



*Proscia Recognized for*

**2021**

**Customer Value Leadership**

North American Digital Pathology and  
Image Management Software Industry

*Excellence in Best Practices*

## Strategic Imperatives

Frost & Sullivan identifies three key strategic imperatives that impact the healthcare industry: geopolitical chaos, disruptive technologies, and internal challenges. Every company that is competing in the healthcare space is obligated to address these imperatives proactively; failing to do so will almost certainly lead to stagnation or decline. Successful companies overcome the challenges posed by these imperatives and leverage them to drive innovation and growth. Frost & Sullivan’s recognition of Proscia is a reflection of how well it is performing against the backdrop of these imperatives.

SIB	GEOPOLITICAL CHAOS	DISRUPTIVE TECHNOLOGIES	INTERNAL CHALLENGES
Why	<ul style="list-style-type: none"> <li>Supply chain stability, manufacturing capabilities, and residual healthcare budgets will dictate the industry’s growth trajectory despite the nondiscretionary nature of pharma products in the COVID-19 scenario.</li> <li>Supply chain resilience will continue to be tested as companies scramble to reallocate and ramp up manufacturing to address supply shortages and tackle government protectionism measures.</li> <li>COVID-19 will likely result in higher demand for access to remote treatment solutions and methods.</li> </ul>	<ul style="list-style-type: none"> <li>The global healthcare industry has benefited from a combination of novel technologies, including artificial intelligence (AI) platforms, the Internet of medical things, and blockchain.</li> <li>Adoption of advanced analytics, automation, and cloud solutions results in increased productivity and better decision-making.</li> <li>Healthcare Institutions, both small and large need to rapidly digitize operations to address inefficiencies and create patient-centricity and personalized, value-based healthcare solutions.</li> </ul>	<ul style="list-style-type: none"> <li>Healthcare Institutes looking to shift focus to from treating a condition to treating a patient cannot do so without the requisite digital infrastructure.</li> <li>The growing importance of data cannot be understated. Digital security is still a major piece of the puzzle that needs to be thoroughly addressed for effective utilization of data while simultaneously offering complete data protection for patients which will require significant investments or funding thereby exerting cost pressures.</li> </ul>
When	<ul style="list-style-type: none"> <li>Healthcare organizations will accelerate innovation to respond to the COVID-19 crisis while rethinking post-pandemic care delivery and financing.</li> <li>Government-funded COVID-19 testing initiatives will boost healthcare revenues in general in the next 1 to 3 years.</li> <li>Pharmaceutical companies will experiment with new point-of-care (POC) testing, digital supply chain tools, and patient-doctor connectivity programs based on digital platforms.</li> <li>The pandemic will drive new digital-tech adoption in drug discovery and testing services, and federal funding will encourage deeper product pipelines and inventory.</li> </ul>	<ul style="list-style-type: none"> <li>The revenue from AI solutions used in drug discovery is expected to grow 26.3% and reach \$455 million by 2020. New technologies such as augmented reality will be incorporated into labs, processing lines, and drug manufacturing sites to increase safety, reliability, and efficiency.</li> <li>In addition to reinventing R&amp;D through technology-enabled drug discovery and clinical trials, digital transformation will improve commercial and supply chain processes during the next 5 years.</li> <li>Significant growth opportunities await in field of digital pathology for productivity improvement, remote consultations and in decreasing the increased workload burden on pathologists.</li> </ul>	<ul style="list-style-type: none"> <li>Digital transformation in the healthcare industry will be accelerated in the short term in order to accommodate the increased strain on the healthcare institutions and healthcare system in general. The transformation can be expected to happen across the value chain with the focus strongly on the delivery of better care for the patients.</li> <li>Post the pandemic, the focus is expected to shift into personalized medicine with a number of promising assets in the clinical pipeline. But in order to capture the growth in the precision medicine sector, companies must pursue acquisitions of digital solution targets to leverage data monetization opportunities.</li> </ul>

## 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. Proscia excels in many of the criteria in the digital pathology and image management software space.

AWARD CRITERIA	
<i>Business Impact</i>	<i>Customer Impact</i>
Financial Performance	Price/Performance Value
Customer Acquisition	Customer Purchase Experience
Operational Efficiency	Customer Ownership Experience
Growth Potential	Customer Service Experience
Human Capital	Brand Equity

### ***Enabling Rapid Digital Pathology Adoption to Overcome Systemic Challenges in the Post-pandemic Era***

Research establishes that pathology’s shift from microscope to image plays a crucial role in improving patient outcomes and advancing the quest for personalized medicine. Pathologist shortages and rising new cancer cases are key drivers for adopting digital pathology solutions globally as laboratories seek to

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**- Supriya Lala, Best Practices Research**

advance the 150-year-old standard of care. These systemic challenges have recently been exacerbated by the global pandemic, and now post-pandemic era. The increasingly permanent shift to remote work, combined with an expected surge in biopsy volume resulting from delays in routine screenings, have further exposed the challenges of a manual practice that centers around pathologists and microscopes in physical laboratory spaces. These reasons, among others,

contribute to the projected 8.7% compound annual growth rate of the digital pathology market in North America regions between 2019 and 2025, with the United States (US) primarily driving the market.<sup>1</sup>

<sup>1</sup> *AI-Based Image Analysis Tools and Cloud-Based Deployment to Expand the Global Digital Pathology Market*, (Frost & Sullivan, February 2021)

While digital pathology has demonstrated the potential to enhance pathologists' productivity by 10% to 15%, many laboratories, including some of the world's largest, have struggled to realize efficiency, quality, and accuracy gains in practice.<sup>2</sup> Primary industry challenges relate to outdated software solutions that do not scale across the connected enterprise or deliver investment protection to meet current and future needs. Pathology's artificial intelligence (AI)-enabled future is quickly becoming a reality, and laboratories must be prepared to capitalize and realize the true promise of the digital transformation.

Founded in 2014 and headquartered in Philadelphia, the US, Proscia provides digital and computational pathology solutions to address these challenges effectively and enable rapid modernization. The company's marquee customers include LabPON, the first laboratory in the world to reach 100% digital pathology diagnosis, Johns Hopkins University, and the University of Pennsylvania. Proscia also works with leading pharmaceutical and research organizations including the U.S. Department of Defense's Joint Pathology Center, which selected its software to digitize the world's largest repository of biomedical information.

Proscia's flagship platform Concentriq® is an image management system that uniquely sits at the intersection of digital and computational pathology. It delivers the robust functionality that health systems and laboratories require to power image-based workflows at scale and carry out their day-to-day pathology operations. The platform is also computationally-enabled, serving as a launchpad for AI applications developed by Proscia and other third parties. In delivering all of this functionality, the future-ready Concentriq is centralizing pathology operations for even the most widely distributed teams to drive efficiency, improve connectivity, and expand the breadth of diagnostic information available.

### ***Concentriq Delivers High-performance Digital Pathology at Scale to Unify the Connected Enterprise***

Frost & Sullivan has identified three primary reasons organizations adopt Concentriq. In speaking with Proscia's customers, leading diagnostic laboratories routinely cite that the platform provides:

- A singular solution for connecting distributed teams, data, and applications across the global enterprise
- The industry's most pathologist-centric user experience
- Seamless integration of a broad portfolio of AI applications

As organizations upgrade their routine workflows to realize necessary productivity and quality gains in the post-pandemic era, they require a robust solution that sits at the center of their operations to unify multi-site and remote teams, growing volumes of pathology data, and an increasingly complex ecosystem of hardware and software solutions. To that end, the scalable, flexible Concentriq platform delivers the performance required to enable geographically distributed teams to carry out their routine work from within a shared platform, unlike competitive offerings that were not purposefully designed for large enterprises. This includes support for an unlimited number of users and robust user management permissions as well as an open API that delivers the industry's leading interoperability.

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<sup>2</sup> *Growth Opportunities in the Global Digital Pathology Market, Forecast to 2021, (Frost & Sullivan, November 2017)*

A single deployment of Concentriq integrates with multiple whole slide scanners, laboratory information systems (LIS), and image analysis applications, ensuring that the platform will meet users' current and future needs and providing consistency across sites. Concentriq also delivers enterprise-grade security, including comprehensive data encryption, and supports compliance with HIPAA and GDPR. Organizations looking to implement digital pathology often cite that solutions are not designed with the pathologist in mind, limiting adoption among this primary user base. Frost & Sullivan observed that Concentriq delivers a market-differentiating experience with an intuitive interface that is easy to operate and drives actionable insights; this experience was designed by pathologists for pathologists to enhance the familiar workflow with optimized image viewing as well as streamlined sharing and

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collaboration to overcome the time-consuming and expensive non-digital approach requiring shipping glass slides among locations. By reducing the number of clicks and automating routine, mundane tasks, Concentriq simplifies pathology workflows, enabling pathologists to focus their time where it matters most. The platform is also highly configurable compared to commercial one-size-fits-all native image management systems that do not

possess the flexibility to support users' varied workflow requirements. Concentriq enables all laboratories to operate optimally without transitioning away from standard operating procedures and best practices developed over decades. Over the past year, Frost & Sullivan has also observed that organizations are increasingly looking to implement AI as a key component of their pathology operations. Proscia's Concentriq uniquely sits at the intersection of digital and computational pathology, enabling laboratories to seamlessly deploy computational applications developed by Proscia and other third parties, as well as homegrown solutions, through its open API. Users can then leverage AI-powered capabilities, including triaging, prioritizing, and sorting, in their routine work to accelerate case review as well as view results alongside all other pathology data to expand the breadth of diagnostic information.

### ***Advancing Pathology's Computational Future with a Market Differentiating Approach***

Proscia is further capitalizing on the growing opportunity around pathology's computational future through a unique approach that enables laboratories to deploy the broadest array of AI solutions at scale. It is actively expanding its own portfolio of computational applications to sit on top of its Concentriq platform. In doing so, it is building off of the success of its DermAI®, which classifies images of skin biopsies into pre-diagnostic categories to drive efficiency and quality gains. The company has also amassed an impressive roster of leading academic and commercial laboratories, including Unilabs, LabPON, Johns Hopkins University, and University Medical Center Utrecht, with which it partners to develop and validate these solutions. To provide an even wider set of offerings, Proscia partners with key players developing computational solutions for pathology, integrating their applications into Concentriq; this includes Visiopharm's portfolio of image analysis algorithms and Ibex's Galen Prostate

for AI-powered triaging, cancer detection, and grading of prostate core needle biopsies.

Deploying AI into routine operations is often cited as a key barrier to adopting the technology at scale, and Proscia is enabling laboratories to overcome this pain point by making its computationally-enabled platform accessible to a growing partner network.

### ***Demonstrated Commercial Traction Rounded Out By a Robust Partner Ecosystem and Deep Professional Services Offerings***

More generally, collaborations sit at the center of Proscia's go-to-market approach. Beyond its relationships in the AI space, Proscia has forged partnerships with hardware and software companies across the entire digital pathology ecosystem, including providers of whole slide scanners, laboratory information systems (LIS), and image analysis applications. It also has established relationships with best-of-breed cloud infrastructure providers, including AWS and Dell. The company rounds out its commercialization strategy with a deep portfolio of professional services designed to help laboratories make the transition to digital pathology with confidence. These include configuration and implementation support as well as training once a site has gone live. Proscia also has a dedicated Digital Transformation Officer, who previously served as the Chief of Pathology at Kaiser Permanente and brings more than 30 years of experience in pathology and laboratory management, to help guide laboratories throughout all stages of the digital journey. Frost & Sullivan appreciates that the shift to digitization can be overwhelming for laboratories to navigate and applauds Proscia for extending its dedication to its customers beyond delivering leading-edge technology. Our research indicates that adapting to the post-pandemic era, coupled with additional Food & Drug Administration's approvals for digital pathology solutions and increasing product-market fit, will likely trigger increased adoption in the commercial and clinical application segments post-2021. Reimbursement and pricing evolving dynamics will also play a significant role in widespread adoption. Backed by the recent Series B funding round of \$23 million led by Scale Venture Partners, Proscia aims to continue accelerating its commercial growth, driving pathology's data-driven future, and advance its regulatory strategy. Frost & Sullivan anticipates Proscia consolidating its position as one of the leading players at the forefront of digital pathology's transformation to propel precision medicine.

## **Conclusion**

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Proscia is focused on advancing the standard of cancer research and diagnosis to accelerate breakthroughs and improve patient outcomes. Company's future-ready Concentriq platform serves as the laboratory's center of gravity, enabling even the largest networked operations to rapidly modernize and realize much-needed quality, efficiency, and productivity gains. By unifying today's increasingly distributed, multi-site teams, delivering the industry's leading pathologist-centric experience, and enabling laboratories to lay the foundation for artificial intelligence (AI), Proscia's solution is well-positioned to remain at the forefront of innovation in the space. The company's differentiated approach to AI enablement and robust commercial strategy further solidify it as a leader in digital pathology's rapidly growing market. With its strong overall performance, Proscia earns Frost & Sullivan's 2021 North America Customer Value Leadership Award in the digital pathology and image management software market.

## What You Need to Know about the Customer Value Leadership Recognition

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Frost & Sullivan's Customer Value Leadership Award recognizes the company that offers products or services customers find superior for the overall price, performance, and quality.

### Best Practices Award Analysis

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *Business Impact*

**Financial Performance:** Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

**Customer Acquisition:** Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

**Operational Efficiency:** Company staff performs assigned tasks productively, quickly, and to a high-quality standard

**Growth Potential:** Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

**Human Capital:** Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

#### *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

