



ALLON_I3



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WP3 - Support to the identification of investment projects

MS1- Study and identification of business cases

Overview	
Name of SME	Senstate Technologies
Region	Gabrovo, Bulgaria
Location	Gabrovo, Bulgaria
Focus Area	Hardware and software for environmental monitoring
Business case title	Transforming Environmental Data into Actionable Intelligence
Description	Senstate Technologies leverages advanced sensor technology and AI-driven interpolation to transform raw environmental data into standardized, actionable intelligence. By addressing critical gaps in air quality monitoring and reporting, the company offers a scalable solution that meets regulatory demands and supports informed decision-making for municipalities and industries, positioning itself for strong market growth and global expansion.
Stakeholder Involvement	
Key Stakeholder	Municipalities and public authorities that require accurate air quality data for regulatory compliance and public health decisions.
Business Model	
Core Activities/Services	<ul style="list-style-type: none">• Data Acquisition and Integration – Aggregating data from a wide range of sources, including public environmental agencies and private sensors, to create a comprehensive dataset.• AI-Based Data Processing and Interpolation – Utilizing advanced artificial intelligence and high-performance computing to analyze raw sensor data, interpolate missing values, and transform point data into meaningful polygon data.• Automated Reporting and Visualization – Generating standardized, automated environmental and air quality reports, enabling users to assess compliance, compare regions, and make informed decisions through user-friendly dashboards and APIs.

Value Proposition	<p>Senstate Technologies delivers actionable environmental intelligence by transforming fragmented, raw sensor data into comprehensive, standardized, and automated insights. The core value proposition is that it enables municipalities, businesses, and regulators to access real-time, cost-effective air quality analysis and reporting—without the delays and expenses of manual data processing. This innovative solution not only supports regulatory compliance and informed decision-making but also paves the way for scalable, global deployment of environmental monitoring capabilities.</p>
Target Market	<ul style="list-style-type: none"> • Public authorities and municipalities that need timely, automated air quality data for regulatory compliance and public health decision-making. • Private companies and industries required to monitor and report environmental performance as part of sustainability and regulatory mandates. • Research institutions and consulting firms that need advanced data analytics for environmental and air quality assessment. • System integrators and technology partners seeking to incorporate robust environmental intelligence solutions into their offerings.
Capacity Building Needs	<ul style="list-style-type: none"> • Technical & R&D Capabilities – Enhancing the AI-based interpolation technology and high-performance computing systems to achieve TRL8, while continuously improving data processing and analytics. • Operational & Managerial Processes – Strengthening project management, scaling production and deployment capabilities, and optimizing operational workflows to support rapid market expansion. • Infrastructure & Partnership Development – Upgrading IT infrastructure (e.g., server capacity and integration platforms) and deepening collaborations with research institutions and sensor technology partners to ensure robust, scalable solutions.

Investment Opportunities

Product/Service Sales	<p>The core investment opportunity is Senstate Technologies' Intelligent Environmental Platform. This innovative solution integrates high-performance sensor hardware, AI-driven interpolation technology, and advanced analytics to transform raw environmental data into standardized, automated air quality reports and actionable insights. This platform not only enhances traditional environmental monitoring but also opens new market opportunities by addressing critical gaps in regulatory compliance and decision-making for public authorities, industries, and research institutions</p>
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Service revenue	Not yet, only LoI available from 15 x municipalities
Licensing and Royalties (EU, National, Public Funding)	Not yet, only LoI available from 15 x municipalities
Other Incomes	N/A
Critical Assumptions and Constraints	
Assumption	<ul style="list-style-type: none"> • The environmental intelligence market will continue to grow, driven by tighter regulations and increasing demand for automated, real-time reporting. • Governments, municipalities, and industries will prioritize investments in advanced air quality monitoring and reporting solutions. • The company's AI-based interpolation technology will be successfully advanced to production-readiness (reaching TRL 8) and deliver reliable, actionable data insights. • Sufficient, high-quality environmental data is available and can be effectively integrated from diverse sources.
Constraints	<ul style="list-style-type: none"> • Technological Readiness – The AI-based interpolation technology must reach a high production readiness level (TRL 8), which requires sustained R&D and timely validation with academic and industry partners. • Data Quality and Dependency – The platform's performance hinges on acquiring high-quality, reliable environmental data from diverse sources. Any gaps or inconsistencies in these data feeds can limit the solution's effectiveness. • Regulatory Compliance – Evolving environmental regulations may impose stringent requirements that the platform must meet, potentially constraining development timelines and increasing operational complexity. • Financial and Scaling Limitations – Expanding the solution internationally demands significant investments in infrastructure, talent acquisition, and capacity building, which could constrain growth if funding or resources are limited.
Contact Information	
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