

# Air Quality Monitoring Station Networks

## ANMD-MRS28-277 · Smart City & Infrastructure AI

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US\$

### WHY THIS REPORT

Air-quality monitoring station networks combine reference-grade stations, low-cost sensor networks and mobile / vehicle sensors to deliver hyperlocal-to-citywide air-quality intelligence. By densifying measurement beyond sparse regulatory stations, they expose pollution hotspots, support health alerts and underpin clean-air policy with granular, real-time data. This report is a comprehensive, decision-grade study of that market across station type, sensor-network type, application, end user, business model and deployment scale, spanning history 2020–2024, a 2025 base year, a 2025–2032 forecast and long-term outlooks to 2035, 2040 and 2050.

### SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

The sustainability case is the report's backbone. Beyond measurement, air-quality networks deliver measurable health protection, pollution-hotspot exposure and clean-air-policy evidence, strengthening the environmental-justice and healthy-cities story. The analysis applies double materiality, maps outcomes to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, and links contributions to SDGs 11, 3 and 13. Data-quality assurance, sensor end-of-life, equitable coverage and claim substantiation are treated as material risks — with greenwashing and SDG-washing screens applied throughout.

#### Mapped Sustainable Development Goals:

<b>SDG 11</b> Sustainable Cities	<b>SDG 3</b> Good Health	<b>SDG 13</b> Climate Action
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**Framework alignment:** Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

### WHAT'S INSIDE AT A GLANCE

<b>53</b> Chapters	<b>9</b> Report Parts	<b>7</b> Regions Covered	<b>40+</b> Country Markets
<b>2025–32</b> Forecast Horizon	<b>4</b> Forward Scenarios	<b>25+</b> Companies Profiled	<b>3</b> SDGs Mapped

## MARKET OVERVIEW

### Air-quality monitoring is moving from sparse reference stations to dense, sensor-augmented networks.

Demand is driven by health concern, clean-air regulation and the push for hyperlocal exposure data. The market is read two ways — value and units (monitoring stations / sensor nodes), with network density as a coverage lens — forecast under conservative, base, accelerated and disruption scenarios, every projection resolved to the 2025 base year and each region reported separately rather than folded into Rest of World.

- Asia Pacific leads deployment, anchored by China and India confronting severe urban pollution with dense networks.
- Europe scales on clean-air policy, where ambient-air directives and low-emission zones drive monitoring demand.
- North America advances on hyperlocal data, with community and wildfire-smoke monitoring expanding low-cost networks.
- Network type and application segment the value, across reference, low-cost and mobile sensing, and across hyperlocal, district and citywide use.

## REGIONAL OUTLOOK

Across the seven reporting regions, the report separates deployment leaders from high-growth and emerging markets, profiling named country sub-markets, policy regimes and project pipelines in each. Latin America, Africa and the Middle East are assessed on their own merits — never aggregated into Rest of World — and every forecast resolves to the 2025 base year.

Region	Stage	Lead Country Markets & Drivers
Asia Pacific	Deployment leader	China, India — severe pollution, dense monitoring networks
Europe	Policy-driven	UK, Germany, Italy — air directives, low-emission zones
North America	Hyperlocal scale	United States, Canada — community and wildfire-smoke networks
Latin America	Emerging	Brazil, Mexico — urban-pollution monitoring
Africa	Frontier	Kenya, South Africa — low-cost network build-out, donor finance
Middle East	Frontier	UAE, Saudi Arabia — dust and urban-air monitoring

## KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
<ul style="list-style-type: none"> <li>• Public-health &amp; exposure concern</li> <li>• Clean-air regulation &amp; directives</li> <li>• Hyperlocal &amp; environmental-justice data demand</li> <li>• Low-cost-sensor &amp; IoT maturity</li> <li>• Wildfire and episodic-pollution monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Low-cost-sensor accuracy &amp; calibration</li> <li>• Data-quality &amp; comparability assurance</li> <li>• Maintenance &amp; network sustainability</li> <li>• Funding for non-regulatory networks</li> <li>• Standards and regulatory acceptance</li> </ul>

## SEGMENTATION SNAPSHOT

<b>By Station Type</b>	Reference-grade stations · low-cost sensor networks · mobile / vehicle sensors
<b>By Sensor Network</b>	Fixed · mobile · wearable · satellite-augmented
<b>By Application</b>	Hyperlocal · district · city-wide
<b>By End User</b>	City governments · environmental agencies · researchers · citizens
<b>By Business Model</b>	CAPEX purchase · data-subscription · managed-service · outcome-based
<b>By Deployment Scale</b>	Pilot · district · citywide

## TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

### PART I — REPORT FOUNDATION, DISCOVERY AND STRATEGIC INTELLIGENCE

- › Chapter 1. Scope, Methodology and Report Architecture
- › Chapter 2. Industry Discovery Summary — Air Quality Monitoring Station Networks
- › Chapter 3. Executive Intelligence and Decision Dashboard
- › Chapter 4. Strategic Findings, Materiality and Investment Verdict Preview

### PART II — MARKET INTELLIGENCE, SIZING, FORECASTING AND SEGMENTATION

- › Chapter 5. Industry Overview and Market Evolution
- › Chapter 6. Market Dynamics
- › Chapter 7. Global Market Size and Forecast, 2020–2032
- › Chapter 8. Market Segmentation Analysis
- › Chapter 9. End-User and Demand-Side Intelligence
- › Chapter 10. Pricing, Cost and Commercial Model Intelligence

### PART III — REGIONAL AND COUNTRY INTELLIGENCE

- › Chapter 11. Global Regional Intelligence Framework
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- › Chapter 18. Rest of World Market Intelligence

### PART IV — TECHNOLOGY, INNOVATION AND CATEGORY-SPECIFIC INTELLIGENCE

- › Chapter 19. Technology Landscape and Architecture
- › Chapter 20. Emerging and Next-Generation Technology Intelligence
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**PART V — COMPANY, COMPETITION, PATENT AND PROJECT INTELLIGENCE**

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- › Chapter 26. Patent Landscape and Intellectual Property Intelligence
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**PART VI — SUSTAINABILITY, ESG, SDG, CLIMATE AND NATURAL-CAPITAL INTELLIGENCE**

- › Chapter 28. Sustainability Intelligence Suite
- › Chapter 29. ESG Intelligence and Double Materiality
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**PART VII — SUPPLY CHAIN, POLICY, LEGAL, ECONOMICS AND FINANCE**

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**PART VIII — SCENARIO, FUTURE INTELLIGENCE AND FINAL DUE DILIGENCE VERDICT**

- › Chapter 42. Scenario Analysis and Future Intelligence
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- › Chapter 44. Risk Register, RAG Rating and Anti-Greenwashing Screen
- › Chapter 45. Bottom-Line Verdict and Strategic Recommendations
- › Chapter 46. Implementation Roadmap and Stakeholder Playbooks

**PART IX — ANNEXES, DIRECTORIES AND REFERENCE MATERIAL**

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- › Chapter 50. Project Intelligence Annex
- › Chapter 51. Forecast Annex
- › Chapter 52. Sustainability KPI Annex
- › Chapter 53. Reference Annexes

**COMPETITIVE & INVESTMENT SNAPSHOT**

The competitive field spans air-quality monitoring vendors, platform specialists and integrated system providers. Profiled players include Vaisala Oyj, Thermo Fisher Scientific Inc., Teledyne Technologies Incorporated, HORIBA, Ltd. and Aclima, Inc. Other profiled names include Clarity Movement Co., PurpleAir, Inc., Kunak Technologies S.L., Breeze Technologies UG and ACOEM Group. Deal activity — sensor-network acquisitions, data-platform partnerships and citywide monitoring contracts — signals a market organising around calibrated, decision-grade networks. Investment intelligence spans venture, growth, infrastructure, climate and blended finance, green bonds and sustainability-linked loans, culminating in a bankability assessment and investment verdict.

## KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global air quality monitoring station networks market, and how fast will it grow to 2032?
- ? Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- ? How do technology and adoption shifts change value versus legacy approaches?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the category align with the SDGs and disclosure regulation?

## WHY ANMD — THE DIFFERENCE

*Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG and natural-capital intelligence and a decision-ready bankability verdict in a single architecture.*

- **Triangulated sizing** — every market read three ways so value, volume and installed-base views reconcile rather than conflict.
- **Region-honest forecasting** — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- **Integrated evidence base** — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- **No-fabrication discipline** — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- **Anti-greenwashing rigour** — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- **Decision-first structure** — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear, conditional investment verdict.

## WHO SHOULD BUY THIS REPORT

Investors and infrastructure / PE funds, air-quality monitoring vendors, municipalities and environmental agencies, public-health and ESG leaders, systems integrators, lenders and policymakers, and corporate strategy and ESG teams — alongside strategic corporate planners and decision-makers.

### Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at [www.anewmarketdynamics.com](http://www.anewmarketdynamics.com) · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

### Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at [www.anewmarketdynamics.com](http://www.anewmarketdynamics.com). The full detailed table of contents will be sent directly to your registered company email address.

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