

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

2024 ENABLING TECHNOLOGY LEADER

*IN THE NORTH
AMERICAN ADVANCED AI
ANALYTICS INDUSTRY*



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

BEST
2024 PRACTICES
AWARD

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Virtualitics excels in many of the criteria in the advanced AI analytics space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Customer Impact</i>
Commitment to Innovation	Price/Performance Value
Commitment to Creativity	Customer Purchase Experience
Stage Gate Efficiency	Customer Ownership Experience
Commercialization Success	Customer Service Experience
Application Diversity	Brand Equity

Decision Paralysis Hindering Business Analytics

The staggering data proliferation in the past decade is driving the rapid evolution of data analytics and

“Specifically, Virtualitics focuses on overcoming the barriers to effective data utilization and decision-making. The company aims to pioneer solutions that acknowledge the current data landscape’s complexity and offer practical pathways to navigate it. This commitment positions Virtualitics at the forefront of tackling today’s most pressing challenges in data analytics and BI.”

- Manuel Albornoz
Best Practices Research Analyst

business intelligence (BI). The significant increase in collected and stored data clarifies and streamlines data-driven decision-making. However, despite the widespread acknowledgment of data’s critical role in decision-making, a considerable challenge has emerged: decision paralysis.

A surprising 72% of individuals reported that the massive abundance of data has, paradoxically, hindered their ability to make decisions promptly and confidently.¹ At the heart of this issue is the ability to effectively utilize vast data volumes without becoming overwhelmed. This situation has resulted in a substantial amount of unused data, further

exacerbating the challenge.

¹ Frost & Sullivan Interview with Virtualitics (Frost & Sullivan, March 2024)

As organizations, governments, and consumers generate and leverage vast amounts of data, BI vendors are creating solutions to address the increasingly critical issue. Specifically, Virtualitics focuses on overcoming the barriers to effective data utilization and decision-making. The company aims to pioneer solutions that acknowledge the current data landscape's complexity and offer practical pathways to navigate it. This commitment positions Virtualitics at the forefront of tackling today's most pressing challenges in data analytics and BI.

Virtualitics: Driving Trustworthy Optimized Decisions

Founded in 2016 and headquartered in Pasadena, California, Virtualitics leverages advanced artificial intelligence (AI) and machine learning (ML) to revolutionize how organizations engage with data exploration. The company uniquely empowers data teams to dive deeply and efficiently into their datasets. To this end, its no-code AI platform autonomously uncovers trends and insights, ensuring a comprehensive understanding of data intricacies. Virtualitics integrates immersive three-dimensional (3D) visualizations and AI-powered applications, enabling teams and stakeholders to grasp complex data relationships intuitively. Grounded in over a decade of rigorous research at the California Institute of Technology and validated through its critical role with the federal government, the company's patented technology marks a significant leap forward in data analysis and application.

Explainable AI: Actionable Insights

By integrating AI-driven exploration, intelligent network graph analysis, and multi-dimensional data analysis, Virtualitics is redefining the data exploration and analysis landscape.

AI-driven exploration is at the forefront of the company's offering, leveraging advanced AI and ML models to sift through multi-dimensional data, revealing patterns and insights with unprecedented speed and accuracy. The platform's Natural Language Query (NLQ) feature democratizes data analysis, allowing users to extract insights through logical requests without coding. NLQ then combines with Smart Mapping and Automated Insights to instantly highlight key data features, guiding users to where their attention is needed most.

Intelligent Network Graph Analysis distinguishes Virtualitics by employing patented ML technology to detect and visualize networks in 3D, accelerating the discovery of behavioral segmentations and complex dataset networks. This capability offers enhanced insights into community dynamics and the strength of connections.

Multi-dimensional data Analysis leverages the natural human affinity for 3D visuals, presenting data analysis results in intuitively comprehensible formats. Capable of displaying up to 12 dimensions simultaneously, the platform's AI and ML analysis suggests the most impactful data features for exploration in vivid 3D visuals.² Additionally, features like Suggested Mapping and Intelligent Anomaly Detection provide users with alternative visualization options and the ability to pinpoint statistical outliers, ensuring a comprehensive and distraction-free exploration experience.

² "Explore without limits" (Virtualitics website: <https://virtualitics.com/ready-to-use-ai/>)

Ultimately, the Virtualitics platform guarantees the deployment of targeted, high-performing models by ensuring its AI solutions are relevant through deep business context exploration. The platform enhances

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*- Kalyani Suraj Devrukhkar
Senior Research Analyst*

model performance through iterative improvements and promotes actionable insights with clear, AI-generated recommendations and scenario modeling. The solution prioritizes continuous model validation and responsible AI deployment, alerting users to deviations and mitigating bias.

Over and above, the company integrates with leading cloud data platforms like Databricks and Snowflake, ensuring robust data analysis within secure environments. This integration respects existing governance protocols while keeping data securely within its native ecosystems. Virtualitics’ comprehensive security measures include data

encryption, continuous vulnerability scanning, and strict adherence to high-standard cryptographic compliance (FIPS 140-2).³ The company’s rigorous security protocols include monitoring, business resiliency, and workforce security. Moreover, Virtualitics aligns with top security frameworks and standards, such as National Institute of Standards and Technology Special Publication 800-171, Cybersecurity Maturity Model Certification, and System and Organization Controls 2 Types 2 and 3, affirming its status as a trusted partner in the secure deployment of AI and data analytics solutions.⁴

Making the Leap to Advanced Analytics

Overcoming the pervasive challenge of decision paralysis, Virtualitics designs technology to streamline decision-making through enhanced data interaction and utilization.

- **Exploration Capability and No-Code AI Solutions:** The company empowers users to ascertain whether they possess the necessary data to support decision-making, assess the sufficiency and dependability of the evidence, and evaluate the feasibility of building AI models. This capability significantly departs from traditional dashboarding tools, which primarily serve as reporting mechanisms without offering substantial insights or support for justifying model decisions.
- **AI-Powered Application Development:** Beyond exploration, Virtualitics emphasizes creating a positive decision-making experience. Recognizing that AI models and pipelines alone do not generate impact, the company focuses on developing AI-powered applications. These applications present relevant information in a context that facilitates the evaluation of options and promotes decisive action.

³ “Cyber Security Standards” (Virtualitics website: <https://virtualitics.com/cyber-security-standards/>)

⁴ Ibid.

- **Interactive Decision-Making Apps:** Virtualitics extends its technological innovation to developing interactive, no-code AI-driven applications that enable users to simulate outcomes based on different decision scenarios. This approach offers simulations that guide users through the decision-making process.

What also sets the company apart is the internal utilization of its platform, which ensures continuous refinement and improvement based on real-world applications. This methodology validates the platform's effectiveness and drives its evolution, making it more relevant and adaptable to customer needs. The essence of Virtualitics' innovation lies in its ability to amalgamate different formats of data analytics, ML, and AI technologies into a unified user experience.

From Descriptive to Prescriptive: A Customer-centered Approach

Virtualitics positions itself as a frontrunner in data analytics and business intelligence through a meticulously customer-centric approach. The company's iterative and user-centric process underscores its focus on creating scalable, customizable solutions. Its ecosystem is at the core of the company's success, where exploration and analytical insights seamlessly merge into application development. Addressing customer satisfaction, especially in the context of diverse user groups ranging from non-technical stakeholders to highly technical developers and data scientists, Virtualitics employs a high-touch customer success strategy. It creates a common language within the platform suitable for all users, regardless of technical acumen.

Showcasing a paramount example of customer-centricity, Virtualitics ensures swift and effective resolutions to technical challenges faced by users. Its strategy promptly channels client feedback through diverse support systems to the quality assurance and product development teams. This rapid response mechanism results in efficient bug resolution, immediate patch releases, and consideration of complex system-wide enhancements through user surveys and prototype testing.

Furthermore, the company adopts a hands-on approach to initial customer engagement. Its processes often involve launching proof-of-concept (POC) projects to showcase the platform's capabilities in addressing the client's unique challenges. This initial step is crucial in transitioning new clients to enterprise users, emphasizing the platform's versatility. The purchase experience was informative and supportive, highlighting Virtualitics' commitment to solving immediate problems and fostering long-term partnerships.

"Virtualitics has not only helped us to save time but has allowed us to seamlessly identify critical business insights that have generated tangible book value for our supply chain customers."

- Dr. Alban Quillaud – VP Digital Innovation & Analytics at Kuehne + Nagel.⁵

Paving the Way for the Analytics Evolution

Initially recognized for its significant contributions within the federal sector, Virtualitics has transitioned to the commercial realm, marking a new chapter for the company. This transition enables the company to forge new relationships and collaborations with clients across different verticals. Beyond the

⁵ "Virtualitics AI platform in action" (Virtualitics website: <https://virtualitics.com/>)

manufacturing and maintenance spheres, which have made a significant impact, Virtualitics targets key industries such as finance, healthcare, and life sciences.

A cornerstone of this foray into the commercial sector is the introduction of industry-specific AI-powered applications. One pioneering solution is the Integrated Resource Optimization application, which offers a comprehensive decision-making framework for maintenance and repair operations teams. As a result of Virtualitics' extensive experience in maintenance decision intelligence within the federal space, this application predicts potential equipment failures and facilitates maintenance task planning and execution.

Throughout 2023, the company achieved significant milestones that signal its growing influence. For instance, in May 2023, Virtualitics announced a pivotal investment from Citi, aiming to accelerate the expansion of its AI Platform.⁶ This investment supported enhancing ML and data analytics capabilities, underlining the platform's broad industry appeal and mission to democratize data analysis. In April 2023, the company partnered with North American Bancard, LLC (NAB).⁷ This collaboration enabled NAB to harness Virtualitics' Intelligent Exploration to uncover and act on hidden payment processing patterns, enhancing merchant security and business success. Finally, in October 2023, the company announced its partnership with Databricks and the integration of its AI Platform with Databricks' Data Lakehouse Architecture.⁸ The collaboration unlocks new possibilities for Databricks customers, offering a seamless and secure pathway to advanced data exploration and analysis.

These strategic moves have added to a successful Series C investment round, where Virtualitics secured \$37 million, underscoring its dynamic growth and pivotal role in the evolving landscape of AI and data analytics.⁹ The company's vision that investments in data storage, management, and BI tools alone have fallen short of solving critical decision-making challenges is a wake-up call to the industry. Virtualitics highlights a prevalent issue and positions itself as a catalyst for change. Therefore, it consistently earns its client's trust and loyalty, enabling it to capture more market share.

⁶ "Virtualitics Secures Strategic Investment from Citi Fueling Growth of Intelligent Exploration Technology" (Virtualitics press release, May 2023)

⁷ "North American Bancard Partners with Virtualitics to Unlock Insights from Complex Payment Data" (Virtualitics press release, April 2023)

⁸ "Virtualitics Joins Databricks as a Technology Partner to Empower AI Data-Driven Insights and Analytics" (Virtualitics press release, October 2023)

⁹ "Virtualitics, a Leader in Artificial Intelligence and Data Exploration, Closes \$37 Million Series C Funding Round" (Virtualitics press release, August 2023)

Conclusion

In the rapidly evolving landscape of the data analytics industry, where the integration of cutting-edge technology is paramount for achieving impactful outcomes, Virtualitics is at the forefront with its suite of artificial intelligence (AI)-driven tools. The company reshapes data exploration and analysis by harnessing the power of AI-driven exploration, intelligent network graph analysis, and multi-dimensional data analysis.

The platform's ability to uncover patterns and insights with remarkable speed and precision through advanced AI and machine learning models marks a significant leap forward. The benefits brought forth by Virtualitics are manifold, enhancing not just the analytical capabilities of organizations but also their decision-making processes. Furthermore, Virtualitics distinguishes itself from competitors by its focus on customer needs, relentless pursuit of innovation, creativity, and the efficiency of its solutions, driving significant impact across various applications.

With its strong overall performance, Virtualitics earns Frost & Sullivan's 2024 North American Enabling Technology Leadership Award in the advanced AI analytics industry.

What You Need to Know about the Enabling Technology Leadership Recognition

Frost & Sullivan's Enabling Technology Leadership Award recognizes the company that applies its technology in new ways to improve existing products and services and elevate the customer experience.

Best Practices Award Analysis

For the Enabling Technology Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

About Frost & Sullivan

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Frost & Sullivan’s proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

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Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

