UPTIMEAI
Scale Operational Excellence

2025 NEW PRODUCT INNOVATOR

Pioneering New Features and Functionality to Exceed Customer Expectations

RECOGNISED FOR BEST PRACTICES IN THE NORTH AMERICAN HEAVY ASSET INDUSTRY FOR AI - DRIVEN OPERATIONAL EXCELLENCE

FROST & SULLIVAN

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Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. UptimeAI excels in many of the criteria in AI operational excellence for the heavy asset space.

Match to Needs, Positioning, and Design

Many predictive analytics solutions in the market fundamentally provide only an indication of anomaly or identify the symptom of a problem. It still requires an expert to diagnose and identify the root cause and prescribe what needs to be done. Existing solutions do not connect all the dots, which is identifying and analyzing the root cause and providing prescriptive recommendations. Predictive analytics products require additional context to prescribe and resolve an issue, which can come from the equipment at fault (either downstream or upstream), maintenance, or process reliability.

Most solution providers claiming to be AI companies typically build models that generate alerts only. Most of these companies come from analytics (data science) and IT/software backgrounds and aim to create an AI-first company, which is why most of these AI deployments fail. Manufacturing and process industries need a more holistic solution. To go beyond the plateau—which most manufacturing and process companies have reached with their existing toolsets—requires a different mindset to achieve the next level of growth. That mindset is operational excellence, which views issues more holistically from the root cause, understands how to optimize and operate a plant more efficiently, and does not just look at reliability or performance as its KPIs.

San Francisco-based UptimeAI stands out in this scenario as a virtual AI operational excellence expert to improve the profitability of heavy asset and process operations. The company offers a pure SaaS solution that acts as a virtual expert in delivering real-time, high-quality insights to guide operations teams by helping to predict or suggest imminent problems at the plant, why they occur, what the root cause is, and

what mitigation steps they should take. With a unique self-learning AI at its core, UptimeAI's[1] solution adapts, learns, and gets smarter on its own to optimize operational excellence for heavy assets.

UptimeAI displays its innovation leadership on several fronts. First, not every vendor is able to offer a holistic, prescriptive solution to scale across an entire plant because of numerous challenges, such as building "sustainable" models for hundreds of parameters across multiple assets, accurately identifying potential anomalies in equipment or process efficiencies, and presenting these insights in a timely, accessible format for operations teams to understand.

> *"Some pattern recognition software, generic AI platforms, and legacy approaches cannot keep up with the complexity of large data and end-to-end processes across the plant. Uptime AI solution covers 100% of plant assets and different types of equipment compared to some competitor products that only manage 10% or 20% of the plant. It rapidly builds holistic system models powered by deep learning for hundreds of parameters by considering reliability, process, performance, and maintenance use cases and understanding inter-equipment and equipment-process correlations to provide more accurate alerts and information."*
>
> ***– Sankara Narayanan***
> ***Industry Director***

Second, UptimeAI optimizes and streamlines maintenance, reliability, and processes. In a plant, process engineers and maintenance engineers often operate in silos with their own tools. However, these operations are interrelated and do not need four or five different tools. Some pattern recognition software, generic AI platforms, and legacy approaches cannot keep up with the complexity of large data and end-to-end processes across the plant. UptimeAI solution covers 100% of plant assets and different types of equipment compared to some competitor products that only manage 10% or 20% of the plant. It rapidly builds holistic system models powered by deep learning for hundreds of parameters by considering reliability, process, performance, and maintenance use cases and understanding inter-equipment and equipment-process correlations to provide more accurate alerts and information.

Third, AI solutions should be simple to use. The plant team must understand the insights being generated, the root causes of the problem, and suggestions on how to solve it. In contrast to general AI or data-focused platforms that only generate alerts or highlight tags contributing to an issue, UptimeAI combines data and domain expertise to present accurate information and solutions for the operations team. The application has a user interface, which helps teams understand the root cause, how things propagate, and how they relate to each other. Uptime AI empowers teams with self-learning AI embedded with domain knowledge and enables them to solve problems like experts.

Fourth, companies build models without the elements required to operationalize, which is why they fail. Plant operations are dynamic, with constantly changing processes and maintenance requirements. There is a risk of model drift when its predictive power diminishes when deployed in dynamic real production environments. It is not about building models but sustaining them. Keeping this in mind, UptimeAI builds models that sustain. The company's autonomous AI engine continuously learns from new sensor data,

[1] https://www.uptimeai.com/resources/predictive-maintenance-ai-operational-excellence/

user input, maintenance, and process updates to adjust the models to new conditions (as opposed to relying on manual updating of rules and models), making the models sustainable.

Overall, the solutions like UptimeAI [2] transform operations at scale in the process industry. UptimeAI looks at the fundamental challenges in operations, including understanding the root causes of a problem and how to efficiently solve them without always relying on a 20-year experienced engineer. To this end, UptimeAI is built to help modern equipment operators and plant engineers achieve true operational excellence.

Price/Performance Value, Customer Ownership, and Purchase Experience

UptimeAI is 10 times better than traditional predictive analytics solutions. The company's purpose-built AI scales efficiently, outperforming the market average of only 10 to 20% of companies succeeding at scaling. UptimeAI achieves more than a 90% success rate, scaling multiple lines, plants, and units in its deployments. This is because UptimeAI's solution is almost seven times faster to deploy than other analytics solutions. It deploys quickly (with high-quality insights) and consistently generates 10 to 15 times ROI within six to nine months of implementation without adding additional hardware.

In contrast to competitor solutions that take longer deployment times depending on the scope and complexity of the model, UptimeAI (once it gains access to data) can deploy within a few hours for large systems. For example, it can fully deploy a power generation unit for all assets in one week. This rapid response rate is because UptimeAI has designed this solution for plant engineers to seamlessly manage the deployment process through automation, eliminating the need for data scientists to carry out this process.

UptimeAI is unique because it focuses on helping customers solve issues relating to heavy asset and process operations by automating and explaining fault diagnosis and providing recommended actions. It can provide precise answers based on a built-in database for more than 120+ equipment types with 500+ failure modes. UptimeAI delivers a groundbreaking solution designed to mimic how to solve problems like experts, swiftly adapt to changes, and build new skills. The solution gets smarter with usage, and can extract best practices across sites and assets. Further, it generates almost 10 times fewer alarms and is eight times faster to understand the underlying root cause. This is because UptimeAI is powered by deep learning and understands the correlations between upstream and downstream operations, without any risk of model drift.

With UptimeAI, engineers understand the reasons behind symptoms and make better operational decisions faster than sorting alarms. Customers find the explainable and self-learning AI appealing.

UptimeAI also has large language models as a base foundation, bringing in more features. The company focuses on operational excellence and eliminates process inefficiencies and equipment failures across the plant. UptimeAI's main competitive differentiators that deliver the greatest customer value and retention are maximizing availability across the entire plant, minimizing efficiency losses, reducing maintenance costs, and improving workforce productivity.

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Brand Equity

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As a venture capital-backed entity, UptimeAI[3] recently completed its series A funding round. With 200+ years of combined industry experience, the company has more than a dozen senior subject matter experts with more than 40 years of experience in the process industry. Its employees come from Exxon, Shell, and BASF. Uptime AI has a full implementation team with 10 to 15 years of field experience, reflecting its deep industry understanding.

Industries that are looking for a blueprint into artificial intelligence for operations and looking beyond the traditional tools such as APR, predictive analytics and APM are more likely to purchase UptimeAI solutions. Oil and gas, chemicals, utilities, and cement are the focus markets for UptimeAI. Leading global industrial companies across the Middle East, North America, Europe, and India, including one of the top three Oil & Gas Companies in both Europe and North America, one of the top three global cement producers, one of the top three global chemical producers, Aditya Birla, GMR, BPCL, and Ultratech Cement, rely on UptimeAI's solutions. Despite being a recent industry entrant, Uptime AI has secured large accounts because of its exceptional ability to operationalize AI to effectively solve customers' industry challenges.

Conclusion

Process and heavy industries need proven, scalable, and purpose-built AI for equipment operators. UptimeAI successfully drives operational excellence using its AI-based virtual expert. With its holistic solution and unique system approach powered by deep learning, UptimeAI covers the entire plant and optimizes maintenance, reliability, and processes. Its autonomous AI engine continuously learns and adapts to ensure its models and insights are sustainable and easy to understand. Rapid deployment, scalability, quick ROI, and a built-in database for hundreds of equipment types with failure modes, precise alarms, and answers enhance UptimeAI's customer value proposition.

Focused on operational excellence with an explainable and self-learning AI, UptimeAI eliminates process inefficiencies and equipment failures across the entire plant, maximizing availability, minimizing efficiency losses, reducing maintenance costs, and improving workforce productivity. With its series A funding, strong customer base, and years of combined industry experience, UptimeAI is poised for strong growth in 2025 and beyond.

With its strong overall performance, UptimeAI earns Frost & Sullivan's 2025 North American New Product Innovation Award in the AI operational excellence for the heavy asset industry.

[3] https://www.uptimeai.com/resources/predictive-maintenance-ai-operational-excellence/

What You Need to Know about the New Product Innovation Recognition

Frost & Sullivan's New Product Innovation Award recognizes the company that offers a new product or solution that uniquely addresses key customer challenges.

Best Practices Award Analysis

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

New Product Attributes

Match to Needs: Customer needs directly influence and inspire product design and positioning

Reliability: Product consistently meets or exceeds customer performance expectations

Quality: Product offers best-in-class quality with a full complement of features and functionality

Positioning: Product serves a unique, unmet need that competitors cannot easily replicate

Design: Product features an innovative design that enhances both visual appeal and ease of use

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

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

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Engine™

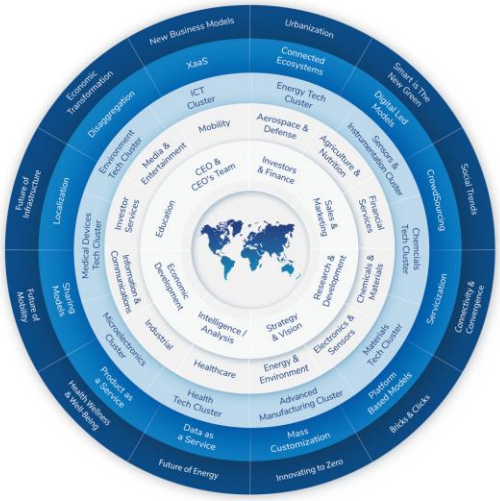
Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.
Learn more.

Key Impacts:

- **Growth Pipeline:** *Continuous Flow of Growth Opportunities*
- **Growth Strategies:** *Proven Best Practices*
- **Innovation Culture:** *Optimized Customer Experience*
- **ROI & Margin:** *Implementation Excellence*
- **Transformational Growth:** *Industry Leadership*

The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.



Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)