Climate Tech in Action: Inside Respirer's Air Quality Revolution

From Mumbai to South Africa, Respirer's low-cost, high-impact monitors are reshaping global air quality standards.

Nucleus_AI

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When Ronak Sutaria founded Respirer Living Sciences in 2017, it was not merely a business decision—it was a mission rooted in a deep personal conviction. After two decades in technology roles across startups, R&D labs, and journalism, Sutaria saw a glaring gap in how India monitored its air: expensive, imported sensors and fragmented

infrastructure. The solution, he believed, was to build cost-effective, scalable technology locally.

Inspired by research-led models from Stanford and Berkeley, Sutaria envisioned a system that could serve India's unique climate and regulatory needs. Today, Respirer is fulfilling that vision by delivering real-time, hyperlocal air quality data to communities, industries, and policymakers.

The Name That Breathes Purpose

"Respirer," derived from the French word for "to breathe," reflects the startup's core mission: improving quality of life through air quality intelligence. From its base in Mumbai, Respirer has emerged as a pioneer in climate tech, developing low-power IoT devices and analytics platforms tailored for Indian cities.

At its heart is a belief in environmental equity, making accurate data accessible across socioeconomic divides. As Sutaria puts it, "This is about democratizing information that can shape public health outcomes."

Solving India's Air Crisis with Indigenous Tech

India faces a severe deficit in real-time air quality infrastructure, especially in tier-2 and tier-3 cities. Respirer tackles this by offering end-to-end solutions: from sensor

deployment to actionable analytics. Its flagship product, "atmos," serves industries ranging from construction and petrochemicals to urban planning and research.

What sets Respirer apart is its commitment to contextualised innovation. Their AtlasAQ platform, for example, monitors the National Clean Air Programme (NCAP) and is frequently cited by Indian media and policy bodies.

A Mission-Driven Team

Led by Sutaria as CEO, the Respirer team includes Dr. Kevin Joshi, who heads Climate Analytics and AI/ML, and Satish Sutaria, Director of Business Operations. The team blends engineering precision with environmental science, backed by a structure that fosters collaboration across hardware, software, and analytics.

Talent at Respirer is chosen not just for technical acumen but for a shared vision. Cultural alignment, stakeholder empathy, and leadership are just as critical as coding or circuitry.

Market Potential and Customer Trust

Respirer serves a diverse client base, including Google, IITs, NEERI, and global institutions like WRI and GIZ. Their devices monitor everything from construction dust in Mumbai to city-scale emissions in South Africa.

The market opportunity is significant: $7 billion in outdoor air quality and $15 billion in indoor environments. Their tiered pricing strategy ensures flexibility, and repeat clients return for the deep, actionable insights offered by their analytics platforms.

Scaling with Purpose

With over 2,000 monitors deployed, including 700 in Uttar Pradesh and Bihar and 100 more through Google AirView+, Respirer is reshaping how India tracks air quality. Their scalable blend of IoT hardware and SaaS analytics enables smarter environmental decisions.

As an empanelled vendor with the Brihanmumbai Municipal Corporation (BMC), Respirer also plays a crucial role in enforcing construction dust regulations, bringing real-world impact to urban public health policy.

Such accomplishments have not gone unnoticed. Respirer has earned several accolades, including the DPIIT National Startup Award in 2020, NASSCOM Emerge50 recognition in 2022, the CII Startupreneur Award in the same year, and the Omidyar-JOSH Talks City Champions Award in 2023. Regularly cited in mainstream media and relied upon by government agencies, Respirer's data is increasingly shaping national and local air quality narratives.

Navigating Regulatory Headwinds

Respirer's early journey was marked by resistance from pollution control agencies wary of homegrown technologies. "Indian agencies were hesitant to adopt locally developed tech," recalls Sutaria. To overcome this, the team partnered with leading institutions like the IITs, leveraging their credibility to validate Respirer's innovations and gain regulatory acceptance.

Their strong intellectual property portfolio, particularly in low-power NBIoT data transmission, gave them a technological edge over competitors such as Airveda, Oizom, PurpleAir, and Clarity. Reflecting on the entrepreneurial path, Sutaria offers a piece of hard-earned wisdom: "Build a startup only if it's an idea that cannot wait. Timing and gut instinct are everything."

Vision for the Future

In the short term, Respirer is investing in solutions for toxic air pollutants, heat stress, and methane emissions. Long-term plans include consulting on ESG ratings and industrial emissions reduction—a move towards influencing not just measurement but behavioural change in industries.

Geographically, expansion into African markets is on the horizon, signalling their ambition to be a global climate tech player.

Respirer Living Sciences ❯

Air Quality Monitors ❯   IOT Technology ❯   ❯

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