

# the business year



# COLOMBIA

# 2021/22

DIPLOMACY | ECONOMY | GREEN ECONOMY | FINANCE | ENERGY & MINING | INDUSTRY | IT & TELECOMS | TRANSPORT  
INFRASTRUCTURE, CONSTRUCTION & REAL ESTATE | AGRICULTURE & AGROBUSINESS | HEALTH | EDUCATION | ARTS, CULTURE & TOURISM

# THE BUSINESS YEAR: COLOMBIA 2021/22

Colombia is undergoing a period of generation-marking adversity. And to say this of Colombia is a tall order given a tumultuous yesterday of armed conflict and internal mass displacement. Today's struggles are of a different nature, however. President Duque has had to give simultaneous management to the COVID-19 health crisis, the Venezuelan refugee crisis, and an expanding fiscal deficit situation that lost the country its investment-grade rating. All this against a backdrop of mass social discontent manifested by record-setting civilian protest. Considering this concoction of challenges, Colombian business leaders have demonstrated the exceptional traits of resilience that characterize this country's people. This edition of The Business Year: Colombia is dedicated to them.

During the team's time gathering research and conducting interviews in the field ahead of the publication of this research, messages of optimism came through more often than messages of complaint. Colombian companies want to be protagonists of the country's development. More time was spent discussing vision and strategy than reviewing difficulties. Overwhelmingly, conversation focused on efficiency, technology advancement, and the

implementation of disruptive operational procedures.

As Colombia and the world embark on the Fourth Industrial Revolution, this far-sighted spirit is a source of great confidence. Digital modes of business are knocking down the imbalances of an unequal playing field. They are giving traditionally commodity-based economies the opportunity to compete head-to-head with the world's most developed nations. Growth and progress are accelerating at never-seen-before rates, while lifestyles are changing equally as rapidly. The result is that the future that lies ahead of us is in equal measure variable and inclusive.

At a regional level, Colombia has gained a reputation for excellence in the development of tech solutions. The Business Year conducted north of 130 interviews for this publication and never before had companies from the IT sector occupied so large of a percentage. Colombia is set on a development path that leans on human capital for the sake of human capital.

This publication wants to be a beacon of optimism in a sea of uncertainty. The circumstances and scenarios of the economic juncture will appear small when the larger currents of progress eventually shine through. ✖

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**Carlos Mora**  
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**BIO**

Carlos Mora has a degree in business administration from Universidad de la Sabana, with more than 30 years of experience in capital and commodity markets and the implementation of new technologies for the mining, water, and oil and gas industry. He has experience developing new markets, strategic planning, and leading investment projects in South America and the Middle East. Currently, he is part of the board of directors of Wattle Petroleum Company, CTAC OFT LLC, and AMH Holdings LLC.

# VALUABLE SOLUTIONS

With its precise mapping technology, CTAC is able to significantly boost Colombia's oil and gas and mining industries and tap into the country's full potential.

**Where does CTAC fit into Colombia's mineral extraction ecosystem, and how can it be an asset to local mineral transformation?**

**CARLOS MORA** CTAC's mining branch is focused on copper, gold, graphite, rhodium, and other materials that are important for the electronics industry. We see in Colombia great potential to develop the copper industry, and the nation also boasts high-value gold reserves. We want to start the mining process in this country with state-of-the-art technology and environmental control of the highest precision, because we are in a sensible operational environment. CTAC's Mineral Finder Technology (MFT) enables the precise mapping of mineralized ore bodies to help companies reduce environmental risks. We support the ministry's plan and intend to create solid synergies with the Colombian mining industry.

**How can CTAC be an asset for companies to reduce risk and improve their chances of transitioning to operations?**

**CÉSAR ZÁRATE** There is a high risk with exploration, and the question is how they can reduce their risks, the uncertainty, and time expenditure of the projects. Typically, companies have to invest a great deal of time and resources to determine if a project will be successful or not. In many projects, they cannot make discoveries until they draw a lot, which is time consuming. By using CTAC's MFT, firms can determine the exact location of the mineral with the highest potential, be it gold, copper, silver, or platinum, and adjust the project before the initial drilling. This completely changes the approach of the industry. The technology allows a company to know exactly what they will find before drilling, resulting in savings of almost 80% of overall cost compared to traditional methods. Companies can even increase their investments returns by up to 20 times. Colombia is not traditionally a mining country, especially in copper and gold, and we are only starting to engage in major projects,

**How can CTAC's technology be beneficial for operators to navigate matters of environmental and community relations in Colombia?**

**CZ** In terms of environmental regulations, for exploration stages companies do not require a complicated license. For mining industries to be as harmless as possible, you need to extract as little as possible because every gram of material you extract that is not valuable has an environmental impact, in addition to being cost inefficient. In terms of community, large extensions of terrain are both undesirable and, moreover, unnecessary because companies now clearly know the specific area in which to extract. With CTAC technology, companies can do really precise ore mapping, minimizing the waste, also water mapping as well and demonstrate to local communities that they will not impact the water reservoirs; in short, the process in one of greater transparency.

**CTAC's technology is also useful for the exploration of oil and has multiple other applications. How can it be useful for the development of Colombia in terms of planning more widely?**

**CM** The country desperately needs to invest more in oil and gas exploration. Oil and gas exploration is fairly demanding from a bureaucratic perspective given that there are many environmental regulations to observe. We need a more dynamic method to check if we have the potential. A normal process for an oil and gas company takes three to five years to start drilling, and we can help reduce it to less than a half of that. Colombia is keen to diversify its energy matrix but requires more information to plan for tomorrow, especially given the likelihood of a depletion of oil reserves within approximately in seven years. The country has so much potential, yet it is in the middle of a complicated fiscal situation. If CTAC can help the government and the oil and gas and mining industries, it could yield a workable solution to the serious challenge we face. ✖



**César Zárate**  
CHAIRMAN OF THE BOARD,  
CTAC

**BIO**

César Zárate has a business administration degree from EAN University specializing in marketing management at Universidad del Rosario. He has extensive experience in the development and delivery of strategic solutions for the oil and gas industry, with over 30 years in business development for new ventures and emerging companies across commodities and technology. Currently, he is part of the board of directors of Wattle Petroleum Company, CTAC OFT LLC, and AMH Holdings LLC.