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Enhancing Customer Im

TECHNOLOGY INNOVATION

Enhancing Customer Impact Through Powerful Technology Integration

RECOGNIZED FOR BEST PRACTICES IN THE NORTH AMERICAN CONNECTED AND TELEMATICS INSURANCE INDUSTRY

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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. IMS excels in many of the criteria in the connected and telematics insurance space.

RECOGNITION CRITERIA			
Business Impact	iness Impact Technology Leverage		
Financial Performance	Commitment to Innovation		
Customer Acquisition	Commitment to Creativity		
Operational Efficiency	Stage Gate Efficiency		
Growth Potential	Commercialization		
Human Capital	Application Diversity		

The Transformation of the Connected and Telematics Insurance Industry

Insurers increasingly deploy connected insurance models, leveraging real-time telematics data to inform risk assessment, pricing, and claims. These policies—often called usage-based insurance (UBI)—collect information such as mileage, trip timing, speed, acceleration, and braking patterns via smartphone applications (apps) or plug-in devices. Carriers tailor premiums based on objective driver behavior rather than static demographic assumptions, offering fairer rates and strong financial alignment with individual risk. Connected insurance enables real-time alerts for unsafe behaviors and automatic crash notifications, accelerating claims handling and improving response outcomes. Insurers also engage policyholders through gamified driving scores, personalized feedback, and incentive programs—boosting loyalty and reducing accident frequency.

In the Insurtech market, there is a growing demand for data-driven solutions such as UBI, digital alerts, and accident detection, which enhance personalization, safety, and efficiency in insurance processes. These solutions enable real-time risk management and streamline claims handling. Frost & Sullivan projects the UBI market to reach 56 million policies by 2025, representing a 4.2% global penetration. Telematics companies are poised to integrate artificial intelligence (AI) and machine learning (ML) technologies in this space to create more personalized, user-centric products. Most insurers will transition

¹ Global Connected Vehicle Market Growth Outlook, 2025 (Frost & Sullivan, July 2025)

toward digital insurance models, focusing on smartphone- or telematics-based options or a combination of both technologies.

Frost & Sullivan recognizes that as vehicles become extensions of the digital lifestyle, the convergence of automotive, technology, and insurance ecosystems will define the next wave of mobility innovation, with data-driven services, seamless connectivity, and cross-industry collaboration at the core of long-term value creation.

IMS: Powering Data-Driven Transformation in Insurance and Mobility

Founded in 1999 and headquartered in Crewe, United Kingdom (UK), Insurance & Mobility Solutions (IMS) is a global telematics and connected insurance innovator. IMS delivers enterprise-grade solutions—built on its DriveSync® platform—that empower insurers, original equipment manufacturers (OEMs), mobility operators, and governments to harness driving and vehicle data from any source: smartphone apps, aftermarket hardware, or embedded OEM systems. Its core products include the IMS One App™ software development kit (SDK), Engagement Toolset™, and Connected Claims™, designed to support usage-based and mileage-based insurance, driver scoring, and crash-first claims workflows. IMS uses Al-driven analytics to translate driving behavior into predictive risk scores, enabling personalized pricing, motivated behavior change, fraud detection, and improved claims efficiencies. It supports over 600,000 live connections across North America and Europe, combining rich telematics capabilities with deep insurance domain expertise.²

Driving Innovation through Technological Leadership and Adaptive Product Strategy

IMS originated with expertise in claims and repair services, initially developing a black box solution to analyze collisions and streamline claims. As telematics gained traction for reducing young driver risks, the company added behavior scoring to its technology and pivoted toward UBI. With limited early insurer adoption, IMS focused on fleet clients and launched a regulated insurance brand, Carrot, in 2012. Carrot rewarded safe driving and proved the viability of IMS's model, earning industry recognition and underwriting support from Zurich Insurance Group. In 2015, IMS white-labeled Carrot for Royal & Sun Alliance and introduced Better Driver, its first smartphone-based telematics product. This shift reflected an industry-wide move toward lower-cost, frictionless smartphone solutions for driver data collection.

Global consumer research conducted by IMS confirmed this direction, revealing that 44% of respondents preferred smartphones as the method for sharing driving data with insurers—more than double the next most popular option.³ This data validated IMS's strategic evolution toward smartphone-centric solutions, aligning both with consumer expectations and operational efficiencies.

Despite growing interest in OEM data as a telematics source, IMS has identified persistent barriers to widespread adoption. Challenges include a lack of explicit consent, inconsistent data quality, low transparency, and fragmented standards. While initial estimates had OEM-sourced telematics to reach ubiquity by 2022, IMS anticipates mainstream adoption for the 2028-2030 period.

² Frost & Sullivan's Best Practices Research Interview of IMS (July 2025)

³ Frost & Sullivan's Best Practices Research Interview of IMS (July 2025)

IMS has positioned itself as a leading smartphone-based telematics solution provider, alongside Cambridge Mobile Telematics. Unlike hardware-dependent models, smartphone telematics relies on embedded sensors—such as GPS, accelerometers, and gyroscopes—across a broad range of devices. This reliance requires continuous adaptation to evolving mobile operating systems and hardware variability, especially within the fragmented Android ecosystem. IMS has made sustained investments in ensuring compatibility across platforms and handset brands, including those that do not use Google Play services.

A primary technical challenge involves maintaining background functionality as Apple and Android systems introduce new power and data restrictions. IMS has developed mechanisms to ensure its apps function reliably while minimizing battery and processor usage. As smartphones continue to improve, the enhanced sensitivity and accuracy of their sensors have elevated data quality, enabling more precise analysis of driving behavior.

Beyond the technical layer, IMS focuses heavily on maintaining data integrity and addressing behavioral inconsistencies. The company has developed advanced normalization algorithms to account for differences in device hardware and sophisticated misuse detection capabilities. Drawing on its experience with Carrot, IMS identified patterns where users attempt to manipulate data (i.e., disabling location services during risky trips) and built algorithms to detect intentional data suppression. These mechanisms distinguish between occasional, rational user behavior and repeated misuse, using heartbeat polling to monitor sensor availability and battery levels.

"Beyond the technical layer, IMS focuses heavily on maintaining data integrity and addressing behavioral inconsistencies. The company has developed advanced normalization algorithms to account for differences in device hardware and sophisticated misuse detection capabilities."

- Parduman Satpal Industry Analyst IMS recognizes that data collection alone does not improve outcomes in UBI; the real value lies in proactive engagement, timely intervention, and automated communication. Through nearly a decade of operating Carrot, the company has validated that smartphone-based UBI creates significantly more touchpoints with policyholders than traditional auto insurance models. These increased interactions—ranging from nudges and rewards to corrective feedback—offer opportunities to influence driver behavior in real time.

IMS's Engagement Toolset™ enables insurers and mobility providers to influence driver behavior at scale through personalized, behavior-driven communications and rewards. The platform segments users by driving behavior, demographics, or risk profile, powered by an AI-based Decision Engine, and delivers tailored messaging via in-app notifications, short message service, or rich media. Features include coaching prompts, gamified milestones, leaderboards, and reward programs, all configurable through a self-service or managed-service portal. These tools sustain high engagement—56% of users check their driving scores daily, 88% weekly—and have been shown to reduce collisions by 39%, delivering up to a 3× return on investment when reward costs remain within 1–2% of premiums.⁴ By moving beyond data

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⁴ https://ims.tech/

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collection to proactive behavior modification, the IMS platform helps insurers improve driver safety, loss ratios, retention, and customer satisfaction without adding operational overhead.

IMS's research suggests that even awareness of monitoring can trigger short-term behavioral improvements. However, sustained change requires consistent, well-crafted messaging that educates users about scoring mechanisms, encourages safer habits, and reinforces positive actions through rewards.

IMS anticipates increased adoption of hybrid telematics models that combine embedded vehicle systems with smartphone-based solutions. The company expects this dual approach to gain traction among OEMs and insurers seeking to balance engagement with data reliability by 2030. The company sees growing interest in this configuration as connected car penetration increases.

The IMS Vehicle Data Exchange enables insurance carriers, mobility providers, and government organizations to access live, comprehensive vehicle data from any source. As the data ingestion layer of the IMS DriveSync® platform, it supports a fully data-source-agnostic approach, integrating smartphone applications, aftermarket devices such as Bluetooth, on-board diagnostics, and black box units, as well as OEM-embedded hardware. This flexibility future-proofs telematics programs by ensuring compatibility with both current and emerging data sources. IMS distinguishes itself through its ability to work with all data types while also supplying a complete range of aftermarket data collection options. By standardizing incoming information, the Vehicle Data Exchange reduces technical complexity, streamlines integration, and supports seamless program expansion. This unified approach allows insurers and mobility providers to accelerate growth, enhance operational efficiency, and extract greater value from connected vehicle initiatives.

IMS is developing new initiatives aligned with embedded insurance, though specific details remain confidential until a planned launch in September 2025. This upcoming solution, designed in partnership with a major United States distribution partner, reflects embedded characteristics while also addressing cost-efficiency and data-sharing concerns identified in IMS's research.

In parallel, IMS is advancing its use of AI in driver behavior analytics. The company is actively collaborating with Amazon Web Services to enhance interpretation and scoring capabilities, with select initiatives that IMS will preview at its annual customer conference. This roadmap focuses on capturing the mass-market opportunity presented by embedded and usage-based insurance while ensuring both consumer appeal and insurer value.

Accelerating Market Adoption and Sustaining Competitive Growth Trajectories

IMS has observed a notable shift in both consumer and insurer expectations around telematics data. While the core consumer motivation remains access to lower insurance premiums in exchange for sharing driving data, a finding supported by the company's global consumer survey, new use cases have emerged. Consumers continue to value safety incentives and rewards, but fundamentally, the willingness to share data hinges on perceived cost savings.

In addition to traditional "pay-as-you-drive" and "pay-how-you-drive" models, insurers have begun using telematics for risk assessment at the point of quote. This approach allows consumers to voluntarily share

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driving behavior data, usually via smartphone, for pricing enrichment on standard, non-telematics motor products. Insurers often integrate IMS's telematics SDK into existing mobile apps that customers already use for routine policy adjustments, streamlining adoption.

IMS has also supported clients in launching claims-focused telematics propositions. These solutions utilize smartphone apps or devices to detect collisions and enable rapid roadside support and efficient claims processing, without requiring continuous data sharing.

Reward-based engagement programs have also demonstrated strong financial performance. In programs where insurers invest approximately 2% of gross written premium into a reward pool, IMS has observed up to 3x return on investment, driven by improved loss ratios.⁵ Behavioral interventions have proven especially effective; nearly half of the drivers who receive an initial speeding alert do not repeat the offense, reducing overall risk within the insured population.

IMS draws a parallel to behavioral economics in health insurance, likening the impact of small, consistent rewards to ones seen in programs like Vitality Health, where simple incentives such as free coffee or movie tickets promote long-term engagement. This habit-forming dynamic has translated well to motor insurance, where personalized feedback and achievable incentives have shown sustained positive effects on driver behavior and insurer profitability.

IMS expects substantial industry growth up to 2030, driven by consumer willingness to share data, decreasing technology costs, and increasingly sophisticated data capture tools. Shifts in insurer buying behavior have led to heightened demand from players previously aligned with competitors. As a result, IMS reports winning all the last seven major telematics insurance contracts under competitive tender processes in the 2024-2025 period.

With major customer launches scheduled in the United States and Canada, IMS projects strong revenue growth. Even maintaining current market share could lead to significant increases in volume, with industry analysts forecasting compound annual growth rates between 18% and 23% through 2028.⁶

Enhancing Operational Excellence and Investing in Organizational Capabilities

While smartphone telematics adoption is growing, IMS's research indicates that consumer trust remains a major barrier. Many users express concerns about data privacy, scoring transparency, and the potential misuse of shared data. Only about half of respondents in the company's global survey were aware of UBI, and a significant portion indicated discomfort with data-sharing due to a lack of clarity from insurers. The research revealed a bell curve of consumer attitudes: a minority are either firmly resistant or fully supportive, while a large, persuadable middle group remains cautious but open.

IMS emphasizes that insurers must address this gap through improved communication, greater transparency about scoring methods and data use, and clear articulation of cybersecurity measures. While the technical foundation for smartphone telematics is well-established, long-term success in UBI adoption depends equally on building consumer confidence and trust.

⁵ Frost & Sullivan's Best Practices Research Interview of IMS (July 2025)

⁶ Ibid.

The company has also seen measurable results for its client deployments. For instance, smartphone-based claims solutions have significantly reduced claims cycle times, in some cases removing weeks of shelf life. This acceleration not only improves the customer experience but also minimizes associated attritional costs, especially in cases of fraud detection, where IMS can verify location and impact data to dispute staged or inaccurate claims.

In markets with high levels of insurance fraud, IMS observes that covert, professionally installed black box devices remain the most effective tools for both theft recovery and high-fidelity accident reconstruction.

"With deep domain expertise, robust analytics capabilities, and a flexible technology platform, IMS is uniquely positioned to help insurers navigate the complex challenges of UBI and connected claims adoption. Its ability to deliver both smartphone-based and hardware-based solutions allows clients to tailor deployments by market conditions, fraud risk, and consumer preferences."

Marcos Ainchil
 BPR Analyst

These wired black boxes, often mounted securely to the vehicle's chassis, provide consistent sensor quality and reliable impact orientation data, making them the gold standard for capturing collision evidence. While smartphone-based solutions excel in user convenience and engagement, they cannot support theft recovery because the phone typically leaves the vehicle with the driver. Despite their technical superiority, black box solutions are costly and less favored by consumers, limiting their broad adoption. Nevertheless, in regions with elevated fraud risk, insurers continue to rely on this approach.

IMS confirms that extended telematics functionality—such as accident reconstruction and fraud detection—

offers considerable untapped potential for claims cost reduction. In large-scale deployments with black boxes in the early 2010s, IMS demonstrated that telematics data significantly improved insurers' ability to assign liability and reject fraudulent claims. For example, in disputed cases that might otherwise settle on a 50/50 basis, IMS provided definitive data proving policyholder non-fault, thereby avoiding unnecessary payouts.⁷

However, despite the value of this data, many insurers have hesitated to restructure claims processes for their small UBI portfolios. Claims teams often view the integration of telematics-based workflows as resource-intensive, especially when UBI policies represent a minor share of total motor claims. This operational inertia has limited the realization of full telematics benefits. That said, forward-looking insurers like Zurich Insurance Group have embraced the approach and achieved an 8-point improvement in combined operating ratio purely from telematics-enhanced claims handling.

IMS underscores that consumer attitudes support this direction. In a market survey, the highest-ranked benefit among consumers was the ability to share mileage data, indicating openness to mileage-based programs. The second most favored feature was sharing data with insurers at the time of a collision, suggesting strong consumer willingness to engage in claims-first telematics models.

IMS sees considerable opportunity in positioning claims functionality as a soft entry into UBI. By first introducing consumers to the benefits of data-sharing during claims, insurers can later encourage deeper

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⁷ Frost & Sullivan's Best Practices Research Interview of IMS (July 2025)

engagement through behavior-based programs. While pay-per-mile insurance has yet to gain significant traction due to concerns about premium uncertainty, claims-first models offer a low-friction starting point for broader telematics adoption.

IMS also notes that while automakers possess the infrastructure to disrupt traditional insurers—through embedded data, direct customer relationships, and in-vehicle engagement opportunities—few have successfully executed insurance offerings. However, emerging Chinese OEMs could present a stronger competitive threat. These manufacturers tend to be more agile, digitally oriented, and unburdened by legacy systems or dealership models, giving them a potential edge in embedding innovative insurance solutions into the vehicle ownership experience.

With deep domain expertise, robust analytics capabilities, and a flexible technology platform, IMS is uniquely positioned to help insurers navigate the complex challenges of UBI and connected claims adoption. Its ability to deliver both smartphone-based and hardware-based solutions allows clients to tailor deployments by market conditions, fraud risk, and consumer preferences. By combining technical innovation with strategic insight into insurer operations and consumer behavior, IMS enables measurable performance gains in loss ratios, operational efficiency, and customer engagement—solidifying its role as a trusted partner in transforming insurance delivery through telematics.

Conclusion

IMS stands at the forefront of the connected insurance revolution, delivering measurable value across the insurance and mobility ecosystems. With a proven ability to deliver both cutting-edge smartphone solutions and high-fidelity hardware integrations, IMS empowers insurers to reduce claims costs, enhance customer engagement, and enable safer driving behaviors. The company's research-driven strategy, operational excellence, and strong client outcomes—including reduced claims cycle times and improved combined ratios—highlight its market impact. By pairing technical agility with deep industry expertise, IMS continues to set the benchmark for connected insurance globally.

With its strong overall performance, IMS earns Frost & Sullivan's 2025 North American Technology Innovation Leadership Recognition in the connected and telematics insurance industry.

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What You Need to Know about the Technology Innovation Leadership Recognition

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

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

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

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 Generator™

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:

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

