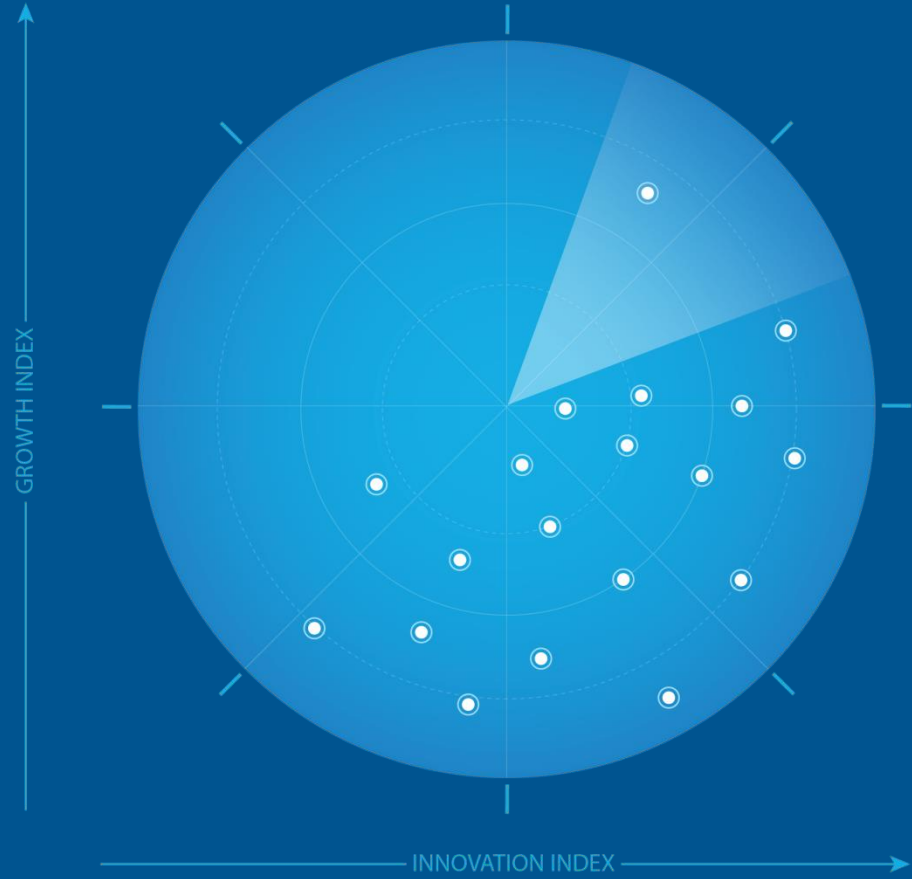


Frost Radar™: Electronic Signature Software, 2024

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



FROST & SULLIVAN

Strategic Imperative and Growth Environment



Strategic Imperative

Factors Creating Pressure on Growth

- As technology advances, so does the way in which companies conduct business. Electronic signature software has revolutionized the way consent and authorization are secured with a legally binding, efficient, and environmentally friendly alternative to traditional signatures on paper. Electronic signature software is becoming an indispensable tool for businesses looking to streamline their processes, reduce costs, and optimize document handling.
- The three primary types of electronic signatures each offer varying levels of security. The simple electronic signature is the most basic for an electronic document and is comparable to a handwritten signature. The advanced electronic signature is more secure, requiring user authentication via documents, biometric detection, or other requirements to validate the user's identity. The qualified electronic signature, the pinnacle of security, is issued by a qualified trust service provider or certificate authority and is backed by a digital certificate.

Source: Frost & Sullivan

Strategic Imperative

Factors Creating Pressure on Growth

- As the use of electronic signatures becomes more widespread, ensuring compliance with standard data protection laws such as the European Union's General Data Protection Regulation (GDPR) and electronic IDentification, Authentication, and trust Services (eIDAS), as well as the US E-SIGN Act, is crucial. Providers are obtaining certifications and enhancing security features to meet these stringent requirements as well as others that vary in a particular region, such as in European countries with both national and regional regulations that are subject to interpretation. Some places lack clear guidelines about the responsible handling of corporate and personal information.
- Commodification is a notable trend as the industry matures. Standard electronic signature functionalities are now expected, compelling providers to stand out by offering additional value-added features and services. Competitors are enhancing their solutions with workflow automation, advanced analytics, and integrated document management systems to differentiate themselves and meet the evolving needs of businesses requiring more than just basic electronic signatures.

Source: Frost & Sullivan

Strategic Imperative

Factors Creating Pressure on Growth

- An imperative in the adoption of electronic signature solutions is tools that integrate effortlessly with a business's existing customer relationship management (CRM), enterprise resource planning (ERP), cloud storage, and other software systems. Providers are enhancing their integration capabilities with popular software such as Salesforce, Microsoft 365, and Google Workspace by either offering pre-built connectors or robust APIs.
- The space is also witnessing rapid technological advancements. A key trend is generative AI (GenAI), primarily used for document summarization and analysis, which most competitors are either using now or planning to use soon. Forward-looking competitors are incorporating artificial intelligence (AI) and machine learning (ML) into different parts of the signing process, such as handwritten biometric verification and fraud prevention, and their roadmaps include additional use of these technologies. Some companies are also exploring blockchain-based solutions to ensure the immutability of signed documents and verify their authenticity.

Source: Frost & Sullivan

Growth Environment

- Frost & Sullivan found that electronic signature revenue reached \$3.9 billion globally in 2023 and expects it to hit \$17.9 billion in 2030 at a 24.3% compound annual growth rate (CAGR). The industry has seen strong double-digit revenue growth rates since 2020, and Frost & Sullivan forecasts continued growth but at a decelerated pace for the rest of the decade.
- A confluence of factors is propelling the industry.
 - Businesses' need to increase efficiency and reduce waste (electronic signatures can streamline operations and reduce the use of paper).
 - The rise of remote working has created a pressing need for secure and legally binding digital transactions.
 - Advancements in authentication technologies, such as biometric verification, are enhancing the security of electronic signature solutions, making them more attractive to both businesses and consumers.
 - Electronic signatures are one more way for companies to reduce their carbon footprint and adhere to actual and coming environmental regulations.



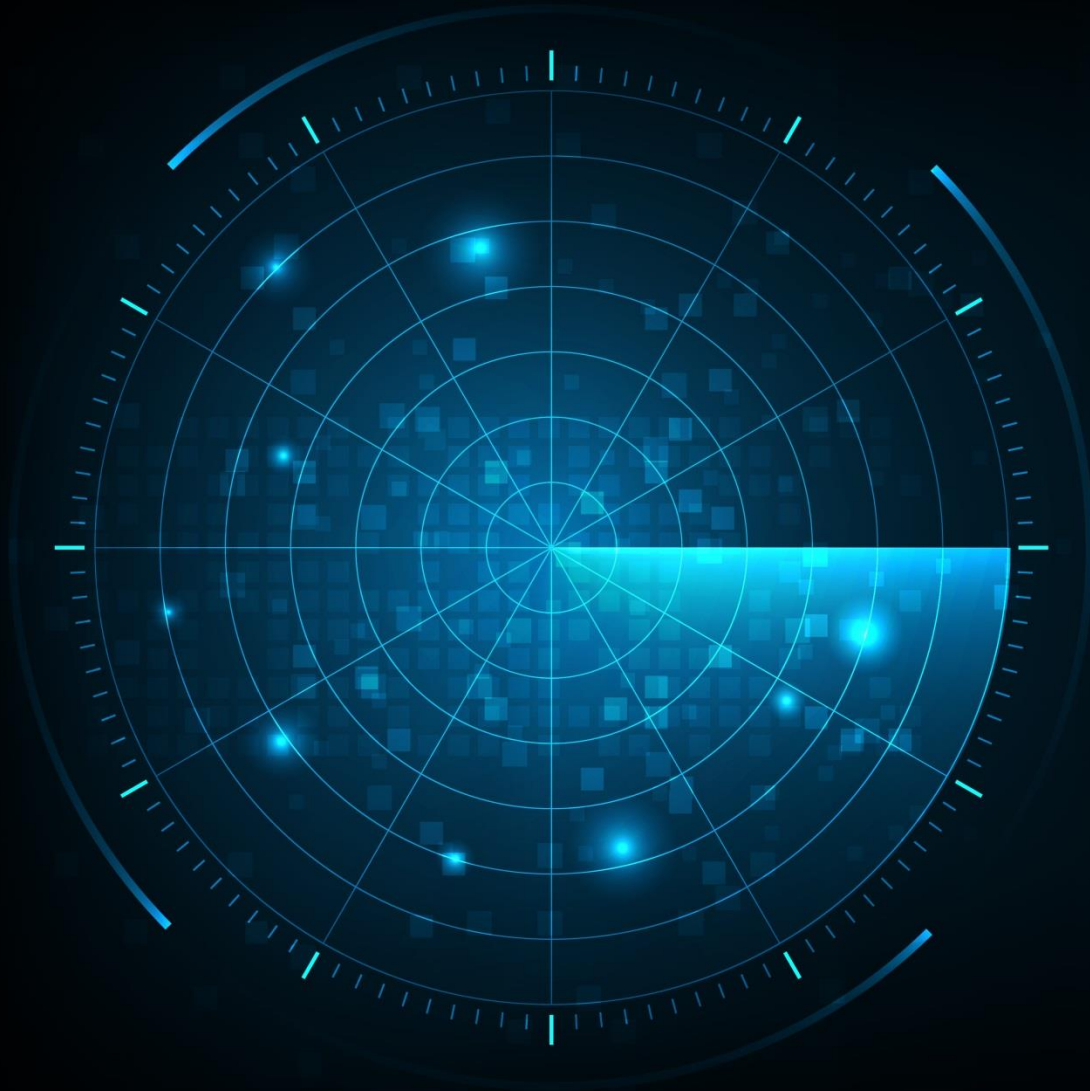
Source: Frost & Sullivan

Growth Environment

- While the electronic signature market boasts promising growth potential, notable hurdles are the fragmented regulatory landscape and misconceptions or a lack of knowledge about its legality. The lack of regulatory uniformity also creates confusion for businesses considering the use of electronic signatures on a global scale.



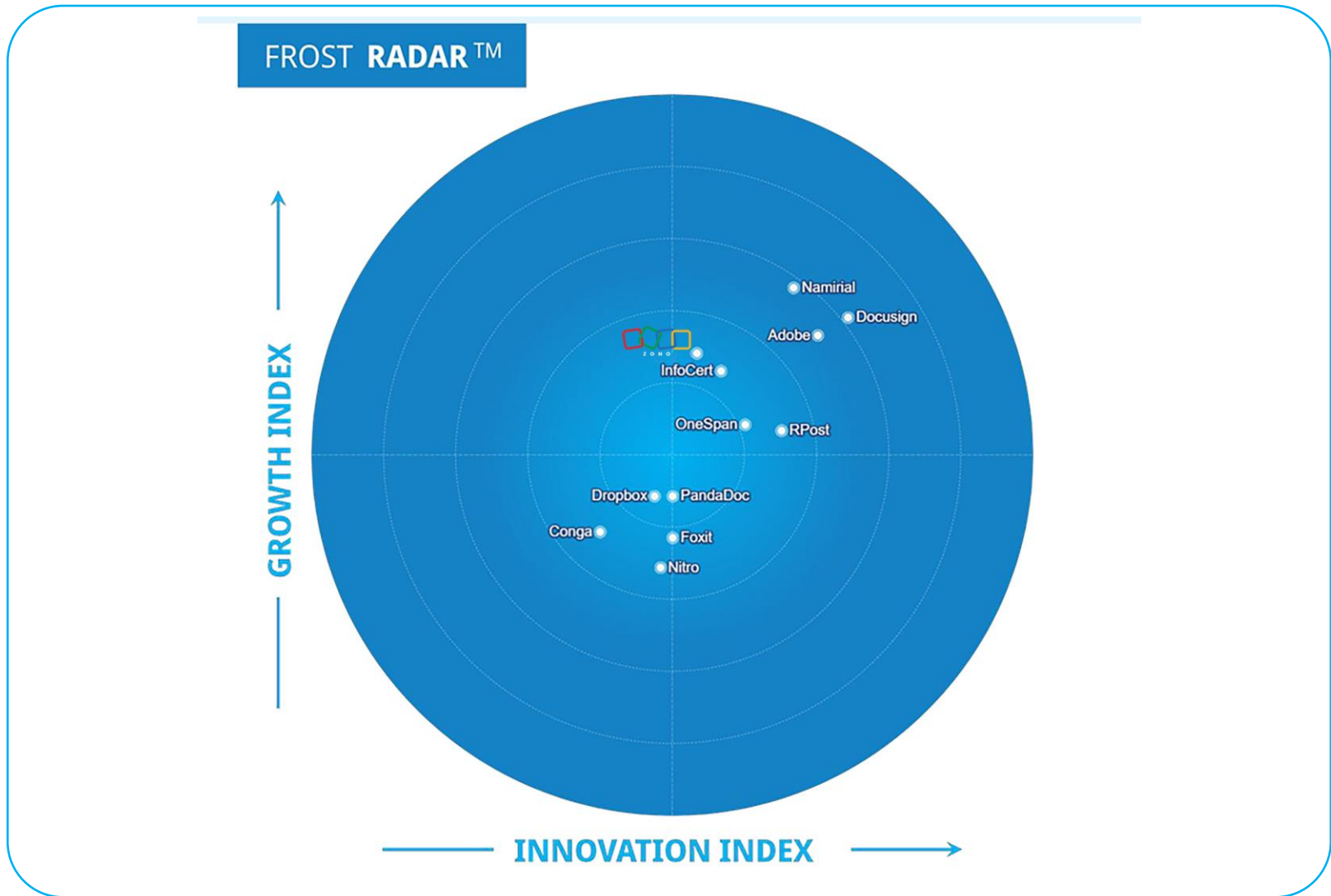
Source: Frost & Sullivan



Frost Radar™

**Electronic
Signature
Software, 2024**

Frost Radar™: Electronic Signature Software, 2024



Source: Frost & Sullivan

Frost Radar™

Competitive Environment

- More than 100 companies offer electronic signature software solutions to help companies streamline the electronic signing of documents. In this Frost Radar™ analysis, Frost & Sullivan independently plotted 12 leaders that exhibited sustained growth and a commitment to innovation in recent years.
- The industry is witnessing a surge in new entrants from low-wage countries. With simple functionalities, they are aiming to capture market share by presenting themselves as more cost-effective alternatives. As companies vie for dominance, mergers and acquisitions as well as price wars are likely.
- DocuSign, Adobe, and Namirial occupy the leading positions on this Frost Radar™. DocuSign achieved the top position on the Innovation Index with a score of 4.50 out of 5. The company is a long-time leader of the electronic signature space and has leveraged its streamlined and intuitive platform to offer a comprehensive document management workflow with a vertical focus. The company's bet to rebrand its solution as Intelligent Agreement Management shows forward-thinking product development, but potential clients' reception and ultimate success remain to be seen. With the largest market share in the space over the 2020–2023 period, its continuous growth, and its leading vision, the company obtained a commendable Growth Index score of 4.10 out of 5.



Source: Frost & Sullivan

Frost Radar™

Competitive Environment

- Namirial achieved the top position on the Growth Index with a score of 4.35 out of 5. Despite not having the largest market share in the space, it showed notable revenue gains between 2020 and 2023, attained through both organic and inorganic growth. Namirial has a large European following, and it still has plenty of growth potential in that region and globally in this fast-growing industry. The company's Innovation Index achievement, with a score of 4.05 out of 5, is largely because of its extensive expertise in European regulations.
- Adobe is a strong performer on both the Innovation Index (a score of 4.25 out of 5) and the Growth Index (3.95 out of 5). The company has a continuous innovation process in place, offers robust integrations, and is a leader in the PDF space, which enables it to serve some of the largest enterprise customers in the world.
- A second group of companies achieved commendable scores on both the Innovation and the Growth Indexes: Zoho, InfoCert, RPost, and OneSpan. The four offer comprehensive electronic signature solutions and have significant market presence, but Zoho and InfoCert are higher performers on the Growth Index thanks to their larger market share and notable growth in the study period, while RPost and OneSpan show better performance on the Innovation Index thanks to their strong product portfolio, advanced capabilities, and customer alignment.



Source: Frost & Sullivan

Frost Radar™

Competitive Environment

- Dropbox, PandaDoc, Foxit, Nitro, and Conga offer robust electronic signature solutions, yet their market shares are smaller, and their offerings are not as advanced as those of the Frost Radar™ leaders in terms of technology leverage, software integration, trust and compliance, or document workflow capabilities. Still, the industry's rapid growth creates a space for them to gain traction and one day challenge the market leaders.



Source: Frost & Sullivan

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

Company to Action: Zoho

Innovation

- Zoho Sign is a highly customizable and scalable cloud-based electronic signature solution that offers basic, advanced, and qualified digital signatures. A key strength of Zoho Sign lies in its deep integration with the broader Zoho suite, including Zoho CRM, Zoho Forms, and Zoho Writer. Zoho also offers REST APIs and software development kits enabling developers to integrate Zoho Sign functionalities into custom applications or workflows.
- Zoho Sign emphasizes document security through a multilayered approach including recipient identity verification to ensure that a document reaches the intended recipient and tamper-evident audit trails that track document access and signing activity. Zoho Sign utilizes centralized, cloud-based storage with robust security measures including military-grade encryption to safeguard sensitive documents.
- Zoho made several innovations to its electronic signature solution in the first half of 2024.
 - The company now offers service provision from Canadian data centers so that account data storage and management can remain in-country.
 - Administrators can create user groups and roles, and define permission profiles for each role.
 - A chatbot in Microsoft Teams enables users to send, sign, and check the status of documents, as well as receive notifications about document activity.

Source: Frost & Sullivan

Company to Action: Zoho

Growth

- Zoho has been delivering electronic signature solutions for seven years, and it has more than 15,000 employees. Born in India, the company now has worldwide presence with more than 20 offices in APAC, North America, Latin America, and EMEA.
- Zoho is one of the fastest-growing providers in the electronic signature space, with a revenue CAGR of 42% from 2020 to 2023. Zoho Sign is trusted by more than 40,000 companies and 250,000 users around the world. The strong foundation of the broader Zoho ecosystem, combined with the growing trend of cloud-based electronic signatures, positions Zoho Sign for continued expansion among Zoho customers and the wider electronic signature market.
- Zoho's most significant verticals are technology, software, and telecom services; real estate; finance and insurance; professional, technical, and business services; and healthcare. Zoho Sign's largest user base is in North America, followed by Europe, APAC, Latin America, and the Middle East and Africa. The company is expanding into Kenya, Mexico, Canada, Japan, and Saudi Arabia by establishing data centers and integrating its platform with regional and government-issued IDs and certificates.

Source: Frost & Sullivan

Company to Action: Zoho

Frost Perspective

- Zoho could enhance its solution by prioritizing adherence to evolving regional electronic signature standards, specifically in the European Union, which has national standards apart from regional ones. A stronger emphasis on regional regulations could attract new customer groups, including from heavily regulated industries such as banking.
- Zoho Sign offers deep integration within the Zoho ecosystem, but there are limited pre-built connectors for relevant enterprise solutions. The development of out-of-the-box connectors for popular enterprise content management solutions could increase Zoho Sign's overall value proposition by streamlining workflows and simplifying document routing for electronic signatures.
- There's potential for Zoho to unlock additional value by leveraging AI and GenAI to a greater extent. Current functionalities address core e-signing needs, but advanced use cases such as document analysis with GenAI or AI- powered handwritten biometric signature validation could save users valuable time while enhancing security measures.

Source: Frost & Sullivan



Key Takeaways

Key Takeaways

1

The electronic signature industry is witnessing substantial growth as amid surging demand for convenient, efficient, and legally binding transaction methods. The acceleration of digitalization driven by the COVID-19 pandemic has greatly increased the adoption of electronic signature solutions, and Frost & Sullivan expects additional growth given the need for digital workflows. Providers that can effectively showcase measurable benefits such as faster cycle times, fewer errors, and lower costs will persuade skeptics to move away from paper and gain market share.

2

The replacement of paper-based processes, whether in simple or complex workflows, will depend on ease of use and seamless integration. Providers can move the needle by offering user-friendly interfaces and pre-built connectors to minimize friction, accelerate deployment, and improve overall efficiency.

Source: Frost & Sullivan

Key Takeaways

3

A number of emerging technologies are influencing the space, and early adopters are already taking advantage. Blockchain for tamper-proof records and biometrics for advanced signer verification are already key differentiators. GenAI, which exploded onto the scene in the past two years, is demonstrating tangible benefits for document summarization and analysis. AI and ML have been used for several years to automate processes such as document verification and fraud detection. All are poised to become industry standards given their benefits on optimization, security, transparency, and auditability of electronic signature processes.

4

As trust in digital processes, compliance needs, and regulations regarding electronic signatures continue evolving, the leading providers will need to adapt. Maintaining the highest standards for security and privacy will be essential to retain customers and attract new ones. Diversified compliance expertise will become more important as governments around the world continue to define their own regulations, which may prompt providers to partner with local firms to navigate each country's standards.

Source: Frost & Sullivan

FROST & SULLIVAN

Frost Radar™ Analytics



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 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

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.

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.

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