FROST & SULLIVAN

2024 CUSTOMER VALUE LEADER

IN THE GLOBAL
EARLY DRUG DISCOVERY
AND PRECLINICAL
INDUSTRY

FROST & SULLIVAN

2024

PRACTICES



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. **Aragen Life Sciences Ltd.** excels in many of the criteria in the **early drug discovery and preclinical** space.

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

Innovations and Challenges in Early Drug Discovery and Preclinical Market

The pipeline of potential breakthroughs is expanding rapidly in the bustling world of pharmaceutical (pharma) research and development (R&D). Yet, this growth is not linear, and a slew of challenges hindering the conversion of these innovations into commercial successes characterize it. The hurdles are diverse, ranging from the ever-increasing time and cost of development and approvals to the diminishing commercial potential of drugs (as they get increasingly personalized), leading to lower returns on R&D investment (return on investment [ROI]). For instance, the decline in the average ROI for R&D, which has dropped to 1.2%, indicates the need for more efficient drug development processes. Additionally, the peak sales per asset valued slightly above \$350 million underscores the challenge of maximizing returns on R&D investments.

Moreover, the field is experiencing rapid technological advancements and a rise in the complexity of drugs under development, further complicating the process. Under this backdrop of challenges, contract research organizations (CROs) are emerging as the much-needed solution. With their expertise and specialized services, CROs offer a way to navigate the complexities of the R&D landscape efficiently. However, the success of any drug development endeavor hinges significantly on the robustness of the early discovery and preclinical stages. These initial phases serve as the foundation for the subsequent capital-intensive phases of development.

¹ "Growth Opportunities in Drug Discovery and Early Development Outsourcing Services," (Frost & Sullivan, February 2024).

² Ibid.

The early drug discovery and preclinical market encompasses the initial stages of drug development, from target identification to lead optimization for identifying and validating potential drug candidates before progressing to clinical trials. This segment is critical for bringing new therapies to patients and involves a range of complex activities involving multiple stakeholders like pharma companies, biotechnology (biotech) firms, academic institutions, and CROs. Thus, ensuring the efficacy and thoroughness of these early stages and working with the right CRO partner are crucial for the overall success of bringing new drugs to market.

Frost & Sullivan expects CROs to enhance R&D efficiencies and ROI through partnering across industries, adopting agile technologies, building a robust skilled workforce, tailoring operational design for each drug and partner, facilitating knowledge transfer to pharma companies, and supporting more incredible breakthrough innovation for maximizing efficiency and success in drug development.

Customer-centric Excellence: Aragen's Leading Role in Contract Research and Manufacturing

Formerly known as GVK Biosciences, Aragen Life Sciences Ltd. (Aragen) was founded in 2001. Headquartered in Hyderabad, India, Aragen is a trusted contract research, development, and manufacturing organization (CRDMO) within the global life sciences industry. The company specializes in providing comprehensive solutions encompassing small and large molecules to the global pharma, biotech, animal health, agrochemicals, and other industries. It supports clients across the entire biopharma lifecycle, from "concept to commercialization," offering global resources and proven capabilities.

Aragen boasts a platform that is agnostic to modalities and therapy areas, allowing it to cater to a multitude of companies. This versatility positions the company uniquely to address diverse client needs and seamlessly guide assets from early-stage discovery through development and commercialization, leveraging its expertise in overcoming the most complex scientific obstacles. With a focus on the R&D continuum, Aragen provides customized services tailored to individual client's requirements and internal capabilities, ensuring maximum value delivery.

Differentiators

Aragen's value proposition and key differentiators revolve around its collaborative business model, pure-play CRDMO positioning, technological advancements, and sustainability initiatives. The company focuses solely on assisting clients in advancing their molecules without engaging in conflicting activities such as developing internal pipelines. This commitment ensures transparency and trust in their partnerships. Also, Aragen's distinction as a pure-play CRDMO player sets it apart from competitors with ties to product businesses. This status guarantees that clients' intellectual property (IP) is safeguarded, establishing client trust.

Through real-time product and process updates (e.g., artificial intelligence [AI]-driven processes), Aragen ensures that customers receive timely and informed insights to guide their projects. For instance, by leveraging machine learning algorithms, the company quickly identifies optimal synthesis routes for molecules based on historical internal data and past successes. As a result, it accelerates the development process and minimizes the risk of failures, leading to significant cost and time savings for clients. Also, by embracing digitization and AI, Aragen demonstrates its commitment to innovation and its ability to stay

ahead of industry trends. This capability sets the company apart as a forward-thinking partner capable of delivering cutting-edge solutions to its customers, ultimately driving value and success in their projects.

Additionally, Aragen's strong commitment to sustainability and environmental responsibility is another differentiator. The company's dedication to sustainable practices has been recognized with a Silver Rating in the Ecovadis Global Sustainability Assessment 2023.³ It is a signatory to initiatives like the Science Based Targets initiative that sets and advocates for industry-leading standards in emission reduction strategies and net-zero objectives aligned with the latest advancements in climate science. Aragen's sustainability efforts have gained recognition from major pharma companies, positioning it as a leader in driving sustainability strategies within the industry. Its proactive approach to environmental stewardship includes initiatives such as carbon-neutral programs, green chemistry, sustainable procurement, and the use of green energy.

Customer Satisfaction

At Aragen, customer satisfaction is paramount. The overarching focus is on emphasizing meeting and exceeding customer expectations. The company's extensive customer base of 450 clients attests to their satisfaction.

With a diverse clientele, Aragen adapts its approach to meet each customer's unique needs. Robust systems and processes facilitate this flexibility, starting with attentive project management. The technical experts spend significant time understanding the customer's requirements and addressing customer pain points to provide tailored solutions. Customers appreciate the company's attentive approach and value the thorough understanding of their needs. The subsequent engagement involves technical discussions and solutions customized to address specific challenges, fostering a solid foundation for ongoing collaboration and customer satisfaction.

Aragen has established strong proprietary project management capabilities that help effectively execute and manage a large and growing client base. The alignment between the project manager's success and customer satisfaction ensures that they serve as the voice of the customer within the company. This approach enables the company to deliver on time, maintain high-quality standards, and facilitate effective communication, ultimately enhancing customer experience and setting the company apart in service delivery.

Aragen prioritizes customer experience through flexibility and choice. With multiple sites located in India and the United States (US), clients have options tailored to their preferences. The company benefits from the co-location of R&D laboratories and manufacturing facilities, which ensures a seamless tech transfer from feasibility to commercial supply. Aragen's flexible business models allow its customers to choose between full-time equivalent (FTE) or fee-for-service collaboration, depending on their requirements. The company operates with high standards that not only comply with global regulatory requirements but are also consistent with the requirements of global clients.

Aragen caters to partners by addressing their key concerns, particularly regarding IP and resource constraints. It also offers dedicated labs for key clients, ensuring exclusivity and safeguarding their

³ Aragen Life Sciences, "EHS & Sustainability Initiatives," Aragen Life Sciences, January 31, 2024, https://www.aragen.com/our-responsibility/environment-health-safety-sustainability/.

valuable molecules. Moreover, recognizing the importance of IP protection, the company provides its own e-lab notebook solution to biotech partners, offering an accessible alternative to costly commercial options. These proactive initiatives demonstrate the company's commitment to supporting biotech companies and have fostered long-term partnerships and continued growth.

Frost & Sullivan commends Aragen's impressive customer centricity, which is evident in its tailored approach to meeting diverse client needs, commitment to transparency and trust through collaborative partnerships, and dedication to ensuring customer satisfaction at every engagement stage. By adapting its strategies to address individual pain points, assigning dedicated product managers driven by customer

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Aragen's Strategic Vision: Enhancing Customer Value through Innovation and Efficiency

Aragen's strategic emphasis on price, performance, and value underscores its commitment to providing exceptional client outcomes. By prioritizing performance and offering superior value, the company has recorded substantial growth and doubled its workforce and investor value over the last five years. This success stems from its unwavering dedication to meeting client needs irrespective of their size and scale of operations.

A notable example of Aragen's performance-oriented approach is its impressive scientific talent pool, including the high number of Doctor of Philosophy degrees. This scientific expertise, combined with a track record of delivering innovative solutions, positions the company as a trusted industry leader in customer value, with clients recognizing and valuing its contributions.

Aragen prioritizes operational efficiency, recognizing it as a cornerstone of its customer-centric approach. Central to this ethos is the concept of quality, on-time information, which serves as a metric to ensure the timely delivery of the correct quantity and quality of materials. Additionally, the company highlights continual improvement plans, fostering innovation and adaptation to evolving scientific landscapes, enhancing project outcomes, and reducing client costs.

Moreover, Aragen focuses on supply chain efficiency, reflecting its commitment to operational excellence. By optimizing the supply chain, the company aims to decrease the cost of goods while diversifying its supplier base, reducing dependency on other emerging economies. This strategic shift aligns with industry trends towards an India-centric supply chain, enhancing resilience and flexibility for clients. Currently,

Aragen sources 81% of its supplies domestically, highlighting its commitment to geodiversity and streamlined processes.⁴

Case Studies

A precision therapy company faced the challenge of designing and developing targeted protein degraders (TPDs) due to the complex nature of the proteins involved and the synthesis challenges associated with creating inhibitor ligands. Aragen's approach involved identifying target sites within the protein and E3 ligase and optimizing the linker design to achieve stable degraders with desired attributes. The outcome was successful, with TPDs demonstrating remarkable effectiveness in potency testing, surpassing existing methods and leading to approval for further preclinical development, marking a significant milestone in the project's progression.

Aragen embarked on a project to reproduce the physiological attributes of a prominent agriscience company's original formulation, as requested by the client while prioritizing environmental safety and efficacy. The company's approach involved understanding the influence of surfactant types, selecting

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- Ojaswi Rana Best Practices Research Analyst suitable surfactants and co-solvents, and conducting comprehensive lab-scale formulation development. The outcome was successful, with the newly formulated product matching the original formulation's physicochemical parameters, obtaining regulatory approval, and demonstrating remarkable stability across diverse agro-climatic conditions, facilitating its introduction to the US market with Aragen's assistance.

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Sustainable Success: Aragen's Path to Leadership in Life Sciences

Aragen has solidified its market position, boasting partnerships with 14 major pharma companies and leading players in the agriscience sector. While the company has established significant collaborations with large entities, its niche and differentiation lie in its exceptional services tailored for the biotech industry, evidenced by partnerships with 27 Fierce 15 biotech companies. Not only does Aragen serve companies of all sizes, from the largest pharma giants to the smallest biotech startups, but it also operates globally. With a workforce of 4,500 spread across six global campuses and 95% of its revenue generated from outside India, particularly from the US and Europe, Aragen's international presence highlights its

⁴ Frost & Sullivan interview with Aragen, (February 16, 2024).

extensive reach and influence.⁵ Moreover, the recognition of Manni Kantipudi as the "CEO of the Year" at the prestigious Convention on Pharmaceutical Ingredients Worldwide, 2022, coupled with being a Great Place to Work® certified for five consecutive years, affirms Aragen's stellar reputation and success within the life sciences industry.

Aragen has a remarkable customer retention rate, with several key clients continuing their partnership for over a decade. Notably, the company's first FTE customer continues to grow alongside it for over 20 years. Many of Aragen's 14 large pharma clients have sustained multi-year relationships, with contracts often extending beyond a decade. This longevity highlights the company's ability to deliver consistent value and satisfaction, with a customer retention rate approaching 90%. Further, Aragen has retained all its top 10 customers over the past five years, underscoring its exceptional performance and long-lasting client relationships.

Success and Growth Prospects

The company's business performance is remarkable, with a 21% compound annual growth rate (CAGR) from 2018 to 2023.⁷ Strong financial indicators, such as earnings before interest, taxes, depreciation, and amortization margin of 29% and a corresponding CAGR of 27% further support these statistics.⁸ Furthermore, Aragen has a healthy profit after tax margin of 13%.⁹

Aragen's growth strategy involves anticipating and meeting its customers' future needs through strategic investments. With a philosophy focused on investing where future demands lie, the company channels its resources into areas identified by customer feedback and market analysis. Recent investments include acquiring a toxicology company to address safety pharmacology needs and establishing a drug product manufacturing facility.

Aragen plans to expand its biologics footprint with a new manufacturing plant and aims to lead in emerging areas such as peptides, oligonucleotides, and antibody-drug conjugates. Additionally, the company remains committed to strengthening its position in discovery, particularly in biology capabilities, to maintain its leadership position in the industry. This proactive approach ensures that Aragen continues to evolve and meet the changing needs of its clients.

Frost & Sullivan believes the company has a promising future as it continues solidifying its position as a global leader in the CRDMO space, focusing on tailored services for the biotech industry and strategic investments to meet evolving client needs. With impressive growth prospects, stellar customer retention, and a commitment to innovation, Aragen is poised to maintain its success and leadership in the life sciences sector. In essence, the company can scale up while remaining agile.

⁵ Frost & Sullivan interview with Aragen, (February 16, 2024).

⁶ Ibid.

⁷ Corporate Profile, (Aragen, 2024).

⁸ Ibid.

⁹ Ibid.

Conclusion

Companies can only maintain market leadership positions through customer-centric strategies if the approach is genuine and the implementation is smooth. Aragen Life Sciences Ltd. (Aragen) embodies a client-centric strategy and sets a benchmark for implementing best practices. The company prioritizes intellectual property protection and customer centricity, considering them pivotal pillars of its operations. Aragen goes above and beyond to cater to its customers, leveraging cutting-edge technology, a diverse skill set of resources, and flexible project management styles. This unwavering commitment ensures that it delivers tailored solutions that meet each client's unique needs and objectives, fostering strong and lasting partnerships and enhancing the company's standing and credibility in the market.

With its strong overall performance, Aragen earns Frost & Sullivan's 2024 global Customer Value Leadership Award in the early drug discovery and preclinical industry.

What You Need to Know about the Customer Value Leadership Recognition

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

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator $^{\text{\tiny TM}}$.

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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

OPPORTUNITY UNIVERSE Capture full range of growth opportunities and prioritize them based on key criteria OPPORTUNITY EVALUATION Adapt strategy to changing market dynamics and unearth new opportunities PIPELINE ENGINE™ GO-TO-MARKET STRATEGY Translate strategic and deadlines GO-TO-MARKET STRATEGY Translate strategic alternatives into a cogent strategy

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)

