

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

2024

NEW PRODUCT
INNOVATOR

*IN THE NORTH
AMERICAN INDOOR
MAPPING INDUSTRY*

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

BEST

2024 PRACTICES

AWARD



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. DATAMARK Technologies excels in many of the criteria in the indoor mapping space.

AWARD CRITERIA	
<i>New Product Attributes</i>	<i>Customer Impact</i>
Match to Needs	Price/Performance Value
Reliability	Customer Purchase Experience
Quality	Customer Ownership Experience
Positioning	Customer Service Experience
Design	Brand Equity

Transforming Public Safety through Improved GIS and Indoor Mapping Solutions

The surge in 911 calls from mobile devices and indoor environments is driving new growth opportunities in the North American indoor mapping industry. With approximately 240 million calls made to 911 in the United States (US) each year, and over 70% of these calls originating from indoor environments, a pressing need has emerged for advanced location determination capabilities and accurate indoor mapping data to optimize spatial awareness for first responders during emergency events.¹

While most emergencies occur in indoor environments, the vast majority of existing floorplans for indoor locations are either unavailable to first responders in digital formats or severely outdated. Maintaining indoor mapping data is a complex and resource-intensive task due to frequent changes in building layouts. Since many emergencies occur indoors, keeping maps detailed and current is crucial. Continuous updates require significant investments in technology and fieldwork to ensure maps remain accurate and useful for emergency responses.

Despite these challenges, the public safety industry is on the brink of significant growth due to advancements in location determination capabilities and indoor mapping platforms. Frost & Sullivan recognizes a compelling opportunity to develop integrated geographic information system (GIS) platforms that leverage sophisticated indoor mapping data to enhance spatial awareness during emergencies. These solutions empower first responders to visualize buildings in three dimensions, pinpoint the floor levels of

¹ *Next Generation 911: The Future of Public Safety - Forecast to 2027*, (Frost & Sullivan, June 2023).

911 callers, and improve situational awareness, leading to more precise and efficient emergency response planning and management.

Advanced indoor mapping platforms enhance response effectiveness by providing critical insights into building layouts and security systems. Companies offering accurate, reliable indoor maps and seamless integration with existing systems will gain a competitive edge and be well-positioned to succeed as the public safety sector evolves. In a competitive yet largely untapped market, differentiation through superior data accuracy, ease of integration, and robust maintenance improves emergency response and creates substantial value.

In this environment, Frost & Sullivan believes DATAMARK Technologies' (DATAMARK) public-safety-grade indoor GIS data and proven collection methodologies uniquely position the company to capture new growth opportunities in the North American indoor mapping space.

INSIDE™: Transforming Building Safety & Incident Response with Advanced Indoor Mapping

DATAMARK combines the expertise of Michael Baker's public safety and GIS data management capabilities with Digital Data Technologies, Inc.'s top-tier Next Generation 911 location services. The unified brand offers an integrated solution that enhances call routing accuracy, provides seamless discrepancy resolution, and ensures high location fidelity for call takers. By leveraging advanced technologies such as indoor mapping, light detection and ranging (LiDAR), and digital twin technology, the company positions itself to serve the government technology and public safety market with unparalleled data accuracy and interoperability.

The Solution

INSIDE™, DATAMARK's cloud-native indoor mapping solution, revolutionizes building safety by integrating precise indoor data with tools for effective exit planning, emergency asset access, and incident response. This advanced platform allows users to visually manage, update, and collaborate on highly accurate indoor information, enhancing situational awareness and operational efficiency.

INSIDE transforms indoor maps into actionable intelligence by creating a common operating picture for public safety stakeholders and facility managers. It empowers first responders to plan efficient entry and exit routes, access equipment swiftly, and precisely locate incidents. With 360-degree imagery and closed-circuit television integration features, INSIDE provides a detailed virtual view of every room, aiding faster wayfinding and coordination.

The platform supports collaboration through a role-based interface, permitting multiple users to access and utilize indoor mapping data from smartphones, tablets, or computers. INSIDE's real-time integration with security camera footage enables public safety personnel to assess incidents before arriving on-site, improving response effectiveness and spatial awareness.

Additionally, INSIDE addresses the limitations of outdated, paper-based building plans by offering up-to-date digital data accessible to all authorized personnel. Therefore, the critical information flows seamlessly to those who need it, optimizing asset management, enhancing situational awareness, and enabling efficient emergency responses when every second counts.

Reliability, Quality, Design, and Price/Performance Value as Differentiators

One of DATAMARK's primary differentiators is its ability to manage and update GIS data in real time. Unlike competitors who rely on static portable document formats (PDF) or offline data updates, the company's INSIDE platform allows for seamless, online data edits. When changes are made, they are instantly propagated throughout all connected business systems. This real-time update capability ensures that all stakeholders can access the most current and accurate information simultaneously, significantly improving decision-making and response times.

Another crucial differentiator is the ability to manage access to sensitive data securely. DATAMARK's system permits credential-based access, ensuring only authorized personnel can view and update the data. This controlled access is vital when dealing with critical infrastructure and sensitive information, providing security and flexibility in data management.

"The DATAMARK indoor mapping solution and services are game-changing for public safety and something I never thought I would see in my career. I am impressed by the boundless innovation and unlimited potential of this tremendous technology."

**-Roger Bennet
Deputy Director, Allegany County
Department Emergency Services²**

The company's solutions are comprehensive and scalable. DATAMARK successfully manages projects of various sizes, from smaller counties to extensive state-wide implementations. For example, in Allegany, it captured data for 40 buildings, including schools, government buildings, a hospital, and an apartment building. This scalability enables the company to handle large and small projects efficiently, adapting to the community's changing needs over time.

Moreover, DATAMARK designed its approach to be cost-effective and efficient. Using a skeletal data collection and management approach, the company ensures that the system remains affordable while maintaining high-quality standards.

The on-demand self-service model allows stakeholders to make updates as needed, guaranteeing that the data remains current without incurring significant additional costs.

Furthermore, the seamless integration of DATAMARK's data with various public safety systems is another significant advantage. For example, integration with computer-aided dispatch (CAD), call handling systems, crisis alert systems, emergency management, and real-time crime center solutions. Such integration ensures that the data collected and managed by the company is immediately useful and actionable for emergency response teams, enhancing the overall effectiveness of public safety operations.

Finally, DATAMARK emphasizes the importance of sustainable data management. Recognizing that the landscape of GIS data is continuously evolving, the company provides ongoing data maintenance and updates. This continuous data management cycle involves expanding the stakeholder group to include all potential contributors, ensuring the data remains relevant and accurate as communities change.

Frost & Sullivan commends DATAMARK for its innovative approach to real-time GIS data management and integration, significantly enhancing decision-making and response times in public safety operations. The company sets a new standard for data accuracy and interoperability in the indoor mapping market by leveraging advanced technologies and ensuring comprehensive, scalable, and secure solutions.

DATAMARK's Strategic Positioning: Combining Accuracy, Efficiency, and Cost-effectiveness

"Frost & Sullivan commends DATAMARK Technologies for its dedication to improving incident response indoors through integrated, geospatial solutions that significantly enhance decision-making and response times in public safety operations. The company sets a new standard for indoor mapping technology by prioritizing stakeholder collaboration and the interoperability of disparate on-campus and in-PSAP security solutions."

-Brent Iadarola
Vice President, Frost & Sullivan

As a comprehensive, integrated solution, INSIDE overcomes the limitations of siloed data and disparate technologies. Recognizing that fragmented approaches lead to inconsistent information and decision-making, DATAMARK emphasizes the importance of a unified system where all stakeholders access and use the same accurate data. This strategy enhances the overall outcome by ensuring that everyone involved operates from a single, reliable source of information.

A key challenge in indoor mapping is the lack of readily available, high-quality data. The company tackles this obstacle by converting static data from PDF or files into live, shareable GIS datasets. Additionally, DATAMARK addresses data collection issues by employing a

photogrammetric approach, which balances cost and accuracy. This method produces centimeter-grade accuracy, superior to simpler devices like iPads but less expensive than high-end options like LiDAR.

"By transforming static indoor data into dynamic GIS datasets, DATAMARK Technologies delivers high data fidelity without prohibitive costs. Furthermore, its robust partnership with Esri and the support from Michael Baker International enable the company to offer scalable, integrated solutions that effectively meet the diverse needs of public safety and infrastructure projects, providing unparalleled value to its clients."

- Ojaswi Rana
Best Practices Research Analyst

The DATAMARK INSIDE platform integrates this high-quality data with industry-standard GIS systems for seamless connectivity with public safety systems. Unlike many competitors who offer static solutions, INSIDE allows stakeholders to directly update data through a user-friendly interface, providing real-time accuracy and dynamic updates across all systems. This comprehensive approach ensures that data management is accurate, continuously refined, and accessible, significantly enhancing the efficiency and effectiveness of emergency response and facility management.

One of DATAMARK's significant advantages is its partnership with Esri, the global leader in GIS software.

This relationship facilitates DATAMARK's leverage of Esri's technology and standards, providing robust and scalable solutions. While many smaller competitors also partner with Esri, they often target local government markets or specific funding opportunities rather than focusing on the comprehensive public safety solutions that DATAMARK offers.

DATAMARK's approach distinguishes itself by its ability to blend indoor mapping with broader infrastructure needs, supported by its parent company, Michael Baker International. Through this integration, the company can address diverse requirements, from public safety to infrastructure transformation, making its solutions versatile and highly applicable to various use cases.

The company's numerous large-scale contracts and pilots across the US, such as the significant projects in Illinois, Florida, and Maryland, are evidence of its success. These projects, involving hundreds of buildings, demonstrate DATAMARK's capability to handle extensive and complex GIS needs, further setting it apart from smaller regional competitors.

Frost & Sullivan is impressed by the company's strategic positioning and exceptional value for price. By transforming static data into dynamic GIS datasets and employing cost-effective yet accurate photogrammetric methods, DATAMARK delivers high data fidelity without the prohibitive costs of top-tier technologies like LiDAR. Furthermore, its robust partnership with Esri and the support from Michael Baker International enable the company to offer scalable, integrated solutions that effectively meet the diverse needs of public safety and infrastructure projects, providing unparalleled value to its clients.

Enhancing Customer Experience through Strategic Stakeholder Engagement

DATAMARK's stakeholder engagement is diverse and inclusive, ensuring that all relevant parties, including public safety agencies, school police, facilities managers, fire inspectors, code officers, and other relevant personnel, have a voice in the data management process. This approach makes each stakeholder feel valued and integral to the system, enhancing its overall value and fostering a sense of belonging.

Each member's credentials determine their access, a security measure that reassures all stakeholders about the safety of their data. This method maintains data security and promotes shared usage, meeting the immediate needs of public safety and providing additional benefits. By involving a broad range of stakeholders, DATAMARK delivers comprehensive, accurate data that enhances decision-making and operational efficiency for all involved, instilling confidence in the system's security measures.

The company's customer feedback mechanism emphasizes proactive engagement and responsive adaptation to client needs. Customers desire broader system integration, prompting DATAMARK to collaborate with various system providers to ensure their data is incorporated seamlessly into real-time crime centers, mass certification systems, panic button systems, and emergency management platforms. By taking responsibility for integrating and managing data across these systems, the company alleviates the burden on end users. The INSIDE platform is crucial in this process as it securely hosts data and allows users to make dynamically propagated updates across all connected systems. This approach continuously supports meeting customer needs and maintains high levels of satisfaction.

DATAMARK's proactive approach to staying attuned to market needs and legislative changes sets it apart, positioning the company as a knowledgeable and adaptive partner. By identifying opportunities to support clients through relevant new legislation, such as bills related to school safety and indoor mapping, which clients might not be aware of, DATAMARK showcases its expertise and adaptability. The company guides clients by implementing these new requirements and demonstrating how its solutions can integrate with their existing CAD and call-handling systems, enhancing its value proposition, building trust, and strengthening its brand.

Frost & Sullivan applauds DATAMARK for its comprehensive stakeholder engagement and adaptive feedback mechanism, which provide a voice to all relevant parties in the data management process. The company meets immediate client needs and anticipates future requirements by proactively integrating data with various systems and staying informed about legislative changes. This forward-thinking approach

enhances operational efficiency and decision-making, solidifying DATAMARK's reputation as a responsive and knowledgeable partner.

Conclusion

To create a successful new solution, a company must thoroughly understand market needs and deliver a high-quality and reliable performance solution. Frost & Sullivan finds that DATAMARK Technologies (DATAMARK) exemplifies this approach. DATAMARK's INSIDE™ allows real-time updates to indoor mapping data, ensuring all stakeholders access the most current and accurate information. This feature enhances operational efficiency by dynamically updating floor plans and critical data across all integrated systems, including computer-aided dispatch and emergency management platforms. With 360-degree imagery and closed-circuit television integration, INSIDE provides detailed virtual views of indoor environments. This capability supports effective emergency response planning by enabling first responders to visualize entry and exit routes, access emergency assets, and precisely locate incidents.

Furthermore, DATAMARK integrates a customer-centric approach to ensure its offerings address user needs and preferences. The company actively collaborates with clients to integrate the INSIDE platform with existing systems, ensuring that the data seamlessly incorporates into the tools users already rely on, enhancing functionality and usability. Also, it actively seeks and responds to customer feedback, such as requests for additional system integrations. By promptly addressing these needs and integrating user suggestions, DATAMARK continually refines its solutions to better serve its clients' evolving requirements.

DATAMARK earns Frost & Sullivan's 2024 North American New Product Innovation Award for its strong overall performance in the indoor mapping industry.

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

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)**

