



*Upstream Security Recognized for*

**2021**

**Technology Innovation Leadership**

European Connected Vehicle Analytics  
and Cybersecurity Industry

*Excellence in Best Practices*

## 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. Upstream Security excels in many of the criteria in the connected vehicle analytics and cybersecurity space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Business Impact</i>
Commitment to Innovation	Financial Performance
Commitment to Creativity	Customer Acquisition
Technology Incubation	Operational Efficiency
Commercialization Success	Growth Potential
Application Diversity	Human Capital

### ***Upstream Security: Leader of Connected Vehicle Analytics and Cybersecurity Market***

Founded in 2017 in Herzliya, Israel, Upstream Security developed an excellent reputation by producing an industry-leading cloud-based centralized cybersecurity platform that enables clients to safeguard the technologies and applications of connected and autonomous vehicles via the application of big data and machine learning (ML). By leveraging its transformative cloud-based centralized cybersecurity

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***- Maksym Beznosiuk, Best Practices Research Analyst***

technology, the company outpaces its competitors, enabling clients to achieve total vehicle security, higher reliability, and substantial financial savings.

Notwithstanding harsh competition and a challenging economy, Upstream Security advances cloud-based centralized cybersecurity and analytics technology, strengthening its market position and bringing high-performance solutions to clients worldwide.

Since 2017, Upstream Security has secured funding from various automotive investors (e.g., CRV, Maniv Mobility, and Gilot Captial Partners), collectively amounting to approximately \$80 million. In 2019, the company obtained \$30M from Renault Venture Capital, Volvo Group, Hyundai and several other

investors, such as Salesforce.<sup>12</sup> Furthermore, in May 2021, Upstream Security secured \$36M from Mitsui Sumitomo Insurance, a subsidiary of MS&AD Insurance Group Holdings.<sup>3</sup> Frost & Sullivan believes that such an investment will enable Upstream Security to advance the commercialization of its industry-leading cloud-based centralized cybersecurity technology. It will also aid its current efforts to penetrate European and other markets worldwide to support vehicle original equipment manufacturers (OEMs) and mobility providers to secure their vehicles, servers, and application via data.

Furthermore, Upstream Security partners with various vehicle and technology companies around the globe. For instance, in February 2020, Upstream Security partnered with the Automotive Security Research Group (ASRG), a non-profit organization working on automotive security advancements to enable its members to gain access to enhanced automotive cyber threat intelligence powered by Upstream Security's Upstream's AutoThreat® Intelligence.<sup>4</sup> Specifically, Upstream Security's threat intelligence platform can notify ASRG automotive stakeholders about potential cyber risks to automotive products and provide the opportunity for universities, public researchers, and individuals from the private and public sector to submit automotive cyber threats or vulnerabilities anonymously.

In June 2020, Upstream Security partnered with Amazon Web Services (AWS) to empower automotive companies using AWS with the cybersecurity insight, capabilities, and mitigation tools needed to function effectively in the challenging cyber threat landscape of smart mobility and connected vehicles. Such a partnership with AWS is especially crucial as it further boosts Upstream Security's digital and cloud capabilities to deliver industry-leading solutions to automotive AWS customers like OEMs and vehicle fleets.

In July 2020, Upstream Security partnered with Microsoft Corporation to integrate its cloud-based automotive cybersecurity platform with Microsoft's Connected Vehicle Platform (MCVP) to enable OEMs to identify threats posed to connected vehicle infrastructure encompassing the vehicle and its telematics servers and mobile applications.<sup>5</sup> Namely, this integration comprises various options for automotive data ingestion utilizing MCVP components by Upstream Security's automotive cybersecurity platform and its application jointly with MCVP for investigation, containment, and remediation of numerous cybersecurity detection scenarios.

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<sup>1</sup> <https://upstream.auto/news/round-b-pr/>

<sup>2</sup> <https://upstream.auto/press-releases/upstream-expands-series-b-funding-with-investment-from-salesforce/>

<sup>3</sup> <https://upstream.auto/press-releases/msi-invests-in-upstream/>

<sup>4</sup> <https://upstream.auto/press-releases/asrg-partners-with-upstream/>

<sup>5</sup> <https://upstream.auto/press-releases/upstream-collaborates-with-microsoft-to-deliver-secured-connected-vehicle-solution/>

Frost & Sullivan recognizes that Upstream Security meets customers' needs and exceeds their expectations as multiple clients value the top-performance and business impact of its connected vehicle analytics and cybersecurity solutions:

*“We were impressed by Upstream Security’s mature platform and exciting customer traction, which is why we made the investment. Upstream Security’s world-class team built a truly unique cloud-based automotive cybersecurity model that is highly scalable with a visionary technical approach that solves a growing problem in the mobility industry.”<sup>6</sup>*

- Head of Alliance Ventures

*“In this world of software-defined vehicles, security is paramount for automakers and drivers. Upstream Security’s integrations with the MCVP and Azure Sentinel will allow automakers and fleet owners to detect, analyze and respond to cyber threats, ultimately helping to keep road users safe.”<sup>7</sup>*

- General Manager of Microsoft Azure Mobility and MCVP

*“We’re thrilled to have Upstream Security as part of our partner network and automotive solutions. Upstream Security is known for delivering cutting-edge cybersecurity solutions that help automotive customers transform the way they secure their connected vehicles.”<sup>8</sup>*

- Director of AWS Automotive

### **Providing Companies with Industry-leading Connected Vehicle Analytics and Cybersecurity**

Today, the automotive industry experiences a gradual transition towards connectivity, enabling automotive companies and service providers to monetize car data and acquire higher operational results. At the same time, however, connectivity exposes vehicles to a wide variety of cyber risks and misuses that have not existed in the past. OEM car makers and service providers face difficulty detecting

cyber threats that target their smart mobility services and connected vehicles. Thus, there is an urgent need for novel and efficient cybersecurity solutions to secure smart mobility ecosystems like vehicles from cyber-attacks, misuses, or frauds. Upstream Security is at the forefront of providing connected vehicle analytics and cybersecurity solutions that enable companies in the automotive industry to ensure higher safety and operational efficiency while cutting expenses. Currently, in addition to its AutoThreat

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<sup>8</sup> <https://upstream.auto/press-releases/upstream-security-partners-with-amazon-web-services-to-enhance-automotive-cybersecurity/>

Intelligence solution, the company's primary offering is a cloud-based cybersecurity and data analytics platform purpose-built for connected vehicles and mobility services. The platform offers several competitive advantages:

- **Unparalleled Security:** The industry-first cloud and ML-based cybersecurity platform equips clients with a powerful combination of intrusion prevention and detection systems for automotive protocols coupled with ML algorithms accustomed to fleet and driver behavior. Moreover, the platform enables clients to ensure protection from remote cyber-attacks, data center breaches, and theft of a vehicle's intellectual property. Simultaneously, the platform relies on autonomous ML detection for unknown threats to identify and analyze a broad range of unknown risks, reducing threat rates and false positives. As a result, clients can obtain information on early and accurate detection of actionable incidents that ensure prompt root cause analysis.
- **Regulatory Compliance:** As the UNECE WP.29 (R155) demands, OEMs must integrate necessary cybersecurity measures to achieve protection against not only in-vehicle threats, but also remote attacks and data breaches. Upstream's solution offers holistic monitoring of security events across all the connected sources, covering communications between the vehicles, the infrastructure, and the third party services and applications connected to the automotive cloud network. This centralized automotive cloud security protects the connected car's entire ecosystem and offers vital components such as context and behavioral analysis. Based on correlating multiple security events, cloud-based cybersecurity provides full visibility of all users, devices, and data feeds, and turns that data into actionable intelligence to alert on real-time events and prevent future attacks.
- **VSOC Integration:** The Upstream platform is designed to work hand in hand with existing general-purpose cybersecurity products, with many pre-built fully tested integrations in place. When deployed together with a general-purpose SIEM or SOAR solution, Upstream provides both automotive cybersecurity detection and additional non-cyber smart-mobility use cases for deep, contextually rich investigation of automotive targeted incidents. Typically, Upstream's platform is utilized as a detection engine with the SIEM handling ticketing, workflow, and case management functions.
- **Full Visibility and Flexibility:** The platform provides fleet-wide visibility via analytical tools and real-time actionable insights into fleet health and vehicle activities. Specifically, the platform enables clients to acquire data regarding the driver and vehicle behavior, maintenance, vehicle utilization, and driving routes, enabling fleet stakeholders to improve the driver experience and vehicle quality and reliability. Also, Upstream Security's platform allows companies to examine incidents quickly, uncover root causes, identify blind spots, and problematic areas.
- **Domain Expertise:** Both the Upstream platform and Upstream's AutoThreat Intelligence utilize purpose-built contextual awareness combined with automotive domain expertise to provide early detection and the ability to get to the root cause of cyber incidents. The company's dedicated security professionals research and analyze new vulnerabilities to constantly update the database of malware signatures, threat indicators, and security policies to uncover new threats that could compromise connected vehicles.

- **User-Friendly and Customizable:** The Upstream platform offers users a dashboard with crucial insights enabling clients to identify cyber risks in real-time while automatically classifying them based on impact and severity, alerting security analysts immediately. It provides recommendations for prompt actions via pre-built integration with third-party security operation center solutions. Furthermore, the platform enables clients to customize detection policies based on their cybersecurity policies catered to specific business objectives. The platform utilizes a streamlined drag-and-drop interface that allows users to ensure policy creation and enforcements swiftly via one centralized location. At the same time, the platform comes with a pre-built automatic library of policies designed to identify a broad variety of automotive cyber-attacks.

## Conclusion

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Today, many companies in the automotive sector seek effective cybersecurity and analytical solutions to ensure improved monitoring while increasing maintenance efficiency and savings.

Upstream Security offers an industry-first cloud-based cybersecurity and analytics platform that enables companies to facilitate the security and reliability of their critical automotive assets while lowering expenses substantially and advancing operational efficiency. The platform serves as a testament to the company's readiness to meet and exceed customer needs in the connected vehicle analytics and cybersecurity market.

With its unrivaled expertise, high-performance solution, and customer-centric approach, Upstream Security earns Frost & Sullivan's 2021 European Technology Innovation Leadership Award in the connected vehicle analytics and cybersecurity industry.



## What You Need to Know about the Technology Innovation Leadership Recognition

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Frost & Sullivan's Technology Innovation Award recognizes the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

### Best Practices Award Analysis

For the Technology Innovation Leadership Award, 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 Success:** 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 financial performance is achieved in terms of revenues, 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:** Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

## 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 on-going 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 six 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)**

