



AERONERO™

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**TRANSFORMATIONAL
INNOVATION LEADER**

*Accelerating Innovation to Zero Across the
Global Ecosystem*

*RECOGNIZED FOR BEST PRACTICES IN THE
GLOBAL ATMOSPHERIC WATER GENERATION
INDUSTRY*

F R O S T & S U L L I V A N

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Best Practices Criteria for World-class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each recognition category before determining the final recognition recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Aeronero excels in many of the criteria in the atmospheric water generation space.

AWARD CRITERIA	
<i>Transformational Innovation</i>	<i>Customer Impact</i>
Market Disruption	Price/Performance Value
Competitive Differentiation	Customer Purchase Experience
Market Gaps	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Passionate Persistence	Brand Equity

Atmospheric Water Generation: Unlocking the Air’s Hidden Potential to Transform Global Water Security

As the world grapples with the growing severity of the water crisis, the need for innovative and sustainable solutions has become increasingly urgent. Climate change, rapid urbanization, population growth, and the overextraction of groundwater place immense pressure on traditional water sources, rendering them unreliable and, in many cases, unsustainable. Across continents, rural and urban communities lack access to safe drinking water, with nearly four billion people facing severe water scarcity for at least one month each year.¹ This widening gap between demand and supply underscores the critical need to identify alternative, resilient water sources, with the extraction of potable water from atmospheric moisture gaining traction as one of the most scientifically viable yet underutilized solutions. Within this context, atmospheric water generation (AWG) emerges as a transformative solution by harnessing the vast, untapped reservoir of water vapor present in the atmosphere. Unlike traditional methods that depend on depleting groundwater reserves or energy-intensive desalination processes, AWG systems capture moisture from the air, condense it, and purify it into clean, drinkable water. This approach not only bypasses the need for centralized infrastructure but also provides an on-demand, decentralized water source, making it particularly valuable in remote, drought-prone, or infrastructure-deficient regions. As

¹ <https://www.unicef.org/wash/water-scarcity>

air exists everywhere and carries moisture even in relatively dry conditions, AWG represents a scalable path toward water security that adapts to both human and environmental needs.

While the concept of extracting water from air is not new, existing AWG technologies face several

“What distinguishes Aeronero is its proprietary advantage: systems that produce more water per kilowatt-hour than conventional AWG systems, scaling from compact units for homes to containerized modules for communities, farms, and industries. Its innovative hybridization of condensation and desiccant-based methods—a breakthrough safeguarded by 13 global patents, including joint intellectual property (IP) with IIT Madras—enables reliable operation in low-humidity deserts, high-altitude terrains, and other environments where traditional AWG systems falter.”

- Fredrick Harry Royan
Global Practice Area Leader - Sustainability and Circular Economy

limitations that must be addressed to drive widespread impact. Many systems require high humidity levels to function optimally, limiting their applicability in arid regions without technological adaptation. Moreover, energy consumption remains a critical barrier, often making AWG cost-prohibitive for low-income communities and environmentally taxing in areas without access to renewable energy. In addition, consumer expectations around water quality parameters, such as taste, mineral balance, and safety, demand continuous refinement in purification and mineralization processes. These

challenges continue to hinder AWG adoption, even as the demand for alternative water solutions grows rapidly.

The disconnect between AWG’s promising potential and its current practical limitations highlights a pressing challenge and a valuable opportunity for solution providers to drive purposeful innovation. Emerging approaches, such as desiccant-based systems and solar-powered units, are already beginning to redefine what is possible by improving energy efficiency and enabling functionality in lower-humidity environments. At the same time, enhancements in filtration and mineralization elevate the quality, health, and value of the water produced. To truly scale, however, these technological advancements must be paired with inclusive deployment strategies, such as partnerships with governments, flexible financing models, and community-driven business approaches that prioritize access and affordability. By aligning cutting-edge science with real-world needs, the AWG industry can evolve from a niche solution into a cornerstone of global water resilience, redefining the future of hydration in an increasingly water-scarce world.

Aeronero: Pioneering Scalable, Sustainable AWG Solutions for Global Impact

At the forefront of advancing AWG into a scalable solution for global water security is Aeronero, a Chennai-based deep-tech pioneer. Founded in 2019 on the principle of “Water for All, Always,” the company reimagines the future of water through science-led innovation. Central to this mission is the development of disruptive technologies that replicate and enhance the natural water cycle, converting atmospheric moisture into pure, mineral-enriched drinking water while leaving ecosystems untouched.

To this end, Aeronero’s proprietary ConDessa Technology™ reengineers natural condensation into a highly efficient, multi-stage process. Ambient air is first drawn in and purified through carbon and

particulate filters before entering a patented cooling cycle that condenses moisture into water droplets. The collected water then undergoes Biovitae™ purification, UV-C sterilization, and mineralization, producing alkaline water with a pH of 7 to 8.5 that consistently meets or exceeds World Health

“Unlike centralized systems vulnerable to downtime and infrastructure bottlenecks, Aeronero’s modular, distributed architecture eliminates single points of failure. Complementing this design, integrated Internet of Things (IoT) dashboards give users real-time visibility into water production, humidity, and filter status while providing predictive maintenance alerts and performance insights. Together, this blend of modular scalability, smart monitoring, and user-friendly design ensures customers uninterrupted access to safe, high-quality drinking water.”

- Sama Suwal
Best Practices Research Analyst

Organization drinking water standards. Beyond safe drinking water, this four-in-one system also delivers dehumidification, air cooling, and air purification, amplifying its value across households, workplaces, and industries.

What distinguishes Aeronero is its proprietary advantage: systems that produce more water per kilowatt-hour than conventional AWG systems, scaling from compact units for homes to containerized modules for communities, farms, and industries. Its innovative hybridization of condensation and desiccant-based methods—a breakthrough safeguarded by 13 global patents, including joint intellectual property (IP) with IIT Madras—enables reliable operation in low-humidity deserts, high-altitude terrains, and other environments where traditional AWG systems falter.

Moreover, coupled with solar integration and energy-

efficient thermoelectric cooling, Aeronero addresses AWG’s high power consumption challenge, delivering a grid-free, climate-resilient solution that adapts to diverse geographies from dense cities to remote villages and frontline military bases.

This technological foundation powers a product ecosystem engineered for resilience and scalability. Unlike centralized systems vulnerable to downtime and infrastructure bottlenecks, Aeronero’s modular, distributed architecture eliminates single points of failure. Complementing this design, integrated Internet of Things (IoT) dashboards give users real-time visibility into water production, humidity, and filter status while providing predictive maintenance alerts and performance insights. Together, this blend of modular scalability, smart monitoring, and user-friendly design ensures uninterrupted access to safe, high-quality drinking water.

Equally important is Aeronero’s focus on sustainability with purpose. Unlike bottled water or groundwater extraction, its AWG technology safeguards natural ecosystems: each liter produced generates no plastic waste, prevents aquifer depletion, and carries a significantly lower carbon footprint compared to bottled water logistics. By coupling these environmental benefits with its differentiated technology, Aeronero lowers barriers to adoption, making premium-quality hydration accessible and sustainable.

As a result, Aeronero transcends the role of a technology provider to become a catalyst for systemic change. Each advancement, whether in hybridized AWG science, modular design, or smart monitoring capabilities, feeds into a continuum of innovation that scales seamlessly from homes to industries and from cities to rural outposts.

Aeronero 2.0: Scaling Science-Led Water Solutions for Every Community

Aeronero's journey reflects a relentless pursuit of innovation, driven by the urgency of solving the global water crisis. As a nimble deep-tech startup, the company demonstrates that transformative progress emerges not from incremental steps, but from rethinking what is possible and implementing solutions at speed. This commitment to bold thinking and science-led execution culminated in the recent launch of Aeronero 2.0, the company's next-generation AWG system unveiled in September 2025.² The event, which brought together government agencies, industries, and academia leaders, showcased a transformative breakthrough in sustainable water technology, underscoring Aeronero's mission to expand access to safe water globally.

Powered by the company's patented ConDessa technologyTM and complemented by its AQUAIR water-as-a-service offering, Aeronero 2.0 generates purified, mineral-enriched drinking water directly from the atmosphere, combining health, taste, and sustainability in a single, decentralized solution. This milestone highlights the company's research-driven platform and its ability to transform condensation science into practical, climate-resilient systems.

The strength of Aeronero's innovation is reflected in its comprehensive product lineup, with each offering designed for efficiency, reliability, and adaptability, ensuring seamless performance across varied geographies and use cases. It includes:

- **Bubble:** Produces up to 20 liters of drinking water per day, making it an affordable and reliable solution for homes and small offices.
- **Drizzle:** Delivers 35 to 40 liters per day, tailored for commercial spaces such as restaurants, cafés, and workplaces.
- **Thunder:** Generates up to 150 liters per day, suitable for larger communities and institutions.
- **Airwell:** A modular and scalable system producing 500–5,000 liters per day, designed for industries and large-scale hospitality.

This differentiated product lineup allows Aeronero to serve a wide spectrum of end-user requirements, ranging from families seeking independence from unreliable water pipelines to institutions requiring large-scale, decentralized water security. Unlike competitors that focus narrowly on a single use case, the company's multi-tiered product ecosystem scales effectively across needs, contexts, and geographies. In doing so, the company strengthens its position as a market leader while proving that AWG can be universal in vision and highly specific in execution, ultimately delivering tailored solutions that bring water independence within reach for millions.

Equipped with its evolving portfolio, Aeronero has already delivered 253 real-world solutions, generating almost 22 million liters of safe drinking water, saving over 87 million liters of groundwater, and directly benefiting more than 11 million lives to date.³ These outcomes highlight the company's ability to turn technological innovation into measurable social and environmental impact, while setting a benchmark for what AWG can achieve at scale.

² <https://www.globenewswire.com/news-release/2025/09/09/3146962/0/en/Aeronero-2-0-Launch-Marks-Milestone-in-Air-Water-Generation-3x-Grammy-Award-Winner-Ricky-Kej-Joins-as-Advisor-and-Brand-Ambassador.html>

³ <https://aeronero.life/>

Aeronero's Approach to Water Independence: Reliable, Intelligent, and Easy-to-Use

Aeronero develops its AWG technology not only for performance but also for simplicity and ease of use, ensuring that customers enjoy water independence without complexity. Its systems are plug-and-play, requiring no external plumbing or extensive setup, and routine maintenance is minimal. First-level service, such as filter replacement, can be carried out by users themselves with step-by-step guidance from the companion mobile application. This approach empowers households and institutions to remain self-reliant, eliminating dependency on technicians and reducing downtime. To further ease adoption, Aeronero offers affordable subscription models. For example, households can access unlimited clean water at just ₹3,000 per month,⁴ making safe drinking water reliable and affordable.

Enhancing this customer experience is Aeronero's smart, IoT-enabled ecosystem, which provides transparency and control over every aspect of water generation. Through intuitive dashboards, users can monitor real-time water production, humidity levels, and air quality while also receiving instant alerts for filter changes or performance updates. Additionally, predictive maintenance capabilities prevent interruptions before they occur, while usage analytics help customers optimize efficiency. Whether in a family kitchen, a corporate office, or a community installation, this integration of intelligence ensures that safe, high-quality water is always available on demand.

One of Aeronero's defining advantages is the versatility of its modular architecture, enabling solutions to scale seamlessly across different contexts. Customers can combine the company's AWG units horizontally or vertically to expand capacity, ensuring resilience and flexibility without sacrificing efficiency. This modularity makes the technology suitable for a wide spectrum of applications, from homes and offices requiring a steady daily supply, to disaster-relief zones, hospitality settings, and large industrial operations. In the hospitality sector, Aeronero's water-as-a-service model is already proving its value, delivering premium-quality drinking water at 30% lower cost than the lowest-priced alternatives while removing the logistics burden of bottled water.⁵

By combining ease of use, intelligent monitoring, modular scalability, and accessible pricing, Aeronero delivers exceptional customer value unmatched in the AWG sector. Its solutions not only assure reliability and independence but also create peace of mind by removing the uncertainties of water access while empowering customers with control, transparency, affordability, and adaptability.

Strong Investor Backing Fuels Global Expansion and Market Leadership

Aeronero's strong competitive differentiation and customer value proposition are reflected in its remarkable financial trajectory. Over the past year, the company achieved 400% year-on-year growth, underscoring the scale of market demand and the effectiveness of its differentiated solutions.⁶ Furthermore, Aeronero commands an order book of nearly ₹300 million and is rapidly expanding its in-house manufacturing capacity to deliver 2,000 units per month. With these milestones in motion, the

⁴ Frost & Sullivan's Discussion with Aeronero (September 2025)

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⁶ <https://www.globenewswire.com/news-release/2025/09/09/3146962/0/en/Aeronero-2-0-Launch-Marks-Milestone-in-Air-Water-Generation-3x-Grammy-Award-Winner-Ricky-Kej-Joins-as-Advisor-and-Brand-Ambassador.html>

company is firmly on track toward achieving a ₹1,000 million topline, translating technological breakthroughs into sustainable business performance.⁷

Strong investor confidence further fuels Aeronero's global expansion and commercial momentum. In August 2025, the company raised USD 1.5 million (approximately ₹133 million) in its first-ever funding round, led by Callapina Capital and co-investments from Rezwan Razack of Prestige Properties, SAN ANGELS, Jamwant Ventures, and marquee high-net-worth individuals like Kiran Deshpande and S. Ramadorai.⁸ This landmark investment enables Aeronero to scale manufacturing, enhance its research and development (R&D) capabilities, and accelerate customer acquisition, building directly on its robust IP portfolio and research-driven platform. Capitalizing on this support, the company is expanding globally, deploying solutions across the United States, Mexico, Latin America, and the Middle East, with assembly operations underway in Mexico to efficiently serve regional markets.

Equally central to Aeronero's growth is its focus on brand equity and thought leadership. Initiatives, including an upcoming book launch by founder Dr. Durga Das and collaborations with global sustainability advocates, Grammy-winning artists, and renowned industry figures, amplify brand identity and global awareness, positioning the company as a visionary leader in climate-positive water solutions.

Additionally, strategic collaborations with leading academic institutions enhance Aeronero's innovation capabilities and its credibility in the AWG sector. For instance, Memorandum of Understanding with institutions such as Garden City University⁹ and University of Pennsylvania, alongside universities in Europe and Japan, accelerate R&D, validate technology, and support the company's collaborative approach to advancing the AWG sector.

Beyond commercial success, Aeronero emphasizes social impact. The company supports initiatives such as the United Kingdom-based WODER charity, which addresses water anxiety, and provides on-the-ground support in Nepal, Sikkim, and West Bengal. These efforts demonstrate a proactive, empathetic, and solution-oriented approach to water challenges.

Through robust funding, global expansion, brand building, strategic partnerships, and social impact initiatives, Aeronero is shaping the future of water. Its story exemplifies how innovation, strategic execution, and purpose-driven action can deliver commercial success while transforming water security worldwide, turning a pioneering vision into a tangible global movement.

⁷ Ibid.

⁸ <https://www.globenewswire.com/news-release/2025/08/13/3132570/0/en/Aeronero-Deep-Tech-Raises-1-5M-in-Landmark-Round-Led-by-Callapina-Capital-and-Rezwan-Razack-of-Prestige-Group-to-Scale-Air-Water-Tech.html>

⁹ <https://www.globenewswire.com/news-release/2025/09/09/3146962/0/en/Aeronero-2-0-Launch-Marks-Milestone-in-Air-Water-Generation-3x-Grammy-Award-Winner-Ricky-Kej-Joins-as-Advisor-and-Brand-Ambassador.html>

Conclusion

As global water scarcity intensifies due to climate change, urbanization, and overextraction of groundwater, billions of people lack reliable access to safe drinking water. Aeronero bridges this critical gap by transforming atmospheric moisture into clean, mineral-enriched water while disrupting traditional water supply models. The company's proprietary ConDessa Technology™ and hybrid condensation-desiccant systems—backed by 13 global patents—deliver higher efficiency, lower energy consumption, and reliable operation even in low-humidity or remote environments, setting it apart from conventional atmospheric water generation (AWG) solutions.

Furthermore, Aeronero incorporates customer-centric strategies, combining plug-and-play systems, smart monitoring, modular scalability, and affordable subscription models to ensure reliability, ease of use, and water independence. Strategic global expansion across the United States, Mexico, Latin America, and the Middle East, high-profile brand-building initiatives, and collaborations with academic institutions and sustainability advocates strengthen its market leadership and elevate its credibility as a visionary force in the AWG sector.

With its strong overall performance, Aeronero earns Frost & Sullivan's 2025 Global Transformational Innovation Leadership Recognition in the atmospheric water generation industry.

What You Need to Know about the Transformational Innovation Leadership Recognition

Frost & Sullivan's Transformational Innovation Leadership Recognition is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

Best Practices Recognition Analysis

For the Transformational Innovation Leadership Recognition, Frost & Sullivan analysts independently evaluated the criteria listed below.

Transformational Innovation

Market Disruption: Innovative new solutions have a genuine potential to disrupt the market, render current solutions obsolete, and shake up competition

Competitive Differentiation: Solutions or products articulate and display unique competitive advantages

Market Gaps: Solution satisfies the needs and opportunities that exist between customers' desired outcomes and their current market solutions

Leadership Focus: Companies' focuses are on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

Passionate Persistence: Tenacity enables the pursuit and achievement of seemingly insurmountable industry obstacles

Customer Impact

Price/Performance Value: Products or services offer the best ROI and superior value compared to similar market offerings

Customer Purchase Experience: Purchase experience with minimal friction and high transparency assures customers that they are buying the optimal solution to address both their needs and constraints

Customer Ownership Excellence: Products and solutions evolve continuously in sync with the customers' own growth journeys, engendering pride of ownership and enhanced customer experience

Customer Service Experience: Customer service is readily accessible and stress-free, and delivered with high quality, high availability, and fast response time

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty, which is regularly measured and confirmed through a high Net Promoter Score®

Best Practices Recognition Analytics Methodology

Inspire the World to Support True Leaders

This long-term process spans 12 months, beginning with the prioritization of the sector. It involves a rigorous approach that includes comprehensive scanning and analytics to identify key best practice trends. A dedicated team of analysts, advisors, coaches, and experts collaborates closely, ensuring thorough review and input. The goal is to maximize the company's long-term value by leveraging unique perspectives to support each Best Practice Recognition and identify meaningful transformation and impact.

VALUE IMPACT			
STEP		WHAT	WHY
1	Opportunity Universe	Identify Sectors with the Greatest Impact on the Global Economy	Value to Economic Development
2	Transformational Model	Analyze Strategic Imperatives That Drive Transformation	Understand and Create a Winning Strategy
3	Ecosystem	Map Critical Value Chains	Comprehensive Community that Shapes the Sector
4	Growth Generator	Data Foundation That Provides Decision Support System	Spark Opportunities and Accelerate Decision-making
5	Growth Opportunities	Identify Opportunities Generated by Companies	Drive the Transformation of the Industry
6	Frost Radar	Benchmark Companies on Future Growth Potential	Identify Most Powerful Companies to Action
7	Best Practices	Identify Companies Achieving Best Practices in All Critical Perspectives	Inspire the World
8	Companies to Action	Tell Your Story to the World (BICEP*)	Ecosystem Community Supporting Future Success

*Board of Directors, Investors, Customers, Employees, Partners

