



LogiCO2 and Productos del Aire Advance Gas Safety in Central America

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Kristoffer Eklund Cuestas from LogiCO2 together with the Productos del Aire team

LogiCO2 and Productos del Aire are bringing carbon dioxide and oxygen safety monitoring to Central America and the Caribbean, a region where the technology remains largely uncommon outside industries with strict safety requirements.

A Century of Service

Productos del Aire (PDA) was founded in Guatemala City in 1925, when engineer Manuel S. Ayau Samayoa personally imported and installed the country's first oxygen (O₂) production plant. What began as a single facility supplying 17 cylinders a day grew steadily into a regional operation, becoming the first producer of industrial and medical gases in Central America. By 2025, the company had marked its centenary with a presence in seven countries: Guatemala, Belize, El Salvador, Nicaragua, Costa Rica, Panama, and the Dominican Republic.

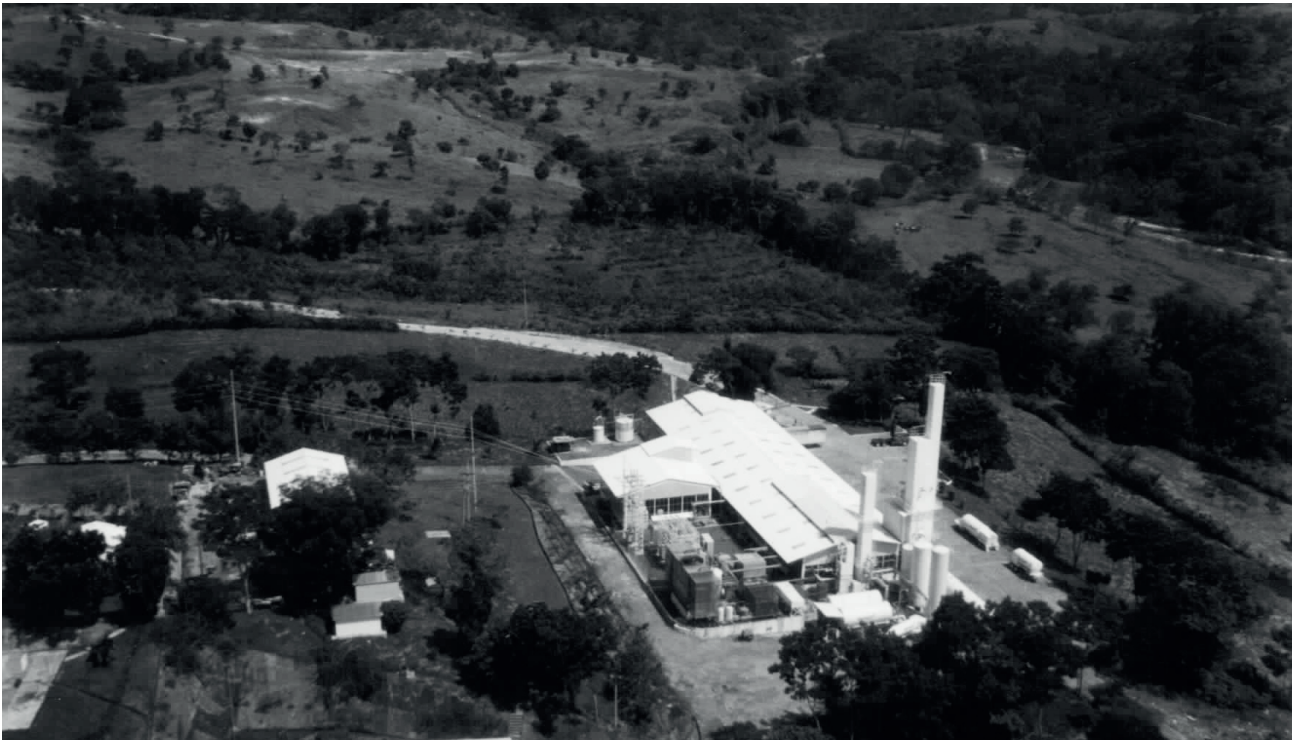
That commitment has shown up in moments beyond the commercial. During the COVID-19 pandemic, PDA installed a 15,000-gallon medical O₂ tank at a temporary hospital in Guatemala City, the largest in the region at the time.

"Behind every cylinder, every tank, and every installation, there are people," says Ing. Miguel Yoc, Fire Detection and Suppression Advisor at PDA. "That has taught us that our role goes far beyond supplying gases. It is about supporting our customers, sharing knowledge, and helping them operate safely and reliably."

Today, that same commitment continues to guide PDA's approach to innovation and safety, driving the company to invest in technologies that further protect its employees and customers across the region.



A historic Productos del Aire facility



Productos del Aire's El Jocote facility, one of the company's key production sites in Guatemala

Two Companies, One Shared Priority

It was that same commitment to safety that led PDA to LogiCO2. The relationship between the two companies developed gradually over the past two years. PDA first encountered LogiCO2 technology through international customers already running the monitoring systems at their sites. Seeing the technology perform in real environments gave PDA a grounded understanding of what it could do in practice. But what moved things forward was discovering a shared safety-first philosophy.

"Beyond the technology, what caught our attention was that we share a very similar vision with LogiCO2 when it comes to safety. Both companies believe that prevention is always better than reaction. It is not about waiting for an incident to occur and then responding. It is about having the right tools in place to help prevent it from happening in the first place," says Yoc.

For Kristoffer Eklund Cuestas, LogiCO2's Business Manager, this partnership carries personal weight. In 1991, his family moved from Sweden to Guatemala, and he spent his formative years in Guatemala City, where his mother is from, before returning to Sweden in 2002 to complete his studies. Walking through the doors of PDA as a LogiCO2 representative was a full-circle moment for him.

For him, the commercial case is just as compelling as the personal connection:

"Productos del Aire has a century of trust built with customers across the region, and they understand the industries and the risks involved in a way that takes decades to develop. Bringing our monitoring technology into a partnership with that depth of knowledge and those relationships made immediate sense. Both companies are in the business of making sure people go home safe."

From Philosophy to Practice

The relationship is now taking a step forward, with PDA approving three major LogiCO2 installations at its own facilities at Carbox, S.A.: the Magdalena and Tululá plants in Guatemala, and one additional plant in Costa Rica. Carbox is an environment in which carbon dioxide (CO₂) is used continuously, making it a logical starting point for PDA's safety-monitoring roll-out.

"We have always looked at it in a very simple way," explains Yoc. "First, we need to safeguard our own people. If we are not doing it ourselves, it would be difficult to ask our customers to adopt a solution that we are not using internally."



Inside one of Productos del Aire's facilities

The Carbox installations will include LogiCO2's CO₂ sensors, horn and strobe alarm units, traffic light indicators, Sniffer Bluetooth units for immediate local monitoring, and Sniffer Modbus units for integration with building management systems. Eklund Cuestas will travel to Guatemala to join the PDA team for the installations, providing hands-on training across installation, system design, applications, and safety awareness.

The Invisible Risk: Why Safety Matters

The risks that PDA and LogiCO2 are working to address are not always obvious, which is what makes them so dangerous. CO₂ is colourless and odourless. It is roughly 1.6 times denser than air, which means that in any enclosed space, a leak will cause CO₂ to sink and accumulate at ground level with no visible or detectable sign. A person entering such a space may have no warning whatsoever. At elevated concentrations, CO₂ causes dizziness and loss of consciousness, and at higher levels, it can be fatal. O₂ deficiency poses a similar, equally invisible threat.

This is precisely the gap that LogiCO2 systems are designed to fill. Eklund Cuestas compares it to the evolution of car safety. A seatbelt was once considered sufficient. Today, a car also comes with radar, sensors, and warning systems doing constant work the driver never thinks about.

"The hazards cannot always be seen, smelled, or tasted," he says. "That is why gas monitoring is so important."

The LogiCO2 System



The LogiCO2 Scout

LogiCO2 has been developing CO₂ safety systems for over 30 years. One of the biggest advantages of its monitoring system is its simplicity and flexibility. LogiCO2 uses Non-Dispersive Infrared (NDIR) sensor technology to underpin a low-maintenance solution that does not require traditional field calibration. A yearly inspection and calibration verification are recommended – a service PDA can provide.

Operating continuously in the background, the system monitors CO₂ and O₂ levels around the clock and triggers alerts across four distinct alarm levels as thresholds are reached, giving people time to act before conditions become dangerous. It is plug-and-play and adaptable, available in configurations from stand-alone sensor units with integrated high-intensity alarms to central control units installed outside the monitored area. It can be configured to include local alarms, traffic light indicators, Bluetooth access, Modbus and BMS integration, and automatic gas shutoff solutions, depending on each site's needs.



The LogiCO2 Central Unit Mk9

A Market in Its Early Stages

The technology exists, but the challenge is getting businesses to use it. The regulatory landscape for CO₂ and O₂ safety across Central America and the Caribbean is still developing. In Guatemala, general occupational safety regulations are in place, but there is currently no specific requirement mandating CO₂ or O₂ monitoring systems for most applications. Across the other markets PDA serves, the picture is broadly similar, with some variation between countries and sectors.

In practice, many companies that have already adopted monitoring systems are multinationals operating under international safety standards or industries that have historically faced stricter requirements. Outside those organisations, awareness remains limited, according to PDA. There is, however, considerable room for growth.

"In our experience, the issue is not that companies are unwilling to invest in safety," says Yoc. "The issue is that many are simply unaware of the risk. We still encounter people who do not fully understand the effects of elevated CO₂ concentrations under certain conditions. And when people do not recognise a risk, it is difficult for them to look for a solution."

The second barrier to widespread adoption of gas monitoring systems is perception. Across much of Latin America, preventive measures are often viewed as an expense rather than an investment. That perception, PDA notes, typically shifts once a company understands the potential consequences of an incident for its people and its operations.

"We do not know of any documented cases of serious accidents," says Yoc. "And honestly, we do not want to wait until we do. Often, these risks go unnoticed until an incident occurs. That is why we believe it is important to talk about the issue now, not afterwards."

Raising the Standard

For PDA, the immediate focus beyond the Carbox installations is on building a track record of successful implementations to demonstrate the technology's value to the wider market. The sectors they are targeting include microbreweries and large brewery installations, fast-food chains, soda plants, hospitals, laboratories, cold rooms, and other industrial environments where gas accumulation presents a genuine risk to staff.

Heading up the initiative on PDA's side is Yoc, who will drive the partnership with LogiCO₂ forward alongside the company's technical and commercial teams. Both companies believe that education and awareness will ultimately drive change more effectively than legislation alone.

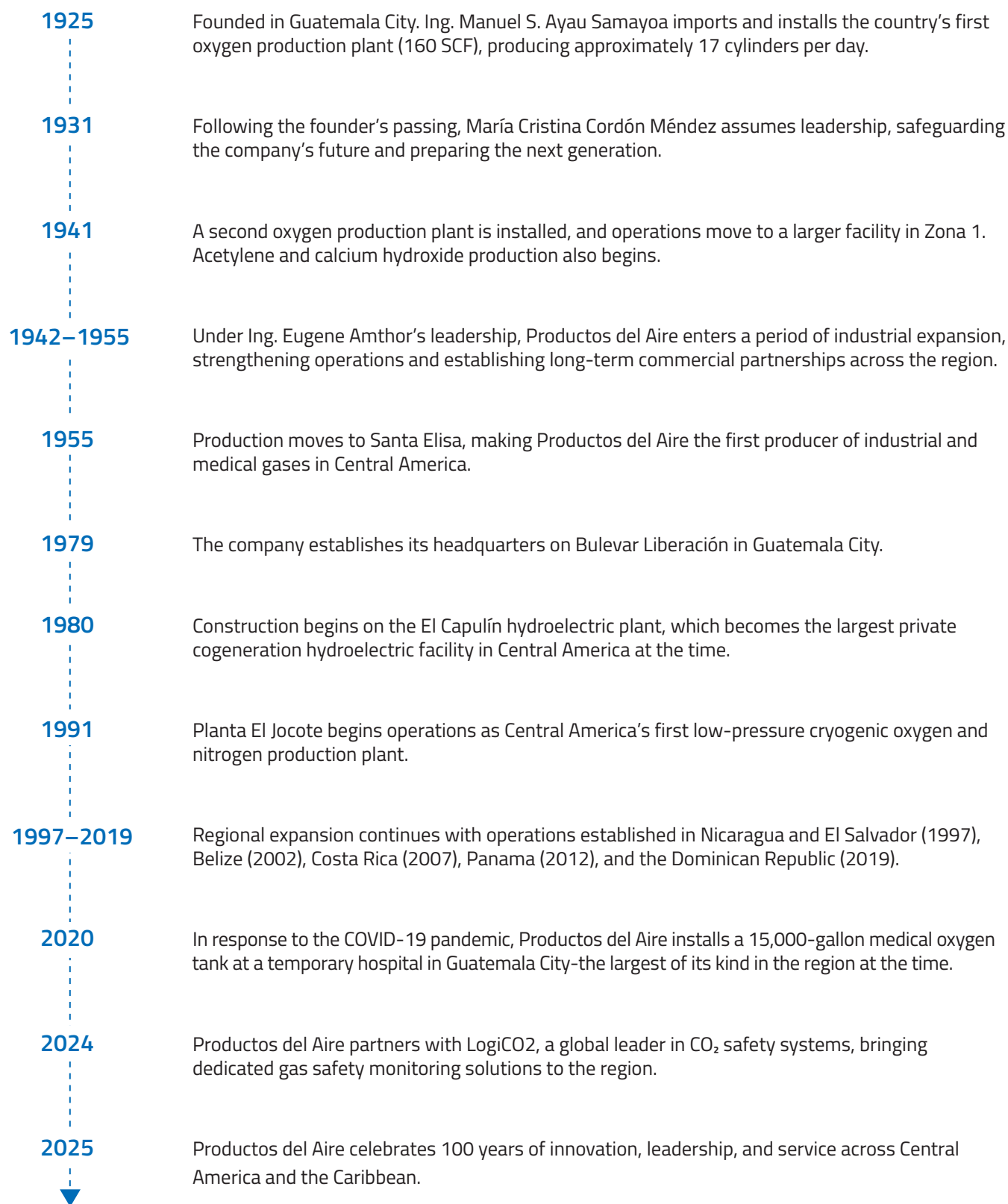
"For us, success would mean greater awareness of these risks," says Yoc. "We want to see CO₂ and O₂ safety become less of a specialised topic and more of a standard consideration within organisations. The goal is not to install more equipment. The goal is to ensure that fewer people are exposed to risks they may not even realise exist."



Eklund Cuestas agrees and believes now is the time for action. "For LogiCO₂, this partnership represents more than business. It is about awareness, prevention, and protecting lives. We are proud to work alongside Productos del Aire and look forward to supporting the growth of CO₂ and O₂ safety across Guatemala, Central America, and the Caribbean."

Kristoffer Eklund Cuestas from LogiCO₂ leading a training session for the Productos del Aire team

Productos del Aire: 100 Years of Milestones



For more information about LogiCO2 safety systems, visit www.logico2.com, email info@logico2.com, or call +46 (0)31-695317. To contact Productos del Aire, visit www.productosdelaire.com, email info@productosdelaire.com, or call +(502) 2421 0400, ext. 232.