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PRODUCT LEADER

*Advancing the Product Portfolio to Match
the Full Range of Customer Needs*

*RECOGNIZED FOR BEST PRACTICES IN THE
NORTH AMERICAN NEXT GENERATION GIS
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. DATAMARK Technologies excels in many of the criteria in the next generation GIS space.

RECOGNITION CRITERIA	
<i>Business Impact</i>	<i>Product Portfolio Attributes</i>
Financial Performance	Match to Needs
Customer Acquisition	Reliability and Quality
Operational Efficiency	Product/Service Value
Growth Potential	Positioning
Human Capital	Design

The Strategic Imperative 8: Factors Creating Pressure on Growth



- Innovative Business Models:** A new revenue model that defines how a company creates and capitalizes economic value, typically impacting its value proposition, product offering, operational strategies, and brand positioning
- Customer Value Chain Compression:** Customer value chain compression as a result of advanced technologies, internet platforms, and other direct-to-consumer models that enables the reduction of friction and the number of steps in customer journeys
- Transformative Megatrends:** Global forces that define the future world with their far-reaching impact on business, societies, economies, cultures, and personal lives
- Disruptive Technologies:** New, disruptive technologies that are displacing the old, and significantly altering the way consumers, industries, or businesses operate
- Internal Challenges:** The internal organizational behaviors that prevent a company from making required changes

- **Competitive Intensity:** A new wave of competition from start-ups and digital business models that challenge the standing conventions of the past, compelling established industries to re-think their competitive stance
- **Geopolitical Chaos:** Chaos and disorder arising from political discord, natural calamities, pandemics, and social unrest that impact global trade, collaboration, and business security
- **Industry Convergence:** Collaboration between previously disparate industries to deliver on whitespace cross-industry growth opportunities

The Transformation of the Next Generation GIS Industry

Next Generation 911 (NG911) represents an industry transformation that proactively enhances public safety by acknowledging and catering to citizens' rapidly evolving demands, products, lifestyles, and technologies. In contrast to a legacy voice-centric emergency 911 network, NG911 supports a more diverse set of intellectual property (IP)-based communications, including text, data, photograph, and video exchanges that enhance first responders' speed, accuracy, and preparation. Moreover, NG911 interconnects emergency call centers and other agencies in a standards-based way, enabling shared costs, resources, information, and applications. The Federal Communications Commission has adopted nationwide NG911 transition rules that define responsibilities and set specific deadlines for originating service providers to implement NG911 capabilities and deliver 911 communication in accordance with NG911 commonly accepted standards.¹

Frost & Sullivan estimates the NG911 market penetration, based on the percentage of the United States (US) population covered by closed emergency services IP network/next generation core services contracts, to grow from approximately 80.5% at the year end (YE) 2023 to approximately 97.4% by YE 2028.²

NG911 geographic information system (GIS) providers aggregate, validate, and maintain National Emergency Number Association-compliant GIS data synchronized across local, state, and regional levels to support call routing and optimize emergency response times. Despite widespread adoption of core services contracts (estimated at 75–80% of the US market), Frost & Sullivan estimates NG911-compliant GIS contracts remain underpenetrated in the US at around 30%, presenting substantial growth opportunities for forward-thinking GIS providers.³ States like Wyoming, Georgia, West Virginia, and Utah are beginning to make significant moves in this space, though funding challenges continue to slow adoption. This gap highlights a significant opportunity for further expansion for companies like DATAMARK Technologies.

DATAMARK Technologies: Leading Innovation in Geospatial Data Management for Public Safety and NG911 Systems

DATAMARK Technologies is a US-based technology company that specializes in geospatial data management solutions, next-generation core services, and location services for public safety, particularly

¹ Next Generation 911 (2024 Edition) (Frost & Sullivan, August 2024)

² Ibid.

³ Frost & Sullivan's Best Practices Research of DATAMARK (April 2025)

focused on supporting the NG911 systems implementation. It originated as a division of Michael Baker International, one of the largest engineering and consulting firms in the US, and has since evolved through strategic acquisitions, notably the 2024 acquisition of Digital Data Technologies, Inc. (DDTI).

DATAMARK Technologies differentiates itself through the solution's flexibility. Unlike competitors that impose rigid frameworks, DATAMARK Technologies allows customers to configure networks according to their specific needs, an advantage often cited by clients facing diverse public safety, taxation, and infrastructure management requirements. DATAMARK Technologies' customers include public safety answering points, local governments, state-level agencies, and regional emergency management organizations across the US.

Integrated GIS Solutions for Next-Generation Public Safety: DATAMARK's VEP and Location Platform

"A core strength lies in the platform's ability to drive workflow efficiency. Unlike competitors that require additional software for automation, VEP's built-in capabilities streamline the validation process. The platform's native automation capabilities enable users to conduct validations on demand, scheduling them nightly or at custom intervals without restriction, optimizing operations and enhancing data integrity."

- Brent Iadarola
Practice Area Leader

To meet diverse client needs, DATAMARK Technologies developed VEP (Validate, Edit, Provision), a solution that allows users to load native GIS data schemas, perform Extract, Transform, Load processes, and validate against NG911 standards and computer-aided dispatch (CAD)-specific and parcel data requirements. VEP enables jurisdictions to maintain a single authoritative base dataset while configuring validations for multiple workflows, such as next-generation call routing, dynamic computer aided dispatch routing, or taxation parcel management.

Through VEP, users can export datasets formatted for different applications, including NG911 systems and CAD platforms like CentralSquare and Motorola

Solutions. This multi-purpose approach standardizes data across departments, improves operational efficiency, and enhances overall data quality.

Managing multiple datasets often leads to discrepancies, complicating the authoritative source determination. DATAMARK Technologies addresses this challenge by deploying a collaborative enterprise toolset, enabling efficient conflict resolution and maintaining data integrity across public safety, taxation, and infrastructure management.

The VEP solution primarily serves public safety and 911 users, supporting local, state, and regional markets. In Florida, for example, next-generation 911 services are handled locally and regionally, while Texas follows a district- or council-based segmentation. Other states like Iowa, Arizona, Indiana, and Alabama employ statewide governance models where the state procures and distributes the Software as a Service (SaaS) solution across jurisdictions. VEP is flexible regardless of the location's workflows, thereby making it applicable across the US.

Furthermore, regional contractual arrangements, although occasionally presenting integration challenges when different GIS data providers are involved, tend to offer simpler integrations than statewide initiatives. A case in point is Florida's Region 3, where collaboration spans 15 counties despite varied GIS

management practices. VEP integrates at the core service level, supporting environments that do not require a separate GIS contractor.

The VEP platform offers three subscription tiers tailored to different organizational capabilities. GIS teams with advanced skill sets might choose the validator-only subscription, while less-resourced teams can utilize a full Esri-based web-based editing platform. This adaptability is exemplified in Alabama, where both advanced and novice GIS teams effectively use different components to meet NG911 standards.

DATAMARK Technologies' validation engine represents another significant differentiator: with nearly 300 quality control validations, it is considered one of the most comprehensive in the industry. Beyond supporting CAD and call handling systems, VEP integrates with taxation, parcel, and computer-assisted mass appraisal (CAMA) systems, maximizing return on investment by supporting cross-departmental use and potential cost-sharing.

A core strength lies in the platform's ability to drive workflow efficiency. Unlike competitors that require additional software for automation, VEP's built-in capabilities streamline the validation process. The platform's native automation capabilities enable users to conduct validations on demand, scheduling them nightly or at custom intervals without restriction, optimizing operations and enhancing data integrity.

Bridging the Gap between GIS Data Providers and Next Generation Core Services: Location Platform

DATAMARK Technologies expands on its leading VEP by integrating additional dynamic offerings, such as Location Platform suite. In legacy systems, provisioning location validation involved disparate manual interventions, delays, and the risk of conflicting records. The newly launched Location Platform introduces a fully integrated GIS-core services-location database environment, unlike traditional workflows where GIS and network services are siloed. It dynamically integrates VEP, the Location Validation Function, the Location Database, and the Emergency Call Routing Function. As GIS data loads into the environment, it becomes immediately available to carriers and operators. When discrepancies arise, the system triggers notifications through VEP, enabling practitioners to resolve issues in real-time.

If a GIS formatting issue (e.g., spelling abbreviations) causes a problem, providers can correct records collaboratively without external communications. This streamlines dynamic collaboration to eliminate inefficiencies traditionally associated with network provisioning and GIS data management.

The Location Platform's seamless integration provides a critical advantage, particularly as the Department of Defense and other major agencies increasingly recognize GIS as a pivotal factor in core services deployments.

Together, VEP and the Location Platform reflect DATAMARK Technologies' product leadership in advancing geospatial data readiness for next-generation emergency services. By combining flexible, standards-based validation with real-time integration across core systems, the company delivers scalable, high-quality solutions that meet the evolving needs of jurisdictions, from local agencies to federal stakeholders, ensuring accuracy, interoperability, and rapid response capabilities in critical public safety environments.

Driving Market Growth Through Innovation, Value, and Integrated Deployment Strategies

“Frost & Sullivan believes this combination of strategic pricing, market analysis, and continuous innovation underscores DATAMARK Technologies’ commitment to product leadership. By modernizing its platform, expanding validation capabilities, and introducing deployment tools like SEA, the company has accelerated time-to-value for clients while maintaining cost-efficiency.”

- Marcos Ainchil
BPR Analyst

Clients increasingly prioritize functionality, support, and overall value over cost, allowing DATAMARK Technologies flexibility for modest price increases. The company’s pricing model has changed from a traditional tiered approach to a per capita model. This shift, coupled with platform modernization, enables better management of the total cost of goods sold while maintaining competitive pricing aligned with client needs.

The company routinely conducts Total Addressable Market and Serviceable Available Market analysis to continuously refine its growth strategy. Early results indicate a promising landscape, particularly as some

competitors narrow their focus to niche areas like school safety, reducing overall competition in the core GIS space.

DATAMARK Technologies also performs significant modernization efforts to the VEP platform, such as performing a complete code remodel that drastically improves processing speeds. For example, a statewide dataset previously required 19 hours for full quality control processing completes in under 90 minutes.⁴

The company’s other enhancements include expanded validations for CAD data, addressing attributes like dual carriageways, speed limits, and directionality, and new capabilities for parcel and CAMA data validations. These improvements provide jurisdictions with a bundled, affordable solution compared to competitors who often require the purchase of separate rule packages.

Additional product developments include a mobile application for field verification and the Single-Entry Aggregator (SEA) deployment option. SEA enables rapid statewide deployment using a unified dataset, as demonstrated in Missouri’s implementation, completed in just 90 days compared to Alabama’s previous 11-month rollout.⁵

Following the DDTI acquisition, existing customer contracts and deployments required careful integration planning. Many core services deployments involved separate GIS contracts, creating challenges. DATAMARK Technologies addressed these challenges by developing a go-to-market strategy centered on native GIS integration, enabling customers to consolidate offerings and benefit from a unified platform.

Frost & Sullivan believes this combination of strategic pricing, market analysis, and continuous innovation underscores DATAMARK Technologies’ commitment to product leadership. By modernizing its platform, expanding validation capabilities, and introducing deployment tools like SEA, the company has accelerated time-to-value for clients while maintaining cost-efficiency. The proactive integration strategy following the DDTI acquisition further positions DATAMARK Technologies to deliver scalable, unified

⁴ Frost & Sullivan’s Best Practices Research of DATAMARK (April 2025)

⁵ Ibid.

solutions that align with evolving market needs and solidify its leadership in next-generation GIS and public safety infrastructure.

Enabling User Success Through Scalable Tools, Automation, and Personalized Support

DATAMARK Technologies' SaaS-based architecture supports users across a wide spectrum of GIS expertise. Advanced GIS users seamlessly integrate their databases, while supervisors with limited technical backgrounds can also manage and validate data effectively. This adaptability ensures high-quality, compliant datasets regardless of internal skill levels.

The company also delivers a strong client services experience, offering GIS users access to a support center with a ticketing system available from 8:00 AM to 8:00 PM Eastern Time and assigning each client a dedicated Client Success Manager (CSM). CSMs also assist with onboarding, project execution, and issue resolution. In addition to providing personalized support, DATAMARK Technologies hosts instructional videos and answers frequently asked questions online, thereby giving customers answers outside office hours. As such, clients value the ability to gain answers to queries regardless of time and appreciate the personalized touch of CSMs for more extensive issues.

Conclusion

DATAMARK Technologies has demonstrated outstanding product leadership in the next-generation geographic information system (GIS) industry through its flexible, scalable, and standards-based solutions that address the evolving needs of public safety agencies. By integrating real-time validation, expanding cross-departmental functionality, and offering rapid deployment models like Single-Entry Aggregator (SEA), the company ensures high-quality, compliant GIS data that improves emergency response outcomes. Its client-centric approach, which combines advanced automation with personalized support, further enhances customer satisfaction and long-term value. DATAMARK Technologies sets a benchmark for innovation and operational excellence in Next Generation 911 (NG911) geospatial data management with strategic modernization efforts and a forward-looking market strategy.

With its strong overall performance, DATAMARK Technologies earns Frost & Sullivan's 2025 North American Product Leadership Recognition in the next-generation GIS industry.

What You Need to Know about the Product Leadership Recognition

Frost & Sullivan's Product 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 Product Leadership Recognition, Frost & Sullivan analysts independently evaluated the criteria listed below.

Product Portfolio Attributes

Match to Needs: Customer needs directly influence and inspire the product portfolio's design and positioning

Reliability and Quality: Products consistently meet or exceed customer expectations for performance and length of service

Product/Service Value: Products or services offer the best value for the price compared to similar market offerings

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

Business Impact

Financial Performance: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Leveraging innovative technology characterizes the company culture, which enhances employee morale and retention

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

<http://www.frost.com>.

is fuelled by the Innovation Generator™.

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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



broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

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

