raw materials, and this is the direction we are moving towards at Solvay.*



### Could you give us a background into Solvay's presence in Brazil?

Solvay operates in Brazil under the name of Rhodia, which has been part of Solvay since 2011. Rhodia is a legacy name with over 103 years presence; to go to our Paulínia site, one needs to cross the Rhodia road. Paulínia is Solvay's largest site globally, a complex with 27 plants producing 1.2 million t/y of chemical products (phenols, solvents, polyamide, silica, etc.). This is also home to one of Solvay's 12 major global R&D centers at our Paulínia site in the São Paulo state. Then, our secondary site in Santo André uses raw materials from Paulínia for further downstream products in the textile value chain. Smaller plants are found in Curitiba and Itatiba. Solvay registered over €1.8 billion in sales (2022), in Latin America out of a total turnover of €13.4 billion globally.

### Solvay has announced the global separation between its commodities and specialties businesses. How is this impacting the Coatis business, headquartered in Brazil?

Solvay has announced it will divide into two independently traded companies, one focused on commodities and one on specialties, under the provisional names of EssentialCo or Eco, and SpecialtyCo. As of July 1st this year, we had a soft spin-off of ECO, following to proceed with the hard spin-off later in December. Currently, the specialty segments have a higher revenue contribution to the Group, of approximately 60%, versus 40%; to be able to allocate capex on an equal footing, it was important to treat the commodities business individually and garner more investment. We expect the new structure to encourage bigger investments for ECO. Coatis, headquartered in Brazil will represent about 25% of the new ECO company, making Latin America much more relevant for the organization.

### The Paulínia site is known as one of the greenest in Latam. What has led to this reputation?

More than 80 years ago, Paulínia became a pioneering site for bio-based ethanol. When ethanol vessels coming from the northeast of Brazil were attacked by German vessels during the Second World War, Rhodia bought a coffee farm and turned it into a sugar cane farm, sugar

becoming the raw material for our green chemistry up to this day. Today, Paulínia is preceded by its reputation as the site with the largest CO<sub>2</sub> capture project in Latin America, reburning 4.5 million t/y of equivalent CO<sub>2</sub>. This is known as "Project Angela." Our site is 95% carbon neutral, and we are soon closing the loop to make it 100% net zero.

Solvay's Paulina is also well recognized for its success in preserving biodiversity. We continued to operate the site as a farm, using only 15% of the land for industrial activities while preserving the rest.

### What is your growth strategy going forward?

Our strategy goes two ways: When we talk about commodities like phenols, basic solvents like acetone, ethyl acetate, and other molecules across the polyamide chain, we continue to work to increase our cost competitiveness by investing in digitalization and securing competitive raw materials. We do a lot of homework within the plants, running benchmarks to check coefficients, ensuring best practices, and implementing top technologies. The second part of our strategy goes to renewable and sustainable materials. For example, we recently launched a 100% bio-based ethyl acetate (bio-solvent under the name of Bio Etac). Other products from our Brazil portfolio are our Amni line, the world's first polyamide yarn that is biodegradable in ocean waters. This is used in the textile segments.

### How competitive is Brazil as a manufacturing base?

The tax reform will take some years to be applied, but this is a good sign for the industry. We have been working with the government and Petrobras on the best solutions for feedstocks and energy. That said, our cogeneration plant allows us to produce our own energy from biomass, which has been a huge asset in an energy volatile environment. We are now looking at investing in biomass boilers to decrease our natural gas consumption by up to 70%.

### Do you have a final message?

Latin America, and especially Brazil, has a bright future in front of it in terms of green energy and raw materials, and this is the direction we are moving towards at Solvay. ■





## Mauricio Russomanno

CEO  
UNIPAR



**Unipar is the leader in chlorine and caustic soda production in South America, with over 50 years of history. Could you introduce the company?**

Founded in 1969, Unipar is a publicly listed Brazilian company, now in its 5th generation of family-led business. Founded in São Paulo, Unipar started off with asset ownership in different industries, but gradually reconfigured into a fully focused chemical company, especially following the acquisition of Solvay's Indupa plant in 2016. Today, we are a leader in the production of chlorine and soda and the second largest producer of PVC in South America. Currently, Unipar is present in Brazil and Argentina, with offices in São Paulo and Buenos Aires, and factories in Santo André and Cubatão (SP) and in Bahía Blanca (AR), in addition to building a new plant in Camaçari, in the state of Bahia. Besides our 1,500 direct employees, Unipar also generates another 1,500 jobs/year from indirect support services.

**Unipar has recently signed three projects to produce renewable energy. Could you elaborate on these?**

Unipar has signed two joint ventures for self-production of renewable energy: two wind farms in Bahia and Rio Grande do Norte and a solar park in Minas Gerais, all three to be operational by the end of this year. With these, we will be generating 80% of our total energy consumption from green sources (about 600 MW/year), planning that, from 2025 onwards, to tackle the remaining 20%. These investments are important in many ways. First, our processes are highly dependent on energy: to produce chlorine and caustic soda, we start from a mixture of salt and water (called brine), apply electricity to break the molecule into different inorganic compounds, and obtain hydrogen. By using green electricity, we therefore obtain green hydrogen. By changing our energy matrix, we are also going to be reducing our energy carbon footprint by almost 10%, not to mention we will realize important savings in terms of our energy costs.

**What have been the most recent milestones and developments in the company's evolution?**

Within our pillar of sustainable growth, the expansion plan for our Santo André plant, which celebrated its 75th anniversary on July 25th, entered its final phase in line with our widely communicated schedule and confirming our disciplined execution. The Artemisa project, which received total investments of BRL100 million, started the ramp-up of the operation, with the connection of the electrolyser furnace that had been delivered in April, as reported in the first quarter of 2023. Thus, we reaffirm the start-up deadline for the second half of this year. The new structures will be responsible for increasing capacity by 15% of hydrochloric acid in the unit. It is also important to highlight the construction of the new Unipar plant, which will be installed in the Petrochemical Complex of Camaçari, in Bahia, which is on schedule, with a forecast to start operating in 2024. When in operation, the unit will have a total capacity of 20,000 t/y of chlorine and 22,000 t/y of caustic soda, produced following the safest, most modern, and eco-efficient criteria available, ensuring the intelligent use of energy and other inputs. Advances at the Bahía Blanca unit also allowed us to expand the production capacity of anhydrous caustic soda (pearl), rising from the current 18,000 t/y to 31,000 t/y by the end of 2023.

**How has the company performed on the Sao Paolo Stock Exchange in the last year and what makes the stock a good investment proposition?**

In 2022, Unipar recorded the best operating result in its history, with a net income of BRL1.3 billion, EBITDA of BRL 2.6 billion and revenue of BRL 7.3 billion in 2022. Even pressured by external factors, Unipar continues to do its part. We achieved solid results and kept the financial and operational equation healthy. We recorded the third-best semester in Unipar's history when we look at EBITDA. In the first half of 2023, we recorded BRL178 million in capex. This number is significantly higher than the record in the first half of 2022, when we allocated BRL75 million. We are a capital-intensive company and cycles of low and high prices are part of the company's multi-year plan. ■



**By changing our energy matrix, we are also going to be reducing our energy carbon footprint by almost 10%, not to mention we will realize important savings in terms of our energy costs.**



## Francisco Fortunato

CEO  
OCQ GROUP



**Please comment on the acquisition of Elekeiroz?**

Elekeiroz is an essential addition to our network because it has a strong presence in the oxo-alcohols line, with products that serve as raw materials for specialized plasticizers produced by our affiliate companies. Particularly in the paints and coatings segment, we see a significant gap in the supply of specialized products, which are typically imported in Brazil. There are clear synergies between Elekeiroz's large-scale plants for commodity raw materials, which would not allow them to produce small volumes of performance chemicals, and OCQ's group of companies.

**How is OCQ Group positioned in the current market of low commodity prices?**

As producers of chemicals ourselves, we face difficulties in this tighter-margin market, but as buyers of basic chemicals, we also benefit. This double market exposure gives us a balanced performance.

**How is OCQ's offer to the market evolving in terms of sustainability?**

We have some initiatives inside the group that I am very proud of, for example, the recycling of more than 120 million PET bottles in the manufacturing of alkyds and polyester resins; our reverse logistics, using recycled and reused packaging; and our work in increasing our green product line, and we are heavily focused on oleochemicals products too. We strongly believe in non-fossil chemistry and are adamant about moving in that direction. Nothing happens in isolation, but by working with suppliers and customers.

**OCQ is assessing potential expansions outside of Latam. Can you tell us more about this?**

We want to replicate the success we had in Brazil in other countries. We aim to internationalize through exports and establish a footprint in different geographies. We currently have operations in Argentina, Chile, Peru, and Mexico. The big challenge will be to make that expansion in a place like China, India, the US, or Europe. ■

## João Parolin

CEO OF IOD, SOUTH AMERICA  
INDORAMA VENTURES



**How has IVL's IOD business performed in the South American markets since last year?**

Indorama Ventures' Core EBITDA for the full year 2022 increased 31% year-over-year to US\$2.3 billion and revenue rose 28% to a record US\$18.7 billion. The company's IOD division achieved 17% EBITDA margin and US\$4.2 billion in revenue for the year globally. Based on the successful execution Indorama's M&A strategy, the division has today 18 industrial units, distributed in 8 countries, establishing itself in the market as the largest producer of non-ionic surfactants and ethoxylates in the Americas. The company is also the largest supplier of ingredients for the Homecare market in the continent.

The numbers only reinforce the importance of South America for the global strategy of Indorama Ventures, which intends to continue investing in the expansion of its businesses in the region, in order to increasingly consolidate the role of market leader it plays in some segments and to expand its participation in others.

**What are key areas of innovation?**

The Oxiflow line is a good example of recent innovation. This line is made up of high-performance rheological modifiers and promotes the thickening of surfactant-based aqueous formulations. Thanks to its versatility, it presents excellent results in thickening less concentrated formulations.

Reinforcing the organization's commitment to developing sustainable solutions, I would also like to mention the launch of Alkest LV 1400, a biodegradable green solvent. With an innovative DNA, this solution was produced using 100% vegetable and renewable raw materials, which led us to receive one of the most important innovation awards in the Brazilian chemical industry.

**Do you have a final message?**

We invest in the development of talented professionals, cutting edge equipment, modern infrastructure, allowing the company to put into practice its true focus on innovation. Interactions with startups are strategic and important to enable projects, overcome barriers, accelerate developments and digitization, and deliver more innovative and sustainable solutions, in line with global trends. ■

# Gianni Canneti

VICE PRESIDENT OF STRATEGY AND INNOVATION  
YARA BRAZIL



## ➤ What is Yara's presence and main products in Brazil?

In Brazil, Yara has invested R\$ 15 billion in its operations over the past decade, and counts over 20 blending and production units and more than 5,000 employees. The Rio Grande Complex in Rio Grande do Sul is now operating at 100% of its production capacity: 1.1 million t/y of granulated fertilizer volume and 2.2 million t/y in distribution, blending and bagging capacity.

For the Brazilian market, Yara's main highlight is the 'YaraBasa' special fertilizer line. It consists of the eight main nutrients required by plants and can be applied to any crop, soil or region, addressing phosphorus deficiency. Yara is launching 15 new products in 2023, including the YaraVita NRhizo, a high-performance organo-mineral fertilizer that combines nutrients with seaweed extract. Developed for treating legume seeds, such as soybeans and peas, it has the potential to increase soybean crop productivity by 3.3 bags per hectare and offers low carbon emissions.

## How do Yara's products help mitigate climate change?

Yara places a significant emphasis on the correct use of fertilizers and the reduction of carbon emissions. Currently, there are over 150 research projects in Brazil in partnership with various institutions, including 13 focused on coffee cultivation. Yara also offers the Atfarm digital solution, a tool for crop monitoring and variable-rate nitrogen fertilizer application. This tool allows for monitoring biomass changes over a specific period. We are also investing in solutions for the food chain, decarbonization, digitization, and green ammonia production. One such example is the project to replace natural gas with biomethane in the Cubatão Industrial Complex in São Paulo, enabling the production of green ammonia for industrial segments and green fertilizers for agriculture.

## What is Brazil's role in global food security?

In 2022, according to the CNA, more than 233 million tons of agricultural products were exported, in addition to meeting domestic demand. The country plays a critical role in global food supply, and is the world's largest fertilizer importer. ■

# André Savino

SYNAP'S GENERAL DIRECTOR  
SYNGENTA BRAZIL



## ➤ What are some recent milestones and developments at Syngenta Brazil?

One significant achievement was the launch of the Plinazolin technology, which forms the basis of a revolutionary family of high-performance insecticides. Furthermore, Syngenta Digital, the company's global structure for digital services, has made important advances in the Brazilian market. Currently the platform monitors over 80 million hectares worldwide through Cropwise, which includes eight applications that meet the distinct needs of farmers. In Brazil, two of these solutions, Cropwise Protector and Cropwise Imagery, are available to farmers.

## What is the role of SYNAP?

SYNAP - Syngenta Agriculture Platform - is the new corporate brand for the commercial platform, launched in April 2023, to ensure that farmers have access to the technologies and innovations provided by Syngenta. The holding integrates units across Brazil, serving over 25 million hectares and more than 350 commercial consultants dedicated to meeting the demands of farmers of all sizes and various crop types.

## Could you share some recent product innovations?

Syngenta Biologicals brings together our internal expertise in biological products with Valagro, a pioneer in bio-stimulants and special nutrients, acquired in 2020, to meet the rapid growth of the global biological products market. This initiative reinforces our strategy of providing farmers with complementary product and technology options.

## What are your objectives moving forward?

It is estimated that at least 50% of the world's soil is degraded, with 85 million hectares showing some level of degradation, and 32 million of those hectares in Brazil with the potential for agriculture. Our goal with the Reverte program is to recover 1 million hectares for cultivable and productive soils by 2030. Currently, the program covers over 170,000 hectares, mainly in the regions of Mato Grosso and Goiás. Our goal is to continue to develop innovative solutions that promote sustainable agriculture while supporting farmers in producing food for a growing population. ■

# Mexico

## A POTENTIAL AS BIG AS THE CURRENT DEFICIT

➤ The Mexican chemicals industry's trade deficit of almost US\$21 billion is both an illustration of the industry's structural constraints, and, turned around/looked from upside down, an estimate of its room to grow. It is in this kind of half-full, half-empty glass exercise that McKinsey, together with the industry's main association, ANIQ (Chemical Industry Association of Mexico), engaged earlier this year, delimitating between the two scenarios with a big "if": If the industry continues on its current path, Mexico might be importing US\$40 billion worth of chemicals by 2035; if, however, it could tap into its current potential, the industry could almost double its size by 2035.

The commercial deficit represents about 30% of demand, currently filled by imports, but the domestic industry could meet demand if it operated at capacity. Right now, the Mexican chemical sector only operates at around 60-70% capacity, leaving a big gap in the market. Its underperformance is caused by lack of feedstocks, supplied by the country's national company, Pemex. For example, Braskem Idesa, a JV between Brazilian petrochemical leader Braskem and one of Mexico's largest petrochemical companies, Grupo Idesa, can only rely on half of its ethane feedstock needs from Pemex: to produce at its capacity of 1 MT of polyethylene, it requires 64,000 barrels of ethane/day, but it can only source 30,000 bdp from Pemex. For the remaining half, it has developed solutions to import the raw materials from the US.

The lack of feedstocks - and the incumbent shortages in the market, coupled with a strong peso - have opened the way for more imports from Asia. Local players, on the other hand, mostly supply within Mexico, since the market has been big enough (too big, really). "A weaker Chinese economy has left many chemical producers with excess volumes that they are dumping to other places, including Mexico. While volumes imported from Asia remain small, the low prices are harming the industry," said Miguel Benedetto, general director at ANIQ.

Headed by ANIQ, the Mexican chemical industry went through a national exercise to determine the best way forward in terms of the relationship with Pemex. Benedetto explained the three scenarios taken into account: "One scenario was to start from scratch, without Pemex, but this is not feasible;

the second one was to produce exclusively specialty chemicals throwing away the cost competitiveness that Mexico's own natural resources grants. Therefore the best scenario is to work together with Pemex and with all stakeholders to develop the necessary basic chemicals and feedstocks that the industry requires and that are solely produced by Pemex. The stronger Pemex will be, the stronger Mexico will be in developing the raw materials critical for the development of all manufacturing industries."

## AMLO's legacies

Andrés Manuel López Obrador (AMLO), the country's president, has made Pemex - and Mexico's self-sufficiency in energy - an important part of his six-year mandate since 2018. One of his pet projects was the construction of a new refinery in his home state of Tabasco, a project that exceeded its initial budget of US\$8 billion by almost half. The Two Bocas refinery was heavily criticized by observers to be a white elephant, stemmed out of political intuition rather than any solid cost-benefit underpinning studies. Meanwhile, Pemex became the world's most indebted state energy company, with debt ballooning to US\$110.5 billion in the second quarter this year, after years of massive losses. The company was saved from bankruptcy repeatedly by the government of AMLO, who directed 42% of the public-investment budget to Pemex and the national electricity company, CFE (Comisión Federal de Electricidad), noted the Economist.

While splurging on Pemex, the new refinery, and a couple of flagship projects like a new railroad (Tren Maya) aimed at boosting tourism in the Yucatan peninsula, AMLO's government has underinvested in health, education, basic infrastructure, and has taken away funding from institutions critical to democracy, including the independent electoral commission, as well as the energy regulator and an anti-corruption body. Mexico has been notoriously tight-fisted on pandemic spending, being among a small number of countries to have spent less than 2.5% of GDP on Covid-19 measures. AMLO's frugality was first applied to his own salary, which he self-virtuously cut by 60%, a move not unpopular with voters.

Mexico begins the presidential race for 2024 in a poorer democratic shape, and with higher poverty rates, but in a stronger fiscal position and with brighter economic prospects compared to the last mandate - much driven by the growing trend of nearshoring that has pushed FDI into the country, and higher exports out of the country. Mexico recently marked its seventh consecutive quarter of growth on the back of strong domestic demand and improved employment figures. The peso continues to gain strength against the dollar, and has been called out as one of the best performing currencies in 2023. Inflation has also been coming down, though the central bank warns of upside risks, noted the International Banker, who earmarked Mexico as the "clear winner" in Latin America in 2023. The peso started to outperform other Latam currencies since 2018, the year when the US imposed high tariff rates on Chinese imports.

Image courtesy of Raul Juárez (Pexels)



### Mexico, the new best friend in the friend-shoring trend

Nearshoring – or the practice of locating or relocating suppliers closer to the end market – is nothing new to Mexico. The country has been a hotspot for the manufacturing of goods destined for US as manufacturers leveraged geographical proximity, trade agreements, and lower labor costs. This has made Mexico one of the largest exporters of automotive (fourth biggest globally), aerospace (sixth largest supplier of aircraft parts to the US), and medical devices (eight largest exporter in the world). However, the pandemic brought a significant impulse to nearshoring, otherwise known also as reshoring (when it implies a relocation of current supply chains) or friend-shoring (when it is inspired by geopolitical and trade considerations, much accurate for Mexico).

There are at least three differences we can note in the modern use of near & friend shoring within Mexico's context: first, and likely most important, is Mexico's repositioning in the middle of the trade between the world's two biggest powers, the US and China; second, the type of investment, predilected on higher-value and sophisticated manufacturing. And the third aspect, which underscores the first two, is the convergence of geopolitics, supply chain management, and sustainability, all calling for closer-to-home production in a way that is likely to redraw the globalized industrial map built over the past decades.

In many ways, nearshoring is replacing the traditional “outsourcing” philosophy that has allowed producers to make products in offshore locations, predominantly in China, at cheaper costs. The attractiveness of China started to bend in 2018, amidst retaliatory trade tariffs between Washington and Beijing. About 66% of US annual imports remains subject to tariffs averaging at 19%, according to the Peterson Institute for International Economics.

In 2022, the rupture between the two countries materialized at the logistical level, with long delays of critical Chinese supplies putting at risk various sectors in the US. Suddenly, the pandemic changed the rules, and the low-cost of Asian countries lost some appeal. By contrast, Mexico offered the ideal destination; even though labor costs are not as low as in China, Mexico does have a highly skilled and relatively cheap workforce. The higher price paid on labor is made up for by up to 14 times lower shipping costs, not to mention a reduction in the transport time (and associated risks) from about a month to 4 days in transit, according to Reuters. The recent USMCA free trade agreement between the US, Canada, and Mexico, secures a duty of just 0.04% for partners, versus 19% for China, and it has brought a lot of relief to the markets after replacing the previous North American Free Trade Agreement (NAFTA) dating back to 1994. Mexico has 13 other free trade agreements with 48 nations, that includes the equivalent of 1.3 billion consumers, or 60% of the world's GDP.

Backed by these attributes, Mexico found itself benefiting more and more from investments diverted to its shores but with a final destination in the US. Mexico's neighbor happens to be the largest importer/exporter in the world. Nearshor-

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## Miguel Benedetto

GENERAL DIRECTOR  
ANIQ (CHEMICAL INDUSTRY  
ASSOCIATION OF MEXICO)



*The stronger Pemex will be, the stronger Mexico will be in developing the raw materials critical for the development of all manufacturing industries, from electronics to automotive and pharma.*



**ANIQ has produced a joint study together with McKinsey looking at three scenarios for the future of the chemical sector in Mexico. Could you share the scenario you have arrived at and why?**

The study looked at the opportunities and challenges that are shaping the Mexican chemical industry in the long term to identify the best path forward. If nothing changes, the study found that Mexico would import US\$40 billion worth of chemicals by 2035, incurring an extra 5-10% in logistics and procurement costs. At the opposite end, in a pathway of “reimagining the industry,” Mexico could almost double the size of the chemical industry within that same timeframe (by 2035), adding between US\$7 and US\$17 billion direct GDP contribution and potentially creating 40,000 direct, 90,000 supporting, and 200,000 indirect jobs.

Within this exercise, three possibilities were assessed, each considering how we work with Pemex, the national oil company: One scenario was to start from scratch, without Pemex, but this is not feasible; the second one was to produce exclusively specialty chemicals throwing away the cost competitiveness that Mexico's own natural resources grants. Therefore the best scenario is to work together with Pemex and with all stakeholders to develop the necessary basic chemicals and feedstocks that the industry requires and that are solely produced by Pemex. The stronger Pemex will be, the stronger Mexico will be in developing the raw materials critical for the development of all manufacturing industries, from electronics to automotive and pharma. Much needs to be done for Mexico to reach its full potential.

**How is the Mexican chemical industry performing this year?**

The industry continues to face a shortage of raw materials from Pemex, at the same time as we see an increase in inputs coming from Asia that has disrupted the local market. A weaker Chinese economy has left many chemical producers with excess volumes that they are dumping to other places, including Mexico. The the low prices are harming the industry.

**Mexico is now the largest trading partner for the US, overtaking Canada and China. How can Mexico consolidate its advantages as a nearshoring (or friendshoring) destination?**

Mexico has a great opportunity in nearshoring, and we can already see investments flowing in the northern states. A reliable supply of raw materials is key for any manufacturer establishing itself in Mexico, which makes the chemical industry a key condition for the concretization of nearshoring opportunities. However, to leverage this opportunity, we need better infrastructure (energy, gas, and logistics), as well as a more stable and cohesive legislative framework.

Electricity has become a big issue in Mexico. The energy policy established by President López Obrador limits the participation of private energy suppliers. In this context, investments in power transmission have dwindled. The availability, affordability, and reliability of electricity are a key consideration of foreign manufacturers choosing a nearshoring destination, so we must ensure we are prepared.

Secondly, Mexico imports 75% of its natural gas consumption needs from the US. While the north of the country relies mostly on imports, the south relies on Pemex production, which is at the same time critical to produce feedstocks.

When it comes to logistics, Mexico needs significant investments in customs, ports, rails, and highways to maintain its leading position as the main trade partner with the US and increase our exports. ANIQ has expressed concerns as we have not seen these investments coming as needed.

**Mexico has a comparatively high plastics recycling rate. Could you brief us on the country's circularity strategy?**

In 2018, Mexico became part of the Ellen MacArthur Foundation, the world's leading circular economy network, and defined clear objectives for 2030, and 2040. As a first step, we agreed to remove all plastic pellets from the industry, since these end up in rivers and eventually oceans. A second compromise is to work with trademark companies like Unilever or Colgate to incorporate a higher recycling content in the design of consumer packaging. Currently, Mexico has the largest PET recycling percentage in the world (75%), and about 35% for other resins, but we would like to increase these numbers. ANIQ is part of the working group within the Ministry of the Environment to produce comprehensive legislation on the circular economy that will be referential for all industries. This should be released by the end of 2023. ■

MEXICO AT A GLANCE

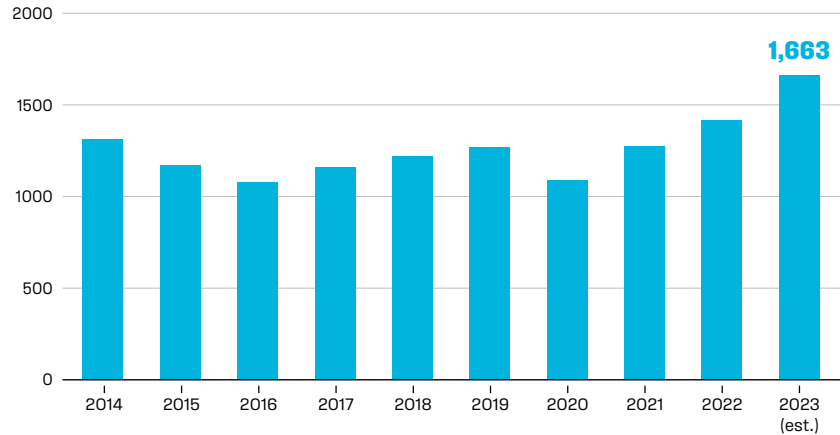
Source: IMF, data for 2023



GDP EVOLUTION IN US DOLLAR VALUE

Source: IMF

Billion US\$



CAPITAL

Mexico City

HEAD OF STATE

Andrés Manuel López Obrador

GDP

US\$ 1.66 trillion

GDP GROWTH

1.8%

TOTAL INVESTMENT (% OF GDP)

21.3%

GROSS NATIONAL SAVINGS (% OF GDP)

20.4%

CURRENT ACCOUNT BALANCE (% OF GDP)

-1.0%

DEMOGRAPHIC DATA

Source: IMF, data for 2023

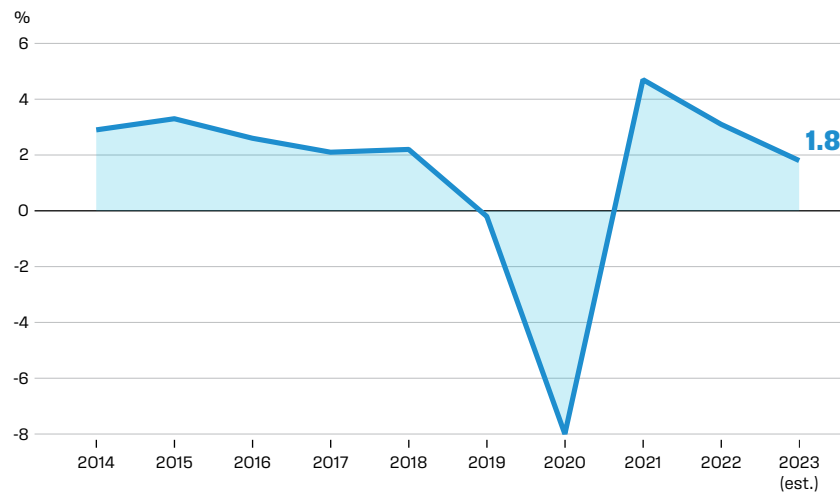
POPULATION  
**131.2 MILLION**



UNEMPLOYMENT RATE  
**3.3%**

GDP GROWTH

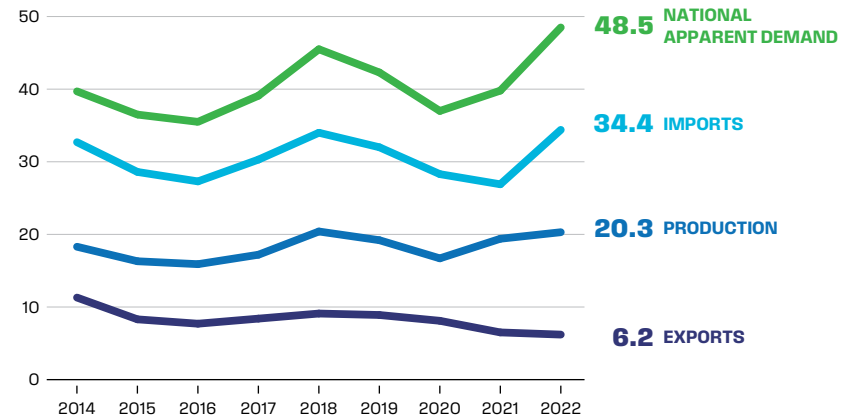
Source: IMF



CHEMICALS PRODUCTION AND TRADE

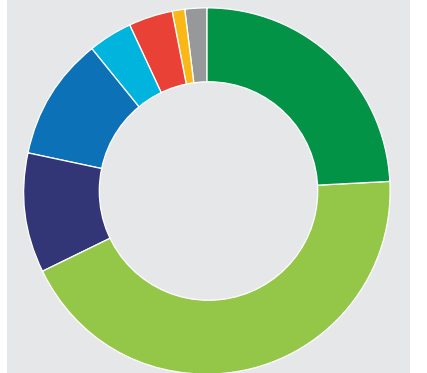
Source: ANIQ

Billion US\$ (rounded)



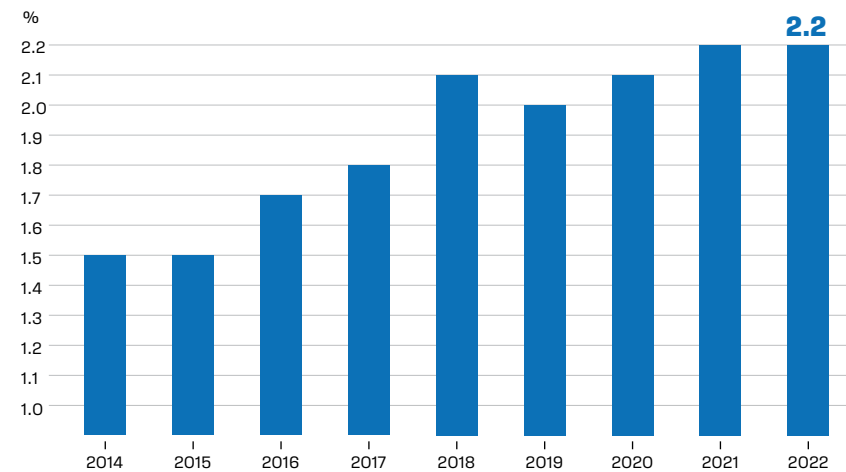
CHEMICAL INDUSTRY BREAKDOWN (% SALES VALUE)

Source: ANIQ



% PARTICIPATION OF THE CHEMICAL INDUSTRY IN THE GDP

Source: ANIQ



| Category               | Percentage (%) |
|------------------------|----------------|
| Petrochemicals         | 24.3           |
| Synthetic resins       | 43.6           |
| Agrochemicals          | 10.6           |
| Inorganics             | 10.9           |
| Industrial gases       | 3.9            |
| Synthetic rubbers      | 3.7            |
| Pigments and colorants | 1.1            |
| Adhesives              | 1.9            |

GDP PER CAPITA

**US\$ 12,674**

GDP PER CAPITA (PPP)

**US\$ 19,431**

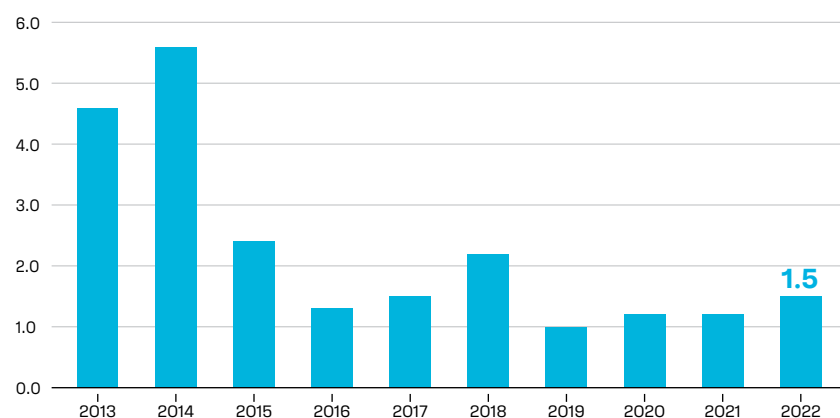
INFLATION RATE

**6.3%**

CHEMICAL INDUSTRY INVESTMENT

Source: ANIQ

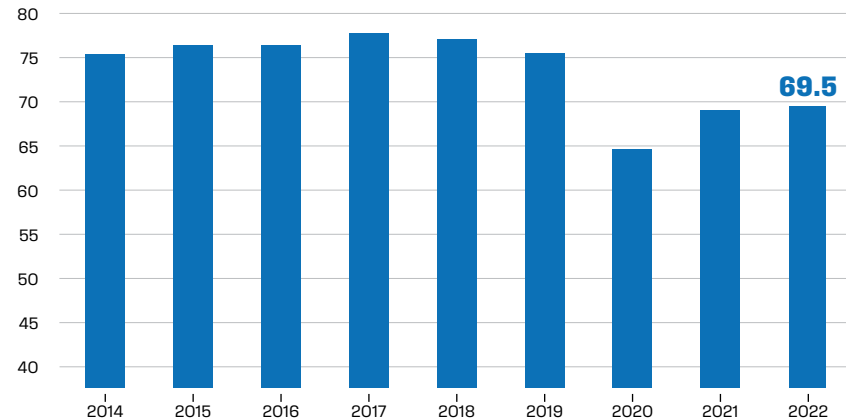
Billion US\$



CAPACITY UTILIZATION RATE

Source: ANIQ

%



CHEMICAL INDUSTRY AT A GLANCE

Sources: ANIQ

PERCENT OF GDP

**2.2%**

CAPACITY UTILIZATION RATE

**69.5%**

INVESTMENT

**US\$ 1.5 BILLION**

&lt;&lt;42

ing could generate US\$35 billion increase in US-bound Mexican exports, according to the Inter-American Development Bank. At the North American Leaders' Summit at the beginning of this year, Mexico, the US and Canada are alleged to set a goal to replace 25% of Asian imports with products made in North America. According to local news, Canada, the nation with the second largest FDI in Mexico, is to invest up to US\$10 billion in Mexico. Meanwhile, the US, which has historically accounted for half of Mexico's FDI flows, has invested US\$15 billion in 2022, according to the Federal Reserve Bank of Dallas.

As a key contributor to GDP (about 20%) and closely entrenched in all manufacturing sectors in the country, the Mexican chemical industry has much to be hopeful about in the nearshoring trend. In a recent survey conducted by S&P Global with 350 manufacturers in the country, it was found that the chemical and pharmaceuticals sector is the third largest in the country that expects to benefit from nearshoring opportunities. "A reliable supply of raw materials is key for any manufacturer establishing itself in Mexico, which makes the chemical industry a key condition for the concretization of nearshoring opportunities," said Miguel Benedetto, general director at ANIQ.

The industries set to benefit most from nearshoring are automotives, electrical equipment, semiconductors, plastics, and logistics, according to recent growth markers from Deloitte. The auto production has been in the spotlight especially after Tesla announced it will build its next gigafactory in Nuevo León, an investment worth US\$5 billion (though local authorities pointed to a figure triple the size, cumulating investments from Tesla suppliers). Other car makers like BMW, General Motors and Ford have also made announcements about ramping up or starting plants.

Though Mexico's chemical industry is mostly concentrated in basic agrochemicals and petrochemicals, the development of higher-value industries will bring about more opportunities for specialty chemicals production. While in aromatics, solvents, ammonia, fertilizers, and urea, as well as other petrochemicals and agrochemicals, the country's production volume has consistently decreased in the last 10 years or so, in specialty chemicals, the opposite has been noted. ANIQ data suggests a (positive) +31% trade surplus in specialty local production in 2021.

"For many years, Tier 1 and Tier 2 companies especially in the automotive and aerospace sectors established a presence in Mexico. The difference now is the level of sophistication and tech-driven facilities being built across a wider range of industries," said Martín Toscano, president at Evonik Mexico, a specialty chemicals producer with a presence in 15 verticals in the country, including automotive, aerospace, healthcare, personal care, construction, feed to food, and others.

Asked whether Mexico is ready for the new investments, Toscano added: "Mexico will need significant investments in the areas of security and transport infrastructure to be able to keep up with the growth we expect to see in manufacturing

and exports. Sooner or later, we may also see issues in terms of talent availability. We also need more industrial parks and warehousing capacity to support the distribution of products within and out of Mexico, mostly in the northern and central parts of the country," he concluded.



*Nearshoring-driven investments came to Mexico faster and bigger than anyone anticipated. This suggests a positive outlook for the country, but there remain important caveats about the overall logistics setup, especially when it comes to adding more volumes to ports, airports, or roads.*

Martin Sack, Regional Head Americas, Leschaco



#### No free lunch with nearshoring

The biggest challenge on Mexico's plate will be feedstocks, said Patricio Gutierrez, CEO of Grupo Idesa. "No company will build a new plant if they cannot secure feedstocks at reliable and competitive prices."

While the north of the country can rely on imports, Mexico and the US having become closely integrated especially in the gas market, the south continues to depend on Pemex. This will only exacerbate a north-south divide, whereby the Gulf Coast (Nuevo León, San Luis Potosí, Tamaulipas and Veracruz) and the North of Mexico (Baja California, Baja California Sur, Chihuahua, Coahuila, Durango, Sinaloa and Sonora) have seen the highest growth owing to nearshoring, according to S&P Global, while the south struggles with underemployment and poverty.

Mexico will need to step up investing in logistics infrastructure, as well as in technology and education. According to the Economist, AMLO's government cut spending on roads maintenance by 28% between 2018 and 2021. When Mexico reopened schools in 2022, the education budget was the lowest since 2010, informed the same source. Mexico's demographics are highly attractive, but it is not enough without the right education and training: "Mexico has the classic social pyramid of emerging economies, with a large share of its 120 million population being of working age. This offers a broad talent pool and a strong pipeline for the future. However, we need more educational and training programs because the skills required in the future may not be the same as those required today," said Martín Toscano, Evonik's president in the country.

Finally, it is important to note that other countries in Central America are also in the spotlight for nearshoring, competing with Mexico. That competition is only going to become fiercer with the US economy decelerating, which will temper FDI outflows, as well as demand. Spillovers from a US GDP growth of under 1% (as predicted for 2024) will reach the entire world, but especially US's main southern neighbor. Mexico's soft landing is not guaranteed. ■



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## Patricio Gutiérrez

CHAIRMAN AND CEO  
GRUPO IDESA



### What is Grupo Idesa's structure and what role does it play in the Mexican petrochemical space?

Within our petrochemical division, we have four companies with a diversified product basket. Grupo Idesa is the only producer of ethanolamines, which go into the surfactants market, oil and gas, construction and personal care industries. Another legacy product of Idesa is phthalic anhydride, with a broad range of uses, and, finally, an important part of our product portfolio is our alkylamines. We also produce EPS (expandable polystyrene), which is the only product line where we are integrated downstream into a finished product for the construction industry producing floor and wall structural and insulating panels.

### To what extent is Grupo Idesa exporting?

We have become an indirect exporter; our customer are the ones exporting finished products. Beyond that, we export excess capacity of certain products mostly to Europe and the US, and sometimes to Latin America and the Caribbean.

### How has competition with Asian products impacted the Mexican chemical market?

While there is a clear slowdown in demand both in Mexico and internationally, demand in some market segments remains steady or is growing. The reason why the global slowdown is so difficult for the Mexican chemicals is the aggressive competition we are facing from Asian producers. This is affecting the industry in many ways. It is not just the lower prices that our customers can find choosing Asian products, but also that the price of the finished product sold by Asian suppliers could be the same as the raw material that our customers purchase – this means customers can skip a step in the production process, buying the finished product or part of that finished product instead of buying raw materials. Therefore, demand for raw materials in the region is not at its best, even as demand for finished products is not necessarily slowing down. On top of that, the strong currency (Mexican Peso) is helping importers. All considered, I believe this is one of the most challenging years in the chemical industry. We are at the bottom of the cycle, and everyone expects things to pick up in 2024.

### How can Mexico stand out as a manufacturing base for the chemical industry?

There are four elements that the chemical industry requires to excel and add value. One is technology, whether in-house or licensed. The second is human capital; Mexico has a well-prepared base of engineers, but we must continue to promote the industry as a career path for young people given the global trend of fewer STEM graduates. Third is the market itself; I always say that the potential of our industry stands in its deficit – we are talking about a commercial trade deficit for the chemical sector of close to U\$21 billion. And finally, the fourth and crucial constituent is the competitive and reliable sourcing of raw materials. Currently, this last pillar is Mexico's weakest link. No company will build a new plant if they cannot secure feedstocks at reliable and competitive prices. There have been many views on the government participation in the downstream, but the concession we have arrived at is to find a middle ground: We continue to reaffirm that we want Pemex, the state-owned oil and gas company, but we want a stronger Pemex that can provide the industry with the required raw materials so we can invest in bigger and new plants.

### Do you think Mexico is at a disadvantage without a clear framework for renewable energy?

The industry is indeed concerned that the current government does not provide the tools and incentives to invest in renewables, which makes Mexico's carbon mitigation objectives very difficult to achieve. Our customers may soon be demanding that part of our electricity be generated from renewables before purchasing our products. When that happens, the country will have a lot of catching up to do. Meanwhile, at Grupo Idesa, we continue to look at ways to reduce our energy consumption to cut both costs and emissions.

### Could you share a final message for our audience and APLA members?

We need to continue fighting for a powerful Mexican chemical industry. If we can capture even a fraction of the existing potential, we are already on a very good path. ■



*We need to continue fighting for a powerful Mexican chemical industry. If we can capture even a fraction of the existing potential, we are already on a very good path.*



## Stefan Lepecki

CEO  
BRASKEM IDESA



### Could you remind our audience of the role that Braskem Idesa plays in Mexico?

The "Etileno XXI Project," as it was known, is one of the most significant private investments made in Mexico in the last two decades. We started operations in 2016 with a clear objective to fill a gap in the polyethylene (PE) market in the country, a market where there was only one local producer, Pemex. Braskem Idesa became an important anchor for the development of the downstream plastics value chain, triggering subsequent investments from our clients and their clients.

### How is Braskem Idesa planning to expand PE outputs in the future?

Braskem Idesa supplies about 20% of the PE market, but we intend to increase our participation. Braskem Idesa has a total capacity of 1 million t of PE per day, but due to a lack of feedstocks (ethane), we experienced setbacks in our production. To produce 1 million t of PE, we require 63-64,000 barrels of ethane per day, of which Pemex supplies about half. To overcome these constraints, we developed two solutions: A temporary one is our "fast-track" strategy to import ethane from the US, but this is an imperfect solution because of the lack of inventory capacities which does not allow us to absorb potential instabilities. In Q2 of this year, we achieved 86% operating rate, the highest since 2017, thanks to our fast-track solution. A permanent solution is the development of an ethane terminal, which will start operating at the end of 2024 and will allow us to import the remaining 50% of ethane to achieve our maximum capacity on a consistent basis. The terminal, with two tanks, gives us 12 days worth of stock to mitigate disruptions. Moreover, with this terminal, we will be able to boost our capacity by 20% at a very low investment.

### What is your outlook on the current downcycle seen in the polyolefins markets globally?

The entire petrochemical spectrum is going through a downcycle, because of converging supply and demand conditions. In a capital-intensive industry like this, investments are planned 6-7 years in advance in line with consumer demand projections, but the pandemic interrupted the finalization of many of these plants for

about two years. Then, in 2022, they all came onstream simultaneously, inundating the market. But the overcapacity is also a result of slow recovery in China, which is the largest importer of PE and many other polyolefins. Higher energy costs caused by the war in Ukraine also pushed natural gas (and ethane) prices to levels never seen before, which made it very hard for the industry. My view is that we reached the bottom of this cycle and we are slowly heading towards a better 2024, when margins will be recovered. Growth, however, may not come until 2025.

### What competitive advantages does Braskem Idesa have in the current market?

As producers of PE from ethane, we have a very important competitive advantage against naphtha crackers, which represent about 70% of all global crackers. Mexico is also a very competitive country, with a talented labour force, and key logistics advantages to export to the US, Central America, and even Asia and Europe, on top of free trade agreements with most partner countries.

### Do you think Mexico's lack of a renewable energy policy could harm its competitiveness in the long run?

Braskem Idesa has committed to reducing GHG emissions by 15% by 2028, for which we are optimizing our production through automation and digitalization. However, this is not enough if we cannot access green energy. Together with ANIQ, we have raised this issue to public officials, and we see the topic has been picked up by the main candidates for the upcoming election. Braskem Idesa is exporting about 40% of its products to Europe, where regulations and customer requirements are becoming more stringent. Mexico will be challenged unless it can find a solution.

### Do you have a final message?

The petrochemical industry has a substantial role in Mexico, as the generator of 346,000 jobs, and supplying plastics to 80% of industrial segments. We are at an important junction, with elections next year, so it is really time for a visionary policy to encourage dialogue between the private and public sectors, and capture the huge upside that the country offers for the benefit of all. ■



*It is time for a visionary policy to encourage dialogue between the private and public sectors, and capture the huge upside that the country offers for the benefit of all.*





## Martín Toscano

PRESIDENT  
EVONIK MEXICO



### What has 2023 been like for Evonik Mexico?

Current market conditions are an opportunity to develop new technologies and applications with additional competitive edges sought after by our customers, including savings improvements and sustainability properties. In times like these, we see a greater need to co-create with our customers and together work towards the de-fossilization of society.

### Are there any industries that Evonik prioritizes in its growth strategy?

No, we are lucky to find in Mexico opportunities to expand across all our 15 segments, from feed and food to healthcare, personal care, home care, automotive, aerospace, construction, and others. Unlike other developing economies, Mexico provides an active and diverse base of industries that is mature enough for us to grow in. The main driver, touching almost every industry, is nearshoring-driven FDI flows and the relocation of supply chains to Mexico. Nearshoring is nothing new to Mexico, where for many years, Tier 1 and Tier 2 companies especially in the automotive and aerospace sectors established a presence in Mexico. The difference now is the level of sophistication and tech-driven facilities being built across a wider range of industries, from automotive and aerospace to electronics, personal care, and home care. The USMCA (The United States-Mexico-Canada Agreement), but also geopolitics and the pandemic, pushed for a rethinking in the organization of supply chains, and Mexico stands out as an attractive destination.

### How ready is Mexico to absorb and respond to more manufacturing and export activity?

There is no free lunch with nearshoring. Mexico will need significant investments in the areas of security and transport infrastructure to be able to keep up with the growth we expect to see in manufacturing and exports. Sooner or later, we may also see issues in terms of talent availability. We also need more industrial parks and warehousing capacity to support the distribution of products within and out of Mexico, mostly in the northern and central parts of the country.

### Could you comment on the availability of high-skilled labor required in advanced manufacturing in Mexico?

Mexico has the classic social pyramid of emerging economies, with a large share of its 120 million population being of working age. This offers a broad talent pool and a strong pipeline for the future. However, we need more educational and training programs because the skills required in the future may not be the same as those required today. The private sector must continue developing local talent by executing dual programs (formal education combined with internships). Our training initiatives as a country cannot lose sight of Industry 4.0 and digital tools.

### What do you see as a long-term solution for Mexico's feedstock constraints?

The Mexican chemical industry is running today at only around 60 to 70% capacity, so this year, at ANIQ, we went through a national exercise of rethinking the best path for the future of the industry. We ended up suggesting ways in which the private sector could work closer with the authorities to secure the necessary raw materials, but also to grow further especially when it comes to alternative energy sources as our customers go under more pressure in end-markets like North America or Europe. The private sector could even make contributions to existing assets to bring them up to speed in a sustainable way. Out of this systematic dialogue, we made progress in some areas, but not all.

### Evonik Mexico celebrates 120 years in 2023. Do you have a final message for APLA and GBR on this occasion?

We have multiple celebrations this year: We celebrate 120 years since our German company first started with precious metals refining and trading in Mexico, in 1903. We also celebrate 75 years of one of our predecessor companies' active manufacturing in Mexico, as well as 55 years of our legacy Degussa opening the first office in the country. These show the great commitment made to the Mexican economy from the early days of gold and silver mining to today's modern manufacturing, applied technology labs, and R&DI activities. I am happy to be leading this 150-person organization in Mexico and be part of the North American platform, which is the largest outside of Germany. ■



*The main driver, touching almost every industry, is nearshoring-driven FDI flows and the relocation of supply chains to Mexico.*



## Ricardo Cuetos

VP AMERICAS POLYMERS SALES  
MANAGEMENT  
INEOS STYROLUTION



*Ineos Styrolution is working to promote the circularity of PS by creating a network of partners for the collection of PS waste so that we can convert it back into its building block (styrene monomer) using a depolymerization process.*



### Could you give us a brief overview of the developments over the past year?

Ineos Styrolution is the leading styrenics supplier globally, with a portfolio that is focused on styrene monomer, polystyrene, ABS standard and Advanced styrenics. 2022 was a very good year despite the downturn that ensued in the second half of the year. Thanks to our diversified portfolio, we only started to experience that decline late last year, as higher Asian imports began crowding the markets. Ineos Styrolution has a manufacturing site in Altamira, Mexico, three polymer plants in the US and three styrene monomer plants, one in Canada and two in the US. These serve the entire Latam region, with Brazil and Mexico as main markets.

### What are the main demand drivers impacting the styrene and styrenic polymer markets in 2023?

All market segments have suffered from oversupply coming from Asia, with bigger declines observed in the construction industry, small appliances, and food service packaging. On the other hand, the automotive sector has been steady, and although it is not yet at pre-pandemic levels, we can see a continued improvement that points to stable recovery. 2023 has been a difficult year, with many manufacturers sitting on high inventory levels after overstocking during the pandemic. I hope to see recovery across all segments by the second half of 2024 though.

### Could you introduce your Ineos Styrolution ECO product line and the latest innovations towards improved recyclability/ circularity?

The ECO line comprises both post-consumer recycled (PCR) and bio-attributed high-performance styrenics. We have announced plans to advance the development of a large scale TruStyrenyx 100 t/day advanced recycling facility in Channahon, Illinois, using Agilyx's advanced recycling technology. TruStyrenyx is a partnership between Agilyx and Technip Energies and provides an all-in-one solution for the chemical recycling of polystyrene back into high purity styrene monomer. The styrene monomer can be used to make new, food-grade plastic products or packaging.

Our sites in both the Americas and Europe have been fully certified by ISCC Plus to introduce bio-based feedstocks into our processes.

### Polystyrene (PS) tends to get a bad reputation when it comes to recycling. Can you tell us more about the recyclability profile of PS?

PS is indeed often classified as a problematic plastic when it comes to recycling, but this is a huge misconception. In fact, styrenics are 100% recyclable using both traditional (mechanical) and advanced (chemical) recycling technologies. The major challenge to recycling PS is the collection of the waste itself. It is also important to raise awareness of PS' properties, including its insulation, impact strength, chemical resistance, easy processing, etc., which allows it to be used in variety of applications like food service packaging, household appliances and construction. Some alternatives to PS have a detrimentally bigger environmental footprint. Ineos Styrolution is working to promote the circularity of PS by creating a network of partners for the collection of PS waste so that we can convert it back into its building block (styrene monomer) using a depolymerization process.

### Do you note a higher interest in recycled and bio-based products?

Each company has different sustainability objectives, but what is interesting is that all industry big players have a sustainability agenda, which is significantly driving demand for bio-based products and recycled content plastics. Looking at the food packaging industry, for example, there is a big drive to reduce the use of single-use plastics, but simply banning these products is not the solution to replace them. We must work together with municipalities, customers and consumers alike to create discipline around the collection of waste, which is one of the weakest links in the current recycling ecosystem.

### What are your top priorities moving forward?

Ineos Styrolution is focused on furthering our growth in the region, especially in strategic markets in North America and Latam, and in our key industries, notably automotive, building and construction, packaging, medical and household appliances. Equally important is to consolidate our sustainability agenda, by expanding our ECO product line and to expand our advanced recycling capabilities. It is key for us that we remain our customers' first choice for service, sustainability, quality and product offering. ■

# Argentina

THE 'DEAD COW' (VACA MUERTA), MORE ALIVE THAN EVER

→ Vaca Muerta has been present in every GBR edition about Argentina, year after year. Readers must bear with us. The giant formation, the size of Belgium, is hard to ignore. The passing of time has not taken away its significance as the second-largest shale gas deposit in the world (with an estimated 308 trillion cubic feet) and the fourth-largest shale oil deposit (believed to contain 16 billion barrels). It took almost 100 years since its discovery in Patagonia before it produced its first barrel, in 2019. But since then, developments have come a lot faster, bringing Vaca Muerta to life. All going well, the fields could pump up to 1 million barrels per day (bpd) in the coming years.

Vaca Muerta could be the answer to Latin America's feedstock shortages, which have been the main cause of petrochemical production declines all the way from Mexico to Pa-

tagonia over the last 15 years. The quality and price of Vaca Muerta's reservoirs are said to rival those that drove the shale boom in the US. Particularly, the natural gas from its non-conventional sources has high ethane and propane content, up to three times higher than that found in conventional resources, ideal for the development of the chemical downstream. Argentina's gas price, at around US\$3.5 per million btu, is about four times lower than Brazil's. However, while extraction is cheap, the infrastructure to transport is not.

On the production front, this year Argentina hit two all-time record highs of 631,103 bpd for oil and 5 billion cubic feet per day for gas, according to Oil Price. The national oil company, YPF, but also foreign supermajors like Shell and Chevron, have allocated multi-billion-dollar budgets in upstream operations. Representing YPF, Martina Azcurra, executive manager for Chemicals at YPF Química, the chemical arm of the integrated player, shared with GBR that almost half of the company's US\$5 billion capex this year will go into the development of Vaca Muerta.

Argentina has big plans to, first of all, become self-sufficient in natural gas supply, before moving on to exporting to the region. For that, it will require significant investments in infrastructure; the current pipelines are already operating at capacity, while fracking equipment and utilities are scarce. According to Reuters, there are only eight active fracking crews at Vaca Muerta, way below the 280 currently active in the US. This year, YPF committed to fund 40% of takeaway capacity. Also, Argentina just inaugurated a new major pipeline connecting the massive shale gas deposit to the province of Buenos Aires, which relies on imported LNG during the winter months. Authorities said the 537-km pipeline, known under the name of President Néstor Kirchner Gas Pipeline (GPNK), will add 11 million cubic meters of gas per day, as reported by Reuters.

The pipeline was constructed in 10 months, but our interviewees are saying it was supposed to be finished five years ago. Next, Buenos Aires is said to hold an auction for a state contract to extend this pipeline. Other projects are underway, according to Jorge de Zavaleta, executive director at Argentine Chamber of the Chemical and Petrochemical Industry (CI-QyP), including the Northern Gas Pipeline reversal, which will aid in the country's ambitions to export gas to Brazil.

"Argentina has three projects to evacuate non-conventional oil production: One is a pipe connecting Neuquen with Chile's Enap refinery, a refinery which used to import 100,000 bpd, but it was shut down due to the lack of oil from Argentina. The pipe is now only exporting 50,000 bpd, but it is due to reach 110,000 bpd, its maximum. The second project is operated by Oleoductos del Valle (Oldelval), evacuating oil from Neuquen to Bahia Blanca at a capacity of 220,000 bpd, but due to almost double to 400,000 bpd in about one a half years. Finally, the third project is Vaca Muerta South, by YPF, projected to transport 250,000 bpd. Altogether, we are looking at over 1 million bpd in the next two to three years," outlined Zavaleta.

Besides LNG, the country eyes urea exports to Brazil, said Zavaleta: "Currently, Argentina has a large urea plant belonging to Profertil, but the country's demand for urea is 1.8 times

higher than what Profertil's plant can produce. Next door, Brazil is one of the largest urea importers in the world, with about 7 million t/y of urea imports – this is the equivalent of four to five typical plants of 1.5 MT."

### Badly in need of dollars

The reduction of imports, coupled with the development of export capacities in both LNG and petrochemicals, would bring a much-needed support to Argentina's dollar reserves at the Central Bank, which have depleted to an alarming level this year, especially after one of the worst draughts of the century impacted its agricultural sector – a world leading exporter in soy oil, flour, and corn. According to Consultancy.lat, Argentina will miss out on US\$19 billion in export revenue this year, creating severe dollar shortages. This has pushed inflation even higher into the triple-digit range.



*I expect next year to be tough, but once we have overcome this, Argentina will explode in growth. When Argentina shrinks, it shrinks very fast, but when it grows, it grows at 8-9% GDP. Argentina has many of the things that Ukraine cannot export anymore - like wheat, corn, and energy - so the liberalization of the economy is an immense opportunity.*

Adrián Schwartz,  
President, Grupo Simpa



Vaca Muerta's oil and gas resources are seen as the silver-bullet that could help Argentina's trade balance, but, at the same time, the development of upstream and transportation projects require dollar availability, especially for the servicing sector and equipment importers. The government wants to attract US\$10 billion investment to transform gas in LNG in the coming years, with a goal to reach gas exports of US\$15 billion by 2027, reported Reuters. But appealing to foreign investors is challenging, especially given Argentina's market controls. Hoping to give investors more confidence, the government is pushing for an LNG bill that would provide the markets with some stability.

In the petrochemical space, import restrictions have distorted the market. Hyperinflation and dollar shortages have led the government to impose a mechanism that requires importers to apply for a special permission. Zavaleta explained: "Known as the 'Import System of the Argentine Republic' (SIRA), the system was introduced about a year ago when funds at the central bank became scarce. To be able to import, players need to open a file through the SIRA system and wait for approval, which, if granted, comes in the next 24-48 hours. Otherwise, the request remains on hold indefinitely."

This mechanism has resulted in lower imports (by volume) and higher domestic sales, with mixed effects. Indeed, the trade deficit has been reduced, Argentina normally importing 40% of its chemical needs, whereas today, local producers

supply 87% of the market, said Adrián Schwartz, president at Grupo Simpa, the largest distributors in the Argentine plastics value chain. However, the reduced import dependency conceals the fact that the demand itself has shrunk: "One year ago the PE market was at 80,000 tons/month, of which about 45,000 t/m was supplied by Dow and its distributors, while 35,000 t/m came from imports. Now, the PE market is at 62,000 t/m in total, but Dow and its distributors supply the vast majority of that (55,000 t/m), with only 7,000 t/m coming from imports. Import limitations prevented our competitors from getting the product," said Schwartz.

A closed economy has also distorted the price of commodities, which have dissociated from international references. "For example, linear low-density polyethylene (LLDPE) is currently at US\$1,100/t in South America, which should translate to about US\$1,550/t once taxes and other expenses Argentina are added. However, in the Argentinian market, customers are paying US\$2,500/t for LLDPE. Even at this price, products are sold exhaustively because manufacturers do not have other options," Schwartz explained.

The local market is served by a handful of players taking leading positions in different polymers – for example, Dow's largest production site in the region is in Bahia Blanca, in Argentina, where the global player has two ethylene crackers, four polyethylene (PE) plants, as well as a polyurethane (PU) complex close to San Lorenzo. The polypropylene (PP) market is dominated by Petrocuayo, the only supplier of PP in the country, while DAK Americas is the only polyethylene terephthalate (PET) producer. Then, Pampa Energia supplies polystyrene (PS) and Tecnoacom is a leader in PVC. The national company, YPF, has a petrochemical line of about 30 products. Compañía Mega, a public company with YPF, Petrobras, and Dow Argentina as key shareholders, is a main supplier of ethane in the industry.

The development of the oil and gas supply is not only relevant for the petrochemical industry, but also for the agriculture sector, and even its mining sector, both large consumers of chemicals, as well as for the overall economy. Though this book will have gone to print before the results of the elections, the industry expects that, no matter the winner, Vaca Muerta will remain a priority, even though activity at the fields have sparked some indigenous protests over the years. ■



*With over 40 million ha of cultivable land, Argentina is one of the main producers of soy, corn, and wheat, most of which are exported. Considering the food crisis caused by the pandemic and the Ukraine-Russia war, Argentina is poised to be an extremely important protein supplier, but the country requires a better political framework to incentivize investments in agribusiness.*

Federico Alonso,  
General Manager, Gleba (part of Anasac Holdings)



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## Jorge de Zavaleta

EXECUTIVE DIRECTOR  
CIQYP (ARGENTINE CHAMBER  
OF THE CHEMICAL AND  
PETROCHEMICAL INDUSTRY)



### Could you update our audience on the recent performance of the industry?

The industry's output increased by 13% between 2021 and 2022, and local sales grew by 29%, marking a higher performance compared to the year before. Meanwhile, the petrochemical trade declined by 12% volume-wise as a result of import restrictions. Though the volume of imported goods is lower, the value is 29% bigger due to higher international prices. On the export side, volumes were slightly lower by 4%, but values went up by 35%, again reflecting higher prices. Argentina's petrochemical trade balance is negative, at minus US\$8.5 billion, a 26% increase versus 2021. Nevertheless, this number is significantly lower compared to neighboring countries like Brazil. What is helping the Argentinian industry is that we export many plastics, taking advantage of the surpluses of polymer production in Bahia Blanca, as well as a range of performance materials associated with higher values. In 2023, international sales went down dramatically compared to 2022, with most of the imported materials going into the production of end-use products for the local market.

### Could you elaborate on the mechanisms introduced to restrict imports?

Known as the "Import System of the Argentine Republic" (SIRA), the system was introduced about a year ago when funds at the central bank became scarce. To be able to import, players need to open a file through the SIRA system and wait for approval, which, if granted, comes in the next 24-48 hours. The approval also comes with prescribed terms of payment, which in many cases are different from those closed with suppliers.

### What are the low-hanging fruits in the petrochemical industry that could be developed from gas-based feedstocks?

The most promising one is in urea. Currently, Argentina has a large urea plant belonging to Profertil, but the country's demand for urea is 1.8 times higher than what Profertil's plant can produce. Next door, Brazil is one of the largest urea importers in the world, with about 7 million t/y of urea imports.

There is a project to build a urea plant in Argentina led by Profertil. Domestic natural gas price is very competitive in the region.

The other good news is that the content of natural gas liquids (NGL-s) from Argentina's non-conventional sources is three times higher compared to conventional ones, similar to what we see in the US. The high ethane and propane content triggers opportunities in petrochemical-based projects.

Finally, a great opportunity is the development of lithium resources, with Argentina holding the second or third largest lithium resources in the world. The production of lithium carbonate requires many inorganic chemicals (like sodium carbonate, hydrochloric acid, sulfuric acid) that Argentina produces.

### What is the outlook for oil production in the country?

Argentina has three projects to evacuate non-conventional oil production: One is a pipe connecting Neuquen with Chile's Enap refinery; the pipe is now only exporting 50,000 bpd, but it is due to reach 110,000 bpd. The second one is operated by Oleoductos del Valle (Oldelval), evacuating oil from Neuquen to Bahia Blanca at a capacity of 220,000 bpd, but due to almost double to 400,000 bpd. Finally, the third project is Vaca Muerta South, by YPF, projected to transport 250,000 bpd. Altogether, we are looking at over 1 million bpd in the next two to three years.

### What are the main agenda items at CIQYP this year?

Just like the rest of the petrochemical industry globally, there are two main issues we need to address: climate change and the circular economy. To address circularity, CIQYP is working closely with the plastics leadership group within ICCA (International Council of Chemical Associations). As a member of the UN, Argentina is participating in INC 1,2, and 3 - these are the Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution.

So far, Argentina does not have domestic laws to promote or regulate recycling, but there are ongoing discussions around a packaging law and extended producer responsibility regulation, looking particularly at how best to include the informal sector of waste collectors into the formal value chain. ■



*The content of natural gas liquids (NGL-s) from Argentina's non-conventional sources is three times higher compared to conventional ones. The high ethane and propane content triggers opportunities in petrochemical-based projects.*



## Gabriel Rodríguez Garrido

EXECUTIVE DIRECTOR  
IPA (ARGENTINE PETROCHEMICAL  
INSTITUTE)



### IPA recently held the "Jornada de la Industria Petroquímica" 2023. What were the main themes?

The chemical industry must tackle two key challenges: plastics circularity and decarbonization. In Argentina, this challenge comes atop of unstable economic conditions and raw material supply insecurities. At the same time, this new paradigm also presents the country with opportunities. Since Argentina mostly relies on natural gas as a feedstock, our industry has a better carbon footprint, which gives us a headstart.

### As the second-largest shale gas deposit in the world, Vaca Muerta has attracted significant attention. What does the development of LNG mean for the country's petrochemical industry?

The country is moving in the right direction with the promotion of more domestically produced gas, but to transport more gas (methane) and to develop methane exports (as LNG), we need to extract the liquids from the gas. These liquids - ethane, propane, butane, and naphtha - are petrochemical feedstocks. With the production of LNG debottlenecked, we are moving more into this second phase of industrializing liquid gases. Vaca Muerta and the beginning of LNG exports will generate expansion in the polymers space, and there is already a lot of noise from various players looking at brownfield expansions to leverage this opportunity. For example, Campaña Mega has already presented a significant expansion for exporting liquids.

### How prepared is the Argentinian petrochemical industry for the circular economy?

The new circular feedstock is plastic waste, something that has never been part of the petrochemical value chain before. The transformation of plastic waste into raw materials is a gamechanger and the industry is rapidly developing advanced recycling capabilities to complement mechanical recycling. YPF has presented a case study for integrating the traditional petrochemical business within a chemical recycling framework, a first in Argentina. The country is clearly moving in the right direction, but we are still only just starting.

### What is the policy framework to support circularity in the country?

In Argentina there is no regulation on recycling yet, but technology sometimes moves faster than regulators do. 2023 is an election

year, slowing down legislation, but I believe a new legal framework for plastic recycling is likely to be drafted in the coming years. In Europe, regulatory changes gave way to a new generation of entrepreneurs. We can already see within our own membership as IPA that non-petrochemical players are joining our leagues - for example, one of our newer members is a waste management company looking after the largest landfill in Buenos Aires. At IPA, we work closely with universities, R&D centers, and other companies to strengthen the recycling ecosystem in preparation for all these changes.

### How is persisting hyperinflation impacting the petrochemical sector in Argentina?

High inflation creates a significant challenge for imports. However, with the development of a domestic gas supply network, Argentina will see a big change in its current account balance; the availability of local LNG will benefit not only the petrochemical industry but also agriculture and mining, both highly dependent on chemical imports. One of our members, Profertil, is investing in the production of green and blue ammonia, complementing its grey ammonia production. Both Argentina and Brazil import a lot of urea, so developing ammonia in the country will be a great step forward in the fertilizers value chain. I am confident that Argentina will regain its economic balance, though we never know for sure with all the political variables.

### Do you have a final message for our audience and APLA members?

IPA is positive that we will see significant structural changes in the short term. Gas production is not a mere idea, it is a reality already happening. No matter who wins the election, everyone sees the industrialization of Argentina's raw materials as a priority for the growth of the country. At IPA, we are working towards building an ecosystem of talents and technologies. This year we are running the fourth edition of our postgrad online course (Diploma in Petrochemical Business) with Universidad Austral, the number one private university in the country. With our partners at PLAQUIPI, we also offer virtual technical courses that have been completed by over 1,000 people to date. IPA offers both executive-level and technical-level training to make sure we have the best-in-class professionals to unlock the opportunities in the petrochemical industry. ■



*Vaca Muerta and the beginning of LNG exports will generate expansion in the polymers space, and there is already a lot of noise from various players looking at brownfield expansions to leverage this opportunity.*



ARGENTINA AT A GLANCE

Source: IMF, data for 2023



CAPITAL

Buenos Aires

HEAD OF STATE

Alberto Fernández

GDP

US\$ 641 billion

GDP GROWTH

0.2%

TOTAL INVESTMENT (% OF GDP)

17.4%

GROSS NATIONAL SAVINGS (% OF GDP)

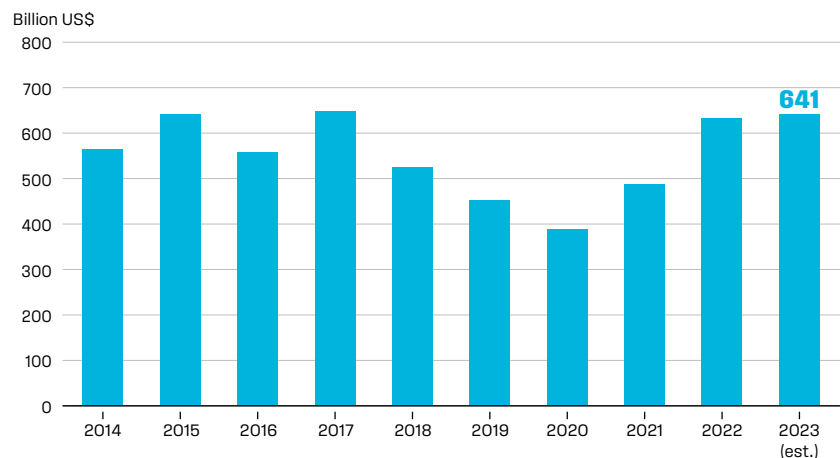
18.4%

CURRENT ACCOUNT BALANCE (% OF GDP)

0.98%

GDP EVOLUTION IN US DOLLAR VALUE

Source: IMF



DEMOGRAPHIC DATA

Source: IMF, data for 2023

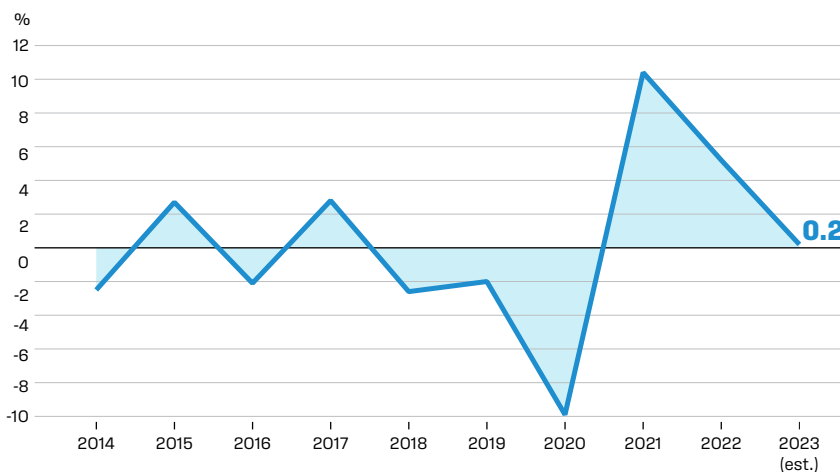
POPULATION  
**46.8 MILLION**

UNEMPLOYMENT RATE  
**7.6%**



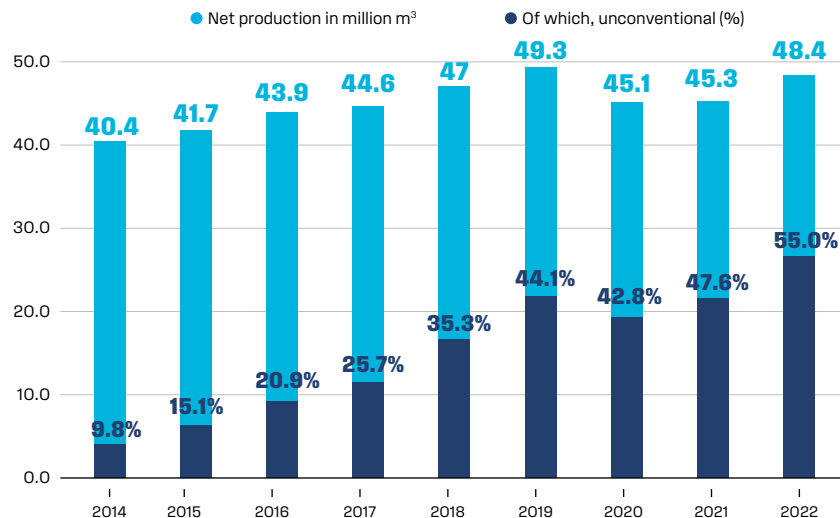
GDP GROWTH

Source: IMF



NATURAL GAS PRODUCTION

Source: IPA



MAIN PETROCHEMICAL POLES

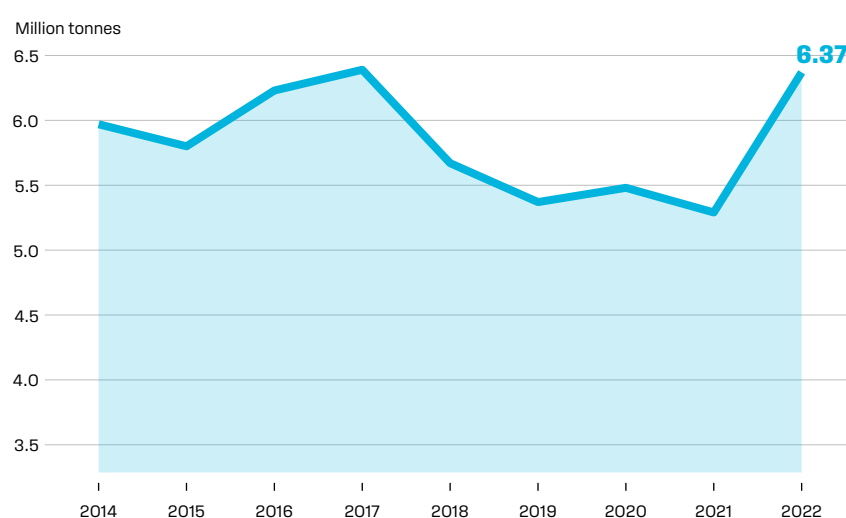
Source: IPA

- ① **Bahía Blanca Area**
  - PBBPOLISUR (DOW)
  - PROFERTIL
  - UNIPAR INDUPA
- ② **Ensenada Area**
  - PETROCUYO
  - YPF
- ③ **Gran Buenos Aires Area**
  - PETROQUÍMICA ARGENTINA (San Miguel del Monte)
- ④ **Campana - San Nicolás Area**
  - ALPEK POLYESTER
  - BUNGE
  - CABOT
  - PAMPA ENERGÍA
- ⑤ **San Lorenzo - San Martín Port - General Lagos Area**
  - ARAUCO ARGENTINA CHEMICAL DIVISION
  - EVONIK METILATOS
  - NOURYON CHEMICALS
  - PAMPA ENERGÍA
  - PBBPOLISUR (DOW)
  - STYROPEK
  - VARTECO QUÍMICA PUNTANA
- ⑥ **Río Tercero Area**
  - ATANOR
  - FÁBRICA MILITAR RIO TERCERO
  - PETROQUÍMICA RÍO TERCERO
- ⑦ **San Luis Area**
  - FRÍO INDUSTRIAS ARGENTINAS
  - RESIGUM SAN LUIS
- ⑧ **Luján de Cuyo Area**
  - PETROCUYO
  - YPF
- ⑨ **Plaza Huincul Area**
  - YPF



EVOLUTION OF PETROCHEMICAL PRODUCTION VOLUMES

Source: IPA



PETROCHEMICAL PRODUCTION

Source: IPA 2022





## Martina Azcurra

EXECUTIVE MANAGER, CHEMICALS  
YPF QUÍMICA



### Could you summarize the key developments at YPF Química over the last year?

First, we consolidated our position in the region, growing our market share, especially in Brazil. For some years now, YPF's primary chemical production capacity has exceeded local demand, which is why we have been looking for external markets.

Second, we continue advancing our modular pyrolysis project, managing the risks and challenges of developing a new technology for a very nascent market, while also making progress at our Industrial Advanced Recycling complex.

Third, we successfully completed pilot tests and reached the industrial production phase for a new line of products for the Oil & Gas markets, using our Y-TEC technology for a comprehensive proposal: product, application, and field monitoring.

### What are the main dynamics in the methanol and aromatics markets in Argentina and Latam?

A prolonged drought this year has severely affected soybean production. Adding to this the macroeconomic conditions in Argentina, biodiesel producers will not be profitable this year, which has pushed down methanol sales in the local market. However, we expect the industrial segment in the region will continue to drive demand, and new applications like low-emission fuels will generate new market niches. Meanwhile, demand for aromatics and solvents remains strong, and international prices for aromatics have been sustained since record peaks in July 2022.

### As a petrochemical player, how is YPF Química positioned for a long-term future where the use of fossil fuel-derived products is supposed to decline?

Thanks to our investments, I do not see any threat concerning the demand for YPF's products. What we call "traditional products" will, at some point be subjected to more regulations and requirements. By making pyrolysis oil a reality, we have at hand a circular feedstock to make new products that meet those requirements. One may wonder why a petrochemical company is focusing on plastics recycling when we are not producing plastics. This is intentional: while there are many uses for pyrolysis oil, there are few offtakers with the capacity to transform it into petrochemical products. We treat the CYQLO

OIL (which is our registered trademark for pyrolysis oil) as a conventional fuel, going to the very beginning of the value chain to make petrochemicals. Further along, we are also looking at opportunities of producing bio-methanol, by capturing emissions and reincorporating them in the gas to create biogas. Today, YPF is a pioneer in these technologies in Argentina, but making these efforts now gives us reassurance that we will be at the vanguard of the future demand of our customers.

### YPF allocated US\$5 billion capex for this year, 20% higher than last year. Could you comment on the strategy and focus of these investments?

YPF's investment plan is focused on the massive development of non-conventional resources at Vaca Muerta (US\$2.3 billion), with a view to monetizing crude oil, monetizing natural gas, and developing lithium and clean energy value chains. As an integrated company, YPF goes all the way from the production and transportation of oil and gas, to refining, under which we have the production of petrochemicals and commercialization. What we need today is to secure a competitive production of oil and gas that is well aligned with the demand curve. Our focus is to invest most of those US\$5 billion in today's production, especially of shale oil. YPF's growth strategy is based on the development of Vaca Muerta resources, cost efficiency and financial discipline. We want to double crude oil production in five years and increase gas production by 1.5 times. We aim to become an energy exporting company in the region and to be an LNG player for the rest of the world.

The focus of today is to ensure the basis - the raw materials essential for the petrochemical industry to keep growing. Nevertheless, YPF has been investing in the development of green energies through YPF Luz, which has become the second-largest producer of clean energy in Argentina, generating approximately 100 GW.

At the same time, we have other projects rolled out on the refinery side. Now in its second year (out of three), we have reconfigured our refinery to produce desulfurized fuels (with lower sulfur content). Next year, we will also increase our aromatic production after revamping projects at of our La Plata production site. Currently, we have more than 30 products in our petrochemical line. ■



## Javier Constante

PRESIDENT  
DOW LATIN AMERICA



### Please provide an overview of Dow's presence in Latin America?

Dow started operations in the region over 65 years ago and today we have 15 manufacturing facilities across Brazil, Argentina, Colombia and Mexico. Our largest production site is the Bahia Blanca in Argentina, which comprises two ethylene crackers and four polyethylene (PE) plants, followed by a polyurethane (PU) complex close to the city of San Lorenzo. Brazil is home to our regional HQ in São Paulo, as well as an extensive manufacturing footprint. Three more plants in Mexico and one in Cartagena complete our widespread footprint in Latin America.

Our Latam portfolio reflects Dow's global capabilities, with more than 50% focused on specialty plastics for the packaging industry. Second to packaging, the PU market - going into mattresses, automotive seats, insulation for refrigeration and construction, as well as other uses for both flexible and rigid foams - is a key market. Dow also brings to the market a variety of solvents and chemical additives, as well as a range of silicones and emulsions for coatings within our Consumer Solutions portfolio, for personal and home care applications, high performance building, among others.

### Dow inaugurated its first Inspiration Centre in Latin America. What is its focus?

In Jundiá, close to the city of São Paulo, our Inspiration Centre inaugurated in 2021 allows us to serve an incredibly entrepreneurial client base, characteristic of the region. In Brazil, a considerable amount of our sales go to companies founded by local entrepreneurs, mostly family companies. With a naturally entrepreneurial spirit, our Latam customers have a heightened innovation drive and acceptance of new ideas. Our high-tech Inspiration Centre, which consolidates the creative minds of our scientists, allows us to conduct trials together with our clients, not just in person but also remotely.

### How is Dow driving the change from a linear to a circular economy?

By 2030, Dow wants to commercialize 3 million t of circular and renewable solutions globally, both through mechanical and advanced recycling. In Latam, we have various partnerships with collectors in Brazil and Argentina. To give one example, at our Inspiration Centre in Jundiá, Dow's Pack Studios developed a post-consumer

recycled (PCR) resin under the Revoloo™ brand. Connecting circularity with social impact, we also run an initiative called "Recycling for a Change," in collaboration with start-up Boomera LAR and NGO Fundación Avina. As part of this program, we strengthened the expertise of waste picker cooperatives, which divide the profits among its workers. More than 214 families are now involved in this project in São Paulo, and productivity climbed by 70% shortly after implementing the program.

### What makes Project Ybá a unique ESG initiative?

Brazil hosts Dow's most sustainable silicon metal production in the world, one of which is in the very remote northern state of Pará and it employs 600 people and 300 contractors. Out of the 40,000 ha of Amazonian Forest that we hold, we only occupy 10%; once we extract the trees, we replant and rotate to another land patch of 10%, following the same process of replanting and harvesting, again and again, so that at no point do we use more than 10%. This makes our landholding among the best preserved in an area that has been devastated by exploitation. Together with Nature Conservancy and the Peabiru Institute, we identified 17 species that could be commercialized for industrial consumption in a sustainable way and with multiplying benefits to the local communities.

### What are your main objectives moving forward?

These four pillars dictate my focus: *Innovation* brings out the spirit of our entrepreneurial customers, leading to fantastic developments. *Customer Satisfaction* is measured quarterly to make sure we never cease to improve our service. For *Diversity*, I am personally involved in many activities to empower underrepresented groups, not only minority groups, since in Brazil, we have a demographic of majority (64%) but underrepresented Black people. And finally, *Sustainability* is our major focus and we are diligently following through our initiatives in a timely and cost-effective manner.

Latin America will continue to grow, and Dow wants to grow at least as much as the region. The region has always been an important geography, led by talented Latinos that are passionate and make the most of the local culture - and I believe that has been key to our success. ■



*We want to double crude oil production in five years and increase gas production by 1.5 times.*



*Our Latam portfolio reflects Dow's global capabilities, with more than 50% focused on specialty plastics for the packaging industry.*



## Juan Pablo Ceballos

CEO  
PETROQUÍMICA RIO TERCERO  
(PR3)



*In the chloralkali market, the buoyant lithium industry in Argentina presents us with a terrific growth opportunity.*



### PR3 is preparing its first Sustainability Report. What will be its focus?

By the end of 2023, we will publish our first Sustainability Report. The rationale behind putting together this document was based on the principle that we must first understand our own footprint and what we can do better in-house to be able to then work together, with the industry and other stakeholders, to develop a country-wide approach to circularity, especially around the recycling of TDI mattresses. We think this is a building block toward developing an ecosystem for foam recycling in the region. Together with this report, we have also finished building our sustainability team, formalizing our approach to sustainability for the long term.



### How has PR3 consolidated its presence across its three business lines?

PR3 has started a transformation journey, with a vision to bring complete solutions across our three commercial business units: The Foam business, including toluene diisocyanate (TDI) and other polyurethane (PU) related products; Water Treatment, with polyaluminum chloride (PAC) and sodium hypochlorite; and Industrial Solutions, as producers of caustic soda and hydrochloric acid. Within the Foam business, in particular, PR3 is already a leader in flexible foams, but we have now made significant strides within the rigid foam market. At the end of 2022, we finalized a significant investment to develop TDI for rigid foams. We continue to diversify our portfolio to grow beyond TDI, to include other foam-related products like polyols and additives. Clients prefer to centralize their purchases to a reliable one-stop shop for all their flexible and rigid foam requirements. Moving forward, we will continue to consolidate our presence in the other two business units. In the chloralkali market, the buoyant lithium industry in Argentina presents us with a terrific growth opportunity. The chloralkali products are being used in the production of lithium hydroxide for battery cathodes. This is a very promising growth pillar, and we want to make sure to tap into its potential early on.

### PR3 has also signed a power purchase agreement (PPA) with YPF Luz this year. Why is this important?

This year, we signed a PPA with YPF Luz to supply 30% of our energy needs from renewables, namely solar energy. What is interesting is that energy is not only a form of electricity for us but also a raw material, since we use energy supplied by YPF within our chloralkali business to produce chlorine and caustic soda. Therefore, the agreement with YPF Luz is also impacting the direct carbon makeup of our products, besides the indirect carbon related to powering the plant.

### What are some of the intrinsic challenges of being a chemical player in Argentina?

The general elections in October 2023 are creating some uncertainty because it is unclear who the next government will be and what they may do. However, regardless of the next winner, I believe the economy is bound to become more open. The lack of dollars in the central reserve has tightened the economy, and the next leader will need to reopen Argentina to foreign investors. As a business, we think healthy competition will make us better, more competitive, and we are preparing for that.

### Is PR3 looking to grow in the international markets?

Currently, our sales have been mostly going to the domestic market, exporting only the surplus capacity to Brazil. However, the supply of nitric acid, which is the raw material we use for TDI, has been curtailed due to turnarounds for revamping at Fabricaciones Militares, our supplier; now that the upgrades have been made and the plant is back at capacity, we can ramp up the production of TDI, as well as other products, with the opportunity to export excess capacity to international markets. By October 2023, we should be able to resume exports.

### Do you have a final message?

PR3 will continue to strengthen its position across our three business units and become recognized as leaders not just in Argentina, but across the region. We have a highly committed team that goes above and beyond to provide the best quality service. PR3 is in the middle of a transformation, and transformations require patience. But I have full faith that we will achieve our ambitions. ■



## Marcos Sabelli

CEO  
PROFERTIL



*100% of the electrical energy at the Bahía Blanca plant will be renewable, specifically from YPF Luz wind farms.*



### What have been the latest milestones and developments at Profertil?

These have been challenging years, with a world that wanted to finally leave the pandemic behind and companies that had to rethink our practices and habits to adapt to the 'new normal.' In this context, we also had to carry out the largest plant stoppage in our entire history, which involved great challenges to take care of people. The implementation of technology and protocols, along with the commitment of the team, allowed the stop to be achieved in a timely manner.

On the other hand, 2022 was a record production year, which is a key milestone: For the first time, we reached 1.4 million tons of granulated urea, which is above the designed plant capacity. This shows not only of the optimal operation of the plant, but also the performance of our team, that knows the facilities down to the smallest detail and has taken them to levels of excellence.

Another milestone has been the recertification of the IFA's Protect & Sustain program, which certifies safety, environmental care and emergency readiness throughout the life cycle of our product. It is the most ambitious certification that a plant like ours can aspire to, so we are proud to have achieved it for the second time.

### How will you source 100% renewable energy for your operations at Bahía Blanca?

This is a historic moment for Profertil: In Argentina there are only a dozen companies that have achieved this. 100% of the electrical energy at the Bahía Blanca plant will be renewable, specifically from YPF Luz wind farms. This brings to zero the greenhouse gas emissions linked to the energy supply, that is, scope 2 emissions.

The impact is enormous, since Profertil today supplies 50% of Argentina's urea demand for agricultural production, so roughly 40 million t/y of crops will be nourished with urea generated with renewable energy. To put it into perspective, our consumption that will be coming from wind sources is the equivalent of 78,000 homes.

### How has Profertil's production capacity evolved over the years?

The historical production of granulated urea at Profertil has been in the order of 1.1 million t/y. In 2018, when we com-

pleted the energy saving and capacity expansion project, we brought our nameplate capacity to 1.32 million t/y, while reducing the amount of water and gas used per ton of urea produced. That is our current figure, despite the fact that we reached an absolute record of almost 1.4 million t/y in 2022.

Profertil allocates 100% of its production to the local market. This has been very important, especially in these years of both global and local geopolitical and economic complexity: Argentina had guaranteed the supply of more than half of the urea it needed for its crops, which necessarily implies relief when looking for urea to import.

### What are the main challenges that the agro sector in Latin America struggles with, and how is Profertil supporting?

Without a doubt, the challenge is to produce more food on a very small portion of land, and to take care of that land for future generations. It is estimated that by 2050 there will be 9 billion people in this planet, and we will need to generate approximately 50% more food. At the same time, the surface of the Earth available for cultivation is barely 3%. So, in that portion, we must produce more and also ensure the sustainability of the soil resource for generations.

All this is achieved, basically, by applying technology and innovation throughout the chain, and also by strengthening the work side by side with agricultural producers so that they apply the best management practices.

### Do you have a final message for our audience and APLA members?

Argentina has enormous potential in energy production, thanks to the development of Vaca Muerta, and especially from the recently inaugurated gas pipeline. For a company inserted in the agro-industrial chain, this means potential to produce more and better food for the world. Profertil, being the company that transforms gas into granulated urea, will continue to play a key role in the development of a fundamental sector for the country's economy as one of the largest food producers on the planet. ■

COLOMBIA AT A GLANCE

Source: IMF, data for 2023



**CAPITAL**  
Bogotá

**HEAD OF STATE**  
Gustavo Petro

**GDP**  
334.7 US\$ billion

**GDP GROWTH**  
1.8%

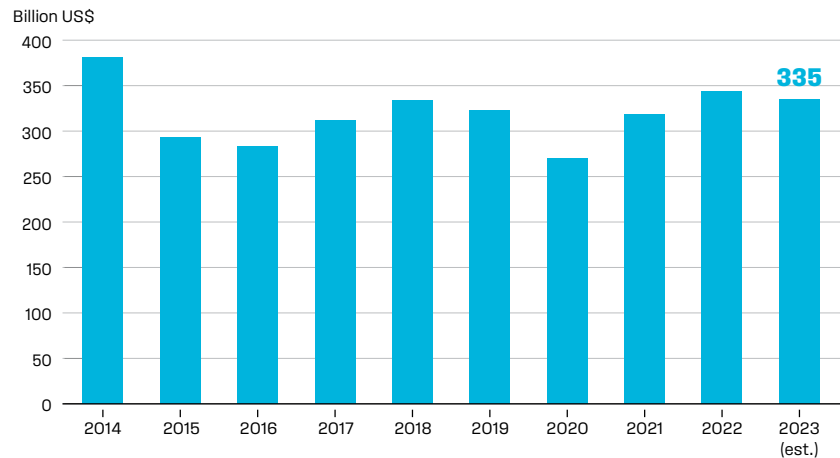
**TOTAL INVESTMENT (% OF GDP)**  
20.8%

**GROSS NATIONAL SAVINGS (% OF GDP)**  
15.6%

**CURRENT ACCOUNT BALANCE (% OF GDP)**  
-5.1%

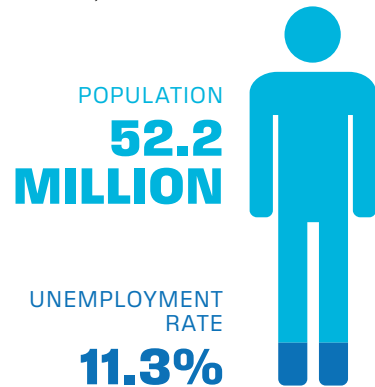
GDP EVOLUTION IN US DOLLAR VALUE

Source: IMF



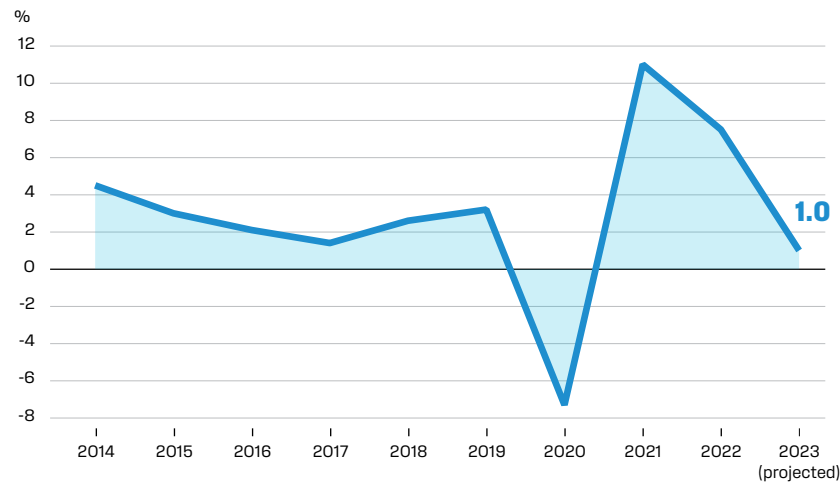
DEMOGRAPHIC DATA

Source: IMF, data for 2023



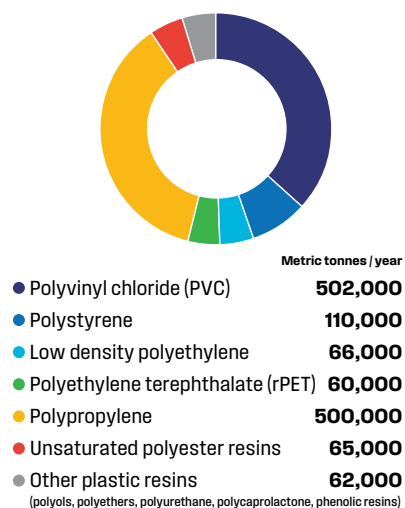
GDP GROWTH

Source: IMF



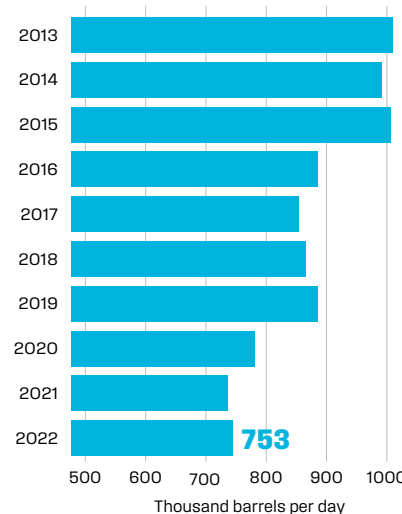
INSTALLED PETROCHEMICAL CAPACITY

Source: Acoplásticos



OIL PRODUCTION

Source: ANH



GDP PER CAPITA

US\$ 6,417

GDP PER CAPITA (PPP)

US\$ 15,875

INFLATION RATE

10.9%



Daniel Mitchell

EXECUTIVE PRESIDENT  
ACOPLÁSTICOS  
(COLOMBIAN ASSOCIATION OF  
PLASTICS INDUSTRIES)



*Our goal is to have more clarity on the legal processes for the implementation of the plastics tax.*



Please provide an overview of the industry's performance over the past year?

2021 was a year of recovery, with spectacular growth rates above 15% in real terms, and record performance for many chemical players. Then, 2022 was a correction year. We started to see the economy balancing out, the slowdown becoming obvious in the second semester, compounded by high inflation and logistics challenges. In 2022, chemical products grew at 17.4%, plastics at 8.2% and rubber at 17.5%. This year, we are seeing negative numbers in some sectors, but this is a natural adjustment, reflecting the contraction in demand. In the first quarter of this year, chemical products were growing at 4.1%, while plastics dropped to -8.6%, and basic chemicals to -18.5%. Normally, this is a steady sector growing at around 4-5% yearly, but the last three years were very different.

Could you give us an idea of the size of the chemical industry in Colombia?

Acoplásticos does not represent the entire chemical sector, only the plastics value chain, including paints and coatings, rubber, and some basic chemicals associated with petrochemicals, and excluding agrochemicals, cosmetics, cleaning products, etc. We can estimate the chemical sector at close to 1.5% of the country's GDP. The total revenue of our sector is approximately US\$6 billion, of which US\$2 billion come from exports. If we go into more detail, 50% of all plastic materials (PP, PVC, PS, etc.) are exported, while only about 10-15% of plastic products are exported, which gives us an average of 30%.

Could you comment on the recent legislations passed on single-use plastics?

Congress passed two major acts related to single-use plastics. The first is a ban on single-use plastics that comes after many years of debates. "Ban" sounds alarming, but it does come with many exceptions, including on bags, cutlery, disposables, or straws, as well as products that meet certain circularity conditions. The second regulation is a tax on single-use plastics that extends to packaging, which represents about 52% of the plastics market. For this reason, it has a much greater impact. Although this tax is like what we find in Spain, Italy, or the UK, and has a similar rate of around 20%, the big difference in Colom-

bia is that it does allow many exceptions: for example, vital products using plastic packaging like foods, beverages, health products, hygiene products, cosmetics, as well as products that represent an HSE risk, are all exempted from the tax.

If, after a lifecycle analysis, it can be proven that the substitutes for those plastic materials have a worse environmental impact, then both the ban and the tax do not apply. The Colombian government is also developing a circular economy certificate that, once granted, exempts companies from paying the tax.

Could you share some initiatives that Acoplásticos is driving in terms of skills development?

The first is our collaboration with SENA, the government agency in charge of technical capacity building. Every year, SENA chooses different projects to develop large-scale and sector-oriented training initiatives, and this year we won one. As part of this project, we have a training program made of eight large modules and 34 workshops, both virtual and in-person, covering training on plastic processes like extrusion or blow molding, as well as Industry 4.0, robotics, IoT, and so on. This project should benefit 1,500 workers in the plastics industry and more than 50 companies. While the project with SENA focuses on what we can do right now, we are also starting a different project with the Inter-American Development Bank that looks at a sectorial skills-building strategy for the future and what capacity will we require in the next decades.

What are the priorities at Acoplásticos for this year?

Our goal is to have more clarity on the legal processes for the implementation of the plastics tax. In addition, we have various projects ongoing, besides the ones mentioned, including a flagship project with the Alliance to End Plastic Waste on the Caribbean coast of Colombia, and a joint initiative with UNDP (United Nations Development Programme), looking at recycling opportunities to reintegrate ex-guerrilla groups in areas of the country that have been highly affected by violence. We also have a campaign to promote more home painting, because Colombia has a much lower paint per capita use compared to other countries. ■





## Felipe Trujillo

MANAGER PETROCHEMICALS AND PRODUCTS  
ECOPETROL



**Ecopetrol registered exceptional results in 2022, reaching its 2025 growth targets ahead of time. Could you briefly comment on this growth?**

Back in 2019, Ecopetrol set an internal goal to double our petrochemical business by 2025 – which we did last year, without major OPEX investments and without any capex injections. If in 2019 we were looking at a 1.6 billion Colombian pesos (COP) business, in 2021, we closed the year with 2.45 billion COP, and in 2023, with 3.6 billion COP, registering annual growth exceeding 40% year-on-year. This incremental growth showcases the significance of Ecopetrol's petrochemical business, especially in the context of the energy transition. With over 37 product lines within our petrochemical and industrial business, we have the flexibility to mitigate depressed market conditions – which can be seen today in the plastics industry - with stronger markets like aromatics, lubricants or asphalt.

**How has the development of your trading businesses helped accelerate growth?**

Our strategy is focused on securing constant, sustainable growth, allowing us to consolidate in key markets: For example, in Peru we have a market share of almost 80% in the aromatics value chain, whereas last year, this was only 10%. Similarly, in Ecuador we are also market leaders (95%) in aromatics. Besides aromatics, we have also had extraordinary success in the asphalt business, with over 45% growth in the last quarter.

Since last year, we have added two new commercial offices aside from Bogotá. One is in Singapore, inaugurated last year, and one in Houston, due to start by the end of this year. The expansion to Singapore was motivated by the desire to build a local presence in Asia, where 60% of our crude exports go to. The Houston office will both sell petrochemicals, fuels, and crude oil and purchase other products like gasoline, naphtha, as well as propylene and other petrochemicals where Colombia has an import deficit (for instance, Colombia imports 30-40% of its gasoline needs).

**Could you tell us more about the diversification to asphalt production?**

Rather than offering a single asphalt quality, we now have various products of different qualities, exported globally, including

in Asia and Africa. Our newly established trading arm and shipping charter allow us to be much more aggressive in terms of meeting client requirements and delivering to destination. Moreover, we have financial mechanisms in place to offer stable pricing and minimize the risks of price volatility.

Ecopetrol offers modified asphalt with recycled plastic, creating a circular economy that helps reduce the disposal of plastic in garbage dumps. To date, we have used the equivalent of 5 million plastic bags to produce almost 1,000 t of asphalt. Low-density PE, found in plastic bags, has little economic value to collectors and recyclers. So far, we have completed 13 projects at different locations in Colombia, testing the technology for different conditions. Additionally, we have incorporated polypropylene (PP) and even polyester (PS), with a great socioeconomic impact.

**Ecopetrol has committed to invest over 25 trillion COP to accelerate the energy transition towards its "Energy that transforms" 2040 strategy. What is the focus of these investments?**

One of our core focuses is the generation of green methanol by 2025. Ecopetrol has also signed multiple agreements to power our refinery and production sites with solar energy. But before we can fully switch to renewables, we are investing in the discovery of natural gas reserves in deep and ultra-deep waters. As the cleanest fossil fuel, LNG can bridge old and new energies. I believe Ecopetrol has the chance to become a key natural gas producer.

Ecopetrol has opened the first carbon trading desk in South America. So far, we have already neutralized 10 million barrels of crude exports, and we are offering carbon credits as a service, helping our customers decarbonize.

**How do you observe the progress toward the energy transition in Colombia?**

The energy transition in a country like Colombia will take a longer time as opposed to other countries with a higher purchasing power. In Colombia, cars are not accessible to everyone, which means that the switch to EVs will be delayed. As Ecopetrol, we must first support this transition by supplying cleaner fuels – for example, our gasoline "extra" has a similar quality to Euro 6, while our diesel has 10 parts per million sulfur content. ■



## Juan Pablo Amado Orduz

VP LATAM  
VANTAGE SPECIALTY CHEMICALS



**Please provide a brief overview of Vantage's growth and transformation in Latam?**

Over the last three years, our Latam footprint has undergone a significant transformation. After moving our regional HQ to Bogotá, our Colombian team grew from 30 to 120 employees, out of a total of 200 across Latam, and we have significantly grown our commercial and research and development teams across the region to get closer to our customers and understand local trends. In addition to commercializing products from our own manufacturing facilities, Vantage is also a partner for specialty chemical manufacturers around the world.

**What are your primary markets and geographies in the region?**

Vantage has a direct presence Mexico, Brazil, Colombia, Argentina, Peru, Chile, Costa Rica, and Guatemala. We group our business across two broad divisions: Consumer Solutions, supporting the personal care and food markets, and Performance Solutions, which supports the industrial and life science & consumer markets. In industrial markets, supported largely through our oleochemical leadership, we supply fatty acids, glycerine of different grades, and other products from our US facilities in the rubber tire, mining, water treatment, and personal care industries. Finally, our performance materials sales span a wide variety of life science and consumer markets across the whole region.

**What are some of the current demand trends you note in personal care?**

Personal care is a market valued above US\$3 billion in Latin America and we want to capture as much as possible of this enormous potential creating value for our customers, through customized and focused support. Sustainability is a significant growth driver for beauty and personal care brands. With a backbone in natural oils and fats, our bio-based, natural platform is well-aligned to the evolving trend for natural products, or products that use sustainable raw materials and ingredients.

**How is Vantage approaching the theme of sustainability?**

For us, sustainability is a major focus across Vantage. Starting at the organizational level, our corporate values embed

the principle of "stewardship" at the core of our sustainability strategy. Stewardship is about being responsible for every single action and protecting our customers, our people and the environment. We have added several roles and resources dedicated to ESG to help drive our strategy, prioritizing a resilient supply chain, responsible and transparent operations, and supporting meaningful community projects. In Mexico and Colombia for example, our employees are passionate volunteers with an NGO called Techo which builds homes for disadvantaged communities.

**What are your strategic priorities for 2024?**

Our main priority is something we call "Customer First" - to be closer to our customers by understanding what they need and what they value, one account at a time. In personal care for example, our Spark Innovation fast formulation platform develops on-trend formulation prototypes that marry the advanced technology of our premium ingredients with formulations from the company's in-house research and development team. This agile platform provides small-to-mid-size cosmetic chemists and formulators a starting point to accelerate their innovation pipeline as they create new product formulations.

By capturing that value, we can offer tailored solutions that go beyond products and serve them better. The specialty industry is jumping from products to solutions, and to do this, digital platforms are becoming more relevant. Vantage is evaluating how we can improve the interaction with our customers, how we can simplify our contact points, and how to be closer to them, and we expect to have more updates before the end of the year.

**Do you have a final message?**

Latin America is brimming with opportunity. With our natural chemistries platform, a diverse and specialty product portfolio, and a well-rounded understanding of our customer's needs from procurement to commercialization, Vantage fits perfectly into this growing market. We continue to invest in capabilities that support our customers in critical markets. Our plans in the region are aggressive, an aggressiveness that results from doing the right thing. By putting all these pieces together, we believe our goal is to become one of the largest specialty chemical players in Latam. ■

CHILE AT A GLANCE

Source: IMF, data for 2023



**CAPITAL**  
Santiago

**HEAD OF STATE**  
Gabriel Boric

**GDP**  
US\$ 358.6 billion

**GDP GROWTH**  
-0.1%

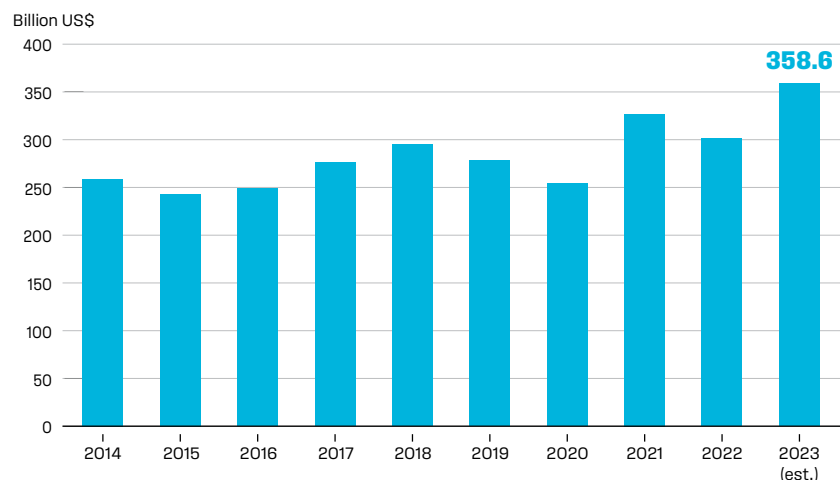
**TOTAL INVESTMENT (% OF GDP)**  
24.8%

**GROSS NATIONAL SAVINGS (% OF GDP)**  
20.7%

**CURRENT ACCOUNT BALANCE (% OF GDP)**  
-4.2%

GDP EVOLUTION IN US DOLLAR VALUE

Source: IMF



DEMOGRAPHIC DATA

Source: IMF, data for 2023

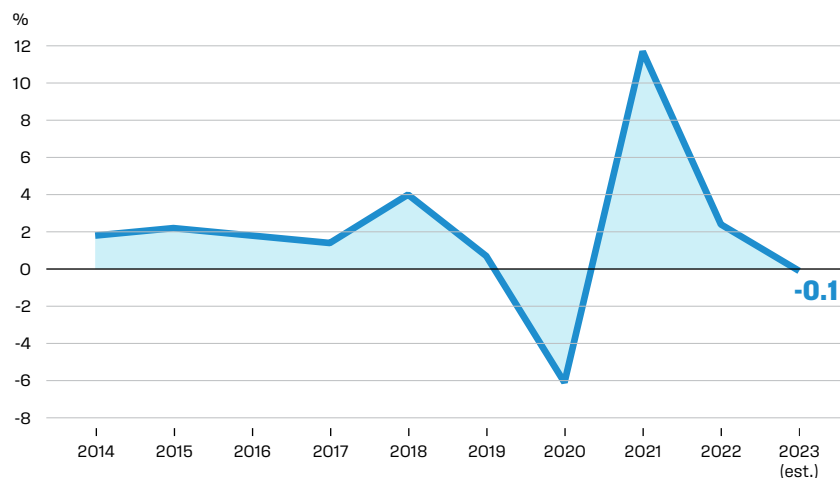
POPULATION  
**20.1 MILLION**

UNEMPLOYMENT RATE  
**8.3%**



GDP GROWTH

Source: IMF



CHEMICAL SECTOR\* GDP EVOLUTION

Source: ASIQUIM



\*Includes chemicals, petroleum, rubber and plastics

GDP PER CAPITA  
**US\$ 17,827**

GDP PER CAPITA (PPP)  
**US\$ 24,157**

INFLATION RATE  
**7.9%**



Juan Pablo Gazmuri

VICE PRESIDENT  
ASIQUIM (CHILEAN ASSOCIATION OF CHEMICAL INDUSTRY COMPANIES)



*The challenge is on the regulatory front. Chile has a long coastline, but sea conditions do not make it easy to build ports, and there is a lot of red tape to advance port projects. We need a master plan to develop green hydrogen.*



Could you introduce ASIQUIM?

ASIQUIM is a trade association with 67 years of history. We cover a wide spectrum within Chile's chemical industry, with 129 member companies that represent more than 90% of the sales of the country's chemical sector. These companies include producers, distributors, representatives, and service providers to the national chemical industry. One particularity is that all ASIQUIM members have the obligation to be Responsible Care certified, with the idea of raising the bar industry-wide. We work closely with the government in regulatory matters, and we are very active in education with Responsible Care programs. Over the last years, we have started to have a closer communication with the wider society to explain that the chemicals industry is a fundamental pillar, reaching all aspects of daily life like.

How do you read current industry dynamics?

In sales terms, the Chilean chemical industry experienced strong growth in 2022, to the point that the sector represented 14% of all Chilean exports – but that was mainly caused by high prices and the lithium segment. After the pandemic, which was good for local producers as imports became more difficult, we have seen extraordinary inflation, yet demand remained inelastic to high prices, because there was a lot of money in the system. This has already started to change in the current context of high interest rates, a situation that is expected to last.

Today, the prices of raw materials have decreased a lot, if compared to the last couple of years, however the prices of final products remain high. As the economic situation has slowed down, we expect to see an adjustment in the market. Products from both Asia and the Gulf of Mexico are becoming cheaper, because producers need to sell their stocks, but companies are not taking more risks than strictly needed.

Which segments are the winners and losers of this scenario?

The construction segment is the most affected by this slowdown, due to the direct impact of high interest rates on construction projects; whereas the lithium segment will remain strong regardless of the

economy, due to the energy transition.

Finally, green hydrogen presents an enormous opportunity for Chile – it has the potential to match the size of the mining industry by value over the next years, thanks to the availability of renewable energies in the country. The challenge is on the regulatory front. Chile has a very long coastline, but sea conditions do not make it easy to build ports, and there is a lot of red tape to advance port projects. We need a master plan to develop green hydrogen as a country.

How is the REP regulation changing dynamics for plastics recycling in Chile?

In Chile, both ASIQUIM and ASIPLA, as well as many companies and organizations, are part of the global Plastics Pact that originated in the UK. The Pact has strong objectives that go beyond the scope of the recently approved REP regulation. The REP law places responsibility on producers to recover the plastic they put into the market. Unfortunately, the authorities decided not to put additional incentives on recycling to accelerate change, which has acted as a great incentive to recycling in other countries.

Would you like to add a final message for other chemical industry leaders in Latin America?

Latin America is going through a moment of political instability, insecurity and uncertainty. After years of growth, the industry faces an uncertain outlook, with a possible slowdown. As ASIQUIM, we have experienced difficult times throughout our country's history, but we have always moved forward. Political cycles pass, organizations and companies remain, and they are the fundamental pillar of society. The chemical industry has always supported economic growth and innovation in the different countries' history. Let us not be discouraged in the face of temporary adversity and look at things with perspective.

The essence of business people and entrepreneurs is to be resilient, optimistic and determined. When things are bad we change them for good with our vision. We need to continue working and increase collaboration with governments and industry associations to share a long-term vision for the good of our society and the planet. ■



## Claudio Gorichon

CEO  
GRUPO RENO



*Grupo Reno has a very well-established position in Chile and Peru, and we want to further strengthen our position in Paraguay and then start building a footprint in Colombia.*



### **Please remind our audience of Grupo Reno's current footprint and capabilities?**

Founded in 1957 as a family business in Chile, Grupo Reno has grown into one of the largest distributors of solvents in the country, later expanding to Argentina, and six years ago, to Peru. This year, we opened a new operation in Paraguay, and we are also considering Colombia for next year. Within our territories, Grupo Reno has warehouses in Chile, Peru, and Argentina, with large capacities for both liquid and dry cargo.

### **Can you share more details about the new logistics centre in Santiago?**

This will have a capacity of 7,000 cubic meters, with 35 tanks ready for the storage of non-dangerous and dangerous goods. The new plant is very modern, meeting all international standards of safety and sustainability.

### **Please elaborate on your expansion plans in the region?**

Next year, we want to open a new operation in Colombia, while also doing ad-hoc work with various countries in Central America. Cultural, linguistic and geographical proximities, but also structural market gaps, especially in Colombia, create the perfect opportunity for us to tap into and replicate our tested model of operating in other countries in the region. Reflecting on our most recent international foray, Paraguay is a small market but full of opportunities in niche products. We expect the same in other countries we would like to serve.

### **How has your portfolio evolved recently?**

The only way to grow in today's contracted market is to increase product volumes and variety. We have around 140 products in stock in Chile, while in Peru, we have consistently augmented our participation with new products in new markets, from the paints industry to the personal care industry. We have a clear strategy of diversification within our business – instead of focusing on one market, we prefer to have a varied presence in many small markets. Currently, not one sector has more than 10% of our focus, so we are extremely balanced.

### **What is the investment mood in Chile today?**

Demand slowed down across all industries, and prices followed. The situation

is complex, but we have been able to maintain stable growth by developing new segments and managing bigger volumes. Politics impacts the economy here in Chile, and neither are particularly positive today; we don't see a change in the right direction anytime soon. In recent months, we had a few of our big customers closing production in the country. Because Chile is an open economy, some manufacturers prefer to import rather than produce locally, which is a big challenge to distributors.

### **Have you noticed a preference from your clients for sustainable or green solvents?**

In practice, no, we have not felt this preference, but I must say we do feel a general anxiety in the markets for products that have a cleaner or greener profile, and some clients are starting to favor those partners that can show a sustainability strategy. At Reno, we have taken a clear path toward sustainability. We are now in the third year of EcoVadis certification, with a bronze badge, from where we want to upgrade in the future. Grupo Reno has a team exclusively dedicated to environmental, social, and governance compliance at the highest international levels.

### **Grupo Reno has also assigned an area for the conservation of the natural environment. Could you comment on this?**

In the surroundings of the Viña del Mar, Reno has a protected area of about 25 hectares of Chilean palm trees, as part of our commitment to the environment. We wanted to be a part of the conservation efforts to protect this threatened species that can live up to 1,000 years and stand up to 30 meters tall. It was an important cause for us to play a part in protecting this indigenous species, and, with it, Chile's natural heritage.

### **What are your objectives for 2024?**

Grupo Reno has a very well-established position in Chile and Peru, and we want to further strengthen our position in Paraguay and then start building a footprint in Colombia. Other big focuses for next year will be to continue to improve the competitiveness of our products, as well as push forward with our sustainability agenda in the areas of biodiversity conservation and improved efficiencies. ■

# GBR

GLOBAL BUSINESS REPORTS

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## Business Intelligence.

CHEMICALS AND PETROCHEMICALS  
PHARMACEUTICALS  
MINING AND METALS  
OIL AND GAS  
POWER

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**PERU AT A GLANCE**  
Source: IMF, data for 2023

**CAPITAL**  
Lima

**HEAD OF STATE**  
Dina Boluarte

**GDP**  
US\$ 268.2 billion

**GDP GROWTH**  
2.4%

**TOTAL INVESTMENT (% OF GDP)**  
25.20%

**GROSS NATIONAL SAVINGS (% OF GDP)**  
23.03%

**CURRENT ACCOUNT BALANCE (% OF GDP)**  
-2.13%

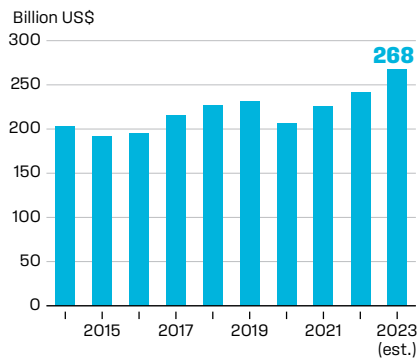
**DEMOGRAPHIC DATA**  
Source: IMF, data for 2023

**POPULATION**  
**34.5 MILLION**

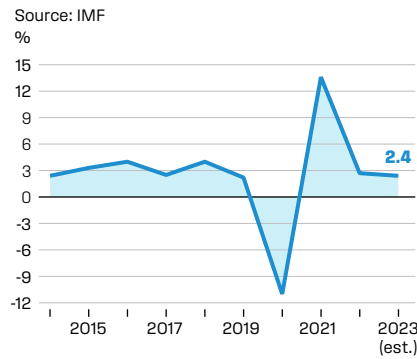
**UNEMPLOYMENT RATE**  
**7.5%**



**GDP EVOLUTION IN US DOLLAR VALUE**  
Source: IMF



**GDP GROWTH**  
Source: IMF



**GDP PER CAPITA**  
**US\$ 7,773**

**GDP PER CAPITA (PPP)**  
**US\$ 13,159**

**INFLATION RATE**  
**5.7%**

**BOLIVIA AT A GLANCE**  
Source: IMF, data for 2023

**CAPITAL**  
La Paz / Sucre

**HEAD OF STATE**  
Luis Arce

**GDP**  
US\$ 46 billion

**GDP GROWTH**  
1.8%

**TOTAL INVESTMENT (% OF GDP)**  
14.5%

**GROSS NATIONAL SAVINGS (% OF GDP)**  
6.2%

**CURRENT ACCOUNT BALANCE (% OF GDP)**  
-2.4%

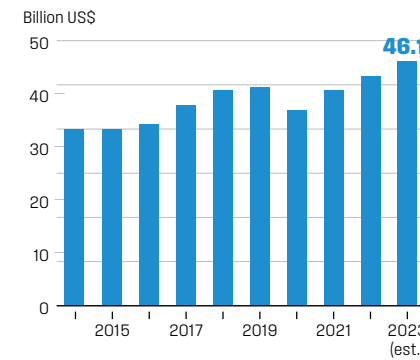
**DEMOGRAPHIC DATA**  
Source: IMF, data for 2023

**POPULATION**  
**12.1 MILLION**

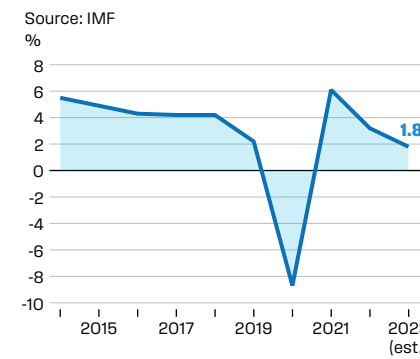
**UNEMPLOYMENT RATE**  
**4.9%**



**GDP EVOLUTION IN US DOLLAR VALUE**  
Source: IMF



**GDP GROWTH**  
Source: IMF



**GDP PER CAPITA**  
**US\$ 3,800**

**GDP PER CAPITA (PPP)**  
**US\$ 8,424**

**INFLATION RATE**  
**3.9%**

**ECUADOR AT A GLANCE**  
Source: IMF, data for 2023

**CAPITAL**  
Quito

**HEAD OF STATE**  
Daniel Noboa (President-elect)

**GDP**  
US\$ 121.3 billion

**GDP GROWTH**  
2.9%

**TOTAL INVESTMENT (% OF GDP)**  
22.9%

**GROSS NATIONAL SAVINGS (% OF GDP)**  
24.9%

**CURRENT ACCOUNT BALANCE (% OF GDP)**  
2.0%

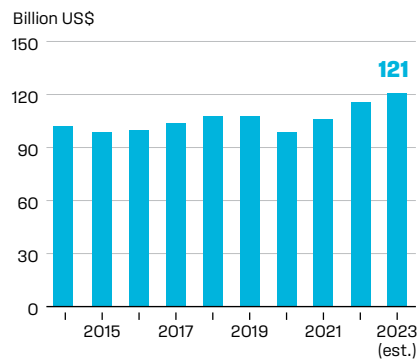
**DEMOGRAPHIC DATA**  
Source: IMF, data for 2023

**POPULATION**  
**18.3 MILLION**

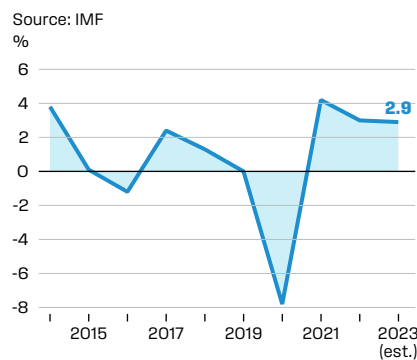
**UNEMPLOYMENT RATE**  
**3.6%**



**GDP EVOLUTION IN US DOLLAR VALUE**  
Source: IMF



**GDP GROWTH**  
Source: IMF



**GDP PER CAPITA**  
**US\$ 6,642**

**GDP PER CAPITA (PPP)**  
**US\$ 11,023**

**INFLATION RATE**  
**2.5%**

**VENEZUELA AT A GLANCE**  
Source: IMF, data for 2023

**CAPITAL**  
Caracas

**HEAD OF STATE**  
Nicolás Maduro

**GDP**  
US\$ 96.6 billion

**GDP GROWTH**  
5.0%

**TOTAL INVESTMENT (% OF GDP)**  
n/a

**GROSS NATIONAL SAVINGS (% OF GDP)**  
n/a

**CURRENT ACCOUNT BALANCE (% OF GDP)**  
5.0%

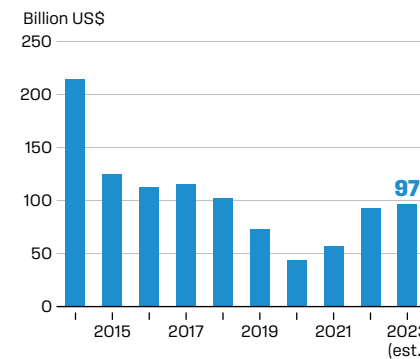
**DEMOGRAPHIC DATA**  
Source: IMF, data for 2023

**POPULATION**  
**26.5 MILLION**

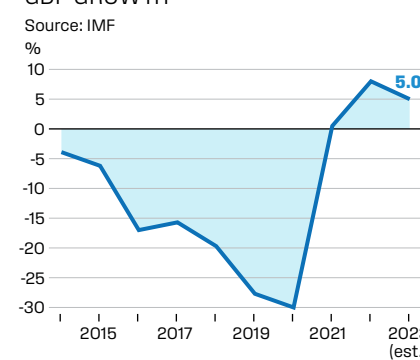
**UNEMPLOYMENT RATE**  
**n/a**



**GDP EVOLUTION IN US DOLLAR VALUE**  
Source: IMF



**GDP GROWTH**  
Source: IMF



**GDP PER CAPITA**  
**US\$ 3,641**

**GDP PER CAPITA (PPP)**  
**US\$ 6,548**

**INFLATION RATE**  
**400%**



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## EXTENDED VALUE CHAIN



**“The ultimate impact of the pandemic is still unknown; are the shifts from 'just-in-time to just-in-case' and 'globalization to regionalization' permanent? I think this will be determined by two main aspects: ESG and costs.”**

- Peter Staartjes,  
CEO,  
Andino Holdings

Image courtesy of Port of Açú

# Distribution and Trading

## LATAM, A DISTRIBUTION MARKET PAR EXCELLENCE

⇒ Distributors exist to add value to their suppliers and customers, by either solving problems or avoiding that problems appear in the first place. By this logic, the more problems there are, the more opportunities to add value. This is probably why, in the Latin American region, with its vast geographical span, incohesive regulations, currency constraints, logistical hurdles, and many other problems, the third-party chemical distribution market is so popular. Brazil is naturally the biggest chemical distribution market in the region, since the chemical industry is also the largest in the southern hemisphere, but the distribution model – or the share of chemical sales from through a distributor – is biggest in Argentina, arguably one of the most

problematic countries in the region. “In Argentina, distribution, as a percentage of what chemical companies sell, is twice the size of that in Mexico or Brazil. Here, large producers prefer to sell through distributors rather than going straight to customers who may not be able to pay them given the country’s economic turbulence,” explained Adrián Schwartz, president at Grupo Simpa, Argentina’s largest distributor in the plastics value chain, covering half of the distribution market and representing players like Dow for polyethylene, Petrocuayo for polypropylene, and Pampa Energia for polystyrene.

The region’s distribution market is mostly represented by commodities, according to a recent report by Verified Market

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Research, and supported by qualitative data from GBR’s conversations with leaders in the region. For example, Brenntag, the world’s largest distributor by sales, serves a larger share of basic chemicals. Brenntag underwent a company transformation between its specialty (Brenntag Specialties) and commodity (Brenntag Essentials) business in the last two years, separating the two entities.

Global players like Brenntag, Univar, Tricon Energy, Manuchar, Omya, or GTM Caldic mix with an abundance of local players like Anastacio or Pochteca, the sector displaying high levels of fragmentation, which matches the region’s deep idiosyncrasies. “The last mile is different in every place we operate,” commented Germán Torres, president at Brenntag Essentials Latin America, which operates in 17 out of the 21 countries in the region.

Cultural, economic, but also regulatory aspects paint a highly heterogenous region, split into many local clusters, that chemical producers find it difficult to access. Moreover, unlike the European Economic Area, or the newly created African Continental Free Trade Area, connecting the respective continents through a unison free trade agreement, the Latin American region does not have a pan-regional regulatory structure, even though there are various alliances that cover parts of the region, most notably the Mercosur (Southern Common Market) pact between Argentina, Brazil, Paraguay and Uruguay as principal signatories. “Latin America does not compare to a place like Europe, where you can cross borders unhindered,” emphasized Torres.

Gaps in intra-regional trade have created opportunities for smaller players. Reuse Trading, a Belgian trader in industrial chemicals and oleochemicals that had built a presence in the African markets, has recently expanded to Latin America, starting with smaller countries like the Dominican Republic, and quickly working its way through to Brazil, Colombia, and Peru. For those wondering what a Belgian trader with expertise in Africa is doing selling products from Colombia to Peru, Tomas Steppe, managing director, explained that there were surprising gaps in the trade between countries in the region: “Sometimes, it can be easier to import lower-cost chemicals from China, India, or Europe. But I strongly believe that neighboring countries can develop better if they trade with each other. For example, there are 54 different countries in Africa, but once you cross the border from one to another, you will find many similarities and common ground, including complementary business interests. Reuse Trading seeks to facilitate that in Latam too,” he said.

Well-acclimatized to tougher markets from payment issues, to safety, thanks to its experience in Africa, Reuse Trading found the venture to Latam much easier, though Steppe was quick to note the convoluted tariffs between different Latam countries.

The other feature that marks the distribution model apart in Latam is that it favors a higher control of the value chain. Adding a step (or more) in the value chain, be this through the classic logistics or packaging or through more specialized services like blending or micronization, goes a long way

in the region. “Whereas in developed markets, one can outsource much of the supply chain to specialist companies, this is not the case for most emerging countries,” argued Philippe Huybrechs, the CEO of Antwerp-headquartered Manuchar, a global distributor.

Instead of focusing on the southeast of the country (where the state of São Paulo is located) like other distributors, Manuchar tackled the under-served north and south of the country, investing in its own assets to better control the supply chain and lower its total cost per metric ton. Today, Latin America represents 50% of Manuchar’s revenues.



*Our role as distributors is to continue delivering safe and reliable supply to meet demand. Doing this day after day is not as easy as it sounds.*

Jorge Buckup,  
President Latin America, Univar Solutions



One company that has taken vertical integration to the next level is Andino Holdings, a player that has grown tremendously since it was formed almost a decade ago, developing four integrated pillars: procurement, shipping, storage, and last-mile delivery. This has allowed Andino to capitalize on the opportunities created across the different segments of the value chain in the timeliest manner, whether it was by importing high volumes of ethanol for sanitizers from the US into Mexico during the pandemic, or establishing a foothold in containerized product sourcing from Europe, US, and Latam when freight rates from Asia went through the roof. The market certainly appreciates the risk-mitigation in the end-to-end offer, said Peter Staartjes, the CEO of Andino Holdings: “Our customers like the fact that we can manage procurement from either of our offices in Houston and The Hague, that we have reliable and on-time ship deliveries with competitive freight rates and that we can move their products through our own facilities for subsequent packaging and delivery via our regional Andikems. They need only to contact one person to manage their product procurement or distribution needs, regardless of origin or destination.”

The pandemic provided plenty of challenges to the distribution sector, but also opportunities to stand out and come closer to their customers. Química Anastacio, a Brazilian-based distributor with a presence in 18 individually managed market segments, took advantage of the purchasing opportunities during the pandemic at a time when the market was shut down and few were buying. The risk was high, but it paid off, allowing Anastacio to supply customers with affordable product. Now, the distributor is again standing up for its customers, offering credit solutions in a cash-tight market.

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## Germán Torres

PRESIDENT  
BRENNTAG ESSENTIALS LATIN  
AMERICA



### What have been the latest developments and milestones at Brenntag in Latin America?

Brenntag has consolidated its position in our two largest geographies in the region, Brazil and Mexico, improving significantly on our operational efficiencies. In Mexico, we captured a larger market share in sectors where we had a small reach, not least thanks to nearshoring. Mexico, as a direct neighbour to the US, but also Colombia and some of the smaller countries in Central America, are poised to benefit most from nearshoring, and we are keen to service those growing industries. Then, if Brazil can stabilize its macroeconomic indicators and demand, we should see a continued rise of the middle-class as well as higher living standards, associated with more consumption, trends which provide a growth outlook.

### How is the company's global "Strategy to Win" program driven in Latam?

In the first phase, Brenntag divided into two business divisions, Essentials and Specialties, each following different growth models and targets. The second phase has been announced under the tagline "Strategy to Win" and has the goal of further independence of the two divisions. Latin America is, by definition, a distribution market. Across the 17 countries, there are markets for both specialties and commodities, with mature economies like Brazil and Mexico providing opportunities across the portfolios; however, I would say that the critical mass in the region is in the Essentials business.

### How is the decline in commodity prices reflecting on the distribution sector?

After two years with strong revenue figures and record results at Brenntag, we expected the market to correct itself, though we did think it would be a softer return-to-normal; however, it turned out extremely challenging in the first part of the year, not only in Latam but everywhere in the world. We have also seen some areas of the world with high production rates and weak local demand perceiving Latin America as an opportunistic drop market, sending products to the region with predatory prices.

In general, the distribution sector has battled high inventories and low prices, larger companies being at an advantage over smaller players. At Brenntag, we are taking this moment to optimize our operations and continue building our resilience.

### What market segments present the most growth opportunities?

The energy sector in Latin America, including both mining and oil and gas, present a great opportunity for our Energy Services. Also, consolidations in the agrobusiness, where we have a sizeable footprint, continue to drive healthy demand. The personal care market has been very dynamic in recent years, having gone through various consumer trend adaptations. Finally, at Brenntag, we also see an opportunity in offering value-added services like blending, product development, packaging and logistics, making the best use of our capabilities and set-up in the region to support customers with additional steps in the value chain.

### How is Brenntag balancing cost management with growth in the current market?

These two imperatives – to control costs and grow – cannot easily coexist in the current environment. To grow, one needs to invest. Cost management in Latin America is particularly difficult due to high inflation and volatility, subjecting distributors to bigger costs when importing products. The key to solve this equation is efficiency and productivity, not only in terms of sales, but general operations too.

### How do you navigate the high level of market fragmentation in countries as large and complex as Brazil?

Indeed, chemical distribution in Latin America does not compare to a place like Europe, where you can cross borders unhindered. The last mile is different in every place we operate. We are leveraging our knowledge, particularly the knowledge of our local staff, to optimize that last-mile delivery to the specifics of each place. The know-how acquired in the past seven decades in addition to our strategic geographic presence and global sourcing is the biggest strength we have in this fragmented environment.

### Do you have a final message for our international audience and APLA members?

Latin America has its risks, but if you know how to calculate and navigate them and you put resources in the right places, Latin America is a place where one can grow faster. Brenntag Essentials Latin America has the capabilities, market presence and talent to execute on what the market needs as well as to accommodate to the market dynamics in the region. ■



*Latin America has its risks, but if you know how to calculate and navigate them and you put resources in the right places, Latin America is a place where one can grow faster.*



## Jorge Buckup

PRESIDENT LATIN AMERICA  
UNIVAR SOLUTIONS



### Could you give us an overview of Univar Solutions' recent performance and investments?

Last year was a record year for the industry, and Univar Solutions was no exception. While this year has shown its challenges, our mindset has not changed. We have never ceased investing in training our employees and upgrading our facilities across several sites in the region, adding more capacity and modernizing technology for better performance and safety. Univar Solutions has also invested in existing and new labs—our "Solution Centers," including inaugurating a new Mexico City pharmaceuticals lab.

### Could you briefly comment on the recent acquisition of Univar Solutions by Apollo Funds?

As of August 2023, Univar Solutions is no longer a public company (NYSE), after completing its transaction with US private equity, Apollo Funds. Apollo provides us with more flexibility to explore and pursue new growth opportunities to enhance our product offering and regional presence.

### Univar Solutions recently completed two acquisitions in Brazil and Central America. Could you elaborate on these?

M&A is a core component of our growth strategy in the region. At the beginning of 2023, Univar Solutions acquired ingredients and specialty chemicals distributor ChemSol, expanding our position in Costa Rica, Guatemala, El Salvador, Panama, and Honduras. ChemSol comes a year after another important acquisition in the region, Sweetmix, a Brazilian distributor of food ingredients and CASE products. These acquisitions demonstrate how Latin America remains a key destination for investments globally. Our most recent acquisitions have been geared toward the specialty space, but this does not mean we are not looking at the commodities space as well.

### Which sectors are showing greater resilience in 2023?

Essential markets have shown resilience during different economic cycles, among which the beauty and personal care, food ingredients, pharmaceutical ingredients, and energy stand out, just to name a few. In Latam, we had recent supplier agreements with Leprino Foods in Brazil and Mexico, with SI Group for active pharmaceutical

ingredients in Brazil, and with Croda for sun care filter ingredients for the Brazilian personal care market. Many other partnerships are in the pipeline. Thanks to our diverse portfolio and broad supplier network, we have been able to navigate volatile market conditions, offsetting the decline in certain segments with growth in others.

### The distribution model remains very popular in Latin America, much more than in other places around the world. What is the unique value that a player like Univar Solutions can bring to the region?

Latin America is huge. Individual countries like Brazil, Mexico, or Argentina are vast on their own, so having a local commercial, technical and supply chain team on the ground to cover the entire country is physically difficult and not always feasible or recommendable. This is why distributors can bring so much value into this market, allowing suppliers to focus on manufacturing and R&D. Revisiting and sharpening our business model, Univar Solutions has differentiated itself over the past few years by becoming a full-line provider of specialty and commodity chemicals, along with value-added services (like technical supply chain or sustainable solutions). Our role as distributors is to continue delivering safe and reliable supply to meet demand. To do this successfully and consistently, we have adapted the latest digital technologies to innovate, streamline and grow our customers' suppliers; we have expanded our sustainable and natural solutions; and we have helped our suppliers become more successful in the marketplace while connecting customers to chemicals and ingredients that are vital for daily life.

### How does Univar Solutions add value from a sustainability perspective?

We have a dedicated global team that works with our suppliers to define the best sustainable offerings. With that, we launched a new global Sustainable and Natural Product framework to filter products by six sustainability characteristics and then provide our customers with the data and ingredients they need to formulate products more sustainably. Our Solution Centers are plugged into this global setup, bringing the knowledge to our customers in Latin America. This global-to-local structure gives us the pathway to introduce new sustainable solutions faster and make a real impact. ■



*Our most recent acquisitions have been geared toward the specialty space, but this does not mean we are not looking at the commodities space as well.*



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Though the pandemic is in the rear-view mirror, the down-cycle in the commodity markets is again challenging chemical producers. This transpires to the distribution sector; here, players have the double challenge of managing both their own dipping margins, as well as showing up for their customers. After all, the role of the distributor is to deal with its customers' problems. But they cannot lose track of their own.

#### Between costs and growth imperatives

In the middle of suppliers and buyers, distributors, and, to a lesser extent, traders, tend to mirror the dynamics pertaining to these two markets. This "when you jump, I jump" relationship has meant that distributors have followed the opportunities provided by Brazil's scale, Mexico's nearshoring, or Central America's niche markets. Recently, it has also meant that when producers fall and commodity prices shrink to 20-year lows, distributors are left with expensive stock, which they are forced to get rid of at lower prices. To make up for lower profits, they need bigger volumes. But to grow, one needs to invest. The current environment pits sound cost prudence against the sector's instinctive growth drive.

Both chemical companies and their distribution partners concede that 2022 was a great year, with many companies recording record performance at the culmination of a pandemic-influenced super-cycle. All good things coming to an end, and the industry and its extended value chain broadly accepted that a correction is to follow. "After two stellar years at Brenntag, we expected the market to correct itself, though we thought it would be a softer return-to-normal. It turned out extremely difficult in the first part of the year," said Germán Torres, president, at Brenntag Essentials Latin America.

Distributors find themselves trapped between large inventories and languid off-takers. In this context, they have to strike a delicate balance between having enough and not too much stock, like Mark Phillips, chief operating officer at Tulstar, said. Tulstar is an Oklahoma-based distributor of transformer oils for the power industry, as well as base and processed oils, refrigerant gases, propellants, personal care chemicals and plastics additives.

On the other hand, traders have a better chance to react faster, and have been generally less affected by the decline in prices. Reuse Trading expects to double its Latam business this year, registering bigger volumes, albeit at lower margins. Brazilian trading company Anastacio Overseas has increased its volumes by 35% in the first half of 2023, compared to H1 2022. Meanwhile, its distributor sister, Química Anastacio, has managed a 15% increase in volumes compared to last year, though revenues are lower.

To increase volumes (and therefore to capture a bigger share of the market), distributors must continue investing – this is the philosophy adopted by most players in the market. How they spend, however, differs broadly. One direction has been to take further floor of the region. The distribution model is, by virtue of its nature, an expandable business at lower capex compared to producers, which has allowed distributors originating from

different parts of Latam to grow territorially and replicate the successes achieved in one market into the next.

To offset a low investment mood in its native Chile, Grupo Reno, one of the largest distributors of solvents in Chile, has progressively expanded to Argentina and Peru, and this year it has opened new operations in Paraguay. Next year, it plans to expand to Colombia. "In recent months, we had a few of our big customers closing production in the country. Because Chile is an open economy, some manufacturers prefer to import rather than produce locally, which is a big challenge to distributors. The situation is complex, but we have been able to maintain a stable growth by developing new segments and managing bigger volumes," commented Claudio Gorichon CEO at Grupo Reno.

While some focused on opening platforms in new countries, others looked at improving their operational efficiencies, leveraging previous investments, or adding more higher-value products to their portfolios. The boldest are also actively on the hunt for acquisitions. Manuchar, for example, recently acquired two companies in Brazil, Plury Química and Comoquímica, growing its footprint in specialty chemicals and ingredients for the human nutrition market. The company won't stop there, and its executives hinted we can expect more acquisitions in the future. Univar also completed two acquisitions in the region, most recently of specialty chemicals distributor ChemSol, with a presence in Costa Rica, Guatemala, El Salvador, Panama, and Honduras. Last year, Univar also consolidated its presence in Brazil after acquiring Sweetmix, a Brazilian distributor of food ingredients and CASE products.

After organically expanding in Argentina and Mexico, Química Anastacio has also been rumored to be looking for an acquisition opportunity in 2024, which would be the first in the company's history. Even for a privately-owned, completely debt-free company like Anastacio, an acquisition is an appealing option to jump-start/ skip the usually longer trajectories of growth that organic expansion grants. CEO Jan Krueder confirmed the rumors: "We are indeed considering a potential acquisition in 2024 that would speed up and simplify our expansion on the Pacific side. Buying an SME with an established presence, with an up-and-running team, existent customer base, consolidated tax system, etc. would be an interesting drive forward, so we are open to the potential."

Valued at US\$22 billion in 2021 and projected to reach US\$34 billion by 2030 according to Verified Market Research, the Latam chemical distribution sector remains on the right track for continued growth, though the difficult market will filter out the less competitive players. What strategies will pay off the most, it remains to be seen. But larger players, with a bigger grip of different markets, seem to be better positioned against market turbulence. On the other hand, agility, which tends to come in smaller packages, is prized above all else in a challenging market like this. The risks are there, but, as Germán Torres of Brenntag said: "if you know how to calculate and navigate the risks, if you put resources in the right places, Latin America is a place where one can grow faster than in most others in the world." ■



#### How has Química Anastacio performed in the last year?

In 2022, we experienced rampant growth of 20%, well-distributed across all our 18 market segments, which we manage separately. Since last year, we launched 250 new products, continuing to strengthen our position in all markets, and with the strategic view to grow our share of specialties and counterbalance lower commodity prices. So far, we have had a 15% volume increase in sales compared to the same period last year, but our revenues are lower due to the drop in prices. At the macro level, inflation in Brazil has come under control, but interest rates remain obstinately high, dampening the investment mood. On top of this, investors are more conservative during election periods, which has led to a slower-than-expected first half in the Brazilian economy. Nevertheless, we see improvement.

#### How does your growth strategy look like in the coming years, noting rumours about a potential acquisition, which would be a first in the company's history?

Química Anastacio will never cease to be a 100% owner company, keeping about 90% of the profits within the organization and relying on this capital for our growth. This year, we brought our debt to zero, our financial position being stronger than ever. Anastacio has recently expanded in new markets like Argentina or Mexico purely organically and with great success, but we are indeed considering a potential acquisition in 2024 that would speed up and simplify our expansion on the Pacific side.

#### And what countries do you prioritize for future growth?

Anastacio has an extensive supply network, buying from 62 countries, which has always given us great flexibility. Sales-wise, Brazil has naturally always been our number one country and our HQ, but we currently also have a very big focus on growing in Mexico, where we established our newest distribution centre. Argentina is challenging now, so we keep our business running, maintaining our position and what we have, as we wait for the outcome of the elections.

#### What are the main developments at Anastacio Overseas, the trading sister of Química Anastacio?

Anastacio Overseas is now the number one chemical trading company in Brazil, excluding gasoline and plastics. The business has increased its volume by 35% in the first half of 2023 versus the same time last year. Anastacio Overseas opened a new office in Peru, less than a year after opening two new offices in Africa; one in Johannesburg and one in Lagos. The trading business is running completely independently from distribution, trading itself being a completely different ball game. One might say, by virtue of its different nature, trading suffered less than distribution over the past 12 months. When commodity prices fall so strongly, distributors are left with expensive stock that they must get rid of, selling at lower margins, and buying cheaper ones, but traders can be a lot faster. As a back-to-back, business, distributors will meet with the same price dynamic at both ends (prices are low or high at both purchasing and selling points); this does not hold true for traders. Anastacio Overseas continues to hire new professional traders and expand in new segments.

#### Could you share with our audience Química Anastacio's ESG strategy?

At Química Anastacio, we are fully committed to the three pillars of ESG and we have aligned ourselves with the UN 2030 agenda. So far, we contracted a consulting company to help us devise the best strategies to reduce and offset emissions. On the social side, we are running 10 projects, the most important being the program in partnership with Instituto Alicerce where we are funding education for 100 teenagers. To maximize our impact, we are asking our suppliers to join the project. Education is what Brazil needs most, and this is why the "S" leg of our ESG will be education. There are many opportunities to help at low investment and with immense impact.

#### Do you have a final message?

We want to be a most complete and efficient platform, and we work every day to become even more so and to make this platform ever more complete and more efficient so that when our customers plug into it, they become the best themselves. ■



## Jan Krueder

CEO  
QUÍMICA ANASTACIO



*Anastacio has recently expanded in new markets like Argentina or Mexico purely organically and with great success, but we are indeed considering a potential acquisition in 2024 that would speed up and simplify our expansion on the Pacific side.*







## Carlos Henrique Lemos Dantas

CEO  
POCHTECA COREMAL BRAZIL



### Please provide an overview of Pochteca Coremal's expertise and capabilities in Brazil?

Pochteca Coremal has extensive coverage in Brazil, serving more than 4,000 customers through branches in Recife, Fortaleza, Salvador, Sao Paulo, Santa Catarina and Porto Alegre. We provide customers in more than 40 industrial segments with technical support, blending and special packaging services as well as on time deliveries with our own transportation fleet. Brazil is Pochteca's second largest operation and is strategically important for us because it is the largest chemical distribution market in Latin America and growing at higher than average GDP rates.

### What has been Coremal's experience since joining Pochteca in 2013?

Coremal, which was founded in 1952 in Recife, had been growing steadily for many years. In the early 2000's we got to know Pochteca's leadership team quite well. Besides becoming friends, we identified significant potential synergies and common values between our companies, even though Coremal was family run and Pochteca was already a public company. Our experience has been very positive, complementing our product, supplier, and customer portfolio, as well as generating synergies in IT, sourcing, HR and commercial processes.

### How has the integration of Ixom's Latam Division bolstered Pochteca's footprint in Latin America?

With Ixom Latam's incorporation to Pochteca we increased our footprint to 10 countries in Latin America. Brazil's proximity to Chile and Argentina has presented our company with growth opportunities and synergies in sourcing and commercial initiatives. Coremal's long term relationships with key Brazilian suppliers are resulting in distribution opportunities in the other South American countries where Pochteca is now present. We are also exchanging and replicating best practices and business units between the various countries and developing a unique and exciting Latin American culture in the group.

### What are the main sectors that Pochteca serves in Brazil?

Coremal Pochteca's traditional segments in Brazil were paints and coatings, home and personal care (HPC), oil & gas, chemicals and petrochemicals, textiles and lubricants. Since incorporating to Pochteca in 2013,

we started introducing other business units such as food and inorganic chemicals. Since Ixom Latam's incorporation we are growing in mining, construction, coolants and water treatment specialties. We have also recently started a new division dedicated to base oils and agricultural products.

The segments that continue to perform well in today's market are HPC, food, agriculture and specialties.

### What are the main trends shaping the distribution market in the region? What opportunities could the 'friendshoring' trend bring for distributors in Brazil?

Consolidation, regionalization, digitalization, sustainability, value added distribution capabilities and need for economies of scale are shaping Brazil's distribution business. Complex tax and labour legislation, together with Brazil's large geographic span make the distribution space a very special one. Pochteca's world class standards of operation together with the understanding of local idiosyncrasies have positioned our company well to deal with a complex environment and thrive despite local challenges. Even though Brazil is relatively far from North America, the "friendshoring" trend is offering significant opportunities for our export segments in agriculture, chemicals and manufactured goods, which represents an interesting growth opportunity for Pochteca Coremal. We are PRODIR (equivalent to Responsible Distribution) certified and represent world class suppliers, which is important for global companies that manufacture part or all of their products in Brazil. When selecting a distributor in the country, Pochteca's digital transformation strategy and sustainable practices including clean energy generation with solar panels on our rooftops and green chemistry initiatives in all of our divisions, position our company in a great spot to take advantage of current trends.

### Brazil received a 10-year record FDI in 2022. What is your outlook for the chemical sector in the country?

Brazil is among the top oil producers in the world with an even larger potential as the new oilfields start production. This, together with existing chemical and petrochemical plants and downstream specialty producers, makes me feel optimistic about our chemical sector for the next five to 10 years (and beyond). A growing middle class and regional development provides important growth opportunities. ■



*Complex tax and labour legislation, together with Brazil's large geographic span make the distribution space a very special one when compared to other markets.*



## Philippe Huybrechs, Stefan Van Loock & Stephan Van den Eynde



PH



SVL



SVE

PH: CEO  
SVL: REGION MANAGER CHEMICALS SOUTH AMERICA  
SVE: HEAD OF M&A AND CORPORATE DEVELOPMENT  
MANUCHAR



*Manuchar is actively looking for M&A opportunities from Mexico and Central America where we see great potential related to nearshoring, over to the Andean region.*



### With the 30th anniversary of Manuchar Brazil, can you walk us through the beginnings of the company and why Brazil is such an important country?

PH: Manuchar was established in 1985 by a company called Maas & Co, with a history dating back to 1880, so our roots are almost 150 years old. The Maas Group had strong ties in Brazil, and the creation of Manuchar coincided with the beginning of Brazil's democracy and the liberalization of imports, which culminated in 1992. Founded in 1993, Manuchar Brazil was our first affiliate company, even though we had already worked extensively in Latin America. While most other players focused on the southeast of Brazil, gravitating around the Port of Santos, we saw a bigger opportunity in the north and the south.

### Manuchar has a presence in 40 countries today - could you elaborate on your footprint and key markets in Latam?

SVL: Manuchar is present in almost every country in the region, from Mexico and the Caribbean, down to Chile and Argentina. Together, the Latam region is responsible for more than 50% of our total invoicing, and this is the continent where we have historically had the longest presence. We participate in different segments, the most prominent being home care, fabric care, human and animal nutrition, personal care and pharma, mining and energy, pulp and paper, as well as crop nutrition. Of course, our presence is country specific. We serve both multinationals and local customers.

### What are the most interesting market segments from a short and long-term demand perspective?

SVL: As consumer purchasing power decreased due to higher interest rates, demand has softened and, in some cases,

dropped. Yet, growth opportunities always exist - for example in the lithium industry in Argentina and Chile. In the short to medium term, we are looking at a mixed bag.

PH: Brazil is one of the largest fabric care (powder and liquid detergent) markets in the world, as well as one of the largest markets for crop nutrition. Manuchar has been very successful in the supply of water-soluble fertilizers, as the industry shifts away from the traditional granular ones. The pulp and paper industry is also one of the largest by export volumes, while the food ingredients and personal care markets are again huge, with massive investments from MNCs and a range of big domestic players. Mining also makes the cut as one of the prominent industries in the context of electrification and greater demand for battery metals.

### How do you react to the current market conditions?

PH: If during the pandemic the market was fully preoccupied with ensuring our products get to the customer on time, now customers are laser-focused on costs. Supply chains have eased, and product abounds because most people do not take stocks today, which means we might see shortages building up again in a few months. Working in emerging markets, it is imperative to adapt immediately. Without this agility, you are at the mercy of the market.

### Following your two recent acquisitions in Brazil (Plury Quimica and Cosmoquimica/Cosmolog), could you comment on your M&A strategy?

SVE: On the one hand, we are seeking opportunities to strengthen or defend our current market positioning, as we have done in the recent acquisitions in Brazil. On the other hand, there are many areas where Manuchar is not yet active, be it regionally, like the US and Europe, but also sector-wise. Plury Quimica, for instance, allowed us to gain further expertise in the human nutrition segment, as well as consolidating our coverage in the north of Brazil.

### Could you share more details about the ManuCare project?

PH: Essentially, this is our social responsibility program focused on improving the lives of the communities around our operations, particularly in the areas of education, whether it is sponsoring scholarships for youth or investing in a local school. Yearly, our team in every country proposes a ManuCare project. ■

# Mark Phillips

CHIEF OPERATING OFFICER  
TULSTAR



➔ **How is Tulstar differentiating itself?**  
Tulstar offers transformer oil for the power industry, as well as base and processed oils, and any kind of lubricant and hydraulic motor oils. We also have some synthetic products. On the chemical side, we have several niches in refrigerant gases for HVAC (Heating, Ventilation, and Air Conditioning), propellants, chemicals for personal care applications, as well as some plastics additives. We add value to our customers through logistics, packaging, and micronizing services. For instance, we buy in bulk and then package into drums or totes, while for refrigerant gases, we repackage in different types of cylinders for the HVAC or personal care markets. Micronization is used to change the particle size of plastics or various food-grade ingredients used in the cosmetics industry. What has also helped us differentiate in the market is our credit service. We have partnerships with international credit issuers and we can offer different mechanisms to help buyers – this can be a 50% down payment followed by a net 30% or 45% on the balance, as an example. These financial tools have been an important differentiator in Latam Countries where cash can be a problem.

**What makes the distribution model valuable in today's environment?**  
Distributorship has different seasons: There are eras when everyone wants to go direct and not through a distributor, before realizing how complicated that can be. When frustration grows high enough, manufacturers go back to distributors. Post-pandemic, it has proven much more beneficial to have the additional arm of distribution, because we have safety stock on hand, we can move quickly if there is a crisis, and we have the transparency tools in case of delays. While manufacturers focus on production, as distributors, we have the freedom to focus on the service. ■

# Tomas Steppe

MANAGING DIRECTOR  
REUSE TRADING



➔ **What are the main product classes you trade?**  
Our portfolio is equally split between industrial chemicals and oleochemicals. About 80% of our industrial chemicals go into the detergents and cosmetics industry and a smaller volume into other industries like the solvent, paint, food, mining, and water treatment industry. Meanwhile, on the oleochemical side, we operate a lot on the intra-African trade. One of our strongest differentiators is our oleo portfolio with recurring contracts with many palm oil plantations and refineries, offering crude palm oil and a wide range of its derivatives.

**How have you found that jump from Africa and Latin America?**  
We have encountered fierce competition in Latin America, although the markets exhibit greater openness. Over the past years we have developed a good intra-Africa trade, and I believe we have the chance to do that as well in Latin America. The ultimate goal is to increase connection between the two continents we know best.

**How is Reuse Trading managing the decline in commodity prices this year?**  
As a back-to-back trader, we have the safety net when prices drop, but since we also take positions and anticipate our absolute margins have naturally been affected by these market fluctuations. That said, our volumes have been growing, and we have not been much harmed by the current price conditions. We intend to invest more of our energy in Latin America and essentially double our business this year. Reuse Trading started in the Dominican Republic and Central America, but we are gradually growing in Brazil, Colombia, and Peru.

**Do you have a final message for APLA members?**  
Reuse Trading is a very young and dynamic company. We have a team of 30 people, most of whom are in their 20s and 30s, so they are all incredibly hungry to learn and grow together with the business. As the new kid on the block in Latam, we really want to make a difference. ■

# Logistics

TRADITIONAL BUSINESS COOLS OFF,  
BIO-FEEDSTOCK BUSINESS HEATS UP

➔ As we wrap up this report, a deep dive into the logistics sector fittingly allows us to look at most of the mega-themes discussed throughout this book from a very practical lens: The availability of logistics determines the feasibility of investments (like those driven by nearshoring); the performance of the logistics sector tells where the region is at, for instance when we look at the critical chemical trade balance, negative in all countries; and the future investments planned by logistics providers, such as in new capacity for biofuels, is a good indicator of where the region, and its chemical industry, is heading to.

First things first, logistics costs are said to have dropped by about 40% compared to last year. This is a bitter-sweet figure for the chemical industry because, although it pays less for freight, for example, it cannot reap higher profits due to the low levels of demand. "2023 is the exact opposite of 2022,"

said Murilo Costa, commercial manager for Latin America at Hoyer Global, a provider of ISO and flexi tanks for the chemical industry. "Last year, demand surpassed supply, shipping and trucking capacity became extremely scarce. This year, products can be moved easily and cheaply from A to B, but there are just not enough contracts being closed," he said.

In 2023, both chemical suppliers and manufacturers in various end industries are sitting on high inventories and looking to destock. This has led to lower demand for the transportation of chemical goods, both imports and exports slowing down, as ISO operators were quick to notice. However, a bearish consumption market has pushed up the demand for storage, benefitting terminal and warehouse operators offering storage services. For example, Vopak, the world's largest tank storage company, saw a 14% increase in EBITDA in the first half of the year compared to the same time last year, and occupancy rates at 91%. Andino Holdings, which also offers storage through its Andinterinals business, also noted high occupancy and little available tank space in the industry.

Quoting the Spanish saying "A río revuelto, ganancia de pescadores," literally translated as "Troubled waters, fisherman's gain," Andino's CEO, Peter Staartjes, indicated that there are opportunities even during difficult times. "The fish we catch during these periods are often very important to our growth," he added. One of these "fish" that the current times brings closer

to the surface is in bio-based feedstocks, which Andino, Vopak, Hoyer, as well as other logistics players are capitalizing on. While the traditional markets like oil and chemicals see lower volumes, demand for animal fats, ethanol, used cooking oil, soy oils, and also hydrogen and ammonia, is on the rise. Even local policies indirectly favor bio-stuff, while restricting the traditional petroleum-based imports: "The Brazilian government has put barriers on the importation of fuels by keeping Petrobras prices below international prices; this has made it difficult for independent traders to import diesel and gasoline, even as Petrobras runs shortages," said Marcelo Schmitt, general manager for Brazil at Stolthaven Terminals, one of the leading terminal operators in the world, and with a presence at the Alemoa Terminal, Port of Santos.

At the same time as making imports more difficult, government tenders for biodiesel production in Brazil continue to ask for higher purities, stimulating the production of by-products or sub-products like glycerin and fatty acids, used in cosmetics and foods, informed Murilo Costa, representing Hoyer in Brazil. For that reason, biodiesels became a hotspot for the ISO and flexi tank provider. Its peers are taking a similar approach, prioritizing growth in biodiesels and bio-based feedstocks. But to be able to capture these emerging opportunities, they need to reconfigure their infrastructure.

Vopak, for example, has allocated a global capex of US\$1 billion in new energies and sustainable feedstocks by 2030. In Brazil, specifically, it has commissioned multiple expansions at its Alemoa Terminal, where it stores fuels, ethanol, chemicals, base oils, but also vegetable oils and renewable feedstocks. By 2024, Vopak will operate a capacity of 300,000 cubic meters. The player also holds a dominant share of 80% in heated capacity at Alemoa, which allows it to handle bio-based feedstocks.

Also operating the Alemoa Terminal in the Port of Santos, Stolthaven Terminals is investing in two new piers at the Port, as well as exploring opportunities in feedstocks for biodiesel production. "To compensate for import challenges, we occupied our tanks for exports, particularly of soy oil, ethanol, and animal fats. We are increasing our heating capac-

ity at the terminal since such products require 47 centigrade and higher. New boilers, new heated tanks, new insulation of pipelines and new energy savings are required to boost our capability to store and handle heated products," said Marcelo Schmitt, the general manager of Stolthaven Terminals in the country.

Brazilian ports are similarly running big projects to accommodate for the low-carbon fuels, notably at the Pecém Port, which is planning the creation of a hydrogen corridor between Brazil and the Netherlands (Port of Rotterdam). With the feed located in Latin America, major biorefineries being built across the world (with the largest most recently announced to be based in Panama - Biorefineria Ciudad Dorada, 180,000 bdp), and the US as the fastest growing end-market, demand for the transportation of green feedstocks is set to increase in the coming years, with a spotlight on origin markets like Brazil. Some companies are already moving used cooking oil from Brazil to Rotterdam or Houston, to be converted into sustainable aviation fuel. Air carriers might be using Brazil's converted (waste) cooking oil on its next flight, although it is only a small percentage of its total fuel mix.

» **There is a strong paradigm shift in the industry, as we cannot simply talk about the cost of a container transport without talking about the CO2 associated. Our customers are increasingly asking us about our sustainability strategy.**

Hector Midolo,  
CEO, Bolloré Latin America

#### One player, one region

Besides shifting their focus on transporting and storing cleaner products, logistics players, from freight forwarders to port operators, have also mitigated the global slowdown in demand by focusing more narrowly on intra-regional exchanges. Both Hoyer and Newport Tank Containers noted a higher export propensity, especially in Argentina, with a very active Argentina-Brazil route, but also new lanes between Brazil and Mexico. To serve the entire region, players must



Image courtesy of BDP

become more regional themselves, expanding their footprint into key countries of operation. For that reason, Leschaco acquired two of its former long-standing partners, TPL in Peru and Coltrans in Colombia, effectively doubling its size in Latin America. According to Martin Sack, regional head for Leschaco in the Americas: "A larger regional footprint allows the company to think and act even more as one integrated team... We receive many requests from our customers looking for that regional strategic alignment, offering end-to-end solutions between the major markets," he told GBR.

Leschaco's motto of "logistics from a single source" also resonates with PSA BDP, after the freight operator was recently acquired by PSA International, boosting its traditional services to offer an end-to-end solution, including imports-exports, customs brokerage, air and ocean management, among others. These added capabilities are particularly relevant when dealing with challenging regulatory environments like Argentina, but also in shortening lead times. PSA BDP wants to establish a regional hub in Panama, leveraging PSA's terminal close to the Panama Canal, to reduce lead times between the Americas, but also between the Americas and Asia.

The shift from globalization to regionalization in the way that supply chains are organized is also favoring more neigh-

borly transits. The nearshoring impacting Mexico and Central America has already driven a higher number of investments in transportation and warehousing in 2022, particularly sought out by the automotive industry, noted a report by Coatings World, a specialist magazine. Our interviewees are informing us of important investments themselves. Leschaco is to open a new warehouse in Querétaro, Mexico, as part of its strategy to establish its contract logistics infrastructure in the country. Digitalization projects, like Leschaco's new "Lighthouse" advanced 4PL regional order management control tower system, are also pointing to a greater level of sophistication and complexity of the value proposition, that will allow companies to serve players intra-regionally.

At the same time as the industry invests in advanced digital infrastructure, basic road, rail, and port infrastructure will pose issues to the development of intra-regional businesses. "In Latin America, investments in infrastructure development that should have come decades, if not a century ago, never came, leaving many road and rail gaps. At Newport, experience thought us how to streamline our processes and overcome any existing gaps in the most efficient ways," said Fabiano Machion, general manager, at Newport Tank Containers for South America, one of the three largest tank container operators in the world, with a fleet of 40,000 ISO tanks.

Together with outdated infrastructure and sometimes poor connections, security issues have been equally concerning, especially in Mexico and Brazil. For Bolloré, one of the top 10 players in transportation globally, freight security is the biggest issue, said Hector Midolo, the CEO of Bolloré Latin America: "The risk management of our containers has added to total costs, and we continue to watch incremental additions in this space, with more incidents of containers being stolen or broken into recently."

According to Solistica, a 3PL player in Latin America, three trucks carrying high value merchandise are stolen every day on average in the region. Brazil has the highest rate of carrier theft incidents in the world. Mexico comes third, after South Africa. It is believed many more cases go unreported.

#### Checking in on ESG

A recent slowdown in shipping traffic at the Panama Canal as once again demonstrated the clumsiness of global trade, which often depends on passages as small as 82 km as the Panama Canal connecting the Pacific with the Atlantic, or the 193 km Suez Canal connecting Asia with Europe. While the Suez Canal crisis was man-made, after a ship got stuck blocking the critical route, the issue in Panama is caused by one of the worst draughts in the last decade. Low water levels have

created a chokepoint, forcing the authorities to limit the number of vessels passing each day and the vessel operators to limit the weight they load on the ship. As climate change continues to impact on weather conditions, with effects ranging from the inconvenient to the tragic, ESG is becoming harder to ignore.

In the shipping industry, we can see how a normally inconspicuous event like this (less rain in Panama) could push up freight rates in the short run. The upside pressure on freight rates in the long term remains high, particularly because of ESG. "I personally do not foresee shipping rates coming down any time soon, especially as the industry faces increased ESG regulations. Shipowners will require higher ROIs if they are expected to make investments to become carbon neutral," commented Peter Startjes, the CEO of Andino Holdings.

Among logistics players in Latam, the concept of green logistics – or offering a lower-carbon service, usually at a premium – remains in the realm of the theoretical, although most companies interviewed by GBR have noted an upward trend of customers asking more about such services. Though demand is selective, logistics providers are making the necessary preparations. For instance, Andino has launched AndiGreen, a new segment which handles the procurement and delivery of renewables but also offers data and carbon offset solutions, while Leschaco is on a path to become carbon neutral by 2030. Safe to say, those starting earliest should have the biggest advantage when ESG impacts tenders and contracts. ■

» **As a consequence of the decreased vessel draft limit at the Panama Canal, the loading capacities of vessels have been reduced, with large vessels potentially experiencing up to a 40% decrease. Additionally, conflicts such as the Russian invasion and its impacts on grain exports from Ukraine, but also tensions in the south China Sea, pose further risks to supply chains.**

Eduardo Praselj, President, Logistics Association of Venezuela



## Martin Sack

REGIONAL HEAD AMERICAS  
LESCHACO



*Our clear focus is the integration process for our new companies in Colombia and Peru, which will take us to the end of 2024.*



**Leschaco has recently opened two new subsidiaries in Peru and Colombia. What motivated these expansions?**

In 2022, Leschaco has acquired two former long-term partners, TPL in Peru, and Coltrans in Colombia. A growing regional footprint allows us to think and act even more as one integrated team. Colombia represents the third largest economy in Latam. Our customers from the chemical industry will benefit from this acquisition, as we are launching our Tank Container operations in Colombia very soon.

**How have you observed trade flows within the region in 2023?**

We have seen a drop in volumes this year, but this was to be expected as we came back to normal following the doom and boom of the pandemic. What did come as a surprise was that the drop in volumes lasted so long. In our budget projections, we were expecting a recovery in Q2 of this year, or latest by Q3, but part of the industry has now accepted that demand will stay slow for the rest of the year. However, due to the mentioned acquisitions in the region, we are striving for growing market share, despite of the overall economic slowdown.

**Could you help familiarize our audience with the state of logistics infrastructure in Mexico?**

Good news first: Nearshoring-driven investments came faster and bigger than anyone anticipated, with many companies deciding to produce in Mexico. This suggests a positive outlook for the country, but there remain important caveats about the overall logistics setup, especially when it comes to adding more volumes to ports, airports, or roads. In terms of trucking, Mexico is dealing with a serious shortage of drivers. Trucking companies face security threats from organized crime and Mexico lost thousands of truck drivers to the US during the pandemic.

**Do you think the trend of regionalizing supply chains is here to stay?**

While some businesses can continue as always, there are many sensitive industries that have experienced major difficulties during and after the pandemic and are making changes in the way they move goods. Even in a post-pandemic world, we are seeing constant global disruptions caused by climate change, politi-

cal turbulences, or labour upheavals. The world of just-in-time concepts and free global trade has been seriously affected. Because of this changed environment, regionalization has become part of the answer to many companies, creating greater flexibility and speed. In my opinion, the America region, and especially Mexico, will benefit a lot from this ongoing trend of regionalized supply chains.

**How is Leschaco progressing towards becoming carbon neutral by 2030?**

Leschaco is on a well-defined path to become carbon neutral by 2030 at our own assets – offices, warehouses, and other premises. We are currently building a huge warehouse (30,000 m<sup>2</sup>) in the Netherlands, which will fulfil the highest levels of sustainability through solar panels, electric heating or high standards of insulation. We will continue to be making the right choices, including by being selective with the companies we work with, like shipping lines or trucking companies producing low carbon emissions. The new world requires new behaviours, and one can choose how to proceed. Requests about our sustainability approach have grown significantly these last two years and I expect this trend to increase, until we get to a point where sustainability will rank first above all other metrics.

**What projects do you currently have in the pipeline?**

One clear focus is the integration process for our new companies in Colombia and Peru, which will take us to the end of 2024. In the near term, we are planning to open a new warehouse in Mexico, in Querétaro, as an important pillar to establish our contract logistics infrastructure in the country. Another project we are launching during the last quarter of 2023 is the “Lighthouse”, an advanced 4PL regional order management control tower system. In Latin America, we tend to prioritize adding more people, but we are now changing to a technology-first model, supported by a well-experienced and dedicated team of supply chain specialists. The Lighthouse offers our customers the freedom to manage their orders from beginning to end as part of a 4PL approach. We offer all documentation digitalized, with real time visibility tools from the moment a customer buys a product to the moment it arrives at destination. ■



## Ignacio González Crende

PRESIDENT  
VOPAK BRAZIL



*As momentum for new energies, hydrogen, ammonia, and sustainable feedstocks grows, we see a bigger interest in infrastructure for storing these products – this will be a big part of our growth.*



**Could you give an overview of Vopak's presence and capabilities in Brazil?**

In Brazil, we operate two terminals: the Alemoa Terminal in the Port of Santos, in the São Paulo state, and the Aratu Terminal, in Bahia. By early 2024, Vopak will operate a total capacity of 300,000 cubic meters after commissioning an expansion of 105,000 m<sup>3</sup> in 2020 and an additional 20,000 m<sup>3</sup> currently under construction at Santos. The Santos terminal supports customers with fuels, ethanol, chemicals, base oils, vegetable oils, and renewable feedstocks. Meanwhile, in Aratu we have a total capacity of 108,000 m<sup>3</sup>, serving an inbound and outbound facility for chemical feedstocks for the Camaçari petrochemical complex. Aratu also stores other products distributed locally like fuels, ethanol, caustic soda, and other chemicals.

**What motivated the successive expansions at the Alemoa terminal?**

The Alemoa terminal is a major distribution center for various liquid products, where we hold a dominant market share (80%) in heated capacity to handle bio-based feedstocks like animal fat, used cooking oil, vegetable oil, among others. The Port of Santos is the largest in Latin America, traversed by more 50% of Brazil's GDP.

**What has driven Vopak's strong performance in the first half of 2023?**

Vopak saw a 14% EBITDA increase compared to the same period last year, as well as high occupancy rates of 91%. In the traditional oil markets, the flow of crude remains uncertain due to international sanctions resulting in longer transport distances; though there is a rise in demand, OPEC cuts caused the market to fluctuate, driving demand for storage across our network. In the manufacturing industries, activity has slowed down due to higher production costs and a slower-than-expected Chinese recovery. This bearish consumption market also led to favorable demand for our infrastructure services, including stable throughput flows at our industrial terminals, though these may be impacted in the second part of this year. Most of our revenue determiners come from what we call take-or-pay agreements, which protect us from losses should the buyer refuse to complete a purchase. Looking at Brazil, specifically, certain segments like chemicals have seen a decline compared to 2022, but

fuel, ethanol, and feedstocks have been on an upward trend, with very high occupancy levels. As momentum for new energies, hydrogen, ammonia, and sustainable feedstocks grows, we see a bigger interest in infrastructure for storing these products – this will be a big part of our growth.

**Could you elaborate on how is Vopak positioning in new energies and feedstocks?**

Vopak has more than 20 years of experience in storing ammonia at six global locations, but we want to establish new supply chains through long-term investments in industrial infrastructure solutions for net-zero and low-carbon, green hydrogen and green ammonia, liquid CO<sub>2</sub>, biofuels, long-duration electricity storage, and chemical recycling. Vopak allocated 1 billion euros capex in new energies and sustainable feedstocks by 2030. In Brazil, we note a higher demand for biobased feedstocks like animal fat and used cooking oil, markets that we currently serve, so we are looking out for project development opportunities in hydrogen and ammonia infrastructure. We want to be an essential part and a frontrunner of the renewable feedstock supply chain in Brazil, where 80% of the grid is green.

**Could you comment on the ESG projects you are running in Brazil under the Vopak WeConnect Foundation?**

Through the “Vopak WeConnect Foundation” we have empowered young people in our local communities; for example, in Vila Alemoa, a poor neighborhood close to our terminal in Santos, we have organized 28 activities in sports, culture, and education, involving 3,600 individuals. The “Go Alemoa Go” is designed to support young people between 10 and 24 years old, improving their future opportunities in a socially vulnerable district. Started in 2018, the project is here to stay.

**What is Vopak's growth strategy going forward?**

We want to improve the performance of our terminal portfolio, focusing on both sustainability and financial results. We want to grow the business by investing in new terminals, including LPG, LNG, and ammonia, and we want to accelerate our efforts toward new energy and sustainable feedstocks. ■



## Peter Staartjes

CEO  
ANDINO HOLDINGS



**Could you elaborate on how Andino's integrated model of procurement, shipping, storage, and last-mile delivery supported its success, especially during and after the pandemic?**

As a relatively small but nimble business Andino has been able to capitalize quickly on opportunities during and after the pandemic because of our integrated model. We have four different pillars supporting a vertically integrated model, which includes ACI (procurement), shipping (maritime freight), terminals (storage), and import and last-mile delivery. Fluctuations in one link of the chain trigger new opportunities in another link. For example, when there was an urgent requirement for producing hand sanitizers in Mexico in 2020, we used our own ship and terminal to import and distribute high volumes of ethanol from the US. When that business became crowded and oversupplied, we switched from distributors to pure logistics providers, reducing product risk. With the pandemic over and the latest super-cycle in the rear-view mirror, our 2014 strategy remains the same today: Andino must continue to promote and invest in a flexible, adaptable business model so as to de-risk the volatility of operating in any single space along the supply chain.

**How are you positioned for 2023?**

Last year Andikem was ranked in the top 10 distributors in Latin America by revenue and has demonstrated we are a relevant player for commodity manufacturers and consumers, which is the core of our business. You may find us entering the specialty space from time to time, but there is almost always an underlying bulk chemical opportunity coupled to it. Our customers like the fact that we can manage procurement from either of our offices in Houston and The Hague, that we have reliable and on-time ship deliveries with competitive freight rates, and that we can move their products through our own facilities for subsequent packaging and delivery via our regional Andikems. They need only to contact one person to manage their product procurement or distribution needs, regardless of origin or destination.

**Could you comment on the current decline in commodity prices?**

Many people are wondering why the prices of gas derivatives like methanol, ammonia, urea, and other commodities have

come down so sharply; most at a third of what they were last year. The main cause is petrochemical overproduction in an uncertain global economy, which left a surplus of unsold commodities in the supply chain, forcing producers of the same molecules to chase after a weaker amount of business. Meanwhile, on the shipping side there are not enough new-builds in the shipyards to satisfy the growing need for the movement of commodities, which will continue to put upward pressure on ocean freights. One of the main drivers for selecting the shipping business as the first Andino pillar in 2014 was because I surmised that the wide-spread practice of fracking would lead to an increase in oil and gas production, leading to falling prices of both, leading to a massive investment in petrochemical plants to take advantage of the cheap feedstocks, leading to overproduction and an subsequent drop in petrochemical prices, which ultimately lead to logistics costs occupying a higher percentage of the overall delivered product cost to consumers; ergo the decision to enter the freight market. With a few minor setbacks this is exactly how it played out. I personally do not foresee shipping rates coming down any time soon, especially as the industry faces increased ESG regulations; shipowners will require higher ROIs if they are expected to make investments to become carbon neutral. As for storage, occupancy rates remain very high with little available tank space; this tells me consumption will strengthen but the demand-side of the market will have to contribute more of their profits to achieve increased delivery capacities and efficiencies.

**How is demand for biofuels and biofeedstocks shaping the logistics space?**

The announcement that Maersk will have 18 methanol-powered ships is one of the latest indications that the shipping industry is moving to alternative fuels. An increase in methanol consumption means that bunkering facilities will need to be constructed or retrofitted on a global scale and given our strong presence in the methanol space we see great upside potential there. Andino is deeply involved in the transportation of feedstocks for biodiesel production imported from Latin America, where we have excellent infrastructure and procurement capabilities. ■



*Andino must continue to promote and invest in a flexible, adaptable business model so as to de-risk the volatility of operating in any single space along the supply chain.*



## John Moseley

CHIEF COMMERCIAL OFFICER  
PORT OF HOUSTON



**How have container volumes between Houston and Latin America evolved this year?** Port Houston receives 18% of its container volumes from Latin America, which amounted to 270,371 TEUs through the first half of this year. Latin America's volumes have increased by 3% this year, surpassing the record volumes seen in 2022. Over the past five years, containerized trade between Port Houston and Latin America has grown by 33%.

**As the President of BRATECC (Brazil-Texas Chamber of Commerce), could you explain to our audience the synergies between these two locations, especially in terms of the energy transition?**

Brazil is our largest trading partner in Latin America for containers, #5 overall. Both regions share commonalities, such as focusing on energy transition and solid agricultural economies. Brazil has one of the world's least carbon-intensive energy sectors, with almost 45% of its primary energy demand met by renewable sources. Port Houston is also committed to sustainability and aims to reach carbon neutrality by 2050 through technology upgrades, infrastructure improvements, and clean energy sources. The Port has already reduced emissions by more than 50% since 2016 and switched to 100% renewable electricity in 2020.

**What growth opportunities do you identify for the future?**

We have more than a dozen weekly services connecting Latin America and Houston with short transit times. Imports have been a growing opportunity as products can be efficiently and cost-effectively distributed nationwide. We're also well-suited as an export gateway to Latin America. Ample land, energy access, and a strong workforce make Houston, Texas, a great place to manufacture and consolidate freight destined for Latin America.

I hope our fellow APLA members will consider Houston their first gateway to North America. Port Houston's vision is to be America's Distribution Hub for the Next Generation. Based on our performance over the last twenty years and with the support of our customers, we are well on our way to making our vision a reality. ■

## Anderson Pomini

CEO  
PORT OF SANTOS



**What are the main infrastructure developments planned at the Port?**

Our access channel has a current draft of 15 m, in line with international trade necessities, but we plan to deepen the channel to a 16 m draft, expandable to 17 m in the future. This should allow the reception of ships up to 366 m in length, the largest freighters that are calling South America. We also plan to invest in access roads. But on future projects, the first to be mentioned is a long-requested tunnel to connect both margins of the port, minimizing time, environmental impact and cost to go from one side to the other. Next, we will start the construction of a viaduct together with FIPS (Ferrovia Interna do Porto de Santos) for better access to the Alemoa region. However, these investments would be incomplete without action towards the current highway connecting Santos and the Plateau. The Anchieta highway is the only road available for trucks, transporting 164 million t/y. We urgently need the State to intervene with a second Santos-Plateau highway to connect the Port with the interior of Brazil. Two projects are being discussed in this sense: Either the construction of another lane along Imigrantes, a work for which there already is environmental licencing; or a more sophisticated but impactful project, that of a new road-and-railway complex that would take about 8 years to complete.

**What projects are you rolling out under the mission to integrate Port-City operations?**

Port of Santos is in the middle of two cities and 1.6 million people. Now, together with Santos City Hall, we developed a project to build a pier with restaurants and shops, similar to what one may see in Singapore or Rio de Janeiro. This will integrate tourists coming by land and sea, helping promote the image and understanding of the port. ■

## Marcelo Schmitt

GENERAL MANAGER  
STOLTHAVEN TERMINALS BRAZIL



### ➔ How does Stolthaven Brazil fit into your global network?

We are present in Port of Santos, which has recently become very relevant for the exports of biofuels. For that, we are preparing our terminal with an export profile. We are already exporting ethanol for industrial use, but we are now exploring opportunities in animal fat, used cooking oil, and soy oil for biodiesel production.

### What does the current chemical market for terminal operators look like?

The global slowdown in demand has made it a tough year for the chemical industry. At a local level, the Brazilian government has put barriers on the importation of fuels by keeping Petrobras prices below international prices; this has made it difficult for independent traders to import diesel and gasoline, even as Petrobras runs shortages. To compensate for these import challenges, we occupied our tanks for exports, particularly of soy oil, ethanol, and animal fat.

### And how are you adapting your infrastructure to accommodate more exports of feedstocks for biofuels?

There are two trenches of investment at our terminal in Brazil right now: The first is the automatization of the terminal. This modernization program involves a new control room, the application of sensors, AI to control pumps and other equipment, such as mass flowmeters, 3D scanning of our terminal. The second trench is related to preparing for more exports of vegetable oils and animal fats.

### Could you tell us more about the green hydrogen corridor planned at Port of Pecém?

Stolthaven has a project to build its second terminal in Brazil at the Port of Pecém, which may be the first green ammonia terminal in Brazil. The ammonia corridor between Brazil and the Netherlands (Port of Pecém and Port of Rotterdam) is already established, so now there is a need to align all the different ammonia producers with sun and wind energy generation, then build the pipeline and shipping facilities. ■

## Fabiano Machion

GENERAL MANAGER  
NEWPORT TANK CONTAINERS,  
SOUTH AMERICA



### ➔ How has Newport South America performed over the last year?

Despite massive disruptions in global supply chains and record-high shipping rates, 2022 turned out to be among the best years in Newport's history, across all of our business lines, including chemicals, which is our largest, but also our food-grade business and LNG. We never expected 2023 to be a perfect year and we can see the change. The global supply chain is accommodating after more than two years of irregularities, while the market struggles to find supply-and-demand balance. Chemical companies are certainly not planning big investments; instead, they are trying to make precise calculations and risk assessments to establish the level of inventory required to meet demand. 2023 is a tough year, but I believe 2024 will be brighter.

### Could you elaborate on the demand trends for ISOs in South America?

The South American markets have been slower, with fewer ISO imports in the region due to weaker consumption. Overall, export volumes from the region are significantly lower this year. While we noted fewer volumes going to Brazil, our largest market by far, this year, Argentina has shown tremendous resilience, with a strong export propensity. Colombia has also played a bigger role in the region over the last few years.

### What is your growth strategy from here on?

With a fleet of 40,000 ISO tanks, we are in the top three largest TCOs worldwide. And we do not intend to slow down our growth. Our shareholders are ready to propel us further and make more investments in expanding our fleet in the future, and we are already investing in ISO tanks in some specific markets. We are looking ahead at huge growth potential because only by growing can we provide our services at better prices and higher standards. We will never lower that bar for growth and excellence. ■

## Helio Coelho

DIRECTOR OF GLOBAL CHEMICAL  
SALES, LATIN AMERICA  
PSA BDP



### ➔ How is the acquisition by PSA International transforming (now) PSA BDP's capabilities?

The acquisition brought about a transformative synergy for BDP, now called PSA BDP as announced in April of this year, as we gained access to a broader spectrum of resources, expertise, and infrastructure, as well as expanded our portfolio with Port+ added-value services like port terminal handling, forward hubbing, contract logistics and warehousing. PSA International (PSA) is a global terminal operator and trusted supply chain solutions provider that operates various strategic terminals across Latam, including the Exolgan Container Terminal in the port of Buenos Aires in Argentina, the Sociedad Puerto Aguadulce S.A. (SPIA) Terminal at the port of Buenaventura in Colombia, and the PSA Panama International Terminal, which is very close to the Panama Canal. We now also benefit from a global structure of both physical assets and intellectual capital, together with many collaborative opportunities that naturally come from being a member of the PSA Group. Altogether, these synergies enable us to offer a more integrated, door-to-door solution.

### Could you tell us more about PSA BDP's presence and capabilities in Latam?

PSA BDP's network in Latam consists of 12 fully owned offices in six countries, where we employ 400 people. Our footprint stretches across Brazil, Argentina, Colombia, Peru, Chile, and Uruguay. Our end-to-end services include import-export, supply chain orchestration, customs brokerage, air and ocean freight management, warehousing, and inland transportation, all enhanced through sophisticated visibility tools. Thanks to this highly integrated setup and digital capabilities, we have been able to arrive at creative cost initiatives to mitigate unfavourable market conditions.

### What are your priorities for 2024?

PSA BDP will continue to focus on innovation, sustainable growth, and an unwavering commitment to customers. We are always aiming for further global expansions and the use of technology to enhance efficiencies. While continuing to grow, PSA BDP champions green logistics and sustainable practices. ■

## Murilo Costa

COMMERCIAL MANAGER, LATIN  
AMERICA  
HOYER GLOBAL



### ➔ Could you give us an overview of Hoyer's presence in Latin America?

From our regional headquarters in São Paulo, Hoyer Latin America manages 30 plus countries across Central America, South America and Caribbean. We have 75 years of experience in the transportation of liquid bulk products, serving the chemical, petroleum, gas and food industries. Beyond providing ISO tanks and flexi tanks, HOYER offers end-to-end supply chain logistics.

### How is Hoyer positioned within a bearish chemical market in 2023?

The recessionary conditions in the US and Europe have affected the Latam region too, with many contracts being lost to lower-cost producers from Asia. However, with volumes dropping in the traditional chemical markets, some niche market stands-up, creating a high demand for ISO and flexitanks. Government tenders for biodiesel production in Brazil, for instance, are increasingly asking for higher purities, therefore stimulating the production of subsequential products (by-products or sub-products like glycerine and fatty acids). These products also require ISO or flexitank transports.

### How have logistics costs evolved since last year?

This year we see low demand, overwhelmed by supply; products can be moved easily and cheaply from A to B this year, but there are just not enough contracts being closed. For chemical companies, the cost of logistics dropped significantly versus last year, but, unfortunately, this does not correlate to higher profits due to wavering demand.

### How does Hoyer differentiate itself in the areas of "smart" and "green" logistics?

Hoyer recently published our Sustainability Report 2022. Hoyer also invested in the digitalization of our equipment, which we call Smart Tank, to offer the seamless monitoring of asset- and product- related information (e.g. location, temperature or pressure). ■

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 that took the time to meet with us.

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