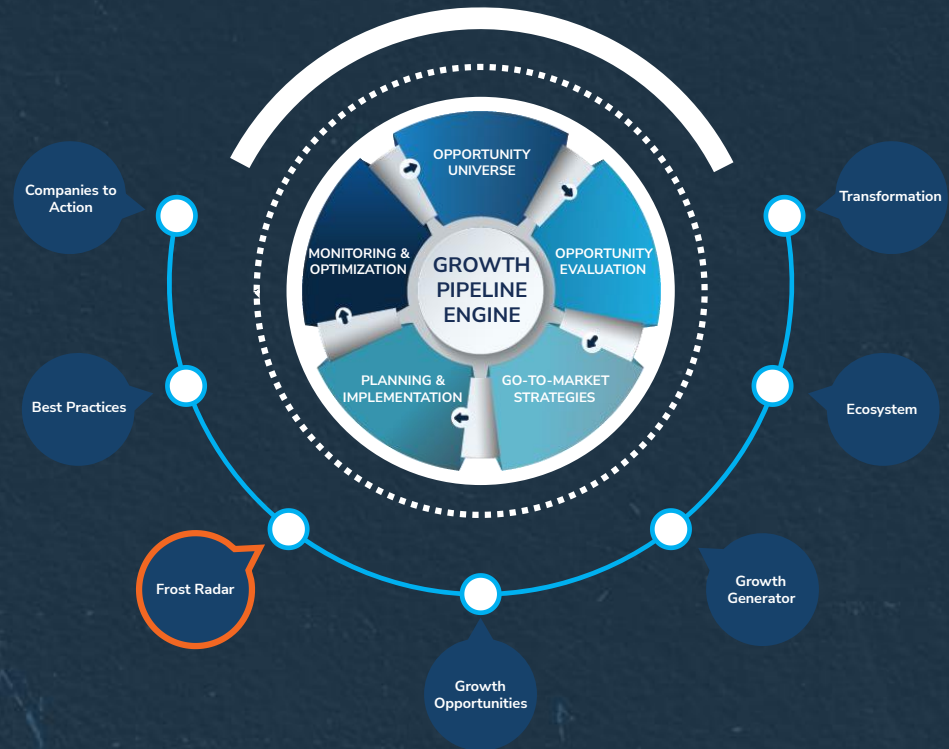


Frost Radar™: Clinical Decision Support System, 2025

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



Mar 2025

Strategic Imperative and Growth Environment



Strategic Imperative

- CDSS solutions an integral part of the healthcare systems and a potent arsenal to provide individualized care. A key solution in the market would smartly analyze the data for care providers and tier the alerts so that providers can focus on more important tasks.
- As the care transitions to disparate care sites, it is necessary for the providers/payers to have access to the social determinants of health (SDoH) to make necessary arrangements so that the consumer can access the requisite level of care. CDSS contribute to improved patient outcomes and better management of chronic conditions, aligning with the goals of value-based care.
- Generative AI is being adopted by mostly all the vendors to improve their product features and this is giving rise to the extensive R&D investment by CDSS vendors to enhance their UX. Gen AI also enhances pattern recognition, data integration, and personalization capabilities to make better decisions.
- Cloud adoption is driving the application of CDSS as it enables scalability, real-time decision making, and remote access to clinical data, leading to improved care delivery.
- Launch of integrated solution offerings is also driving the adoption of CDSS as it reduces the new technology investment cost and streamlines adoption by end-users.
- For inorganic growth, vendors need to selectively identify technology/resource that would offer more scalability and growth opportunities as there has been a significant influx/development in technology that can be integrated with their solution.

Strategic Imperative (continued)

- Meanwhile, for organic growth, companies need to invest in identifying new use cases and integrate Dynamic AI into their products so that the end-users can easily access the relevant information as well as conduct downstream administrative workflows.
- Vendors need to be cautious that their solution also addresses the long-standing challenges of the CDSS market including, product isolation, end-user burnout, data security & privacy, and user-friendliness of the platform.
- As CDS solutions move to the cloud, and third-party gets ownership of the data, an interplay between cybersecurity and CDSS vendors is required to keep the organization data secure and easily accessible.
- Towards 2030, we would see a stronger interplay of clinical and operational decision support solutions with vendors utilizing organic and inorganic growth strategies to cover the entire continuum of clinical and operational decision making

Growth Environment

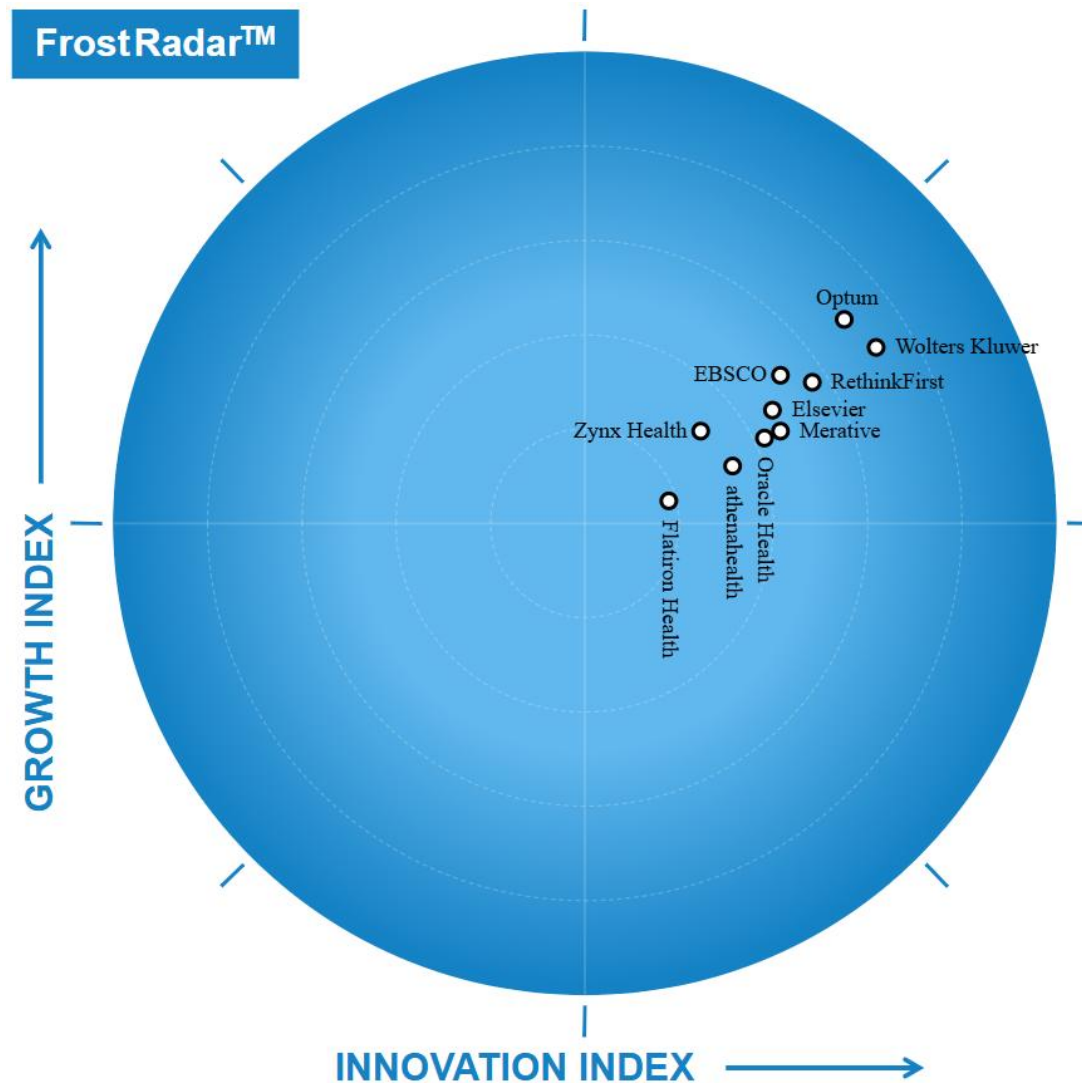
- The Clinical Decision Support System market is expected to reach \$16.6 billion by end of 2030 at a CAGR of 7.6%. The decision analytics segment will witness the highest growth as it provides a path for cross-platform collaboration between CDSS, population health management (PHM), EHR, and revenue cycle management (RCM).
- The increased adoption of digital technology has created an opportunity for professionals to monitor consumers both during healthy and disease state. Industry initiatives towards centralized data platform and data sharing would support CDSS solutions that can comprehensively understand the multi-modal data from these platforms and then share personalized insights.
- There will be a growing need to focus on information push models. As the CDSS continue to collect and analyze patient information, they should initiate sharing insights with the provider and then communicating with patients to improve inclusion and care management
- The demand for the CDS solutions will continue to rise as healthcare organizations continue along their data-driven transformation journey and look to reduce the omission and commission errors (that cost healthcare system about \$20B per year) while accessing updated content and guidelines to make personalized/patient-centric decisions.
- Combining CDS output with potential patient journey mapping and automating the communication and coordination activities will drive the future of CDSS-platform solutions. (provider-patient and provider-provider/inside the hospital).
- As care environment shifts towards personalization and value-based outcomes, it is necessary to utilize care pathways defined by CDSS systems to actively track patient and ensure strict compliance with defined protocols.

F R O S T  S U L L I V A N

Frost Radar™: Clinical Decision Support System, 2025



Frost Radar™: Clinical Decision Support System, 2025



Frost Radar™ Competitive Environment

- Frost & Sullivan screened and analyzed more than 60 clinical decision support vendors across point of care segments and short-listed 10 companies based on a detailed analysis of their corporate growth potential and ability to drive visionary innovation in this space. These companies represent the best mix of CDSS-native companies (evidence generation) and companies active at point-of-care.
- The Frost Radar™ features athenahealth, EBSCO, Elsevier, Flatiron Health, Merative, Optum, Oracle Health, RethinkFirst, Wolters Kluwer, and Zynx Health. While many other companies are engaging in point-of-care CDSS space including prominent EHR vendors, Frost & Sullivan has identified these 10 organizations as market leaders.
- The Frost Radar™ measures the growth rate in addition to absolute revenues and combines them with several other factors to measure companies' performance along the Growth Axis. This is important to mention because for all companies only their North American clinical decision support solution revenue is considered.
- Optum and Wolters Kluwer emerge as the market leaders in growth and innovation indices, respectively. Optum leads the growth index due to its capability to integrate clinical, financial and administrative process and provide measurable improvements to the customers. Meanwhile, Wolters Kluwer owns the innovation section due to its speed of technology integration, long-term vision alignment, and current market share owing to brand-stickiness.
- RethinkFirst has progressed impressively on the Frost Radar due to its focused approach in ASD space and its access to both payer and provider data. With the company now looking to integrate all its platform together, it has a strong product for providers and payers to accurately manage ASD and potentially expand to other conditions.

Frost Radar™ Competitive Environment

- EBSCO has been impressive in their speed of technology adoption and has identified price point as an effective competitive tool to get into more discussions with the customers and displace the market leader.
- Elsevier and Merative are innovating rapidly, but their efforts are limited to current product enhancement. The companies are not immediately working on solutions to expand beyond the clinical space to address the financial and administrative workflows that is expected to impact the future landscape of this industry.
- Oracle Health and athenahealth have inbuilt CDSS platform that guides on the next steps using the RWD. They rely on the other point-of-care specialized vendors to incorporate their solution and enhance the overall decision-making capability for the provider.
- Zynx Health has made strides in the primary care space. However, with focus on expanding in this segment and less focus on explosive innovation, the company falls behind other players.
- Flatiron Health has fared the lowest in this round of Frost Radar, The company specializes in oncology workflow but faces stiff competition from Elsevier that has a strong oncology-specific CDSS.

Frost Radar™: Companies to Action



Wolters Kluwer

INNOVATION

- Wolters Kluwer Enterprise Edition of UpToDate connects buyers, administrators and care teams on the same platform to enhance care delivery and achieve superior ROI. This edition uses on-demand advanced analytics to derive system-level insights on product usage, community trends, education needs, and the impact of using UpToDate across the system.
- The company's digital transformation efforts are another significant driver of scalability. Wolters Kluwer has successfully adopted and integrated cutting-edge technologies such as AI, cloud computing, and machine learning into its portfolio.
- Wolters Kluwer has demonstrated a strong commitment to research and development (R&D) in the Clinical Decision Support Systems (CDSS) sector, focusing on integrating advanced technologies to enhance clinical decision-making.
 - The establishment of AI Labs to collaborate with AI developers and healthcare leaders exemplifies their dedication to exploring early use cases of generative AI in clinical settings.
 - In addition to AI integration, Wolters Kluwer has focused on enhancing the scalability and interoperability of its CDSS solutions. The next-generation UpToDate platform exemplifies this effort by unifying point-of-care decision support, workflow optimization, and patient-centered care resources into cohesive, interoperable user experiences.
- Wolters Kluwer portfolio include tailored product experiences for diverse market segments. The introduction of the UpToDate Enterprise Suite™ for health systems and health plans, along with the UpToDate Pro Suite™ for individual clinicians and small group practices, demonstrates the company's commitment to meeting the unique needs of various healthcare providers.

Wolters Kluwer (continued)

INNOVATION

- The company needs to actively work with the clinicians to ensure they can reap the benefits of Gen AI. It has taken the first-step to address hallucinations by restricting search capabilities to only clinician written content and tying it to sources to ensure that the advanced search results are useful for the clinicians who want to use them.
- It is aggressively targeting decision support for non-MDs as their job requirement changes and they are tasked with early decision making.
- Wolters Kluwer has defined a target customer groups that assist in product development. It continuously engages with groups of customers on monthly, quarterly, and annual basis to capture their feedback and rollout incremental upgrades or new features as required by the industry.

Wolters Kluwer (continued)

GROWTH

- Wolters Kluwer has achieved significant growth in the Clinical Decision Support Systems (CDSS) market by focusing on innovation and customer-centric solutions. The company has integrated advanced technologies, such as AI and machine learning, into its CDSS portfolio to enhance clinical decision-making at the point of care.
- The product is available across 190 countries and supports 6.5 million clinicians in addition to assisting medical and nursing students, retail pharmacists, payer and life science organizations.
- The company has made significant strides in getting the right partners to increase the reach of its product:
 - In Mar 2025, Wolters Kluwer partnered with Microsoft to integrate UpToDate solution within Microsoft Copilot Studio. The integration aims to validate the use of GenAI to provide clinicians with relevant and patient-specific evidence-based content from UpToDate at the point of care. The early use case focus on integrating UpToDate's content in Microsoft Dragon Copilot to support clinical decisions within ambient and voice-enabled clinical documentation workflows.
 - Earlier in March, it formed second partnership with conversational AI vendor, Suki, to provide access to UpToDate evidence-based content within Suki's Assistant. This integration will reduce administrative burden and lead to meaningful patient-physician interaction.
 - During the same time, the company also partnered with Phrase Health to enable IT, informatics, and quality teams to easily and efficiently align trusted clinical guidelines within existing EHR governance workflows, allowing clinicians to consistently access reliable recommendations.

Wolters Kluwer (continued)

GROWTH

- In February 2025, Wolters Kluwer collaborated with Lumeris to improve the primary care workflows through the latter's Primary Care as a Service™ solution, Tom™. Tom utilizes AI models and curated data to personalized care and drive next-best actions at both the patient and population levels.
- In Oct 2024, Wolters Kluwer Health and Abridge partnered to integrate UpToDate's clinical content into Abridge's AI-powered clinical documentation platform. This collaboration aims to enhance conversational AI capabilities by directly incorporating evidence-based insights into real-time, AI-generated clinical notes, helping clinicians make more efficient informed decisions.
- Earlier in 2024, it partnered with Wellsheet to integrate UpToDate's content into Wellsheet's Smart EHR UI application. This combination of information will enable clinicians to access UpToDate's lab interpretations and clinical calculator directly in Wellsheet application leading to enhanced care delivery.
- With the introduction of Enterprise Edition, the company also changed its product release strategy making all developments available to enterprise users by default. This has led to significant development in terms of long-term partnerships with healthcare organizations leading to more consistent year-over-year growth for coming years.

Wolters Kluwer (continued)

FROST PERSPECTIVE

- Wolters Kluwer has firmly established itself as a leader in the CDSS market, with impressive R&D investment, and the recent and upcoming product launches. The company's strategic integration of emerging technologies, particularly Gen AI, has positioned it at the forefront of next-generation CDSS solutions.
- The company has expanded its focus beyond the clinical use cases to address the adjacent administrative and operational workflows. This highlights the company progress towards building a single platform that address clinical, operational and financial workflows.
- To maintain its leadership position and compete with vendors already operating beyond clinical segment (Optum-Change Healthcare), Wolters Kluwer must explore inorganic growth strategy especially to fast-track operational and financial workflows development. Companies like AKASA (financial workflow) and Fabric (clinical triaging and hybrid care) makes for interesting prospects to target for partnerships and/or acquisition. Meanwhile, to fast-track adoption for RWE-based decision support, it should look to partner with EHR vendors looking to develop RWE-based clinical decision support system.
- To foster its aim for expert clinician, the company should utilize Agentic AI to embed the evidence directly into clinical workflow. The technology will become more important as the platform expands beyond clinical cases to administrative and financial workflows.
- One of the biggest hurdle for Wolters Kluwer to address is the cost of its solution compared with the other vendors. As the ROI is hidden in the product usage and enterprise analytics, it is sometimes difficult to explain the upfront investment required in UpToDate. Hence, they need to have live numbers available to share the value derived by similar sized organization by deploying UpToDate.

Zynx Health

INNOVATION

- Over the last 2-3 years, Zynx Health has focused on expanding its capabilities in the non-acute and post-acute care space. The company plans to cover the different step of care continuum partnering with EHR to advance population health initiatives and keep the patients out-of-hospital.
- In Mar 2024, Zynx Health launched Zynx for Primary Care, a clinical decision support solution tailored to address the unique challenges of primary care settings. Designed to enhance provider satisfaction, streamline workflows, reduce physician burnout, and improve patient outcomes, it integrates with MEDITECH (Expense READY) and other EMR systems. The solution offers over 100 evidence-based order sets to standardize care, reduce unnecessary testing, and optimize chronic disease management.
- The company places strong emphasis on customer feedback collection and integrating them in product updates. The product updates are driven by client enquiries and internal R&D efforts. Key elements of Zynx Health's R&D strategy include: Literature Review, Integrating Real-World Clinical Expertise, Data Analysis, and Technology Integration within the clinician's existing workflow.
- The clients are served by dedicated account managers that assist them with all their performance requirements. In addition, customers can also connect with the help desk to have their query resolved.
- Inline with industry practice, Zynx Health is leveraging AI-models to improve their speed of content development and improve client engagement activities.
- Zynx Health partners with companies/start-ups working in the emerging technology field to improve customer's performance. To further improve the utility of its platform, it allows third-party vendors to develop applications to improve care coordination and adherence to evidence-based standards

Zynx Health

INNOVATION

- Zynx Health's solution portfolio focus on improving clinical and financial performance and enhancing patient engagement:
 - Zynx for Primary Care: Provides customized solutions to expedite workflows based on patient condition
 - Zynx for Chronic Care Management: Touches both patients and providers to ensure care delivery and monitoring across the continuum by keeping patients engaged in care journey and enabling providers to build evidence-based personalized care plans
 - ZynxOrder: Provides access to customized order sets directly integrated with the EHR workflow
 - ZynxCare: A solution designed for the nurses and allied health teams to provide access to customized plans of care at point of care
 - ZynxCare Modules: It provides plans of care for non-acute and post-acute settings- home health, long-term care, rehabilitation facilities, skilled nursing facilities, and other outpatient settings.
 - Knowledge Analyzer: It identifies gaps in order sets, care plans, protocols and other content to improve and standardize patient care.
 - ZynxInside and Epic Migration are EHR specific support that allows providers to manage cost and workload burden

Zynx Health (continued)

GROWTH

- Zynx Health has been a part of Hearst Health network for about 20 years and coordinates with another Hearst Health entity FDB, to improve the value-proposition of their CDS solution.
- In Sep 2024, Zynx Health partnered strategically with Innovaccer Inc., a healthcare AI leader. This partnership aims to integrate Zynx Health's evidence-based clinical content into Innovaccer's care management platform, emphasizing CDSS-driven improvements for 34 chronic care conditions, cancer, renal care, and 126 common medical issues. The integration also covers behavioral health and social determinants of health, ensuring a comprehensive, patient-centric approach. This collaboration is designed to reduce clinical variability, enhance outcomes, and drive financial performance for healthcare providers.
- The company is looking to expand outside the US, primarily in Canada and will continue to look for growth in the non-acute or post-acute care space.

Zynx Health (continued)

FROST PERSPECTIVE

- Zynx Health offers evidence-based solutions designed to enhance clinical decision-making and improve patient outcomes. Their CDSS platform is EHR agnostic and provides real-time, actionable insights at the point of care. By leveraging a vast library of evidence-based clinical content, Zynx Health empowers healthcare providers to reduce clinical variability, improve care quality, and enhance financial performance.
- Zynx Health ranks high on the growth index as the company is working on expanding its stakeholder segment by building solutions that serve across the care continuum. However, it lags on innovation front due to current focus on expanding into non-acute markets and investing in expansion activities rather than new product development.
- There is limited interaction between different companies under the Hearst Health umbrella. This creates a potential drawback for Zynx Health as the CDSS market is looking at the convergence with operational decision support platform. To establish itself as the market leader, Zynx Health needs to partner closely with other Hearst Health companies to increase the breadth of their offerings and capitalize on the market convergence trend.

Best Practices & Growth Opportunities



Best Practices

1

The use of Gen AI to power search operations is becoming a base requirement rather than a competitive factor. The focus of using Gen AI is now on enhancing UX, data analytics and personalization capabilities. Another aspect being considered is how to make the CDSS proactive (prompt-based) instead of the current reactive approach (physician search)

2

Leading vendors are looking to expand their offerings beyond the core clinical use cases i.e. providing evidence at point-of care. They are looking at the adjacent administrative and financial workflows to improve the breadth of their offering, enhance the use of their platform and reduce vendor load for end-users.

3

Inorganic growth strategy is becoming necessary for companies to maintain their competitive advantage. As the vendors look to increase the breadth of their solutions, organic R&D can only support limited growth. To accelerate product development and market capture partnerships and acquisitions will play a dominant role.

Growth Opportunities

1

The analysis of multi-modal data, including medical imaging, laboratory results, and patient-reported outcomes, can provide a more holistic view of a patient's condition. CDSS which can effectively integrate and analyze data from diverse sources will be better equipped to support clinical decision-making.

2

As GenAI capabilities and Conversational AI partnerships becomes mainstream, vendors need to focus on building an 'information push model' for their CDSS. As the system collect and analyze patient information in real-time through ambient documentation, it should prompt providers at point of care with best practices and information necessary to close care gaps.

3

To fast-track product development and entry into adjacent workflows, administrative and financial, CDSS vendors need to focus on partnerships and acquisition of bolt-on technology/service vendors to expand the breadth of solution offerings. We will witness acquisition/close collaboration between larger CDSS vendors with established vision and AI start-ups in financial and administrative space.

Frost Radar™ Analytics



Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

Growth Index

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 (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 (continued)

Innovation Index

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.

Next Steps: Leveraging the Frost Radar™ to Empower Key Stakeholders



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.

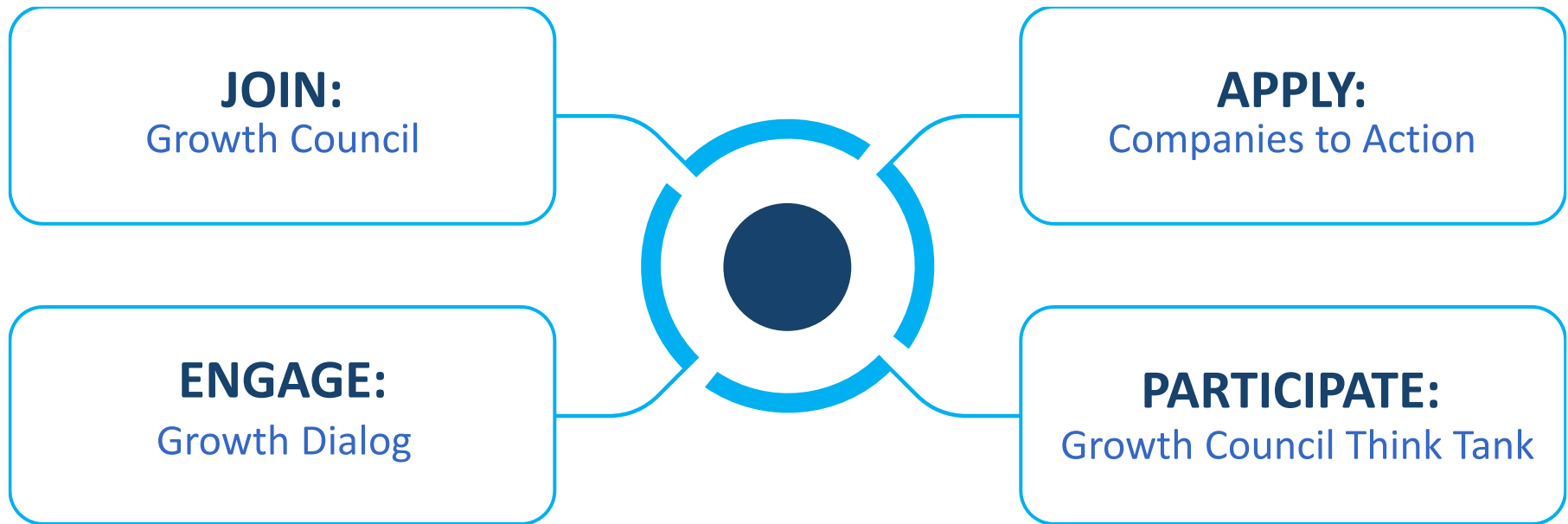
LEVERAGING THE FROST RADAR™

- 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™**

Next Steps



Does your current system support rapid adaptation to emerging opportunities?

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