

Monitoring Air Quality in Cape Verde with Oizom's Polludrone

Our Client

The National Institute of Meteorology and Geophysics (INMG) is Cape Verde's official authority in meteorology, climatology, geophysics, and air quality. Established in 2000, INMG is a public institute responsible for weather monitoring, climate analysis, seismic surveillance, and air quality assessments. With headquarters in Espargos and branches across the Cape Verde archipelago, INMG plays a crucial role in supporting sectors like agriculture, transportation, water management, environmental protection, and civil defense. Their mission is to provide timely, accurate data to help safeguard people and property while supporting Cape Verde's economy.



The Challenge

Cape Verde, particularly the city of Praia, faced increasing concerns about air quality due to urbanization and industrial growth. It has become critical for them to ensure public safety and enhance environmental decision-making through environmental monitoring. To monitor every parameter effectively and mitigate the pollution, they were looking for a device that could monitor data accurately. They required a device that simultaneously monitors multiple parameters like PM₁, PM_{2.5}, PM₁₀ & PM₁₀₀, CO, CO₂, SO₂, NO, NO₂, and O₃, along with Temperature, Humidity, Pressure, Noise, and UV radiation. The device should be easy to install and maintain and can be integrated seamlessly with advanced data analytics platforms for quick, actionable insights.

The Solution

INMG turned to Oizom and installed a Polludrone Smart, an ambient air quality monitoring system, in the city center of Praia. Polludrone is a compact, easy-to-install device that monitors multiple environmental parameters, including particulate matter (PM), gases, noise, and meteorological data. It is equipped to monitor key pollutants such as PM₁, PM_{2.5}, and PM₁₀, gases like CO, CO₂, SO₂, NO, NO₂, and O₃, along with noise and meteorological parameters, providing a complete picture of air quality in Praia.

Through Oizom's Envizom platform, they had real-time access to pollution data, allowing continuous monitoring and timely interventions. Envizom enabled detailed analysis and visualization of air quality data, helping INMG better understand pollution patterns and their sources.

The Result

With the installation of Oizom's Polludrone Smart, INMG saw significant improvements in its air quality monitoring capabilities. They now have quick access to air quality data, enabling timely responses to pollution spikes and ensuring public safety. The detailed analytics and visualizations provided by the Envizom platform have empowered authorities to make informed decisions, identify pollution hotspots, and design targeted strategies.

The ability to monitor multiple parameters has given them deeper insights into pollution sources and trends in Praia, supporting efforts to mitigate environmental impact. Through Oizom's comprehensive air quality monitoring solution, INMG has elevated its capacity to protect both the environment and the health of Praia's residents, ensuring a cleaner and safer urban space.



Oizom is a company specializing in environmental monitoring solutions. They offer products to monitor air quality, weather conditions, and other environmental factors. Utilizing advanced sensor technology and data analytics, Oizom aims to provide actionable insights for construction, industrial compliance, and community awareness. Their solutions can be applied in various sectors including government, industries, and community initiatives.