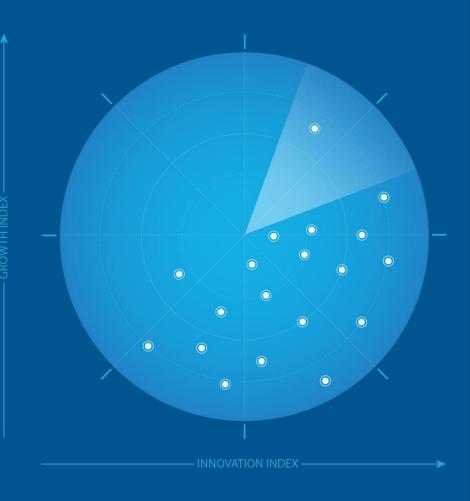
Frost Radar™: Global Breach and Attack Simulation Market, 2020

Competitive Pressure from Adjacent Markets and Low Awareness of Breach and Attack Simulation Tools are Key Challenges for Vendors

Global Information &
Communications
Technologies Research Team
at Frost & Sullivan



MFD1-74 December 2020

Contents

| Section | Slide Number |
|--|--------------|
| Strategic Imperative and Growth Environment | 4 |
| Frost Radar™: Global Breach and Attack Simulation Market | 7 |
| Companies to Action | 10 |
| • <u>BitDam</u> | 11 |
| • <u>Cymulate</u> | 12 |
| Mandiant Solutions | 13 |
| Keysight Technologies | 14 |
| • <u>Pcysys</u> | 15 |
| Picus Security | 16 |
| • <u>Randori</u> | 17 |
| • <u>SafeBreach</u> | 18 |
| • XM Cyber | 19 |
| Strategic Insights | 20 |

Contents (continued)

| Section | Slide Number |
|---|--------------|
| Next Steps: Leveraging the Frost Radar™ to Empower Key Stakeholders | 22 |
| • <u>Significance of Being on the Frost Radar™</u> | 23 |
| <u>CEO's Growth Team</u> | 24 |
| • <u>Investors</u> | 25 |
| • <u>Customers</u> | 26 |
| Board of Directors | 27 |
| Frost Radar™ Analytics | 28 |

Author: Swetha Ramachandran Krishnamoorthi

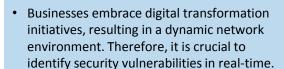


The Impact of the Top Three Strategic Imperatives on Breach and Attack Simulation Market

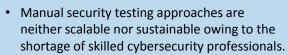
Customer Value Chain Compression

Transformative Mega Trends

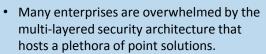
Industry Convergence



 Existing security technologies provide only a snapshot of security risks in the network, thereby providing ineffective risk reduction.

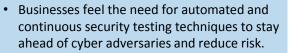


- Often, these manual approaches disrupt the production environment, thereby causing unforeseen consequences to enterprises.
- BAS tools provide automation of testing procedures without compromising on security or safety.

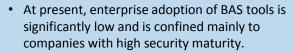


 With shrinking security budgets, Chief Information Security Officers (CISOs) need to identify high impact products and prioritize security investments – a critical task that BAS tools can help with.

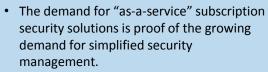
1



 Digitization of businesses is a fundamental driver for the adoption of the breach and attack simulation (BAS) technologies.



 While adoption may not follow a linear trajectory, Frost & Sullivan believes that demand will improve after 2022.



 A Frost & Sullivan survey revealed that 42.2% of cyber security professionals plan to outsource the implementation and internally manage security initiatives in the next three years. BAS-as-a-service will gain traction over the same period.

Growth Environment

- The biggest challenge for a CISO is to balance security initiatives and risk levels in a dynamic environment with limited resources. Several security tools that promise to be a magic bullet and one-stop destination for the ever-evolving threat landscape seldom deliver on their promise.
- Breach and Attack Simulation tools act as a refreshing and promising alternative to traditional security testing approaches. Ease of use, continuous and real-time risk visibility, scalability, and consistency are some of the features that provide BAS tools an edge over traditional techniques.
- While CISOs still need to invest in a firewall, a SIEM, or an email security solution, BAS tools provide direction and visibility from an attacker's perspective, thereby enabling prioritized investments and an informed approach to security.
- At present, many of the market participants are at the pre-revenue stage or have recently had a commercial product launch. Therefore, it is yet to be seen if BAS tools will be perceived as a complementary nice-to-have tool or will gain a permanent place in the CISO's security tool basket.
- Frost & Sullivan has taken a conservative approach in its market forecast owing to these uncertainties. Overall, the market will grow at a CAGR of 35.0% between 2020 and 2025.
- Global BAS market revenue has doubled in 2020 despite a pandemic-induced recession. One of the
 possible explanations is that many customers renewed or signed new contracts with BAS vendors before
 the recession started. Since the average contract length of BAS tools is 21 months, the market will see
 the real impact of the downturn in the 2021 and 2022 renewal cycles.
- Following 2 years of muted growth, the BAS market will pick up pace in 2023 when enterprise spending improves. Besides, at present, BAS vendors are constrained by limited awareness among enterprises about the functionalities of the tools. Frost & Sullivan expects that adoption will improve as vendors run thought leadership market awareness campaigns.

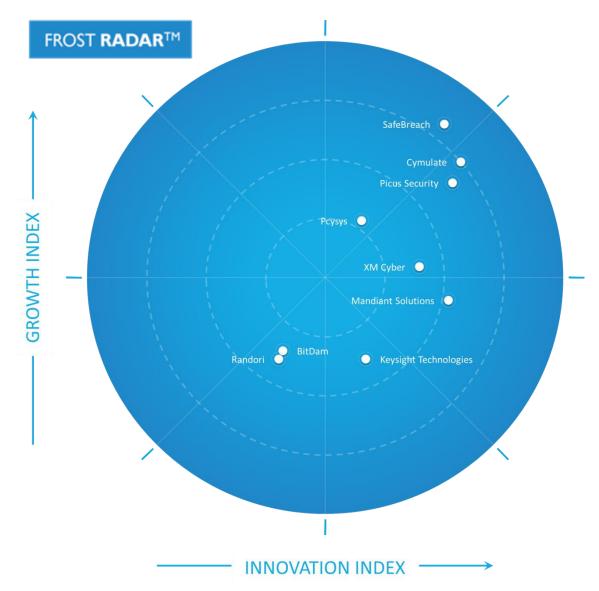
FROST & SULLIVAN



Frost Radar™

Global Breach and Attack Simulation Market

Frost Radar™: Global Breach and Attack Simulation Market



Note: BAS vendors who were unable to provide necessary data for inclusion in this Radar were excluded to prevent inaccurate reporting.

Frost Radar™: Competitive Environment

- As an emerging market, the competitive landscape is sparsely populated, with few vendors holding a significant share of the market. The top 3 competitors account for 55.3% of the market share.
- The global BAS market faces significant competition from adjacent solutions such as penetration testing, red team exercises, and vulnerability assessment tools. As the market evolves, the competitive landscape might drastically change based on the entry or exit of market participants from these adjacent markets.
- SafeBreach leads the market with 19.9% market share. The company is one of the pioneers of the breach and attack simulation market. A combination of research-backed product development, aggressive new market expansion strategy, and superior customer experience focus has helped the company expand its market share and strengthen its position.
- Closely trailing SafeBreach, Pcysys holds the second largest market share. The company's agentless
 fully automated penetration testing platform has helped it record a consistent and rapid growth
 rate across 24 countries.
- Cymulate holds the third position in the market. Within just four years of operation, Cymulate has strengthened its position in the Global BAS market with its product superiority and aggressive expansion strategy.
- Mandiant Solutions, XM Cyber, and Picus Security compete closely with each other with a minor difference in their market shares. Each of these vendors has a specific market focus and could lead the market in the next few years.



BitDam

INNOVATION

- BitDam is positioned slightly to the left of center on the Frost Radar™ innovation axis.
- The company specializes in securing email and collaboration channels with its central platform, BitDam ATP. As part of its portfolio expansion strategy, it released BAS and BitDam Lucky Meter within a year of its commercial launch.
- BitDam Lucky Meter sends real world threat scenarios to customer email IDs to test email defense mechanisms.
- With its mission to provide contentborne attack prevention, the company has taken a unique security approach. It has built a knowledge base of behaviors and codes for legitimate business applications and scans each file and link for alien code instead of running analysis based on the threat landscape.
- BitDam has a customer-focused innovation culture. It collects feedback from customers and integrates the resultant insight into its product development processes.

GROWTH

- The company began commercializing its product in 2019, which explains its relatively low position on the growth index. Besides, BitDam BAS and Lucky Meter are free products that do not attract revenue and is offered as addons to the ATP platform.
- BitDam's product capabilities and marketing focus reflect its vision "to allow safe collaboration between organizations by securing organizations from any content-borne attack across all collaboration platforms." At the same time, such a focused approach could restrict growth prospects for the company in the Global BAS market.
- In addition to enterprises, the company targets Managed Service Providers (MSPs) and Small and Medium Enterprises (SMEs), both promising opportunities in the BAS market. Further, the pricing model of the base platform ATP, which involves a monthly fee per user, fits the budgetary constraints of SMEs.

FROST PERSPECTIVE

- Being in its early stages of growth,
 BitDam must focus on growing its
 revenues. Frost & Sullivan recommends
 that the company commercialize its BAS
 offerings; it should develop modular
 solution bundles to increase cross selling potential.
- BitDam has invested in marketing and demand generation solutions through webinars and thought leadership content. On a similar note, the company gains new customers through references from clients and partners.
 Frost & Sullivan recommends a heightened focus on integrating sales and marketing by leveraging technologies such as CRM tools.

Cymulate

INNOVATION

- Cymulate received a high score on the innovation index of the Frost Radar™.
- The company looks beyond security control validation to integrate red and blue team capabilities into its platform. In this regard, Cymulate has developed full kill chain scenarios for its "Lateral movement" and "Full kill chain APT" modules that deliver sequenced executions.
- Moreover, Cymulate is actively extending its coverage to realms such as IoT, mobile, and application security testing. The company has recently released its advanced Purple Team module, which provides customers with built-in and customizable templates to execute purple team exercises.
- Cymulate integrates customer feedback into the product life cycle and involves customers in its alpha and beta tests of product releases.

GROWTH

- Cymulate has rapidly become one of the leaders in the Global BAS market, which reflects in its strong position on the Growth axis of the Frost Radar™.
- Cymulate's decision to expand from Israel, the UK, India, and Europe to the US has contributed to more than half of its revenue growth over the past 2 years.
- Cymulate's vision to "make continuous security validation simple to use and deploy across all applicable aspects of an organization's security posture" is reflected in a three-dimensional product design strategy that promises simplicity, customizability, and coverage. The appeal of an easy-to-use product that offers comprehensive functionality has made Cymulate a popular option among its customers.
- A balanced go-to-market strategy that combines channel partnerships and direct sales has helped the company to rapidly grow its customer base.

FROST PERSPECTIVE

- For Cymulate to increase its market share in the Americas and EMEA regions, the company must adopt the following approaches.
 - For the EMEA region, the company needs to embrace a localization strategy to initiate new customer engagement.
 - The Americas region will require an innovation-led approach that enhances its product appeal to potential customers.
- Cymulate has an advantageous position given that its average selling price is lower than that of its peers. By demonstrating a higher perceived benefit at a lower cost, the company can appeal to its target customer base.
 Cymulate must also channel its focus on the APAC market to cement its leadership position with this pricing strategy.

Mandiant Solutions

INNOVATION

- Mandiant Solutions is placed among the leaders on the innovation axis of the Frost Radar™.
- Mandiant's architecture allows use of real attack binaries across the full kill chain. The platform's library of attack behaviors, informed by Mandiant threat intelligence and incident response data, enables security validation based on the knowledge of who and what may be targeting an organization.
- The launch of the Threat Actor
 Assurance Module (TAAM) allows
 Mandiant to ingest threat intelligence
 feeds and automatically build
 evaluations based on threat actor
 groups, thereby enabling a contextual
 understanding of the security posture.
- Mandiant has led the innovation of environmental drift detection with Automated Environmental Drift Analysis (AEDA)—this enables the continuous monitoring of 'System of Systems' for subtle but potentially impactful changes to an organization's security posture.

GROWTH

- Mandiant is placed below the mid-point of the growth axis on the Frost Radar™.
- Mandiant Solutions, formerly Verodin, was acquired by FireEye in May 2019.
 The acquisition helped accelerate billing and revenue growth, with the combination of Mandiant intelligence and controls validation technology acting to increase customer resilience to cyberattacks and improve return on security investments.
- Validation OnDemand, a quick, low-touch assessment of security detection/prevention capabilities against a pre-defined attack or adversary, provides insight into an organization's security posture. The company plans to expand access to validation capabilities through the integration of Mandiant Advantage: Threat Intelligence.
- The platform is available as an onpremises, managed, or co-managed delivery option. Validation programs are built to fit specific use cases, providing detailed reporting on an ongoing basis.

FROST PERSPECTIVE

While FireEye's 2019 acquisition of Verodin, now Mandiant Security Validation, has enabled access to a more extensive enterprise customer base, it may face dilution of marketing efforts when initially under the overall FireEye brand. However, as part of the newly branded (and vendor-agnostic) Mandiant Solutions portfolio, and given the ability to provide greater access to validation through Mandiant Advantage: Threat Intelligence, the offering does distinguish itself from alternative testing solutions in the market. Therefore, the company should continue to run marketing campaigns that aggressively defend Mandiant Security Validation's unique functionality relative to attack simulation technologies.

Keysight Technologies

INNOVATION

- Keysight Technologies is positioned to the right of the mid-point on the Frost Radar™'s innovation index.
- Threat Simulator, the BAS platform from Keysight Technologies, has leveraged its parent groups' (Keysight and Ixia) innovation infrastructure.
- With Threat Simulator, the company has expanded its focus beyond network equipment testing to enterprise security testing.
- Ease of use is a fundamental design principle of Keysight Technologies. As a result, Threat Simulator is well placed to address the resource constraints of SMEs and the mid-sized enterprise segment. The platform can be deployed in 10 minutes and does not need a full-time security team to run and monitor.

GROWTH

- Keysight Technologies is positioned below the mid-point on the growth axis of the Frost Radar™.
- Keysight commercially launched its
 Threat Simulator platform in February
 2020 at RSA. The platform is still in its
 infancy and has only generated revenue
 for the past six months, which explains
 its relatively low position on the growth
 index.
- The platform relies on its parent group's extensive customer base and partner network to generate leads. With a 100% channel-based approach to customer acquisition, the company sells through value-added resellers (VARs) and managed security service providers (MSSPs).
- With a vision to be a key enabler for security operations centers (SOC), the Threat Simulator platform holds strong growth potential.

FROST PERSPECTIVE

- Keysight Technologies must leverage its network visibility suite customer base in to identify cross-sell and upsell opportunities.
- With an offering suited for use by MSSPs, the company can strengthen its mid-size enterprise market position.
- Frost & Sullivan recommends that Keysight Technologies embraces market opportunities across EMEA and APAC to gain an early mover advantage.

Pcysys

INNOVATION

- Pcysys is positioned slightly to the right of center on the innovation index of the Frost Radar™.
- Pcysys' core product, PenTera, is an agentless, fully automated, easy-todeploy penetration testing platform that conducts ethical exploits to identify vulnerabilities.
- PenTera offers customers the flexibility to choose between fully automated and analyst guided penetration testing.
 Further, the customer can choose to have a 'noisy' test that generates alerts in the SOC or a slow, stealthy attack that behaves like a real adversary.
- As part of its innovation roadmap,
 Pcysys plans to expand beyond the
 network perimeter to address external
 attack vectors in the cloud, on premises, and on the web. Pcysys Lab
 includes a team of developers who
 have previous experience with Israeli
 cyber warfare, giving the company a
 unique perspective of offensive hacking
 techniques.

GROWTH

- Pcysys is positioned slightly above the center on the growth index of the Frost Radar™.
- The company is one of the market share leaders, holding 18.6% of the global BAS market in 2020.
- Pcysys has recorded substantial tripledigit year-over-year growth in the last three years and currently has approximately 170 customers in 24 countries.
- Pcysys has recently secured \$25 million Series B funding to expand its sales and delivery teams globally. The company also plans to use the investment to drive marketing campaigns and generate leads.
- Pcysys primarily targets two customer segments – enterprises and MSSPs that sell penetration testing services. With a scalable and affordable pricing model, the company has penetrated the mid-size and large enterprise segments.

FROST PERSPECTIVE

- Pcysys must strengthen its marketing capabilities to generate more leads and grow its customer base. The company should invest in thought leadership campaigns such as webinars, whitepapers, and social media engagement to increase brand awareness among its target customers. Pcysys should also build a structured lead tracking system to increase the leads-to-sales conversion rate.
- Pcysys should leverage its affordable and flexible pricing model to strengthen its position in the APAC and EMEA regions that are untapped market for the company.

Picus Security

INNOVATION

- Picus Security has the second-highest score on the innovation index of the Frost Radar™.
- Picus Security is one of the early proponents of applying threat-centric validation to cyber-defense operations. The company offers its customers proactive SOC capabilities, granular visibility, and multi-tenancy. For instance, with its recent Detection Analytics & Mitigation solution, Picus Security has empowered SOC teams with mitigation recommendations.
- The company harnesses its customer success team to feed customer feature requests and feedback to its product development teams. It leverages DevOps technology to rapidly deploy product upgrades to customers.
- Picus Security channels its innovation efforts on usability enhancement, functional development for different use cases, and new product development.

GROWTH

- Picus Security is among the top scorers on the Frost Radar™'s growth index.
- Based on Frost & Sullivan's analysis, with its strong focus on the EMEA region, the company holds a 21.7% regional revenue share in 2020.
- Picus Security has recorded consistent triple-digit growth by feeding its growth pipeline™ with opportunities aligned to new regions and use cases. While the company has a substantial presence in EMEA, it is slowly expanding to Latin American and APAC countries.
- The company also feeds its revenue pipeline from upsell and cross-sell opportunities from its existing customers. Continuous product enhancements help Picus to increase its annual recurring revenue.

FROST PERSPECTIVE

- Picus Security must expand its presence in the Americas and APAC regions to position itself as a global market share leader. The company can partner with distributors and MSSPs to develop and strengthen its presence in these regions.
- Picus Security should increase its focus on the mid-size enterprise segment. The company's concept of "Proactive SOC" is well-placed to address the mid-size enterprise segment's unique challenges. By basing its pricing model on the number of attack vectors, Picus makes its solution scalable and flexible to suit this segment's growing needs and budgetary constraints.

Randori

INNOVATION

- Randori is positioned to the left of the mid-point on the innovation axis.
- Randori has two products Randori Recon and Randori Attack. The Recon platform provides an outside-in attacker's perspective of the customer attack surface. In contrast, the Attack platform drives authentic attacks against the customer environment and provides enterprises with a high-end red team experience.
- Randori's technology roadmap includes building its attack surface management (ASM) and continuous and automated red team (CART) offerings in addition to strengthening its API and integration capabilities.
- Randori leverages its customer success program to conduct frequent account check-ins, quarterly roadmap discussions, and beta test new features.

GROWTH

- Randori's position on the growth index of the Frost Radar™ reflects its relative infancy as a company.
- Randori was founded in 2018 and has since recorded consistent triple-digit revenue growth. In just two years, the company has successfully transitioned from a pre-revenue to post-revenue firm with rapid expansion in terms of both customers and leads.
- By channeling its customer acquisition efforts primarily in the US and Canada, Randori has captured a 5% market share in the Americas region.
- More than a third of Randori's new customer acquisitions derived from existing customer referrals; such strong recommendations will increase its annual recurring revenue in the long run.

FROST PERSPECTIVE

- Randori primarily relies on its internal sales structure for customer acquisition. The company should partner with VARs and MSSPs to expand its customer base and gain market share.
- At present, Randori has established its presence in the US. The company should consider expanding to the EMEA and APAC regions to increase its addressable market potential.
- Randori must invest in running thought leadership campaigns such as webinars, whitepapers, and social media engagement to increase brand awareness among its target customers. Randori should also build a structured lead tracking system to increase its leads-to-sales conversion rate.

SafeBreach

INNOVATION

- SafeBreach has one of the highest scores on the innovation index of the Frost Radar™. SafeBreach's vision to continuously reduce the risk aligned with its customers' business and increase the security technology utilization of organizations has driven release of innovative features such as self-healing systems and a CISO dashboard.
- In line with the transition to cloud-based operations, SafeBreach announced the release of cloud-native simulations to validate security posture in public, private clouds, containers, and data. In 2020, the company launched risk-based vulnerability management prioritization, which provides customers with the ability to prioritize vulnerability patching based on exploitability, critical segments impact, and external accessibility.
- SafeBreach Labs, the company's R&D division, strives to strengthen its attack playbooks by continuously looking for new and unique attack methods and has helped it earn three patents.

GROWTH

- SafeBreach holds a clear leadership position on the growth index of the Frost Radar™.
- Based on Frost & Sullivan's analysis, the company holds a market-leading 19.9% share of the global BAS market in 2020.
- SafeBreach has a strong revenue growth pipeline[™], thanks to its aggressive efforts to establish its presence in multiple verticals and regions. The company derives at least a third of its revenue from these new opportunities.
- With 16,000 breach and attack methods, SafeBreach provides comprehensive attack coverage. The company offers a feature-rich portfolio with remediation capabilities and integration with downstream applications. This, in turn, helps boost its annual recurring revenue from a loyal customer base.

FROST PERSPECTIVE

- Despite being a market share leader in the global BAS market, SafeBreach must strengthen its presence in the EMEA and APAC regions. The company needs to identify local distributors to expand its operations in these regions.
- SafeBreach is one of the premium vendors in the BAS market. To stay competitive, the company could consider a tiered pricing model that fits the requirements of different market segments.

XM Cyber

INNOVATION

- XM Cyber is positioned to the right of the mid-point on the innovation index of the Frost Radar™.
- XM Cyber's platform integrates red team and blue team capabilities to provide a holistic solution that identifies and remediates risks to an enterprise network. The platform offers the ability to simulate multi-step attack vectors that utilize advanced credential theft techniques and misconfiguration. Further, one of the key differentiators of the platform is its visual interface that displays attack paths.
- XM Cyber plans to continue investing in attack simulation modules for Kubernetes and container environments.
- With its strong focus on innovation, XM Cyber has secured 20 patents. The company has released several new features such as integration with Microsoft Defender ATP, support for Azure, and vulnerability prioritization and management.

GROWTH

- XM Cyber is positioned slightly below the midpoint on the growth index of the Frost Radar™.
- Within four years of its commercial launch, the company has forged a strong market position, accounting for 10.8% of the global BAS market in 2020.
- XM Cyber's expanded focus on a channel-based distribution strategy has helped the company to record rapid growth. A strong channel partnership with resellers has helped the company capture the third highest market share in the EMEA region in 2020.
- The company has continuously strived to expand its target segment coverage through product enhancements and sales focus. For instance, its MSSP offering helped XM Cyber penetrate the mid-size enterprise segment.
- XM Cyber continues to grow its revenue pipeline through marketing initiatives such as webinars, email nurturing, message management, and analytics.

FROST PERSPECTIVE

- XM Cyber must strengthen its presence in the Americas and APAC regions.
 The company should partner with distributors and MSSPs to expand its presence in these regions.
- XM Cyber must launch marketing campaigns to spread the word about its MSSP-based offering. This would help the company increase mindshare (and, indeed, market share) in the midmarket segment.
- XM Cyber could introduce a tiered pricing structure to address the needs of the budget-constrained mid-market segment. Such a pricing model would also help the company penetrate the APAC region.

FROST & SULLIVAN



Strategic Insights

Strategic Insights

1

The continually changing security posture of enterprises in the wake of digital transformation and the need for optimized security investments will drive the demand for breach and attack simulation platforms.

2

The Global BAS market will generate a \$337.4 million revenue by 2025, recording a CAGR of 35% between 2020 and 2025. The Americas region will continue to account for a dominant share of the market.



Ease of use and comprehensive attack coverage will be crucial success factors for vendors competing in this market. As the market matures, scalability and reliability of BAS tools will be tested compared to adjacent methodologies such as pen testing and vulnerability assessment.



Significance of Being on the Frost Radar™

Companies plotted on the Frost Radar™ are the leaders in the industry for growth, innovation, or both. They are instrumental in advancing the industry into the future.

GROWTH POTENTIAL

Your organization has significant future growth potential, which makes it a Company to Action.

BEST PRACTICES

Your organization is well positioned to shape Growth Pipeline™ best practices in your industry.

COMPETITIVE INTENSITY

Your organization is one of the key drivers of competitive intensity in the growth environment.

CUSTOMER VALUE

Your organization has demonstrated the ability to significantly enhance its customer value proposition.

PARTNER POTENTIAL

Your organization is top of mind for customers, investors, value chain partners, and future talent as a significant value provider.

Frost Radar™ Empowers the CEO's Growth Team

STRATEGIC IMPERATIVE

- Growth is increasingly difficult to achieve.
- Competitive intensity is high.
- More collaboration, teamwork, and focus are needed.
- The growth environment is complex.

LEVERAGING THE FROST RADAR™

- The Growth Team has the tools needed to foster a collaborative environment among the entire management team to drive best practices.
- The Growth Team has a measurement platform to assess future growth potential.
- The Growth Team has the ability to support the CEO with a powerful Growth Pipeline™.

NEXT STEPS

- Growth Pipeline Audit™
- Growth Pipeline as a Service™
- Growth Pipeline™
 Dialogue with Team
 Frost

Frost Radar™ Empowers Investors

STRATEGIC IMPERATIVE

- Deal flow is low and competition is high.
- Due diligence is hampered by industry complexity.
- Portfolio management is not effective.

LEVERAGING THE FROST RADAR™

- Investors can focus on future growth potential by creating a powerful pipeline of Companies to Action for high-potential investments.
- Investors can perform due diligence that improves accuracy and accelerates the deal process.
- Investors can realize the maximum internal rate of return and ensure long-term success for shareholders.
- Investors can continually benchmark performance with best practices for optimal portfolio management.

NEXT STEPS

- Growth Pipeline™
 Dialogue
- Opportunity Universe Workshop
- Growth Pipeline Audit™
 as Mandated Due
 Diligence

Frost Radar™ Empowers Customers

STRATEGIC IMPERATIVE

- Solutions are increasingly complex and have long-term implications.
- Vendor solutions can be confusing.
- Vendor volatility adds to the uncertainty.

LEVERAGING THE FROST RADAR™

- Customers have an analytical framework to benchmark potential vendors and identify partners that will provide powerful, long-term solutions.
- Customers can evaluate the most innovative solutions and understand how different solutions would meet their needs.
- Customers gain a long-term perspective on vendor partnerships.

NEXT STEPS

- Growth Pipeline™
 Dialogue
- Growth Pipeline™
 Diagnostic
- Frost Radar™
 Benchmarking System

Frost Radar™ Empowers the Board of Directors

STRATEGIC IMPERATIVE

- Growth is increasingly difficult; CEOs require guidance.
- The Growth Environment requires complex navigational skills.
- The customer value chain is changing.

LEVERAGING THE FROST RADAR™

- The Board of Directors has a unique measurement system to ensure oversight of the company's long-term success.
- The Board of Directors has a discussion platform that centers on the driving issues, benchmarks, and best practices that will protect shareholder investment.
- The Board of Directors can ensure skillful mentoring, support, and governance of the CEO to maximize future growth potential.

NEXT STEPS

- Growth Pipeline Audit™
- Growth Pipeline as a Service™



Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

VERTICAL AXIS

Growth Index (GI) is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision; a robust growth pipeline™ system; and effective market, competitor, and end-user focused sales and marketing strategies.

GROWTH INDEX ELEMENTS

GI1: MARKET SHARE (PREVIOUS 3 YEARS)

This is a comparison of a company's market share relative to its competitors in a given market space for the previous 3 years.

GI2: REVENUE GROWTH (PREVIOUS 3 YEARS)

This is a look at a company's revenue growth rate for the previous 3 years in the market/industry/category that forms the context for the given Frost RadarTM.

GI3: GROWTH PIPELINE™

This is an evaluation of the strength and leverage of a company's growth pipeline™ system to continuously capture, analyze, and prioritize its universe of growth opportunities.

GI4: VISION AND STRATEGY

This is an assessment of how well a company's growth strategy is aligned with its vision. Are the investments that a company is making in new products and markets consistent with the stated vision?

GI5: SALES AND MARKETING

This is a measure of the effectiveness of a company's sales and marketing efforts in helping it drive demand and achieve its growth objectives.

Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

HORIZONTAL AXIS

of a company's ability to develop products/services/solutions (with a clear understanding of disruptive Mega Trends) that are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs.

INNOVATION INDEX ELEMENTS

II1: INNOVATION SCALABILITY

This determines whether an organization's innovations are globally scalable and applicable in both developing and mature markets, and also in adjacent and non-adjacent industry verticals.

II2: RESEARCH AND DEVELOPMENT

This is a measure of the efficacy of a company's R&D strategy, as determined by the size of its R&D investment and how it feeds the innovation pipeline.

II3: PRODUCT PORTFOLIO

This is a measure of a company's product portfolio, focusing on the relative contribution of new products to its annual revenue.

II4: MEGA TRENDS LEVERAGE

This is an assessment of a company's proactive leverage of evolving, long-term opportunities and new business models, as the foundation of its innovation pipeline. An explanation of Mega Trends can be found here.

II5: CUSTOMER ALIGNMENT

This evaluates the applicability of a company's products/services/solutions to current and potential customers, as well as how its innovation strategy is influenced by evolving customer needs.

Legal Disclaimer

Frost & Sullivan is not responsible for any incorrect information supplied by companies or users. Quantitative market information is based primarily on interviews and therefore is subject to fluctuation. Frost & Sullivan research services are limited publications containing valuable market information provided to a select group of customers. Customers acknowledge, when ordering or downloading, that Frost & Sullivan research services are for internal use and not for general publication or disclosure to third parties. No part of this research service may be given, lent, resold, or disclosed to noncustomers without written permission. Furthermore, no part may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without the permission of the publisher.

For information regarding permission, write to: Frost & Sullivan 3211 Scott Blvd., Suite 203 Santa Clara, CA 95054

© 2020 Frost & Sullivan. All rights reserved. This document contains highly confidential information and is the sole property of Frost & Sullivan.

No part of it may be circulated, quoted, copied, or otherwise reproduced without the written approval of Frost & Sullivan.