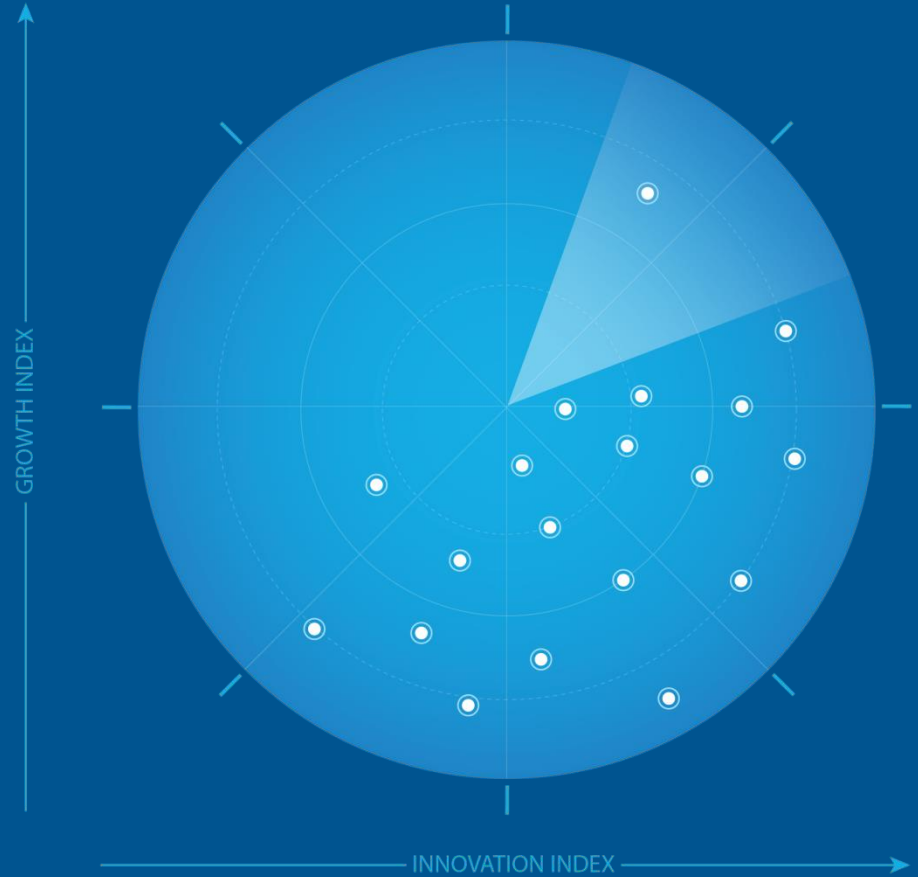# FROST & SULLIVAN

Frost Radar™: Automated Security Validation, 2024

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A Benchmarking System to Spark Companies to Action - Innovation That Fuels New Deal Flow and Growth Pipelines

GROWTH INDEX

INNOVATION INDEX

July 2024

Strategic Imperative and Growth Environment

Strategic Imperative

Factors Creating Pressure on Growth

- Automated security validation (ASV) tools add an adversary's perspective of exposure in an organization's network. Such information about tactics, techniques, and procedures (TTPs) helps security teams prioritize high-impact exposures and reduce the remediation workload. ASV use cases are relevant for security operations tools such as vulnerability management (VM), endpoint detection and response (EDR), extended detection and response (XDR), and security orchestration, automation, and response (SOAR).

- Partnerships between ASV and SecOps vendors are increasingly common, and mergers or acquisitions are a possibility. Some leading ASV vendors might incorporate SecOps capabilities to offer an integrated exposure management portfolio.

- Organizations are finding more exposure in cloud infrastructure, and because of artificial intelligence (AI) existing security approaches are either ineffective or inefficient against these new types of threats.

- ASV vendors must accelerate innovation to accommodate the security concerns of the digital organization. Amid shrinking cybersecurity budgets and an uncertain economic environment, however, they are struggling with the decision to invest more in the pursuit of growth or innovation.

- ASV vendors face stiff competition in their own industry and from adjacent technologies such as automated penetration testing and VM. Adjacent vendors strive to include security validation capabilities to meet the demand for contextualized vulnerability prioritization capabilities.

- In an already crowded security industry, potential customers sometimes do not understand the distinct benefits of ASV over adjacent technologies, which has affected vendors' revenue prospects.

Growth Environment

- A constantly growing volume of threats and the huge financial impact of cyberattacks on businesses have brought cybersecurity conversations to the top management table. While security enjoys higher spending from enterprises as a result, it has also made security leaders accountable for justifying the spending.

- ASV tools help security leaders assess the effectiveness of their security controls and provide quantitative trends and insights about the organization's security posture. In addition to security validation, some of the leading ASV vendors also offer exposure management, competitive bakeoffs, risk management, identity validation, AD security, and other capabilities. As a result, vendor revenue has increased an average of 90% annually over the last three years.

- Frost & Sullivan estimates that the global ASV industry generated revenue of $334.3 million in 2023. By 2028, revenue will increase at a compound annual growth rate (CAGR) of 19.8% to become an $824.7 million market.

- The US Cybersecurity and Infrastructure Security Agency, the US Department of Defense and its Cybersecurity Maturity Model Certification (CMMC) program, the European Union's National and Information Security (NIS2) Directive and General Data Protection Regulation (GDPR), and the UK National Cyber Security Centre (NCSC) recommend continuous security assessment of organizations' networks. Upcoming regulations such as the European Union's Digital Operational Resilience Act (DORA) and the Payment Card Industry Data Security Standard (PCI DSS) v4.0 are expected to have continuous security assessment requirements.
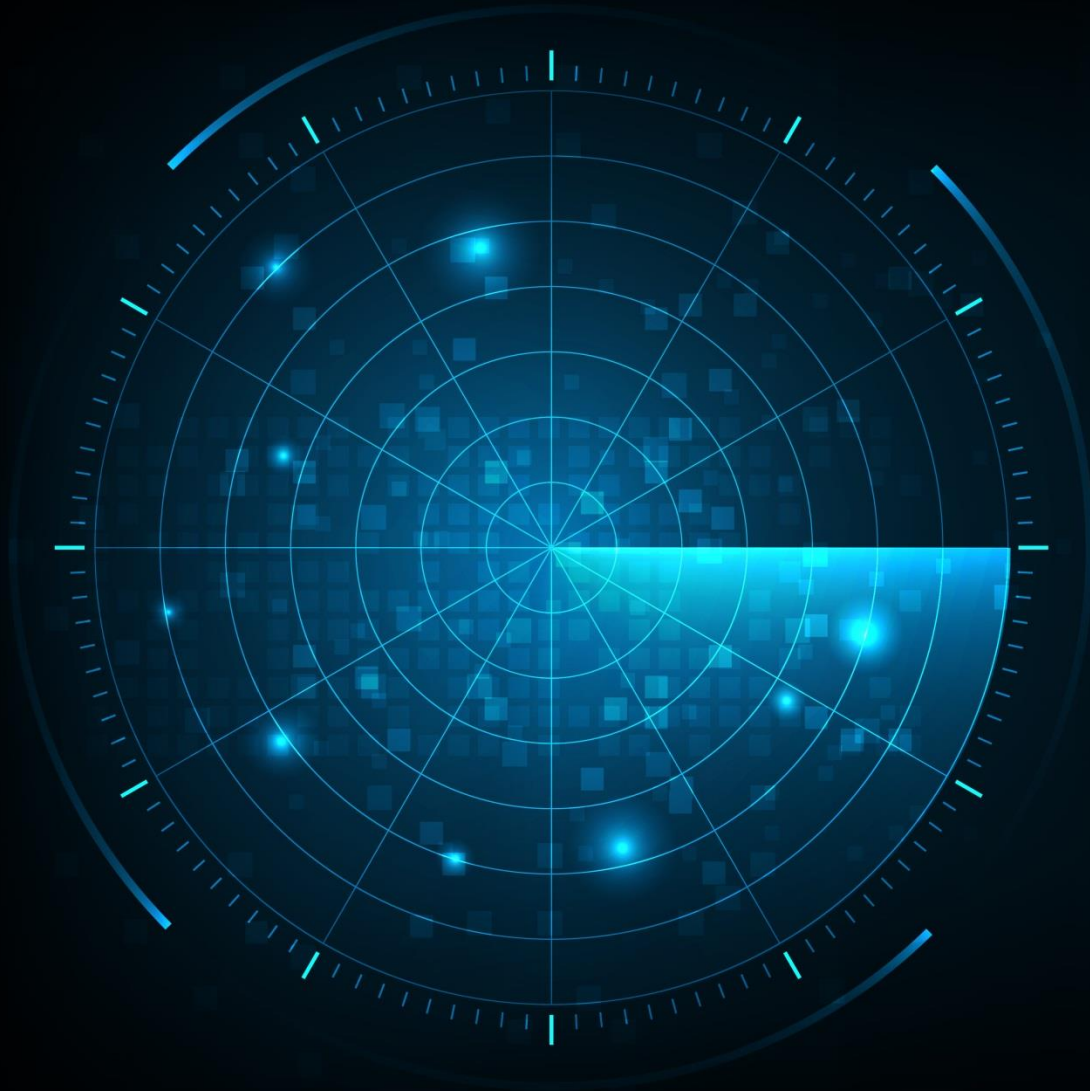
Source: Frost & Sullivan

Growth Environment (continued)

- Widespread AI and cloud adoption significantly raises organizations' threat exposure from new vulnerabilities and insider threats. ASV vendors offer use cases tailored to address the challenges of these new environments: almost 60% of the ASV vendors surveyed for this research have either already released a cloud offering or plan to do so in 2024; XM Cyber and Picus Security have released generative AI-based chat boxes in their platforms to help security analysts gather insights from the platform using simple queries.

- ASV tool adoption had been restricted to large (1,000–4,999 employees) and very large (5,000 employees or more) enterprises with high security maturity, but vendors in 2023 began expanding their focus to small and medium-sized enterprises (SMEs) with managed services and flexible licensing options.

- Despite recent growth, ASV tools are still perceived as a nice-to-have solution rather than a must-have tool in the cybersecurity stack, and the high price point deters adoption.
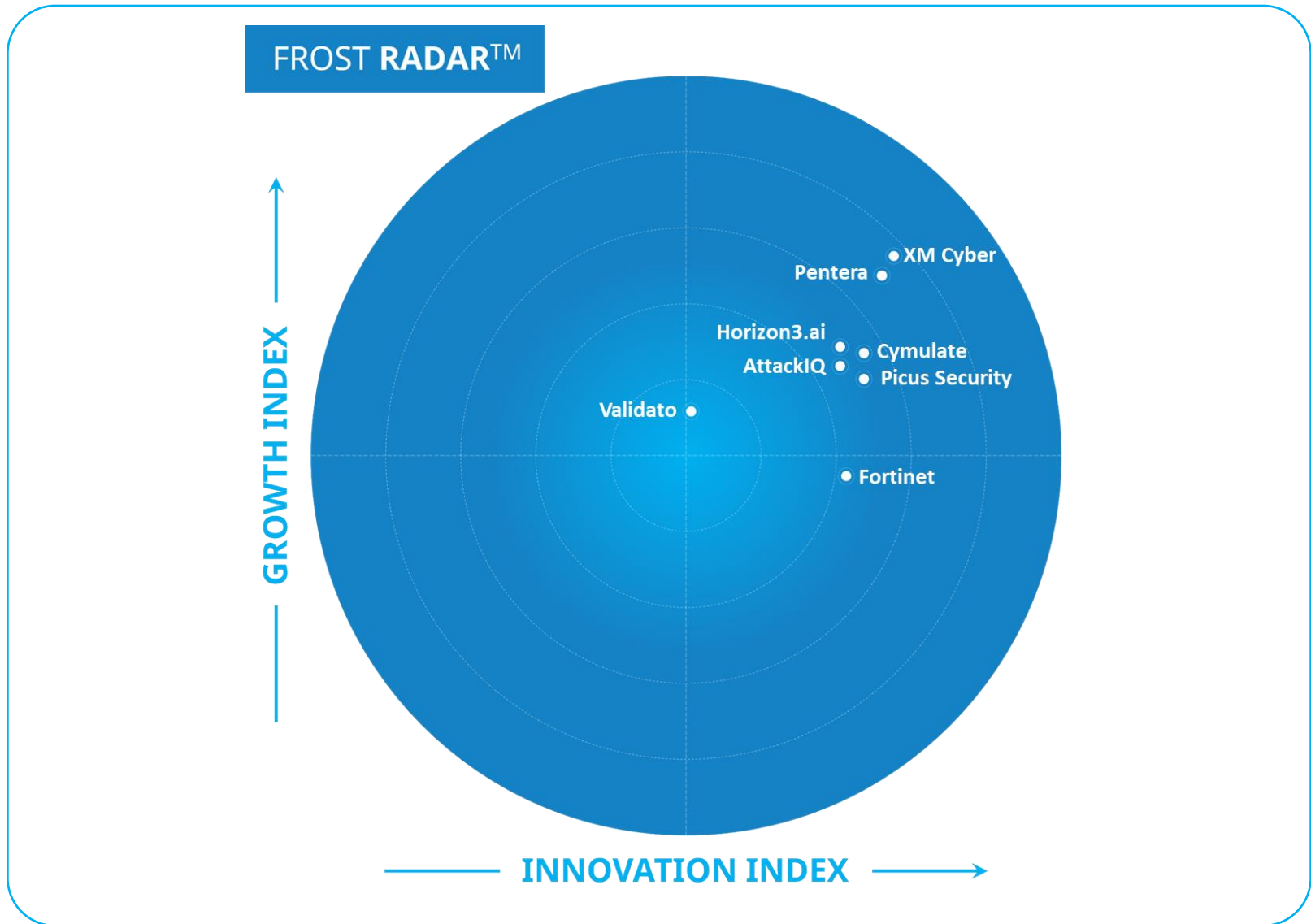
Source: Frost & Sullivan

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Frost Radar™ Automated Security Validation, 2024

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Source: Frost & Sullivan

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Frost Radar™: Competitive Environment

- The global ASV industry is highly consolidated with the top three vendors (XM Cyber, Pentera, and Cymulate) accounting for about 67.5% of revenue in 2023, as per Frost & Sullivan estimates.

- The positions of leading market participants changed significantly since the last Frost Radar that explored this area. XM Cyber continues to be the Growth and Innovation Index Leader. AttackIQ and Validato have moved up significantly on the Growth Index, and Fortinet's Innovation Index position has improved significantly.

- XM Cyber had an impressive 26.9% revenue share in 2023. The company's acquisition by Schwarz Group followed by strategic partnerships with distributors, resellers, and MSSPs helped the company consistently record triple-digit growth over the last three years. Comprehensive use case coverage, regular product expansion, and a customer-aligned innovation roadmap factored into the highest score on the Frost RadarTM Innovation Index.

- Pentera is the second-largest vendor, with a 22.7% market share in 2023. It secured the second-highest Growth and Innovation scores on the Frost RadarTM, maintaining its position from the previous publication. Pentera's product portfolio, comprising Pentera Core, Pentera Surface, and Pentera Cloud, provides inside-out and outside-in perspectives of threats in the network.

- Cymulate, with a 17.8% revenue share in 2023, is among the top four vendors in the innovation score. Cymulate has fine-tuned its exposure management and security validation capabilities over the years to be in line with emerging trends such as cloud and AI.

Frost Radar™: Competitive Environment (continued)

- Picus Security is also among the top four scorers on the innovation index. Its portfolio broadened to include attack surface management and cloud security posture management in addition to leveraging generative AI to launch its security analyst resource, Numi AI. The company has a large footprint in EMEA and is actively expanding to other regions.

- AttackIQ has secured a place among the top five ASV vendors globally, in terms of revenue share. The company has simplified its product portfolio and introduced flexible pricing options for SMEs.

- Horizon3.ai's NodeZero takes the autonomous testing approach to discover attack paths, prioritize remediation fixes, and quickly verify whether the fix is effective. The company offers unique capabilities such as zero- and N-day testing, one-time-use architecture, and AD password audit, which addresses the modern enterprise's security assessment needs.

- Validato is one of the recent ASV entrants. Despite being a small vendor, it has the best product-market fit for its target market of small (250–499 employees) and medium-sized (500–999 employees) enterprises. Validato is well on its way to higher growth rates in the next few years.

- Fortinet's FortiTester solution assesses both network and security performance in an organization's environment. The platform relies on the larger Fortinet portfolio, specifically the FortiGuard and Fortinet Security Fabric, for its adoption and performance.

Source: Frost & Sullivan

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Companies to Action:
Companies to Be Considered First for Investment, Partnerships, or Benchmarking

Company to Action: XM Cyber

Innovation

- XM Cyber's Continuous Exposure Management platform offers one of the most comprehensive use case coverages in the ASV industry. Supply chain and third-party risk management, AD security, and hybrid cloud posture management are examples of its unique use cases.

- XM Cyber has a robust innovation process that ensures a customer-aligned product development pipeline and frequent product releases. The company announces product releases or feature upgrades at least every two months. In 2023, XM Cyber's innovation efforts led to the expansion of attack coverage to hybrid cloud, AD, external attack surface, and Kubernetes environments.

- In February 2024, the company unveiled a generative AI-powered chat interface to enable security analysts to query the platform for exposure insights using simple language. XM Cyber's product expansion initiatives increased new annual recurring revenue by 189% in 2023 and accounted for a 112% net retention rate.

Source: Frost & Sullivan

Company to Action: XM Cyber

Growth

- XM Cyber, a Schwarz Group company, has consistently recorded triple-digit growth over the last three years. The company has become the undisputed leader in the ASV industry, with a 26.9% revenue share in 2023, as per Frost & Sullivan estimates.

- The November 2021 acquisition by the Schwarz Group, a top retailer worldwide, proved to be a turning point in XM Cyber's growth journey. After integrating the XM Cyber portfolio into the Schwarz cyber division for the parent company's protection, the company opened access to XM Cyber's services to its customer base of more than 13,900 retail stores.

- Schwarz Group formed an IT and digital powerhouse unit, Schwarz Digits, by combining the IT expertise of its group companies, including STACKIT, XM Cyber, Schwarz IT, Kaufland e-commerce, Schwarz Media, and mmmake. Schwarz Digits offers innovative digital solutions to end customer challenges. For example, as part of Schwarz Digits, XM Cyber helps football clubs such as FC Bayern and RCD Mallorca with data security risk monitoring solutions.

- The company has entered strategic partnerships with technology vendors such as SAP and ServiceNow. It also collaborates with MSSPs to improve remediation and reporting efficiency. As part of its geographic expansion efforts, XM Cyber has signed distribution agreements with channel partners such as Japanese IT distributor SB C&S and APAC VAR NextGen.

Source: Frost & Sullivan

Company to Action: XM Cyber

Frost Perspective

- In 2020, Frost & Sullivan estimated that XM Cyber held the fifth-highest market share. In less than three years, it became the largest vendor in terms of revenue in the ASV industry. While a large part of the growth can be attributed to the Schwarz Group acquisition, XM Cyber has intelligently leveraged the brand value, digital infrastructure, and customer base to its benefit.

- XM Cyber has a large footprint in Europe. In 2023, the company laid a strong foundation for future growth and financial success with its geographical expansion initiatives in the APAC region. Frost & Sullivan recommends that XM Cyber further increase investments in these regions to cement its leadership globally.

Source: Frost & Sullivan

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Key Takeaways

Strategic Insights

1
Automated security validation is on track to become a $824.7 million industry by 2028. Regulatory changes that mandate continuous security assessments, the growing volume of threats, the demand for efficient security operations among enterprise security teams, and the adoption of cloud and AI-based infrastructure are growth drivers. At the same time, intense competition from adjacent technologies, higher price points, and limited awareness are key challenges for vendors.

2
The industry has consolidated significantly over the years. XM Cyber is the market leader and Pentera is a close second. Frost & Sullivan predicts significant changes in vendors' positions in the next five years.

3
ASV complements the capabilities of many adjacent technologies. In the next five years, ASV, VM, and penetration testing may merge to provide a single, consolidated platform for security posture assessments. Frost & Sullivan predicts industry consolidation over the next five years, with some ASV vendors being acquired by VM or XDR vendors.

4
Cloud and AI are emerging technology themes. Cloud security posture assessment offerings are already available with most vendors. Picus Security and XM Cyber recently announced generative AI-based chatbots, and other vendors have it in their short-term product roadmap.

Source: Frost & Sullivan

Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

GROWTH INDEX ELEMENTS

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.

- **GI1: MARKET SHARE (BASE YEAR)**
  This is a comparison of a company's market share relative to its competitors in a given market space.

- **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 Radar™.

- **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

INNOVATION INDEX ELEMENTS

HORIZONTAL AXIS

Innovation Index (II) is a measure 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.

- **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.

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