

November 27, 2024

## VALUATION

Current Price	\$2.07
52 Week Range	\$2.0 – 7.7
Market Cap (\$-Mn)	5.97
Ent. Value (\$-Mn)	-2.65
Shares Out. (Mn)	2.88
Short Int (% Flt)	0.61%
Daily Vol	17.15K
P/Book	0.76x
P/Sales	-

## MANAGEMENT

Arik Kaufman	CEO
Itamar Atzmony	Chief Engineering Officer
Yair Ayalon	VP, Business Development
Mor Glotter-Nov	VP, Marketing

## STOCK PRICE PERFORMANCE



Source: BigCharts

## CONTACT

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## Steakholder Foods Ltd. (STKH)

**Innovative Foodtech Play Set to Disrupt the Alternative Protein Market. At an Inflection Point with Multiple Commercial Agreements Set to Result in Revenue in CY25.**

- B2B Foodtech play set to disrupt the \$140 billion alternative protein market through its 3D Printing platform.** Sitting at the intersection of food technology and sustainability, STKH specializes in the development and commercialization of 3D-printed plant-based and cultivated meat products. STKH's best-in-class tech and unique B2B positioning addresses a fundamental market need for flexible, scalable manufacturing solutions that can produce structured alternative proteins with authentic textures and nutritional profiles at an industrial scale and at competitive prices. STKH's B2B approach allows it to focus on advancing 3D printing technology and working with B2C partners to develop premixes that can be customized by them. This positions STKH as a partner to B2C players and allows it to benefit from their success without the burden of investing in designing, developing and pricing food products, and competing in consumer markets.
- Proprietary tech and defensible business model with dual-revenue streams built-in.** STKH stands out through its advanced 3D printing technology, including flagship devices – MX200 Meat Printer and HD144 Fish Printer – that are engineered to produce high-quality, plant-based meat and seafood alternatives. This tech platform is protected by a strong global IP portfolio. STKH also provides its partners with meat and fish premix blends, creating an integrated solution that addresses both the technological and material needs of food manufacturers. These dual revenue channels (printer and premix blends) include product sales and service, and sales-linked royalties and lend a defensible profile to STKH's revenue base.
- Multiple commercial agreements validate product-market fit and have set the stage for revenue generation.** STKH's meat and fish 3D printers have been received well by plant-based food manufacturers, as well as government organizations. The company has struck multiple commercial partnerships, including a multi-million-dollar partnership with Wyler Farm, where its 3D printers and premix blends will be used by these partners to manufacture alternative protein products. Other strategic partnerships that will boost commercialization include agreements with Taiwan's Industrial Technology Research Institute (ITRI), Sherry Herring, Premazon, and UMAMI Bioworks, indicative of a global commercialization strategy that will result in revenue generation late 2024 or 1H25. Recently received multiple (6) LOIs from international companies can boost growth momentum further.
- Attractively valued; re-rating in the cards as commercialization picks pace in CY25.** We expect 2025 to be an inflection year for STKH – which has raised \$72mn so far – as it transitions to a revenue generating foodtech company. It is currently trading at a P/B multiple of 0.8x vs. peer average of 2.4x. This, coupled with a negative EV, suggests that the Street is significantly undervaluing STKH's technological capabilities and commercial potential. As revenue generation picks pace in 2025, this valuation gap is likely to narrow and STKH will get re-rated higher, implying that current valuation offers investors a chance to own a disruptive small cap play on the alternative protein market at compelling valuation.

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## Company Overview

### Steakholder Foods (STKH) – Innovating to Disrupt the Alternative Protein Market

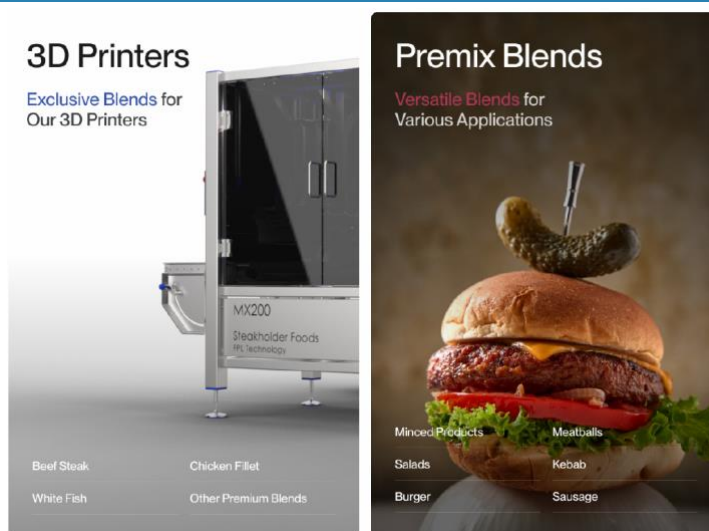
- Steakholder Foods Ltd. (NASDAQ: STKH), established in 2019 and headquartered in Rehovot, Israel, is an innovative company in the alternative protein sector, specializing in the development and commercialization of 3D-printed plant-based and cultivated meat products.** The company aims to revolutionize meat production by offering sustainable, high-quality alternatives that replicate the taste, texture, and nutritional profile of traditional meat. STKH is positioned at the intersection of food technology and sustainability, with a focus on addressing environmental and supply chain challenges in meat production. This strategic positioning aligns with growing global concerns about food security, environmental sustainability, and the increasing demand for alternative protein sources. The company's operations are centered on two primary segments: the development of advanced 3D bioprinting technologies and the formulation of proprietary plant-based premixes. STKH has engineered state-of-the-art 3D printers capable of producing high-quality, plant-based fish and meat products with unparalleled texture and flavor. These printers are complemented by a versatile range of premixes, including beef steak, burger, meatballs, minced beef, white fish, salmon, and fish burger, all crafted to deliver high quality taste and texture. Notably, all products are 100% vegan and plant-based, promoting sustainability and ethical consumption without compromising on flavor or quality.

Chart 1: STKH – Growth Timeline and Expected Milestones



Source: ICR Inc., STKH Investor Presentation

Chart 2: Main Operating Segments of STKH



Source: ICR Inc., STKH Investor Presentation

## Company Overview

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- **STKH's core technology platform centers around proprietary 3D printing systems designed specifically for alternative protein products, representing a significant advancement in food manufacturing technology.** Its product portfolio includes two flagship systems: 1) MX200 Printer, a meat printer capable of replicating the complex fibrous textures of beef, pork, and chicken, and 2) HD144 Printer, a specialized fish printer that reproduces the characteristic flaky texture of seafood products. These systems represent a significant advancement in the alternative protein manufacturing space, where texture and sensory attributes have historically been challenging to replicate. STKH's technology aims to overcome these barriers by offering precise control over product structure, composition, and nutritional content, potentially disrupting the way alternative proteins are manufactured.
- **The MX200 Meat Printer is set to disrupt the way plant-based meat alternatives are produced.** This state-of-the-art 3D printer utilizes proprietary Fused Paste Layering (FPL™) technology to meticulously replicate the intricate textures and flavors of traditional meat by combining plant-based proteins and fats. A standout feature of the MX200 is its impressive production capacity, capable of generating up to 420 kilograms of high-quality, plant-based meat per hour. This high throughput ensures efficiency and scalability, making it suitable for both large-scale manufacturing and smaller operations. The printer offers exceptional versatility in shaping, allowing for the precise replication of various meat cuts to meet diverse culinary requirements. Its advanced shaping mechanism ensures that each piece mirrors the appearance of conventional meat, catering to specific consumer preferences. In terms of maintenance, the MX200 is designed with user convenience in mind. It features waterjet-enabled cleaning for all parts, facilitating effortless maintenance and thorough sanitation with minimal downtime. This hygienic design ensures compliance with stringent food safety standards, maintaining a pristine environment for every production cycle.

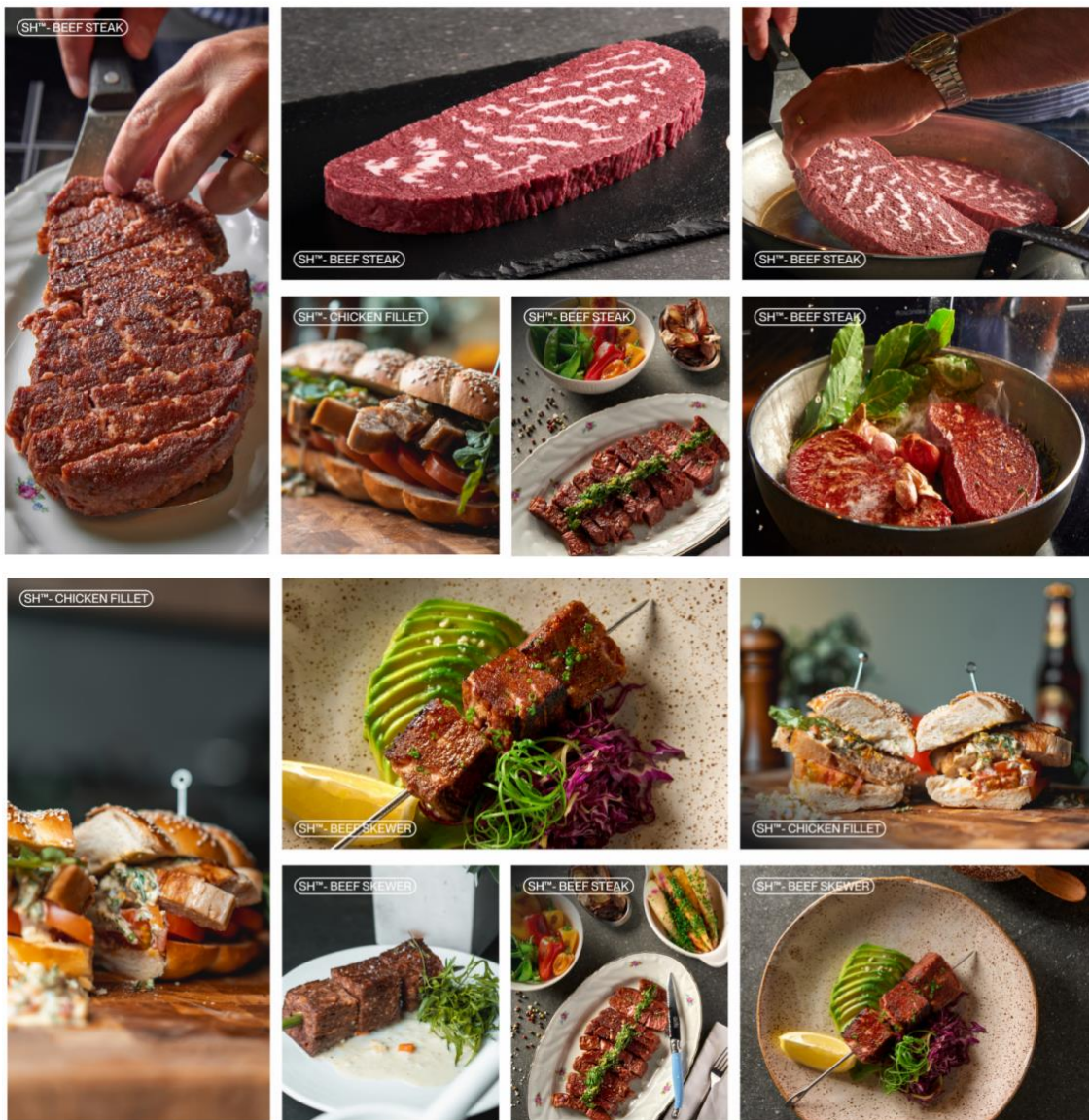
Chart 3: STKH's MX200 Meat Printer

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Source: ICR Inc., STKH Website

Chart 4: Snapshot of Products Printed by MX200

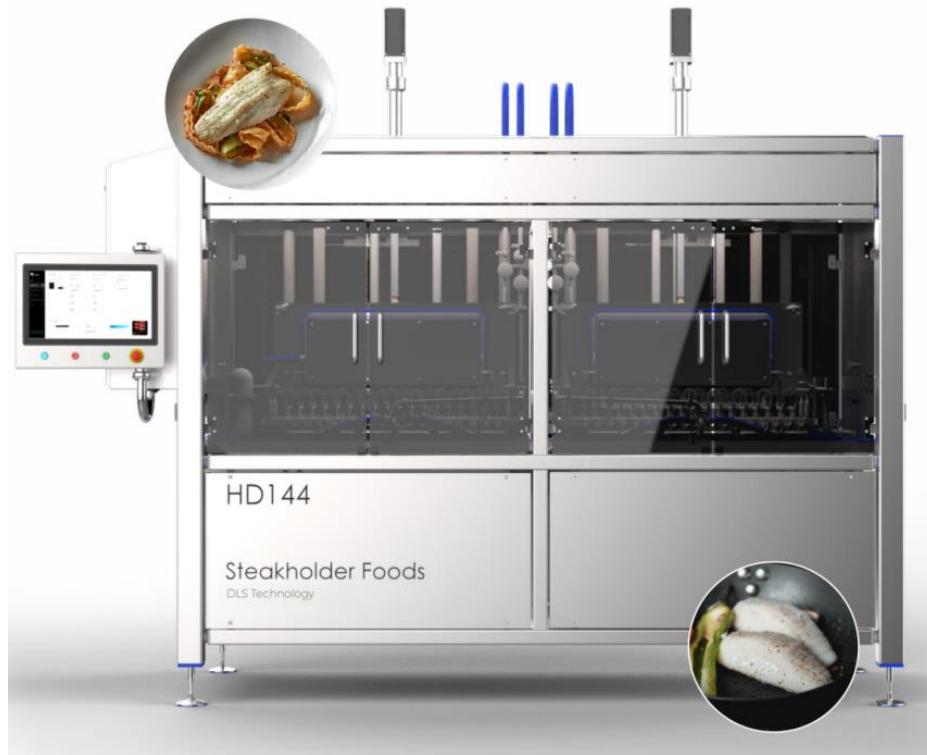


Source: ICR Inc., STKH Website

- **The HD144 printer is an industrial-grade 3D printer specifically engineered for the production of high-quality, plant-based fish alternatives.** Utilizing proprietary Drop Location in Space (DLS®) technology, the HD144 precisely places plant-based ingredients in specific patterns and layers, effectively replicating the delicate textures and structures characteristic of traditional seafood. With a production capacity of up to 100 kilograms per hour, the HD144 is designed to meet both large and small-scale production demands efficiently. Its advanced layer printing capabilities allow for exceptional shape versatility, enabling the creation of various fish shapes to cater to diverse culinary needs and presentation styles. The printer's hygienic design incorporates Clean-In-Place (CIP) systems and high-pressure water jets, ensuring thorough cleaning and sanitation without the need for dismantling, thereby maintaining high standards of food safety and minimizing downtime. The HD144's modularity facilitates seamless integration into various production lines and scalability to accommodate evolving industry demands. This flexibility allows users to expand or modify production capabilities without significant downtime or investment in new equipment. Additionally, the printer offers a versatile set of forming options, including classic fish fillets, butterfly fillets, supremes, tail pieces, goujons, and goujonettes, enabling the crafting of a wide range of shapes and sizes with precision.

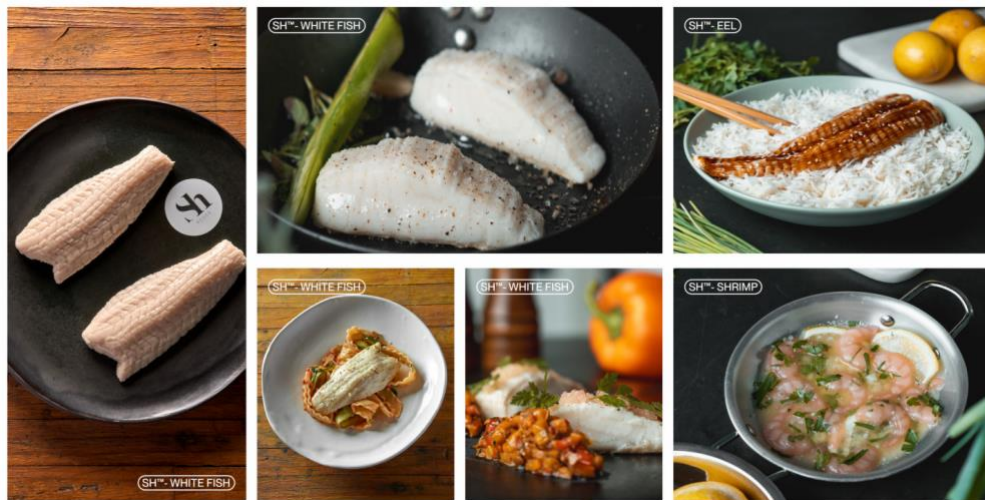
## Company Overview

Chart 5: STKH's HD144 Printer



Source: ICR Inc., STKH Website

Chart 6: Snapshot of Products Printed by HD144 Printer



Source: ICR Inc., STKH Website

- In addition to the above best-in-class printers, STKH also offers Premix Blends, enabling its customers to provide traditional flavors in a more sustainable and ethical manner. STKH's SHMeat™ and SHFish™ premix blends are central to its product portfolio and offer a diverse range of plant-based meat and seafood alternatives tailored to various culinary preferences and dietary requirements. These premix blends are meticulously formulated to emphasize sustainability, health, and ethical consumption, providing a flavorful solution for conscientious consumers. The SHMeat™ Premix Blends are available in both printed formats, suitable for structured products like

## Company Overview

steaks, and minced formats for unstructured products. The range extends to include options such as pork, lamb, and exotic meats, each developed to closely mimic the taste and texture of their traditional counterparts, delivering an authentic culinary experience. This variety caters to a wide array of dishes, from traditional recipes requiring robust meaty flavors to innovative creations exploring new culinary landscapes. Similarly, the SHFish™ Premix Blends aim to deliver genuine fish and seafood experiences in both printed and minced forms. The line includes the SHFish™ White Fish premix blend, designed to create flaky, tender fillets suitable for both refined and casual dining. Additional selections under development include salmon, tuna, and various shellfish, providing a diverse array of seafood dishes without the ecological impact associated with conventional seafood harvesting. Each SHFish™ product is crafted to capture the unique textures and flavors specific to each seafood type, accommodating dishes ranging from sophisticated sushi to hearty seafood tacos.

Chart 7: Nutrition Chart – Beef Steak Premix

Energy (kcal)	469 KJ / 112 kcal
Total fat	4.2 g
Saturates	1.3 g
Carbohydrate	8.3 g
Sugars	14 g
Protein	9.8 g
Salt	12 g

Nutritional values (100g)

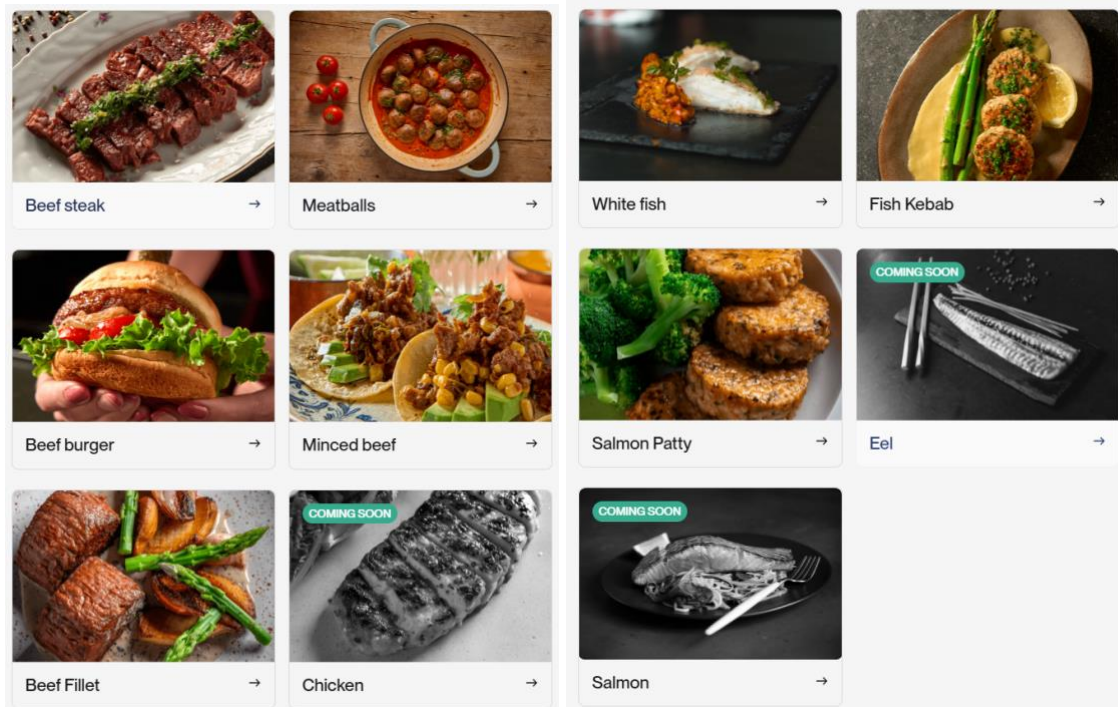
Chart 8: Nutrition Chart – White Fish Premix

Energy (kcal)	214 KJ / 51 kcal
Total fat	2.2 g
Saturates	0.2 g
Carbohydrate	2.2 g
Sugars	0 g
Protein	5.6 g
Salt	0.47 g

Nutritional values (100g)

Source: ICR Inc., Company Website

Chart 9: Snapshot of Various Premix Blends Offered by STKH



Source: ICR Inc., STKH Website

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- **STKH maintains a robust research and development program, supported by strategic partnerships and government grants that validate its technological leadership (strong IP base) in alternative protein production.** The company's R&D efforts have been recognized through the \$1 million grant from the Singapore-Israel Industrial R&D Foundation (SIIRD), with \$490,000 already received based on successful achievement of development milestones. These milestones include the production of 3D-printed hybrid fish using its proprietary Printer HD144 and Drop Location in Space (DLS)<sup>™</sup> printing technologies, as well as the development of plant-based 3D-printed fish and eel products. The company has built a substantial intellectual property portfolio comprising 16 provisional and non-provisional patent applications pending with USPTO, WIPO, and various international jurisdictions. This IP portfolio is strategically structured across three key technological areas:
  - Mechanical patents covering printer components and peripherals used in tissue culture fabrication;
  - Biological patents addressing initial materials and processes; and
  - Applications patents protecting the final consumable products. Notable among these are patents for specialized print heads using drop-on-demand technology, systems for manipulating bioprinted tissue cultures, and methods for achieving specific textural characteristics in meat and fish alternatives.
- **STKH's commercialization strategy has been methodically structured, with an initial focus on plant-based applications to generate near-term revenue while simultaneously developing more complex hybrid and cultivated meat technologies.** This dual-track approach allows the company to establish market presence while navigating the regulatory landscape, particularly given that plant-based products face fewer regulatory hurdles compared to cultivated meat alternatives. The strategy also enables STKH to build customer relationships and market credibility while developing next-generation products, including hybrid products that combine plant-based ingredients with cultivated meat cells, potentially offering superior taste and texture profiles compared to purely plant-based alternatives. The company's technology development efforts have yielded notable achievements, including the production of the world's first hybrid fish fillet in April 2023, which combined plant-based ingredients with cultivated grouper cells. This breakthrough demonstrates the company's capability to bridge current plant-based technology with future cultivated meat applications, positioning STKH at the forefront of next-generation protein production technologies.
  - **STKH has undergone a significant strategic transformation in 2024, pivoting it from a research-focused organization to a commercial-stage company with a clear path to revenue generation.** The company has streamlined its business model to focus on two primary revenue streams: the sale of proprietary 3D printers and associated services, and the commercialization of specialized meat and fish premix blends targeting the B2B and foodservice sectors. This strategic shift has been accompanied by a material reduction in operating expenses, with the company reducing costs by over 50% following the completion of major R&D initiatives.
- **The company has rapidly established a strong commercial foundation through five strategic partnerships that validate its technology platform and business model.** These strategic partnerships represent a methodical approach to market penetration, combining STKH's innovative technology with established players' market presence and distribution capabilities. The company's ability to secure multiple commercial agreements within a short timeframe, while simultaneously reducing operational costs, suggests strong market validation of its technology platform and business model. These partnerships are expected to begin generating meaningful recurring revenue by 2025, establishing a foundation for sustainable growth while providing proof points to attract additional strategic partners.
  - **Wylar Farm:** The first significant partnership was formed with Wylar Farm, a leading Israeli alternative protein producer, through a multimillion-dollar agreement signed in February 2024 and expanded in May. This partnership represents STKH's first commercial-scale implementation, with Wylar Farm set to manufacture alternative proteins using STKH's Beef premix blend and proprietary technology. The agreement includes a royalty-based revenue structure and leverages Wylar Farm's established market presence for widespread distribution, with initial commercial revenue expected by early 2025. Notably, discussions are underway to expand this partnership to include the production of 3D-printed meat products, including STKH's flagship Marbled Beef Steak.
  - **Taiwan's Industrial Technology Research Institute (ITRI):** STKH's global expansion strategy has been bolstered by a partnership with Taiwan's ITRI, a prestigious applied technology research organization. This collaboration focuses on developing and commercializing food products specifically designed for the Taiwanese market, utilizing STKH's 3D printing technology and plant-based premixes. The partnership demonstrates

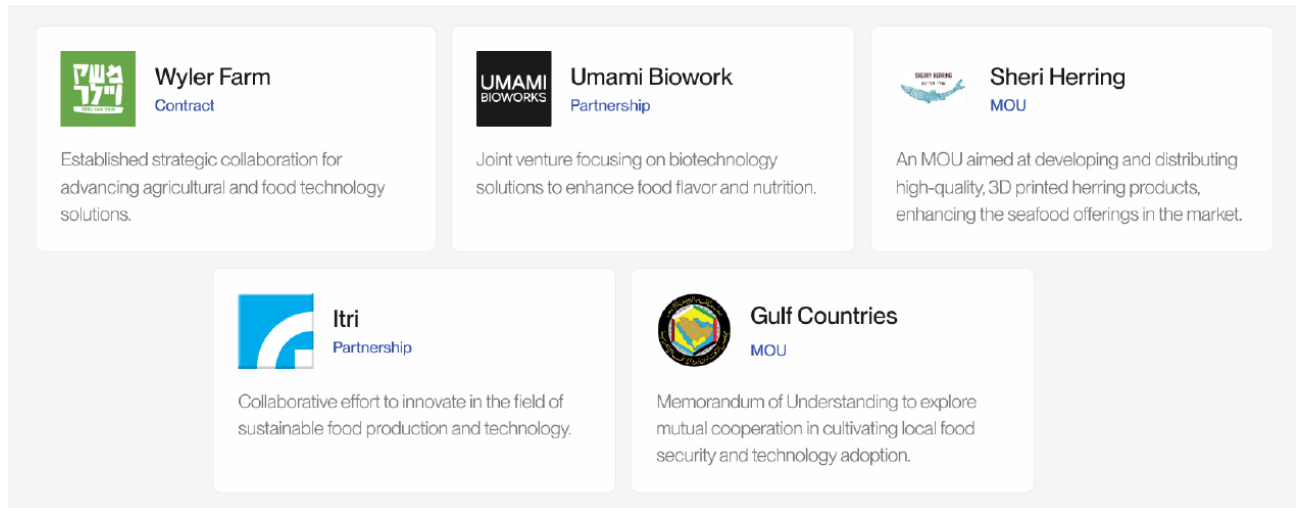


## Company Overview

STKH's ability to adapt its technology platform to diverse culinary preferences while maintaining cost efficiency through strategic R&D collaboration.

- **Sherry Herring:** To further expand its market presence in the seafood alternative segment, in June 2024, STKH entered into an agreement with Sherry Herring, a premium fish delicacies brand that aims to launch a new line of vegan fish salads using STKH's proprietary SH Fish premix blends. This partnership leverages Sherry Herring's established distribution network across delis and restaurants to expand STKH's geographical footprint.
- **Premazon:** In August 2024, STKH partnered with Premazon, a prominent frozen foods manufacturer and institutional distributor. Premazon will integrate STKH's SH Fish premix blend into a new plant-based white fish kebab product line, targeting hotels, restaurants, and catering services across Israel.
- **UMAMI Bioworks:** STKH's partnership with UMAMI Bioworks, funded by the Singapore-Israel Industrial R&D (SIIRD) grant, has demonstrated the feasibility of producing 3D-printed cultivated fish products at commercial scale. As of November 2024, the collaboration has successfully created multiple prototype designs, validating the company's technology platform for producing various fish products that match attributes of different species.

### Chart 10: STKH – Global Commercial Collaborations and Partnerships



Source: ICR Inc., STKH Investor Presentation

- **STKH's commercialization momentum continues to accelerate and in November 2024, it signed six new Letters of Intent (LOIs) with international companies following its successful participation at the Plant-Based World Expo in London.** These agreements, which encompass multiple international markets, underscore the company's transition to a revenue-generating business model and demonstrate strong market demand for both its 3D printing systems and proprietary plant-based premixes.
  - **The company's technology and product excellence were also recognized at Europe's largest plant-based exposition, where STKH secured three prestigious awards:** Gold for its Salmon Patty, Silver for its Fish Kebab, and Bronze for its Beef Alternative. This triple recognition underscores the company's innovation leadership in the alternative protein sector. The exceptional market response was further demonstrated by the significant interest at the company's exhibition booth, where over 2,000 tasting dishes were served to industry participants.
  - **These recent developments, combined with the company's strategic partnerships discussed above and a successful pivot to the B2B model, position STKH as an emerging leader in the commercialization of alternative protein technologies.** The company's ability to attract international commercial interest while garnering industry accolades suggests strong market validation of both its technology platform and product offerings.

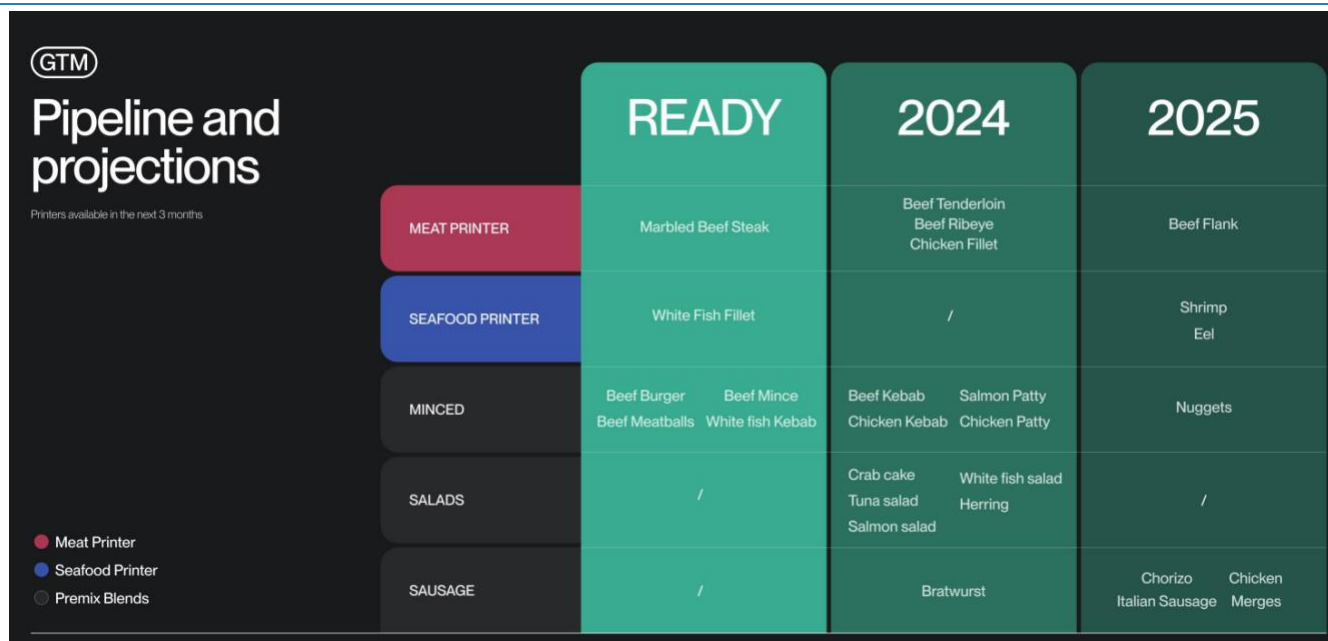
## Company Overview

Chart 11: STKH Products Awarded at the Plant-Based World Expo Event in London



Source: ICR Inc., STKH Investor Presentation

Chart 12: STKH Go to Market – Pipeline and Projections



Source: ICR Inc., STKH Investor Presentation

- STKH also stands out as a sustainability play, as evidenced by its participation in the UN Global Compact initiative since May 2022,** and alignment of its operations with internationally recognized principles in human rights, labor, environment, and anti-corruption. The company's long-term vision extends beyond mere product development to addressing fundamental challenges in global food security and environmental sustainability. By developing technologies that could potentially reduce the environmental impact of meat production while improving supply chain efficiency, STKH is positioning itself to capitalize on the growing global demand for sustainable protein alternatives. The company's focus on scalable manufacturing solutions, combined with its innovative approach to product development, suggests potential for significant market penetration in both developed and emerging markets. Further, STKH's technology platform could play a crucial role in reducing the carbon footprint of protein production while addressing concerns about animal welfare and food-borne diseases, aligning with increasing consumer demand for sustainable and ethical food products.

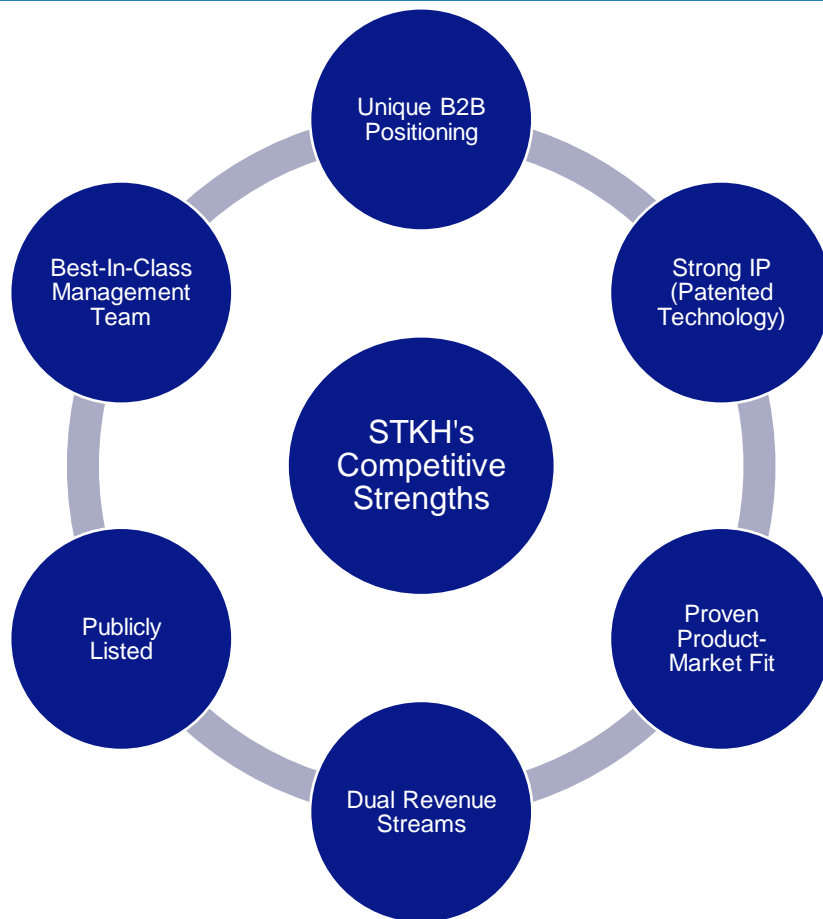
## STKH's Right to Win

### B2B Positioning and Defensible Business Model Create Strong Right to Win

- **We believe that STKH's B2B positioning and multi-dimensional strengths create a defensible business model that will allow the company to emerge as a disruptor in the alternative protein industry.** Our analysis shows that STKH has understood the challenges that the alternative protein industry faces and has pivoted its business model to use technology as an enabler for innovation, localization, and customization. We believe the key competitive strengths of the company are 1) unique positioning as a B2B biomimicry platform provider, 2) best-in-class and patented 3D printing technology that provides technological differentiation, 3) product-market fit validated through strategic commercial agreements, 4) dual revenue stream model driving strong customer relationships, 5) status as first publicly traded company specializing in 3D-printed meat and seafood, listed on the Nasdaq Stock Exchange, and 6) a best-in-class management team led by Arik Kaufman. We discuss each of these differentiators in detail below.

Chart 13: Multi-Dimensional Strengths Underline STKH's Right to Win

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Source: ICR, Inc.

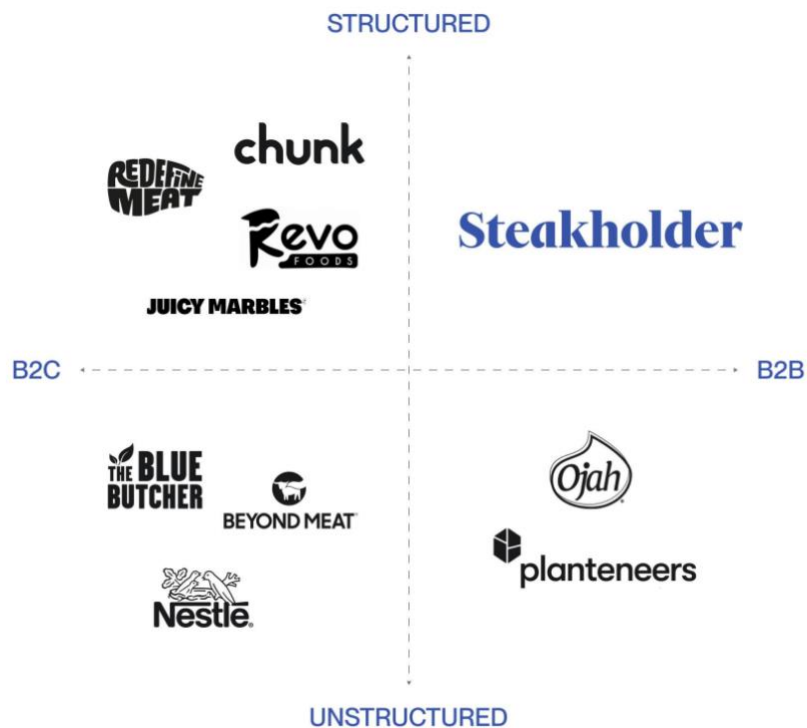
- **Unique positioning as a B2B biomimicry platform provider.** STKH has established a distinctive market position as the only advanced B2B platform provider focused on scalable 3D printing solutions for alternative proteins, filling a critical void in the rapidly evolving food technology landscape. Unlike traditional plant-based manufacturers that focus on specific end products, or machinery providers who offer conventional food processing equipment, STKH provides a comprehensive biomimicry platform that enables food producers to innovate across multiple protein categories while maintaining control of their brands and market positioning. This unique approach addresses a

## STKH's Right to Win

fundamental market need for flexible, scalable manufacturing solutions that can produce structured alternative proteins with authentic textures and nutritional profiles at an industrial scale. The company's strategic positioning is particularly significant given the current state of the alternative protein market. While numerous companies are developing meat substitutes or cultivated meat solutions, they typically focus on narrow product categories or face significant scaling challenges. Traditional plant-based manufacturers are limited by conventional processing technologies, while cultivated meat companies are still struggling with production costs and scale. STKH bridges this gap by providing platform technology that not only enables immediate production of plant-based alternatives but is also designed to accommodate future hybrid products, incorporating cultivated cells. This forward-looking approach allows STKH's customers to evolve their product offerings as technology and market demands change, without requiring significant additional capital investment. Another key differentiator of STKH's platform is its ability to provide customers with comprehensive digital control over product parameters, including meat type, three-dimensional modeling, texture, flavor, and nutritional values. This flexibility enables food manufacturers to rapidly innovate and customize products based on market demand, a capability that is particularly valuable given the dynamic nature of consumer preferences in the alternative protein market. The modular, scalable nature of STKH's systems, which can produce from minimal quantities up to several hundred kilograms per hour, allows customers to match production capacity with market demand while maintaining consistent product quality.

- **STKH's positioning as a B2B technology provider (rather than an end-product manufacturer) creates unique strategic advantages.** While competitors like Redefine Meat, Chunk Foods, and Juicy Marbles focus on developing and marketing their own branded products, STKH enables established food companies to leverage their existing brand equity and distribution networks while accessing cutting-edge production capabilities. This approach not only reduces market entry barriers for food manufacturers but also allows STKH to benefit from the collective market development efforts of its customers. Further, as the only company to publicly demonstrate its food printing technology at major food technology events, STKH has established itself as a pioneer in scalable alternative protein manufacturing, particularly in the emerging field of hybrid products that may combine plant-based ingredients with cultivated cells.

Chart 14: STKH's Unique Positioning in the Alternative Protein Market



Source: ICR Inc., STKH Investor Presentation

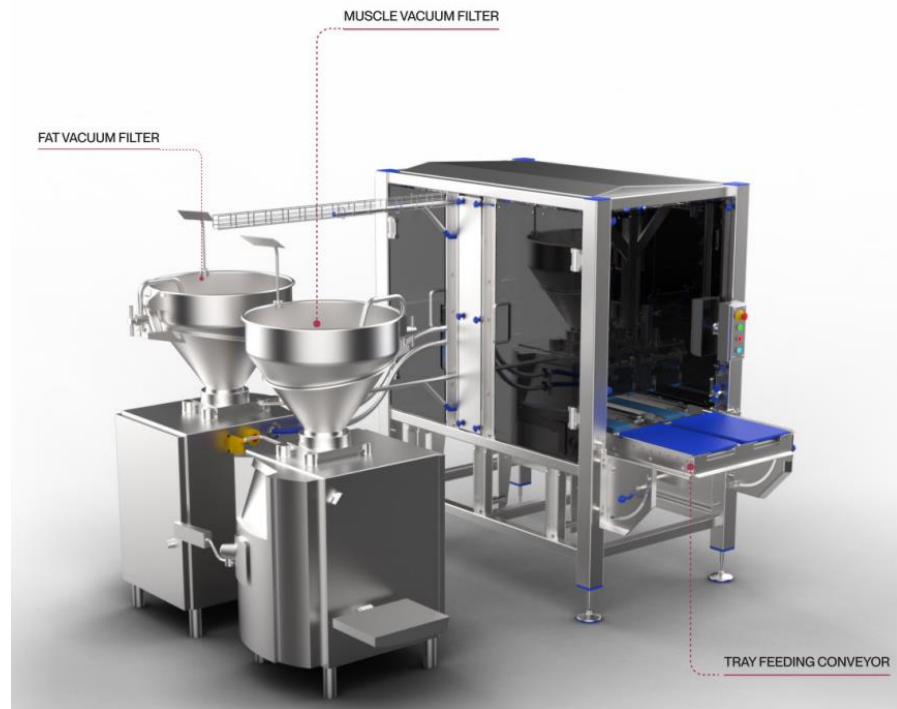
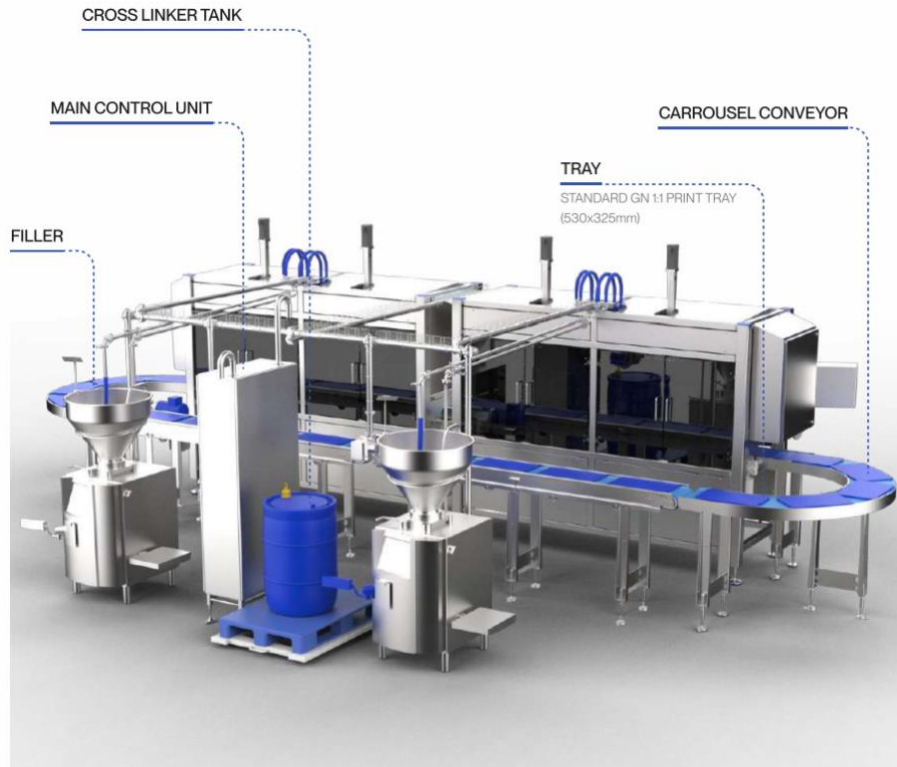
Chart 15: STKH's B2B Model Has Multiple Strategic Advantages Over the Direct-to-Market Model

Strategic Element	Direct-to-market Model	B2B Platform Model
Market Access	Must build brand recognition and distribution networks from scratch	Leverages multiple established brands and distribution networks of B2B customers
Production Scale	Typically, smaller scale production focused on specific products	Industrial-scale systems (up to 420kg/hour) suitable for mass production
Product Range	Usually focused on specific meat types or products	Platform enables creation of multiple protein types (meat, fish) and formats
Innovation Flexibility	Limited to their own product development timeline	Digital control allows customers to rapidly adjust products based on market demand
Capital Efficiency	Heavy investment in brand building and distribution channels required	Asset-light model with recurring revenue
Market Risk	Concentrated in own brand success	Diversified across multiple customers and markets
Scalability	Must scale own production facilities	Modular systems allow customers to scale based on demand
Price Discovery	Must go through price discovery cycle and associated risks	Food manufacturers maintain control over final product and pricing
Geographic Reach	Limited by own distribution capabilities	Can serve multiple markets through local manufacturers
Investment Returns	Dependent on single-brand success in competitive market	Higher potential returns through platform monetization

Source: ICR Inc.

- **Best-in-class and patented 3D printing technology that lends technological differentiation.** STKH also stands out through its advanced 3D printing technology which offers a significant competitive advantage. The company's flagship devices, the MX200 Meat Printer and the HD144 Fish Printer, are engineered to produce high-quality, plant-based meat and seafood alternatives with remarkable precision and efficiency.
  - The MX200 Meat Printer utilizes Fused Paste Layering (FPL®) technology, enabling the precise combination of distinct materials to replicate the intricate textures of traditional meat. This method allows for the creation of products that closely mimic the natural interplay of muscle and fat, resulting in authentic taste and mouthfeel. With a production capacity of up to 420 kilograms per hour, the MX200 is designed for scalability, catering to both large and small-scale demands. Its versatility in shaping options ensures that various meat cuts can be replicated with high fidelity, meeting diverse culinary needs.
  - Similarly, the HD144 Fish Printer employs Drop Location in Space (DLS®) technology to accurately place plant-based ingredients in specific patterns and layers, emulating the delicate textures of real seafood. This technology enables the production of plant-based fish alternatives that offer the tender bite and flakiness characteristic of traditional fish. The HD144 boasts a production output of up to 100 kilograms per hour and offers exceptional shape versatility, capable of printing any fish shape to meet diverse culinary presentations.
  - Both printers are designed with hygiene and maintenance in mind, featuring waterjet-enabled cleaning for all parts, ensuring effortless maintenance and thorough sanitation with minimal downtime. This focus on operational efficiency and product quality positions STKH at the forefront of the plant-based protein sector, providing a technological edge that sets it apart from competitors.

Chart 16: STKH's 3D Printers Use Patented DLS and FLP Technologies



Source: ICR, Inc., STKH Website

- **STKH has built a robust intellectual property portfolio to protect its innovative 3D printing and food processing technologies.** The company's IP strength is evidenced by successful patent grants across major markets including the U.S., Canada, Australia, and New Zealand, particularly covering its breakthrough systems and methods for developing high-quality complex structured meat through the application of external forces to muscle

## STKH's Right to Win

tissue. The company continues to expand its IP protection through an active patent strategy, currently maintaining 16 provisional and non-provisional patent applications across multiple jurisdictions, including filings with the USPTO and international applications through the Patent Cooperation Treaty (PCT). These applications span various aspects of the company's technology platform, establishing priority dates for its innovations and creating strong barriers to entry. This comprehensive IP strategy not only protects the company's core technologies but also positions it favorably for potential licensing opportunities and strategic partnerships.

Chart 17: STKH's Patent Portfolio Spans Three Focus Areas

Focus Area	Coverage	Status
Mechanical	<ul style="list-style-type: none"> <li>Must build brand recognition and distribution networks from scratch</li> </ul>	<ul style="list-style-type: none"> <li>Two applications filed at the national stage of prosecution.</li> </ul>
	<ul style="list-style-type: none"> <li>Systems and methods of physically manipulating a resilient container (bladder) of bio-printed tissue culture having non-random three-dimensional cell structure over 4 dimensions, namely elongation, compression, torsion and shear, to modulate the tissue and achieve the desired texture for each meat type.</li> </ul>	<ul style="list-style-type: none"> <li>Undergoing examination in six countries after being granted in the United States, Canada, China and New Zealand</li> </ul>
	<ul style="list-style-type: none"> <li>Alternative bio-printer head and a cooled chuck</li> </ul>	<ul style="list-style-type: none"> <li>Currently in provisional stage, with three more applications in the pipeline</li> </ul>
Biological	<ul style="list-style-type: none"> <li>Methods for the use of plant-based lecithins and/or their components in a composition as a differentiation drivers for use in selectively promoting adipocytes differentiation; and methods and compositions for accelerated myotube formation</li> </ul>	<ul style="list-style-type: none"> <li>Several provisional, and PCT applications filed and currently pending</li> </ul>
Applications	<ul style="list-style-type: none"> <li>Beef-emulating consumable formed of stacked 3D-printed layers of muscle and fat tissues; and an application for a method and composition for achieving the flaky characteristics associated with fish.</li> </ul>	<ul style="list-style-type: none"> <li>Provisional Application Pending</li> </ul>

Source: ICR Inc., STKH SEC Filings

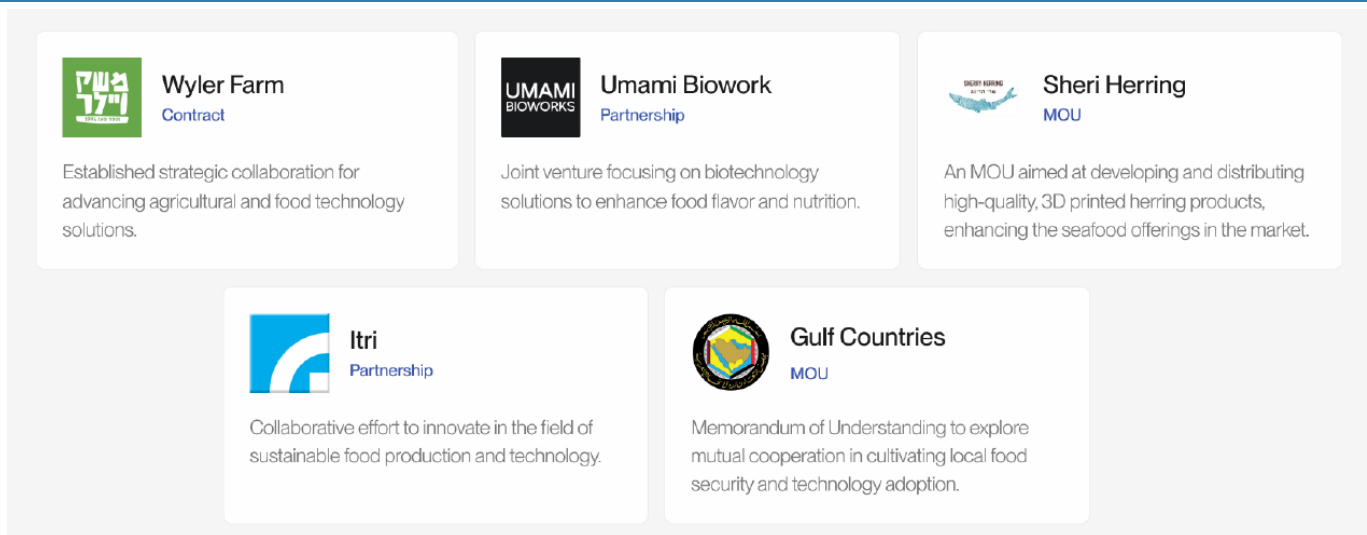
- Product-market fit validated through strategic commercial agreements:** STKH has achieved significant validation of its product-market fit through a series of strategic commercial agreements with established players in the food industry, marking its successful transition from a technology development provider to a revenue-generating company. The company's first commercial milestone was achieved through an agreement with Bondor Foods Ltd., a significant institutional market distributor, which placed its first purchase order for STKH's proprietary SH™ – Fish premix blends. This agreement, which will result in the launch of plant-based white fish and salmon patties by end-2024, demonstrates the commercial viability of STKH's products in the institutional food service market, a segment known for its stringent quality and consistency requirements. Market validation has been further strengthened by a commercial agreement with Wyler Farm, a leading alternative protein producer, that has placed a purchase order for STKH's SH™ - Beef premix blends. This partnership will result in the launch of plant-based meatballs, burgers, and minced beef products by early 2025, and validates STKH's technology across multiple product categories. The relationship with Wyler Farm is particularly significant as it encompasses both current premix sales and future potential for 3D-printed products, including the company's innovative printed beef steaks. These commercial relationships, combined with ongoing partnerships with the Industrial Technology Research Institute (ITRI) in Taiwan and Sherry Herring Sandwiches Ltd., demonstrate STKH's ability to address diverse market needs across different geographies and product categories. We believe that the rapid signing of these agreements, each targeting different market segments and applications, provides strong validation of STKH's technology platform and its ability to meet varying customer requirements in the alternative protein market. In a recent development, STKH's two-year R&D

## STKH's Right to Win

collaboration with UMAMI Bioworks, which was funded by Singapore-Israel Industrial R&D (SIIRD), has demonstrated the feasibility of producing 3D-printed cultivated fish products at commercial scale. This partnership is now advancing to commercialization phase with support from Singapore's National Additive Manufacturing Innovation Cluster (NAMIC), focusing on bringing products to market in Singapore and beyond. This strategic alliance leverages STKH's expertise in 3D printing technology with UMAMI Bioworks' cultivated seafood capabilities to address the growing demand for sustainable seafood alternatives.

- **The achievement of initial purchase orders from established industry players not only validates STKH's product offering but also demonstrates the scalability of its business model.** While initial revenues from these agreements may be modest, they establish important precedents for future growth and provide valuable reference cases for attracting additional partners. The company's ability to secure orders across different product categories (from seafood to beef alternatives) and across various applications (from institutional food service to retail products) demonstrates the versatility and broad market applicability of STKH's technology platform.

### Chart 18: Global Commercial Collaborations and Partnerships



Source: ICR Inc., STKH Investor Presentation

- **Dual revenue stream model that drives strong customer relationships and creates high barriers to entry.** STKH has strategically structured its business model around complementary revenue streams that create deep, sustainable relationships with B2B customers while generating recurring revenue opportunities. The company's approach combines the sale of advanced 3D printing systems with specialized premix blends, creating an integrated solution that addresses both the technological and material needs of food manufacturers. This dual-stream model not only diversifies revenue sources but also creates significant barriers to entry and customer switching costs, enhancing long-term relationship value.
  - STKH's printer sales strategy is built around sophisticated technologies – Drop Location in Space (DLS) and Fused Paste Layering (FPL) – that enable precise replication of complex meat and seafood textures. These systems are supported by comprehensive installation, training, and ongoing technical support services, ensuring optimal utilization and customer success.
  - **However, what truly differentiates STKH's approach is the integration of these printers with proprietary SHMeat™ and SHFish™ premix blends,** specifically formulated to optimize printer performance and product quality. This integration creates a closed-loop system where the success of one product line reinforces the value of the other. The synergistic nature of this business model is further enhanced through strategic pricing and partnership structures. STKH offers bundled pricing options that incentivize customers to commit to both printer systems and ongoing premix supplies, while also providing opportunities for joint product development and market exclusivity. This approach transforms traditional vendor-customer relationships into strategic partnerships, where STKH becomes an integral part of its customers' innovation and production capabilities. STKH gets to earn royalties on sales of products, linking its revenue to the success of products of its commercial

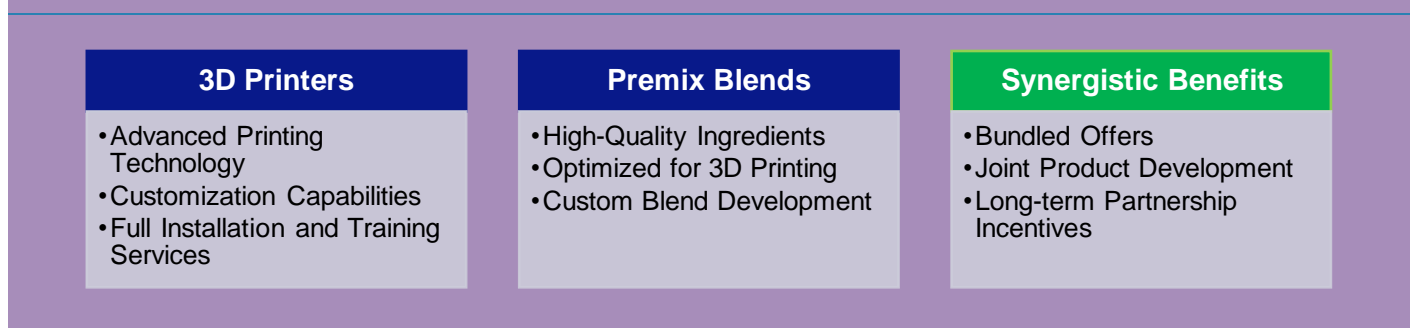


## STKH's Right to Win

partners. The model has proven particularly effective in fostering long-term engagements, as evidenced by the company's recent success in securing multiple commercial agreements with established food manufacturers and distributors.

- By creating this interdependent ecosystem of hardware and consumables, STKH not only ensures a steady stream of recurring revenue but also positions itself as a critical partner in its customers' success, creating strong defensive moats around its business relationships.

Chart 19: STKH's Dual Revenue Strategy at Work



Source: ICR, Inc., STKH Website

- **STKH is the only publicly traded company specializing in 3D-printed meat and seafood, listed on the Nasdaq Stock Exchange.** This public listing enhances the company's credibility and transparency, offering investors a unique opportunity to participate in the innovative alternative protein sector. Being on Nasdaq provides several advantages, including access to a broad investor base, increased liquidity, and heightened visibility within the financial services community. This strategic positioning underscores STKH's commitment to pioneering advancements in sustainable food technology and should bring it on the radar of thematic ESG investors that are looking for disruptive companies in this space.
- **A best-in-class management led by Arik Kaufman.** STKH is distinguished by its exceptional leadership team, which positions the company at the forefront of the alternative protein industry. At the helm is Co-Founder and Chief Executive Officer Arik Kaufman, who has a strong background in establishing and leading food-tech companies listed on the Nasdaq and the Tel Aviv Stock Exchange. Mr. Kaufman is also a founding partner of BlueSoundWaves, an investment collective led by Ashton Kutcher, Guy Oseary, and Effie Epstein, which collaborates with STKH to accelerate its growth trajectory. His extensive experience encompasses food-tech and biotech law, as well as orchestrating complex commercial negotiations, including international fundraising, mergers and acquisitions, and licensing agreements. Supporting Mr. Kaufman is an executive team with deep expertise across diverse fields. This includes professionals in tissue engineering, industrial stem cell cultivation, 3D printing technologies, and food science. Notably, Chief Technology Officer and Vice President of R&D, Itamar Atzmony, brings nearly a decade of experience as a mechanical engineer and 3D printing expert, having worked in robotics and automation to develop products meeting stringent standards and environmental conditions. His career includes roles at Nano Dimension and Highcon, where he honed his skills in intelligent manufacturing and digital cutting solutions. Additionally, Vice President of Marketing, Mor Glotter-Nov, is an experienced marketer with a demonstrated history of building and managing marketing and strategy teams in fast-paced environments for novel technologies. Her expertise spans consumer goods and cosmetics, and she holds an MBA focused on Entrepreneurship Technology and Innovation from Tel Aviv University.
- **This multidisciplinary team equips STKH with the necessary insights and capabilities to develop scalable, profitable, and sustainable technologies that can meet the growing demand for alternative proteins.** The team's collective experience spans the food industry, business development, software engineering, and mechanical and electronic engineering, ensuring a comprehensive understanding of the complexities involved in pioneering alternative protein solutions. *We share biographies of each member of the leadership team in the Management Team section of the report.*

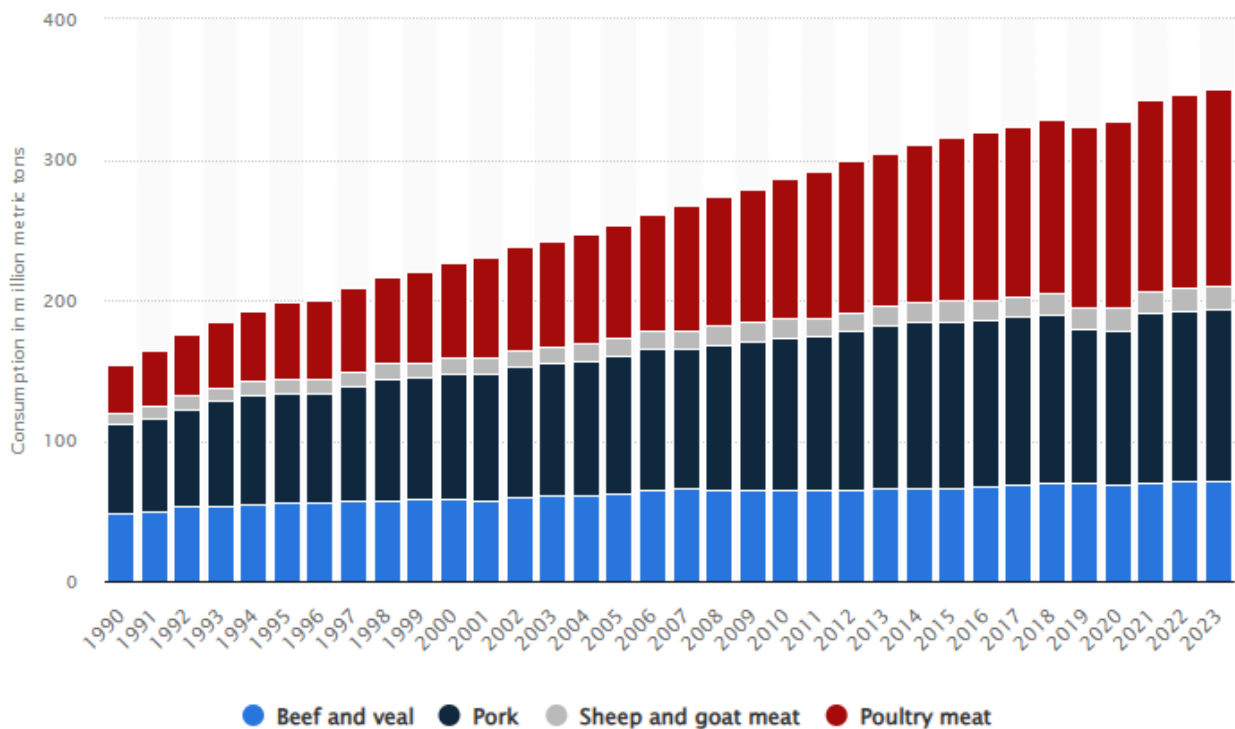
## Industry Opportunity and STKH's Positioning

### Well Placed to Benefit from Consumer Shift Toward Alternative Meat

**Key Takeaway:** Consumption of meat worldwide is growing, driven by increasing population, increasing lifespan, and improving economic conditions. However, producing conventional meat (animal-based meat) takes a huge toll on the environment – contributing to 14.5% of global emissions, consuming enormous amounts of water, and degrading land. Further, animal-based meat – red meat and processed meat – has been associated with serious health conditions including cancer and cardiovascular diseases. These environmental and health concerns are driving awareness and adoption of alternative protein sources higher. **STKH, being a B2B alternative protein producer, stands to benefit from this shift in consumer demand.**

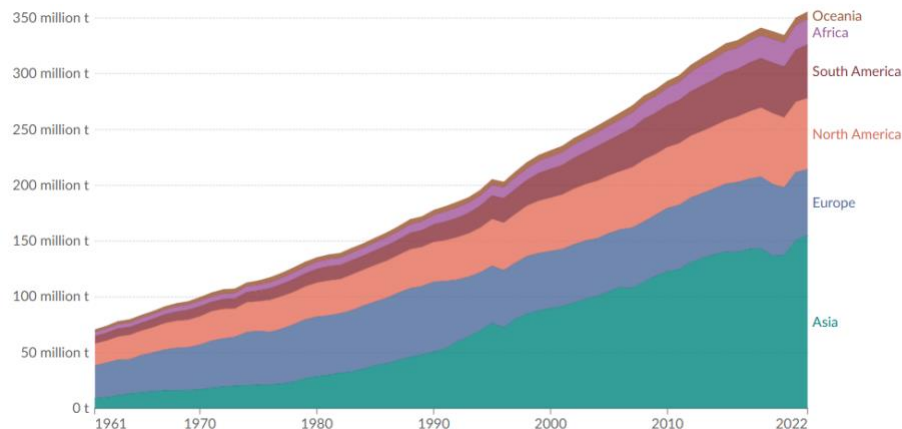
- Over the past few decades, global meat consumption has experienced a significant upward trajectory, reflecting changes in dietary preferences, economic development, and population growth. In 2023, approximately 140 million tons of poultry meat were consumed worldwide, making it the most consumed meat globally. Pork followed as the second most consumed meat, with beef and veal ranking third. This surge in meat consumption is not uniform across the globe. The Organization for Economic Co-operation and Development (OECD) countries reported the highest per capita meat consumption between 2019 and 2021, averaging 69.5 kilograms per person. In contrast, the global average stood at 34.1 kilograms per person during the same period. Projections indicate that per capita meat consumption will continue to rise across all regions by 2031. This anticipated growth is driven by factors such as increasing urbanization, rising incomes, and evolving dietary habits, particularly in developing nations where meat consumption has traditionally been lower.

Chart 20: Meat Consumption Worldwide From 1990 to 2023, by Meat Type



Source: ICR Inc., Statista

Chart 21: Global Meat Production, 1961 to 2022

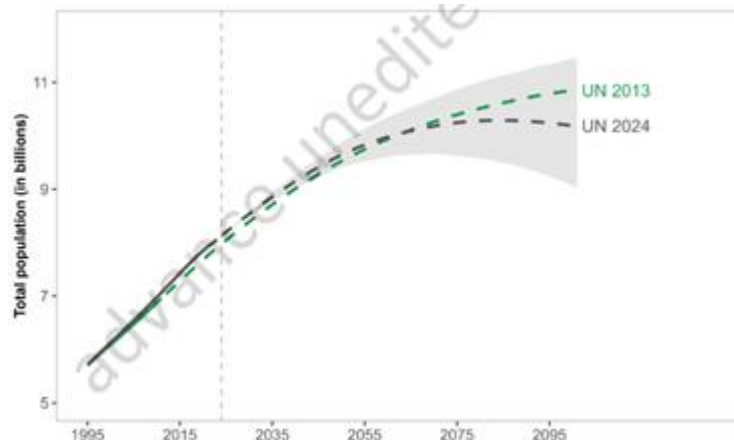


Source: ICR Inc., Our World in Data, Food and Agriculture Organization of the United Nations (2023)

■ **Several factors have contributed to this rapid rise in meat consumption:**

- **Population growth:** The world's population has been steadily increasing, leading to a higher overall demand for food, including meat. Projections indicate that global meat consumption may double from 2000 to 2050, primarily due to population growth and increased per capita meat consumption. According to the United Nations' World Population Prospects 2024 report, the global population is expected to continue growing over the coming fifty or sixty years, reaching a peak of around 10.3 billion people in the mid-2080s, up from 8.2 billion in 2024.
- **Economic growth and rising incomes:** As nations develop economically, individuals experience increased purchasing power, leading to dietary shifts that include higher meat consumption. This trend is particularly evident in emerging economies where meat, once considered a luxury, becomes more accessible. For instance, according to the Food and Agriculture Organization, between 1961 and 2021, the average person's annual meat consumption increased from approximately 23 kg to 43 kg, with significant increases in middle-income countries.
- **Urbanization and lifestyle changes:** The global shift toward urban living has altered dietary habits. Urban residents often have better access to a variety of foods, including meat products, and are influenced by diverse culinary cultures that incorporate meat as a staple. This urban shift contributes to the growing demand for meat-based diets.
- **Advancements in meat production and distribution:** Technological innovations in agriculture and food processing have made meat production more efficient and cost-effective. Improved supply chains and refrigeration have expanded the availability of meat products, even in regions where they were previously scarce, contributing to increased consumption.

Chart 22: World Population Projection

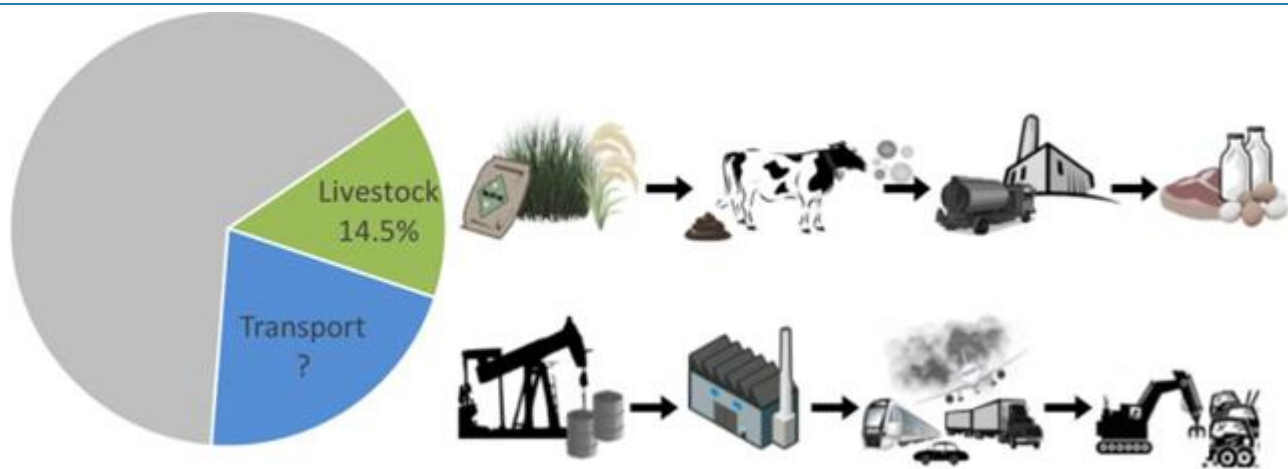


Source: ICR Inc., U.S. Census Bureau, International Data Base, United Nations (World Population Prospects) in 2013 and 2024, 1995–2100.

## Industry Opportunity and STKH's Positioning

- **However, this rapid growth in meat consumption has a significant adverse environmental impact.** The production of meat has large environmental impacts, including increased greenhouse gas emissions, agricultural land use, and freshwater consumption. According to FAO data, livestock farming is a major contributor to greenhouse gas emissions, accounting for approximately 14.5% of all anthropogenic emissions. It not only emits CO<sub>2</sub>, but also two other harmful greenhouse gases – Methane (CH<sub>4</sub>) and Nitrous Oxide (NO<sub>2</sub>) – whose climate warming ability is up to 25 times and 300 times more than CO<sub>2</sub> respectively. The livestock industry is also a major contributor to land degradation and deforestation – a large part of Amazon degradation has been caused by need for cattle ranching and soy farming for animal feed. Meat production is also water intensive. According to Phys.org, producing one pound of beef requires approximately 2,400 gallons of water, considering the water needed for animal drinking, feed crop irrigation, and processing. The conversion of natural habitats into agricultural land for livestock and feed crops leads to significant loss of biodiversity. The World Wildlife Fund reports that 60% of global biodiversity loss is attributable to meat-based diets, primarily due to habitat destruction and fragmentation. Finally, intensive livestock farming generates substantial waste, including manure and urine, which can contaminate soil and water bodies with nutrients, pathogens, and antibiotics. This pollution can lead to eutrophication of aquatic ecosystems, causing dead zones where aquatic life cannot survive. As a result, one of the most pressing challenges facing the industry is to produce and consume meat, dairy, and other protein products in a way that reduces these environmental impacts.

Chart 23: Lifecycle Livestock GHG Emissions are Comparable to Transport Industry

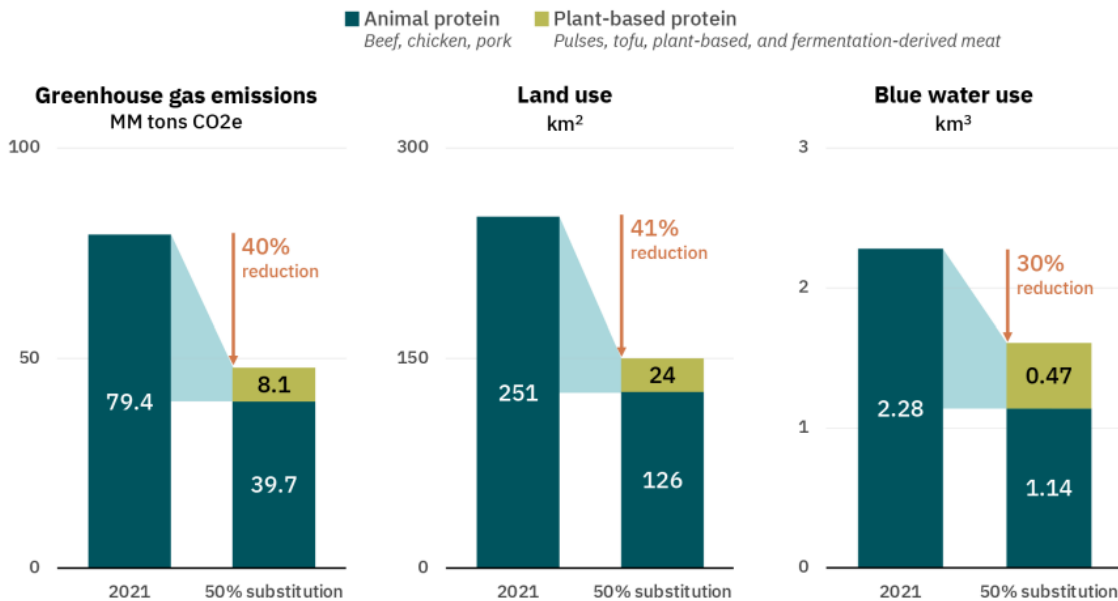


Source: ICR Inc., IPCC, Trust.org

- **We believe that alternative protein sources – such as plant-based proteins, cultivated meats, and insect-based proteins – that offer promising solutions to mitigate these environmental issues are likely to experience accelerated adoption.**
  - **Reduced GHG emissions:** Plant-based protein production generates significantly fewer greenhouse gases compared to livestock farming. For instance, producing plant-based meats can result in up to 90% lower emissions than conventional beef production.
  - **Lower land and water footprint:** Cultivated meats and plant-based proteins require substantially less land and water. This efficiency helps preserve natural ecosystems and reduces the strain on freshwater resources. Insect farming also demands minimal land and water, making it an environmentally friendly protein source.
  - **Biodiversity conservation:** By decreasing the need for extensive livestock farming, alternative proteins help protect habitats from agricultural encroachment, thereby preserving biodiversity. This shift can mitigate deforestation and habitat loss associated with traditional meat production.

## Industry Opportunity and STKH's Positioning

Chart 24: Environmental Impact of Shifting to Plant-based Protein



Source: ICR Inc., Good Food Institute, Kuepper, B., Impacts of a Shift to Plant Proteins – Effects of reduced meat production on GHG emissions, land, and water use, Profundo (2023). Based on Hypothetical calculation of top 6 global food retailers and foodservice companies shifting 50% of animal protein sales to plant-based protein

Chart 25: Life Cycle Environmental Impact of Alternative Protein Sources is Much Less than Conventional Meat

Producing this alternative protein	instead of this conventional meat	reduces this environmental impact category by this much		
		GHG EMISSIONS	LAND USE	AIR POLLUTION (PM)
Impossible Burger <sup>I</sup>	Beef burger patty	89%	96%	-
Beyond Burger <sup>II</sup>	Beef burger patty	90%	97%	-
Quorn Fillet <sup>III</sup>	Chicken breast	75%	78%	-
Morningstar Original Chik Patties <sup>IV</sup>	Chicken sausage patty	46%	84%	69%
Plant-based burger (soy protein) <sup>V</sup>	Beef burger patty	98%	87%	99%
	Chicken burger patty	90%	82%	90%
	Pork burger patty	90%	85%	90%
Plant-based burger (soy) <sup>VI</sup>	Beef burger patties	82%	84%	95%
Plant-based burger (pea) <sup>VI</sup>		84%	64%	91%
Fermentation-based burger (mycoprotein) <sup>VI</sup>		82%	69%	91%
Cultivated beef <sup>VII</sup>	Conventional beef	92%	90%	94%
Cultivated chicken <sup>VII</sup>	Conventional chicken	+3%	64%	20%
Cultivated pork <sup>VII</sup>	Conventional pork	44%	67%	42%

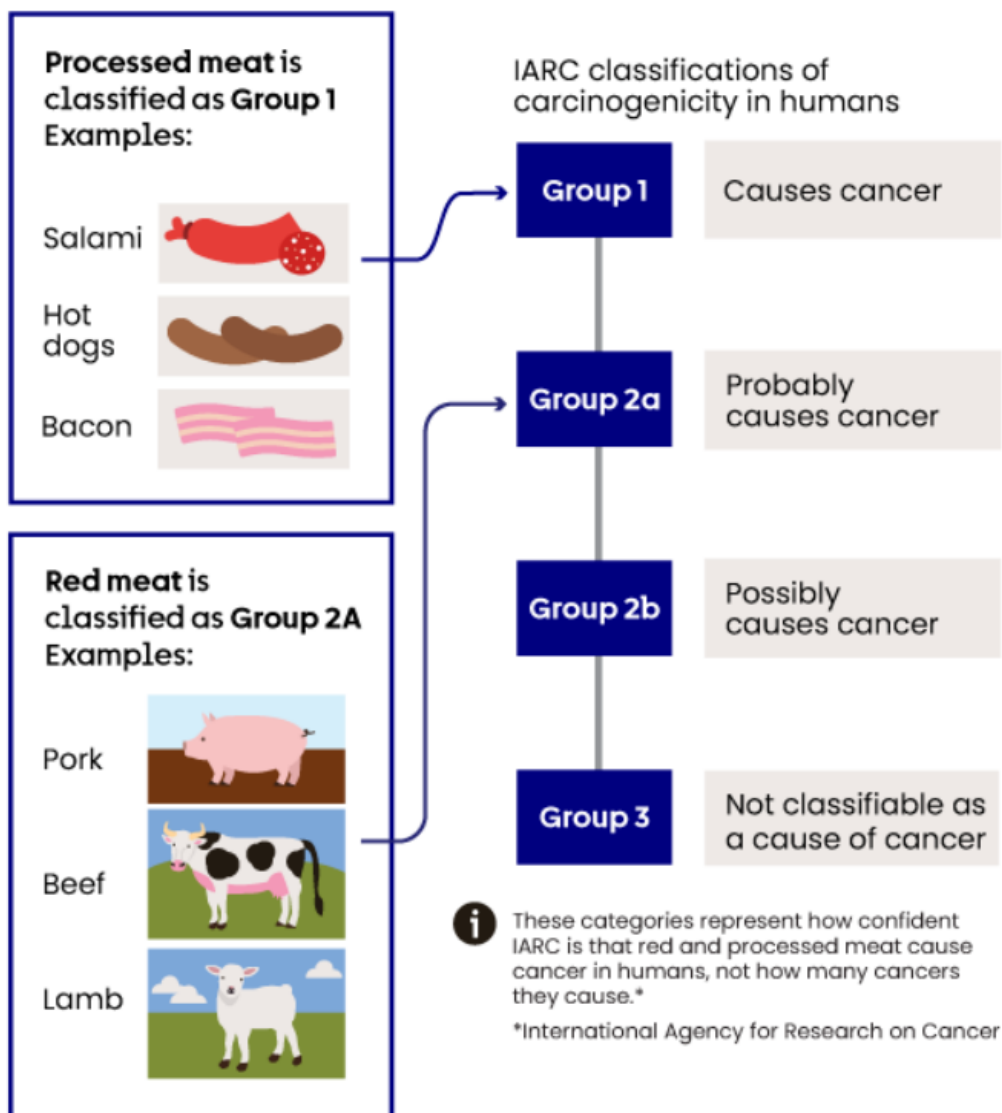
Source: ICR Inc., Good Food Institute, I. Khan, et al. (2019); II. Heller, et al. (2023); III. Kazer, et al. (2021); IV. Dettling, et al. (2016); V. Saerens, et al. (2021); VI. Smetana, et al. (2021); VII. Sinke, et al. (2023).

- In addition to the environmental concerns cited above, health concerns like heart diseases and certain cancers associated with high meat consumption (particularly red and processed meats) are also creating a market for alternative proteins that do not result in such health issues. Traditional meats are often high in saturated fats and cholesterol, contributing to elevated blood cholesterol levels, a known risk factor for heart disease.

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The International Agency for Research on Cancer (IARC) has classified processed meats as carcinogenic to humans (Group 1), citing sufficient evidence that their consumption causes colorectal cancer. Red meat has been classified as probably carcinogenic to humans (Group 2A), with associations observed for colorectal, pancreatic, and prostate cancers. High intake of red and processed meats has been associated with an increased risk of developing type 2 diabetes. According to estimates by the Global Burden of Disease Project, about 34,000 cancer deaths per year worldwide are attributable to diets high in processed meat. A meta-analysis published in the American Journal of Clinical Nutrition reported that a 70 gram daily serving of processed meat could increase diabetes risk by 30%. Diets rich in meat, especially processed varieties, are often calorie-dense and may contribute to weight gain and obesity, which is a significant risk factor for numerous health conditions, including heart disease, diabetes, and certain cancers. Finally, the use of antibiotics in livestock farming can lead to the development of antibiotic-resistant bacteria, which may be transmitted to humans through the consumption of meat. This poses a significant public health risk, as infections caused by resistant bacteria are more difficult to treat. The Centers for Disease Control and Prevention (CDC) has highlighted the role of antibiotic use in food animals in the emergence of resistant bacteria.

Chart 26: Relation Between Meat and Cancer Risk

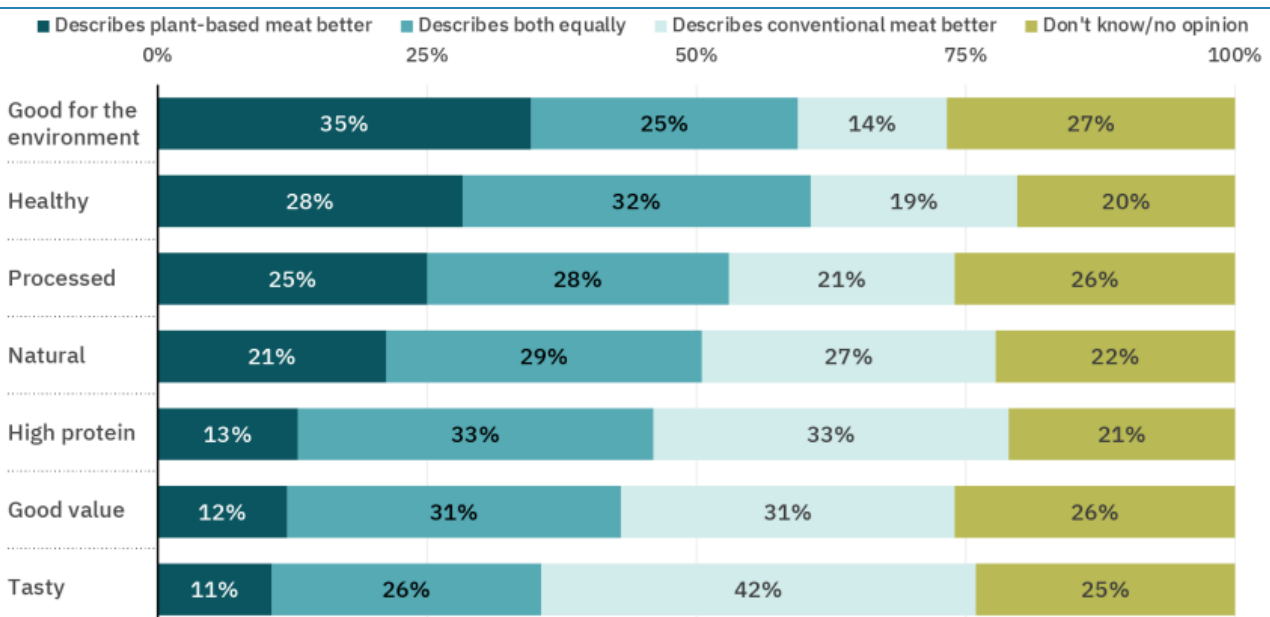


Source: ICR Inc., IARC, Cancer Research UK

## Industry Opportunity and STKH's Positioning

- **Alternative protein sources can also go a long way in mitigating the adverse health effects of conventional meat sources and STKH – which has taken an innovative approach to address the scalability and replicability issues faced by the industry – could play an integral part in the growth story of the industry.**
  - **Plant-based proteins:** Sources like legumes, nuts, seeds, and soy products are rich in essential nutrients, including fiber, vitamins, and minerals, while typically containing lower levels of saturated fats and cholesterol. Incorporating these into the diet can aid in weight management, improve digestive health, and reduce the risk of chronic diseases.
  - **Cultivated meats:** Also known as lab-grown meats, these are produced by culturing animal cells, resulting in products that mimic traditional meat without the associated health risks of conventional meat consumption. They can be engineered to have lower fat content and no exposure to antibiotics or hormones, addressing concerns related to antibiotic resistance and hormone-related health issues.
  - **Insect-based proteins:** Edible insects are nutrient-dense, offering high-quality protein, healthy fats, vitamins, and minerals. They are also less likely to transmit zoonotic diseases compared to traditional livestock, reducing health risks associated with meat consumption.

**Chart 27: Consumers Believe Plant-based Meat Has Better Health and Environment Profile than Animal Meat**

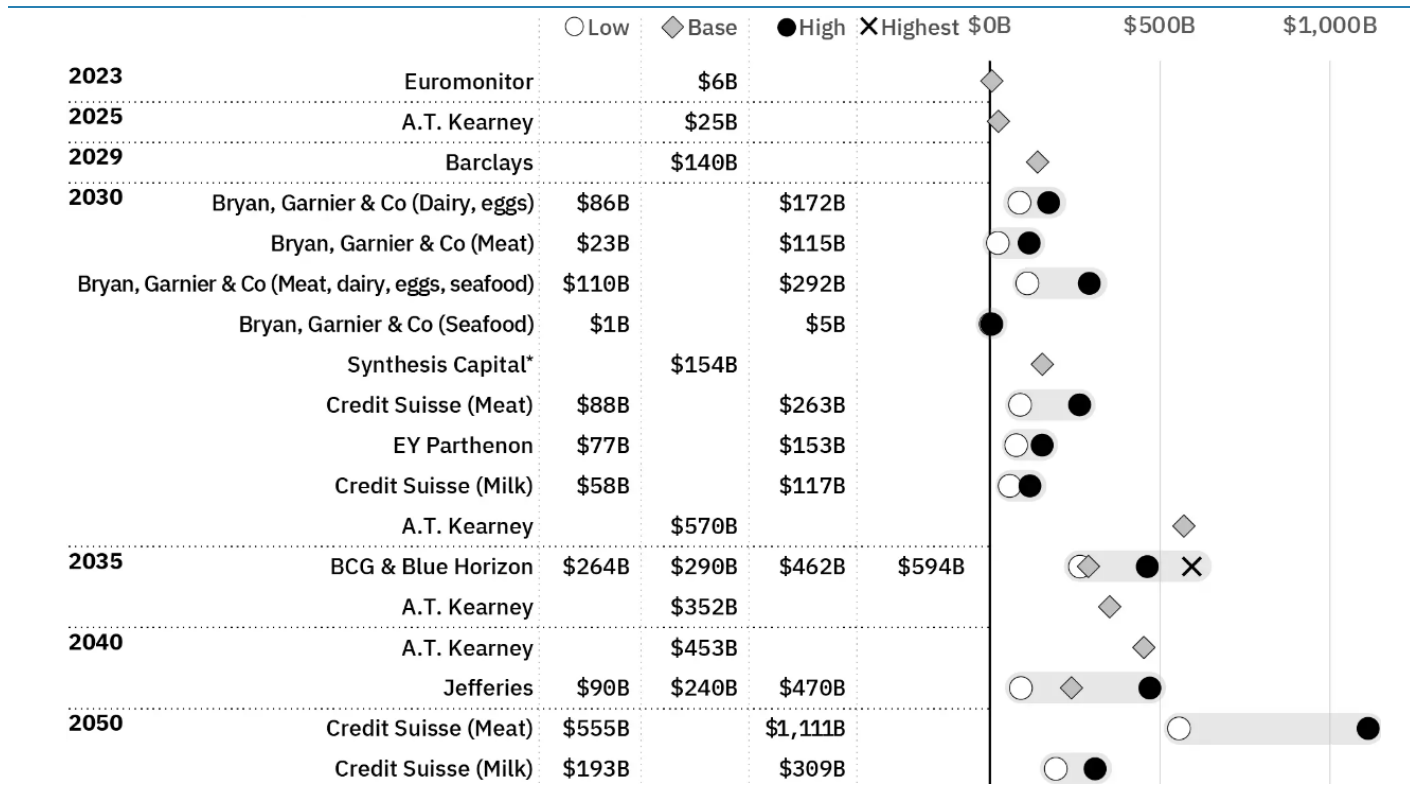


Source: ICR Inc., Good Food Institute, Poll by Morning Consult on behalf of GFI, n=2,228 US adults, December 2023

- **We believe that the rising awareness about harmful health and environmental impacts of conventional meat consumption will direct consumers toward alternative proteins, thus creating a multi-billion-dollar market for players like STKH that are in a prime position to benefit from its growth given its B2B positioning.** According to a survey conducted by Morning Consult on behalf of the Good Food Institute in December 2023, when U.S. consumers were asked to compare plant-based meat and conventional meat on several parameters, 35% of the consumers rated plant-based meat as more environment friendly, while only 14% thought that conventional meat was more environment friendly. Similarly, 28% of respondents voted plant-based meat as healthier, compared to 19% who thought that conventional meat is healthier.
  - **This sentiment is also captured in multiple market sizing studies conducted by large consulting firms and investment banks, which chart a strong growth profile for alternative protein and related markets.** Euromonitor puts the market at \$6 billion in 2023, and Barclays estimates expect the market to reach ~\$140 billion by 2029. Credit Suisse estimates state that the alternative meat market could range from \$88 billion to \$263 billion by 2030, whereas by 2050, this market could range from \$555 billion to even \$1.1 trillion on the upper limit. Estimates by A.T. Kearney expect the market to reach \$435 billion by 2040, and Jeffries expects it to range from \$90 billion to \$470 billion by 2040.

## Industry Opportunity and STKH's Positioning

Chart 28: Forecasts for Global Alternative Protein Industry Market Size



Source: ICR Inc., Good Food Institute, A.T. Kearney, Barclays, BCG & Blue Horizon, Bryan, Garnier & Co, Credit Suisse, Euromonitor International Limited, EY Parthenon, Jefferies, Synthesis Capital. \*Some forecasts projected the share of the total meat market rather than the industry in dollars. For those forecasts, we estimated the dollar size of the alternative protein sector using EY's forecast for the total 2030 meat market.

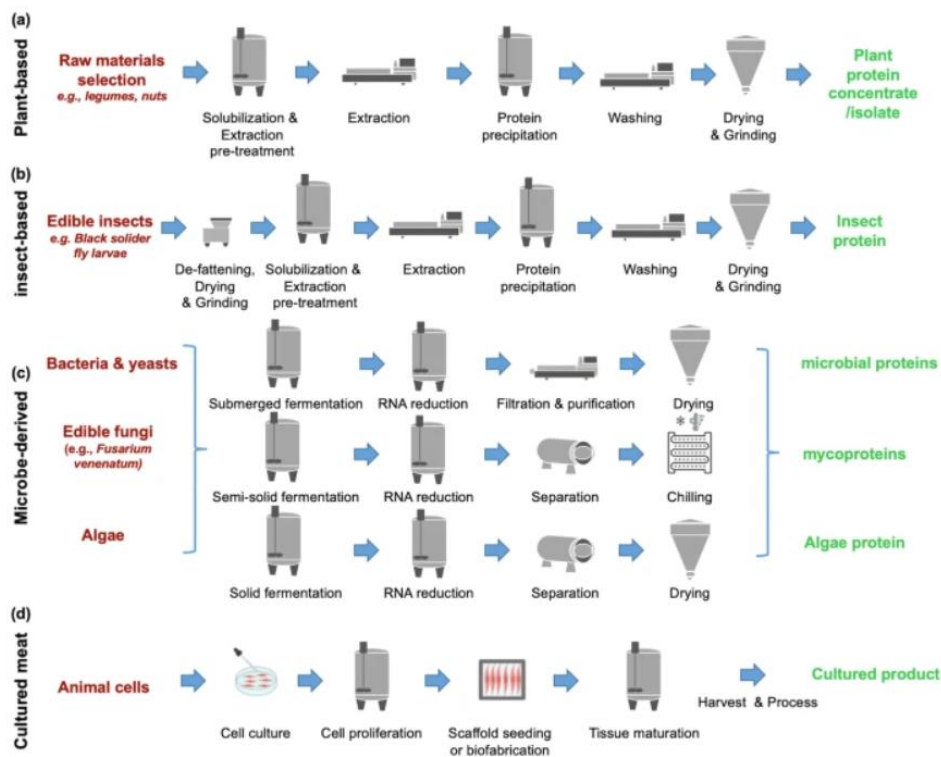


STKH's 3D Printing Tech Addresses Key Challenges Associated with Production of Plant-based Meat

**Key Takeaway:** Alternative proteins (plant-based and cultured meat) can be produced via different methods, based on ingredients used and method deployed. However, current methods face several challenges, with the most prominent ones being precision, industrial scale production and efficiency, customization, and compliance. **STKH, through its best-in-class 3D printing technology, can help the industry overcome these challenges and scale rapidly. We believe this will result in market share gains for STKH.**

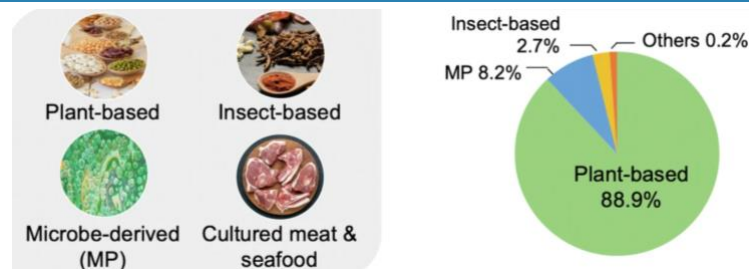
- **As the awareness and importance of alternative proteins rises worldwide, several methods have been created to produce such proteins.** The prominent ones among these are plant-based, insect-based, microbial-based and lab-grown. These different forms of alternate proteins aim to address the environmental and health shortcomings of conventional animal-based protein sources discussed in the previous section. These proteins mainly differ in the ingredients used to create alternative proteins, as well as the process followed for the same.

Chart 29: Production Process Diagram of Alternative Proteins



Source: ICR Inc., Nature.com

Chart 30: Types of Alternative Proteins and their Market Share by Volume (2023)



Source: ICR Inc., Grand View Research

## Industry Opportunity and STKH's Positioning

- According to Grand View Research, plant-based alternative proteins dominate the market and commanded an 89% market share by volume in 2023. It was followed by microbe-based animal protein and insect-based animal proteins, which held 8.2% and 2.7% market share, respectively. In the table below, we have documented different types of proteins, their main sources, and their advantages and limitations.

Chart 31: Comparison of Different types of Alternative Proteins

Protein Type	Sources	Advantages	Limitations
<b>Plant-based</b>	<ul style="list-style-type: none"> <li>■ Pulses/legumes; Seeds; cereals; Seaweed. e.g. Pea, soy, chia seed etc.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Sustainability:</b> Plant-based proteins generally require fewer natural resources, such as water and land, compared to animal agriculture, resulting in a lower environmental footprint.</li> <li>■ <b>Health benefits:</b> They are typically low in saturated fats and cholesterol, and high in fiber, contributing to improved heart health and digestion.</li> <li>■ <b>Versatility:</b> Plant proteins can be incorporated into various food products, including meat analogs, dairy alternatives, and protein supplements.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Amino acid profile:</b> Some plant proteins lack one or more essential amino acids, making them incomplete proteins. Combining different plant sources can address this issue.</li> <li>■ <b>Digestibility:</b> Certain plant proteins contain antinutritional factors that may hinder protein absorption. Processing methods can reduce these factors.</li> </ul>
<b>Insect-based</b>	<ul style="list-style-type: none"> <li>■ Mealworms, Crickets, locust/ grasshopper</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>High nutritional value:</b> Insects offer a rich source of protein, healthy fats, vitamins, and minerals.</li> <li>■ <b>Environmental efficiency:</b> Insect farming requires less land, water, and feed, and emits fewer greenhouse gases compared to traditional livestock farming.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Cultural acceptance:</b> Insect consumption faces resistance in many cultures due to dietary habits and perceptions.</li> <li>■ <b>Allergenic potential:</b> Insects may cause allergic reactions in individuals sensitive to shellfish, as they share similar proteins.</li> </ul>
<b>Microbial-based (Fermentation-derived)</b>	<ul style="list-style-type: none"> <li>■ Algae protein; yeast; mycoprotein</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Rapid production:</b> Microorganisms can be cultivated quickly, allowing for efficient protein production.</li> <li>■ <b>Nutrient-rich:</b> These proteins are often high in essential amino acids and fiber.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Processing requirements:</b> Fermentation processes can be complex and may require specific conditions and equipment.</li> <li>■ <b>Sensory acceptance:</b> The taste and texture may differ from traditional proteins, affecting consumer acceptance.</li> </ul>
<b>Lab-grown (cultured) meat</b>	<ul style="list-style-type: none"> <li>■ In vitro cultured meat cells</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Ethical considerations:</b> Eliminates the need for animal slaughter, addressing animal welfare concerns.</li> <li>■ <b>Environmental benefits:</b> Potentially reduces the environmental impact associated with conventional meat production.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>High production costs:</b> Currently, technology is expensive, making products less accessible to consumers.</li> <li>■ <b>Regulatory hurdles:</b> Approval processes for market entry are complex and vary across regions.</li> </ul>

Source: ICR Inc., University of Nottingham, EU

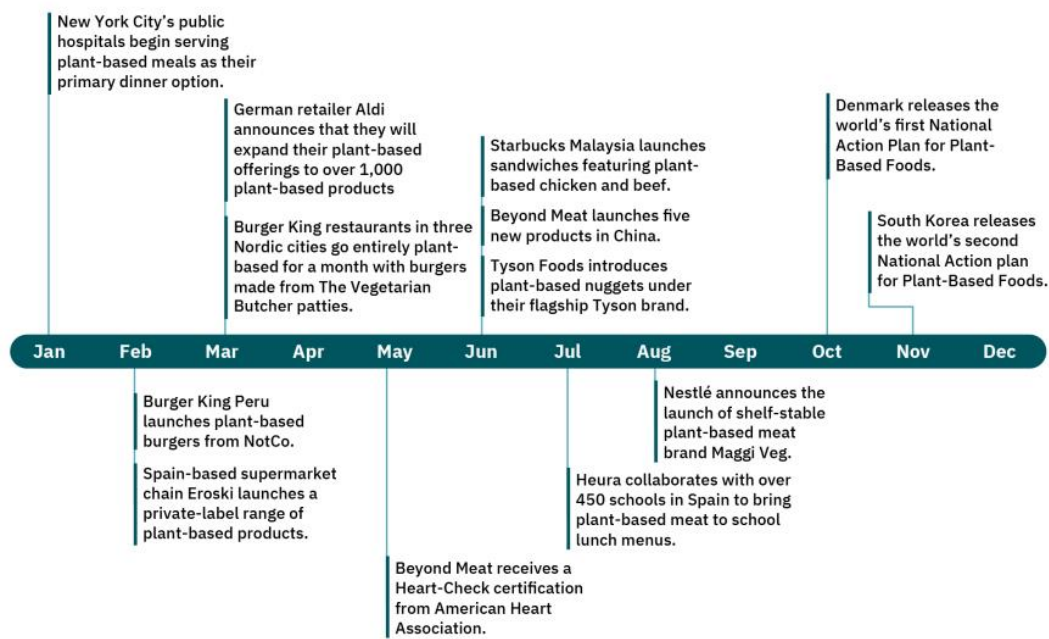
- **STKH's 3D-printed meat technology addresses the shortcomings of existing alternative proteins by offering products that closely replicate the taste and texture of traditional meats.** The scalability, customization, and adherence to safety standards of STKH's products position it as a viable and appealing alternative to conventional protein sources, aligning with consumer demands for sustainable, ethical, and health-conscious food options. By producing meat alternatives that closely mimic traditional products, these meats can encourage consumers to reduce reliance on animal-based proteins. Some of the major advantages that 3D-printed meat offers over other alternative meat categories are:
  - **Precision of advanced 3D printing technology:** Utilizing proprietary technologies like Fused Paste Layering (FPL) for meat and Drop Location in Space (DLS) for seafood, STKH's printers meticulously layer plant-based materials to replicate the intricate textures and marbling of traditional meats and the delicate flakiness of seafood. This precision ensures a more authentic taste and mouthfeel, enhancing consumer satisfaction.
  - **Industrial-scale production:** Designed for high-output, continuous operation, these printers can meet substantial market demands efficiently. Their ability to integrate seamlessly into existing production lines allows manufacturers to expand their plant-based offerings without significant infrastructure changes.
  - **Customization and flexibility:** The printers offer customizable settings to adjust textures, shapes, and sizes, enabling product personalization and innovation. This flexibility allows for the creation of a diverse range of products catering to various consumer preferences and dietary needs.
  - **Regulatory compliance:** Adhering to stringent food safety and hygiene standards, the printers are designed in accordance with regulatory requirements, ensuring safe and reliable food production. This compliance builds consumer trust and facilitates market acceptance.
- **We believe that because STKH is using plant-based ingredients for its meat and fish products, it gets to play in the largest category by volume. At the same time, the various advantages discussed above should drive several plant-based B2C players from across the world to use STKH's technology and products to make their operations more efficient, customizable, and compliant.**

Commercialization Efforts to Get a Boost from Strong Adoption of Plant-based Meat

**Key Takeaway:** Plant-based meats and seafood are attracting attention from players across the food value chain. Large consumer products and conventional meat companies are partnering with plant-based companies to drive innovation and to establish their footprints in this market. At the same time, full-service restaurants and non-commercial food service outlets such as schools are also entering the market. We believe that this broad-based adoption will boost the supply side, drive innovation and affordability. **With different players looking for partnerships to grow, this opens doors for STKH to pursue additional commercial agreements.**

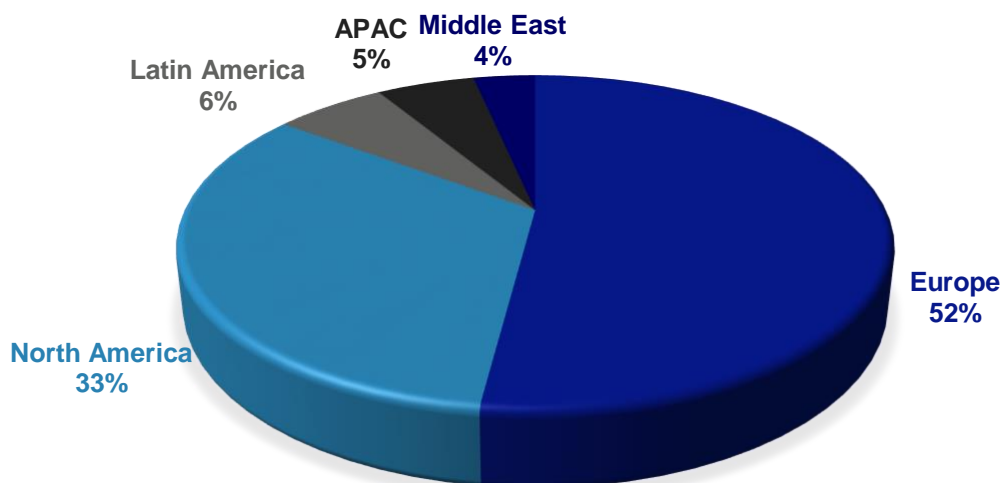
- **The global plant-based food market continues to grow fast and reached \$29 billion in 2023, driven by improved traction across the food value chain.** In 2023, the global plant-based meat, seafood, egg, and dairy industry experienced significant growth, with Euromonitor reporting total retail sales of \$29 billion—a 34% increase from \$21.6 billion in 2019. The global plant-based meat market recorded sales of \$6.4 billion, according to Euromonitor estimates. Europe was the biggest market, commanding a 52% market share with sales of \$3.3 billion. North America with sales of \$2.1 billion and 33% market share was next in line, while other three regions – Latin America, Asia Pacific, and Middle East and Africa – had a market share of ~5% each. Despite this progress, the alternative protein market remains relatively small compared to conventional animal products, highlighting the need for continued advancements in product innovation, affordability, and accessibility. For context, the 2023 total conventional meat retail and foodservice volume sales in tons reached 410 million while the sales of plant-based meat stood at 656,000 tons.
  - **Key developments in 2023 included major food corporations** like Tyson, Nestlé, and Kraft Heinz expanding their plant-based offerings; integration of plant-based options into menus at prominent chains such as Burger King, Subway, Taco Bell, and Starbucks; expansion into noncommercial foodservice channels like airlines, hospitals, and schools; introduction of diverse products including plant-based steak, sushi, and boiled eggs; and strategic partnerships aimed at advancing product development and sector growth. These trends underscore the strong growth of the plant-based industry. We believe scaling manufacturing and strengthening supply chains are crucial for the market. In 2023, several manufacturers augmented their capacities, anticipating strong growth momentum. And with interest rates entering a down-cycle, we expect this momentum to continue.

Chart 32: Major Events in the Plant-based Food Market in 2023



Source: ICR Inc., Good Food Institute

Chart 33: Global 2023 Plant-based Meat and Seafood Retail Sales Estimates (Total Sales = \$6.4 billion)

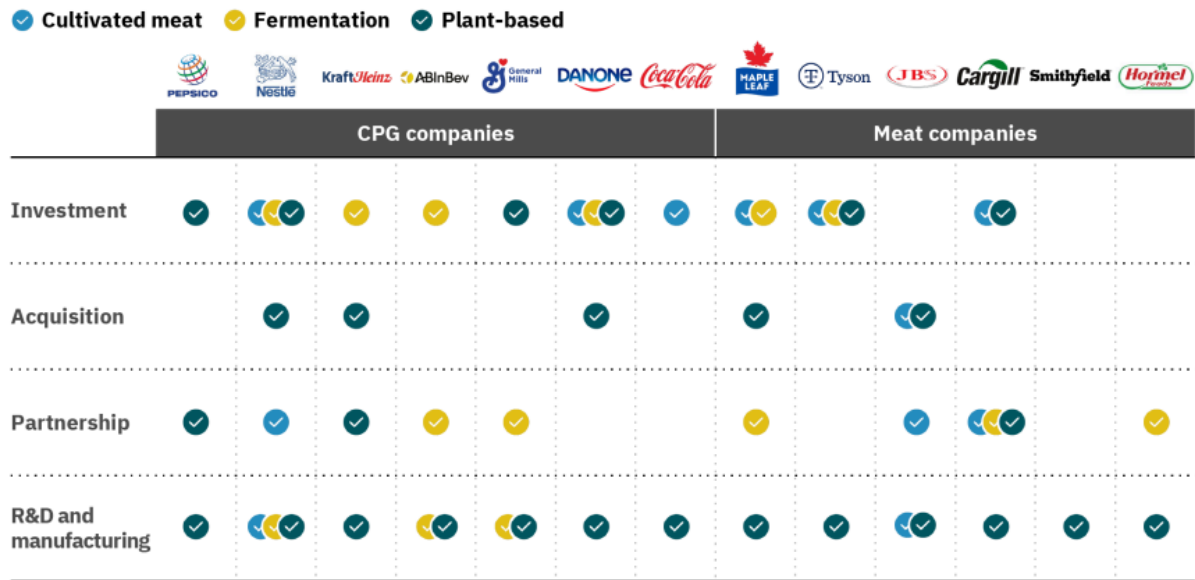


Source: ICR Inc., Good Food Institute, Euromonitor International Limited, Staple Foods 2023, Meat & seafood substitutes, retail value RSP incl. sales tax, US\$.

- **Major global leaders in consumer-packaged goods (CPG) and meat production industry are engaging with the alternative protein industry through investments, acquisitions, partnerships, and production initiatives.** Such collaborations are driving the sector's growth by facilitating knowledge exchange, product development, research, production scaling, and distribution expansion. As seen in the chart below, most major CPG and conventional meat companies have entered the alternative protein market through different channels, where R&D and manufacturing partnerships are the most common. Here are different types of partnerships that are being formed in the alternative protein industry.
  - **Product development collaborations:** Companies are joining forces to leverage mutual expertise, infrastructure, and brand recognition to create innovative plant-based products. These partnerships enable the development of offerings that meet diverse consumer preferences and enhance market competitiveness. Example: DayDayCook & Nestle are developing a range of plant-based meal products; MorningStar Farms & Pringles are developing a new line of plant-based chicken fingers; and More Foods & Tivol are developing plant-based meat products from pumpkin seeds.
  - **Ingredient optimization alliances:** Enhancing plant-based products often involves refining their ingredients. In 2023, various collaborations focused on improving plant-based components to achieve better taste, texture, and nutritional profiles, thereby increasing consumer acceptance. Example: Cargill & Cubiq Foods are incorporating plant-based fats into ingredient offerings; Roquette & Daiz are producing texturized, pea-based protein ingredients; and Ready Burger & Givaudan are working to improve fat used in burgers.
  - **Research and Development (R&D) partnerships:** Organizations are collaborating to address significant research challenges and explore opportunities within the plant-based sector. These joint efforts aim to advance scientific understanding and technological innovations, fostering the development of superior alternative protein products. Example: Hunch Ventures & Earth First Food Ventures have partnered to build net-zero food innovation project; and Food Systems Innovations & Noa Weiss are launching an AI tool to optimize plant-based proteins.
  - **Scaling and distribution agreements:** Expanding production capacity and broadening product distribution remain substantial challenges in the alternative protein industry. Partnerships in this domain allow companies to utilize existing infrastructure, facilitating access to new markets and a wider consumer base, thereby accelerating the mainstream adoption of plant-based products. Examples: PURIS & Palmer Holland are expanding PURIS' distribution of pea ingredients; and Fresh Del Monte & Vertage are working together to scale production of plant-based cheese products.

## Industry Opportunity and STKH's Positioning

Chart 34: Conventional Companies with Involvement in Alternative Proteins



Source: ICR Inc., Good Food Institute, GFI analysis of publicly reported industry news and events

- Integration of plant-based options in global fast-food chains remains strong.** In 2023, the foodservice sector experienced a resurgence as patrons returned to their preferred dining establishments following the pandemic-induced downturn. This revival has provided plant-based companies with valuable opportunities to introduce their products to a broader audience. Quick-service and fast-casual restaurants, known for their convenience, have been at the forefront of this movement. Notable examples include:
  - Starbucks Malaysia:** Collaborated with Green Rebel Foods to launch sandwiches featuring plant-based chicken and beef.
  - Smashburger:** Partnered with jackfruit-based meat producer Jack & Annie's to offer a jackfruit burger at select locations in Colorado, New York, and New Jersey.
  - Subway:** Introduced The Vegetarian Butcher's plant-based beef slices in Northern Europe as part of the new Plant-Based Steak Sub.
  - Burger King:** Transformed restaurants in Oslo, Stockholm, and Copenhagen to entirely plant-based menus for a month, featuring burgers made from The Vegetarian Butcher patties.

Chart 35: Top Plant-based food Brands by \$ Sales

Brand	Parent company	Headquarters	Year founded
Beyond Meat	Beyond Meat Inc.	United States	2009
Field Roast	Maple Leaf Foods	Canada	1991
Gardein	Conagra	United States	1919
Garden Gourmet/Hälsans Kök	Nestlé SA	Switzerland	1866
Impossible	Impossible Foods Inc.	United States	2011
Lightlife	Maple Leaf Foods	Canada	1991
Morningstar	Kellanova	United States	1906
Quorn	Monde Nissin Corp.	United Kingdom	1985
Rügenwalder Mühle	Rügenwalder Wurstfabrik Carl Müller GmbH & Co KG	Germany	1834
Yves Veggie Cuisine	The Hain Celestial Group Inc.	United States	1993

Source: ICR Inc., Good Food Institute, Euromonitor International Limited. Data displayed is from Staple Foods 2023, retail value RSP, Meat & Seafood substitutes top global brands, listed in alphabetical order.

## Industry Opportunity and STKH's Positioning

- Plant-based meat products are also landing on the menus of full-service restaurants and non-commercial food service venues.** Full-service restaurants have embraced plant-based offerings to provide an elevated dining experience that showcases these alternatives. Additionally, non-commercial foodservice venues—such as schools, businesses, airports, hospitals, and entertainment centers—have begun incorporating plant-based options, thereby reaching a diverse and extensive consumer base. This widespread adoption across various dining formats underscores the growing integration of plant-based alternatives into mainstream foodservice.
  - According to Euromonitor, in 2023, the plant-based protein sector in foodservice experienced slight declines in both dollar and pound sales, following two years of robust growth after a significant drop in 2020. Conventional meat experienced a 3% decrease in dollar sales but a 4% increase in pound sales, indicating price reductions over the past year. Over the five-year period from 2019 to 2023, average prices per pound for conventional meat rose by 18%, while plant-based protein prices increased by 10%.
  - Notably, analog products—designed to mimic the taste and texture of conventional meat—have gained traction, comprising 50% of total category pound sales in 2023, up from 39% in 2019. Emerging analogs like pork patties, chicken nuggets, and chicken tenders have shown double-digit growth in both dollar and pound sales, now representing 10% of category pound sales, an increase from 6% in 2019.
- We believe that as companies across the food value chain – meat processors, consumer product companies, food service retailers, and non-commercial food outlets – are attracted toward the plant-based meat market, STKH stands a strong chance to extend its already growing list of commercial partnerships.** We believe that the multiple partnerships signed with global players in the last few months, and the six LOIs it has recently received, underscore the fact that STKH's novel products are witnessing traction, a trend that is likely to continue and accelerate.

Chart 36: \$ U.S. Broadline Distributor Food Service Sales of Plant-based Proteins

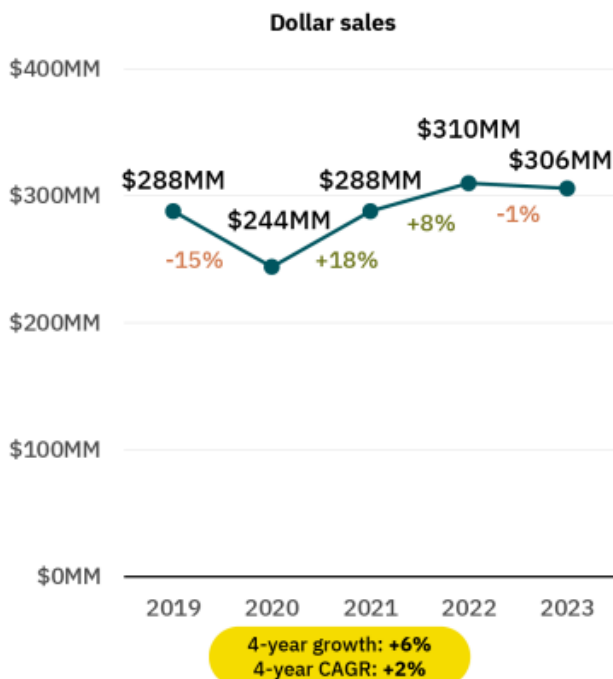


Chart 37: Pound U.S. Broadline Distributor Food Service Sales of Plant-based Proteins



Source: ICR Inc., Good Food Institute, Circana/SupplyTrack, Product Class: Plant-based proteins (analogous meat alternatives, grain/nut/veggie alternatives, tofu/tempeh). Dollar and pound sales are 12 months ending December 2023 vs 4 prior years.

Lower Prices the Need of the Hour; STKH's Disruptive Technology is the Solution

**Key Takeaway:** U.S. is the second largest market for plant-based proteins after Europe. However, this market contracted in \$ terms in 2023, as challenges related to affordability and lower penetration resulted in lower sales. **STKH's disruptive technology and 3D Printers can allow plant-based protein companies to automate their operations, thus improving scalability and affordability without compromising on the taste and texture of their products.**

- 2023 was an eventful year for the U.S. plant-based food market, with several launches and partnerships, but retail sales experienced a decline due to high product prices.** The U.S. retail plant-based food market reached \$8.1 billion in 2023, a minor decline from \$8.2 billion in 2022. Plant-based meat and seafood sales also declined, indicating opportunities to better align with consumer preferences regarding taste and price. The total sales for plant-based meat and seafood in the U.S. was recorded as 215 million units in 2023, down 19% y/y. In terms of \$ sales, the decline from 2022 to 2023 was 12% with \$1.2 billion in sales. Meanwhile, hundreds of new plant-based meat, seafood, egg, and dairy products entered the U.S. retail market during the year. Major product categories included plant-based steak, sushi, boiled eggs, Wagyu-style beef, ribs, and more. This indicates that despite relatively lower sales, the supply-side and innovation momentum in the industry continues to remain strong as companies focused their R&D efforts on developing new plant-based ingredients, including animal-free fats, emulsifiers, and novel protein sources from aquatic, leguminous, and upcycled materials; enhancing scalability of traditional texturization methods like extrusion; and exploring innovative texturization techniques such as fiber spinning and a patent-pending "process-controlled microstructure design."

Chart 38: \$ Sales of U.S. Plant-based Foods

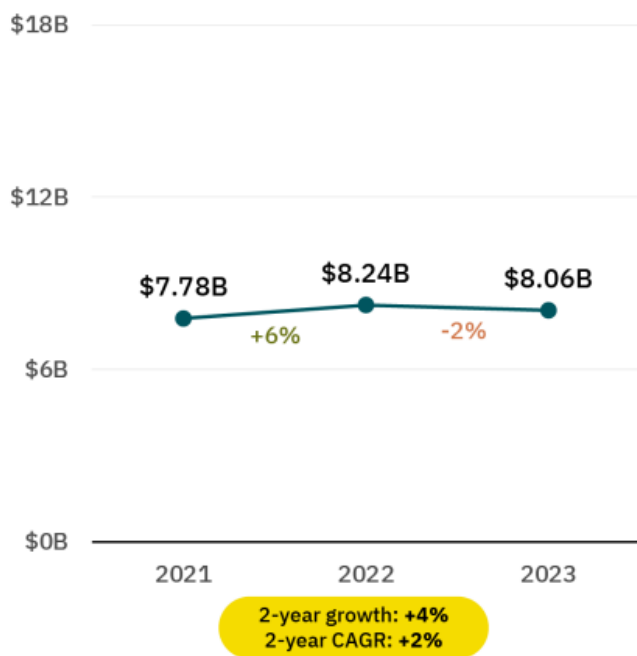
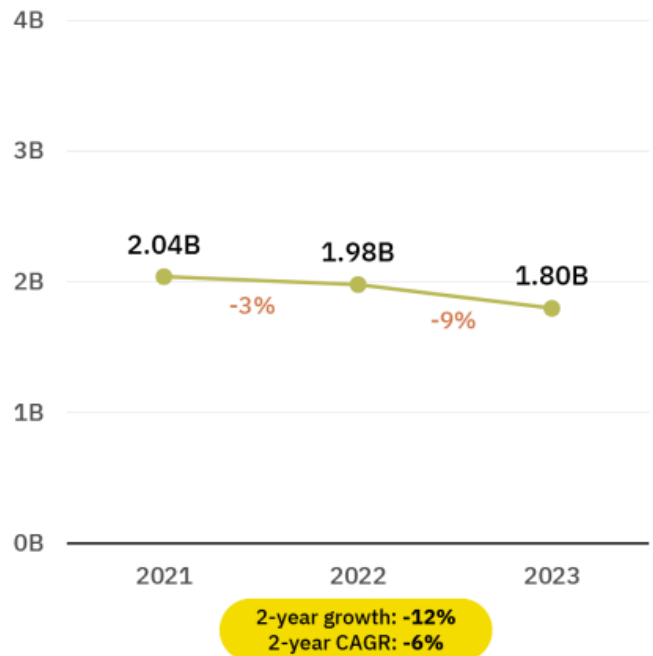


Chart 39: Unit Sales of U.S. Plant-based Foods



Source: ICR Inc., Good Food Institute, Total market = SPINS Natural Grocery Channel + SPINS Conventional Multi Outlet Channel + SPINS Convenience Channel (powered by Circana, formerly IRI & NPD) | 52 Weeks Ending 12-3-2023. The data presented in this graph is based on custom GFI and PBFA plant-based categories that were created by refining standard SPINS categories. Due to the custom nature of these categories, the presented data will not align with standard SPINS categories.

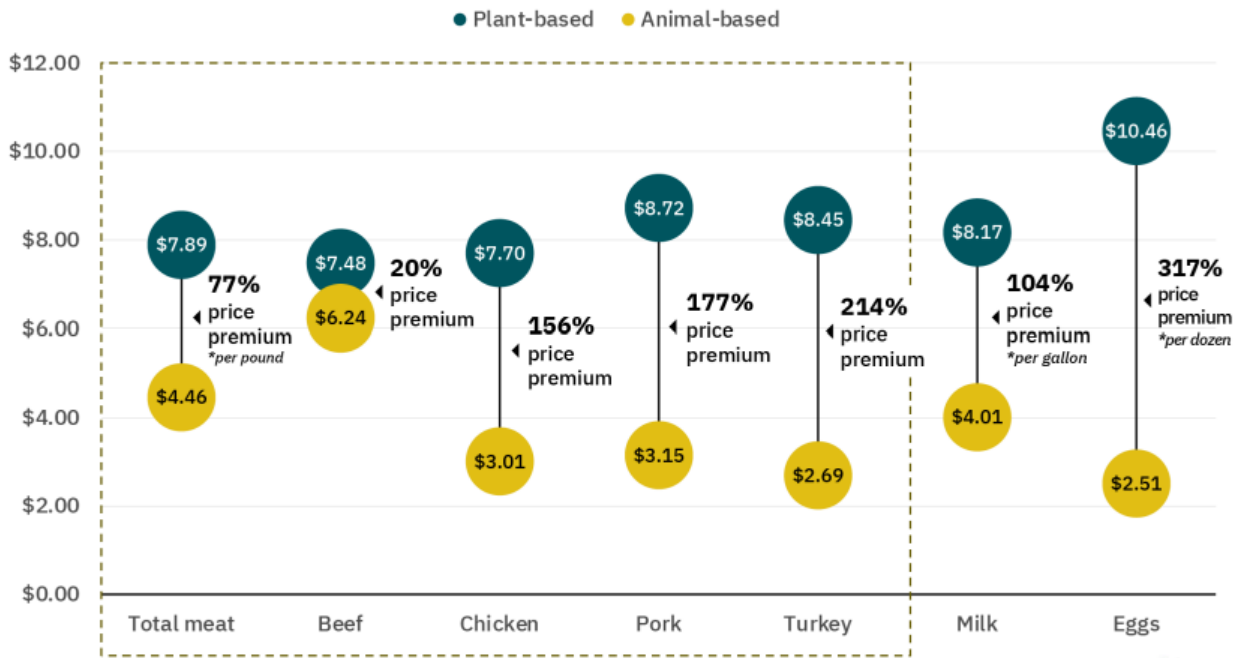
- The average prices per unit increased across all food categories, including both plant-based and conventional products. We believe that to enhance consumer appeal and position their products as everyday choices, plant-based manufacturers will need to reduce this price gap.** The trend of rising prices has widened the price disparity between plant-based alternatives and their traditional counterparts, posing a significant



## Industry Opportunity and STKH's Positioning

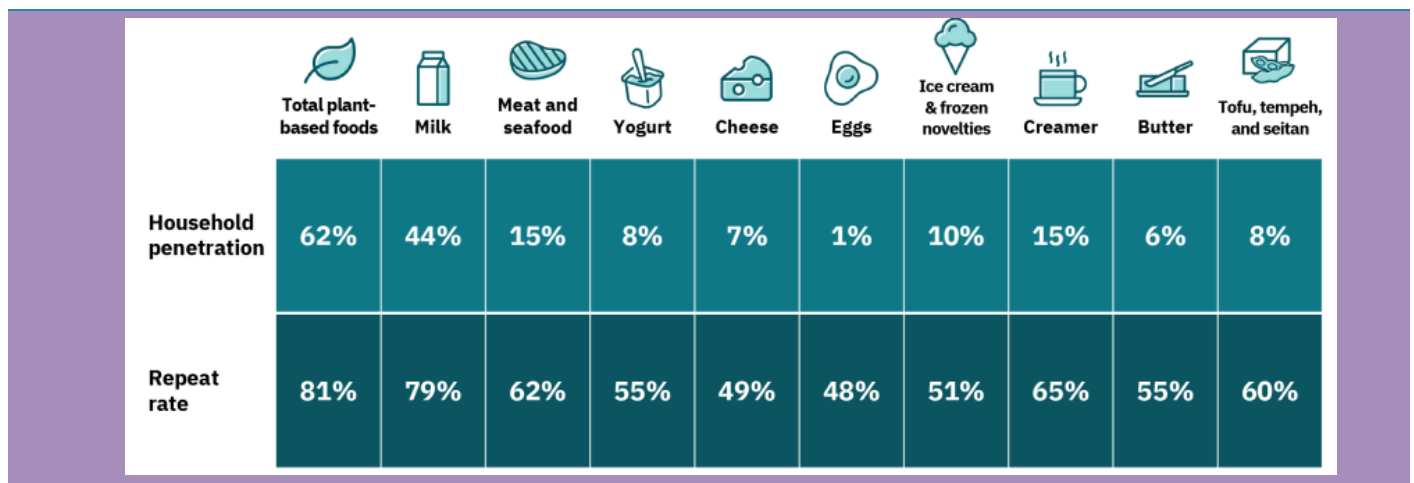
challenge for plant-based brands aiming to attract a broader consumer base. For instance, plant-based meat and seafood were priced 77% higher per pound than conventional options. Similarly, plant-based eggs carried a 317% premium per dozen, and plant-based milk was 104% more expensive per gallon compared to dairy milk. The U.S. meat market is highly competitive and plant-based meat products need to lower prices, among other things, to penetrate this market. As of 2023, only 15% of the consumers had used plant-based meat products. The repeat rate of plant-based meat consumers is 62%, which is healthy compared to most other plant-based foods, and lags only milk and creamer products.

Chart 40: Plant-based Vs. Animal-based Price per Weight Comparison, 2023



Source: ICR Inc., Good Food Institute, Plant-based meat prices per pound are based on frozen and refrigerated plant-based meat subcategories from SPINS year ending 12/3/23. Animal-based meat prices per pound are based on data for fresh meat subcategories from the Circana year ending Dec 2023. Plant-based milk prices per gallon and plant-based egg prices per dozen are based on the custom plant-based categories created by GFI & PBFA from SPINS data year ending 12/3/23. Animal-based milk and egg prices from US BLS statistics – December 2023 value.

Chart 41: Penetration and Repeat-rate of Various Plant-based Food Products in U.S.



Source: ICR Inc., Good Food Institute, National Consumer Panel (powered by Circana), All Outlets, 52 weeks ending 12-3-23. Household data note: SPINS uses a separate process from the sales data to pull household panel data which may result in minor category differences.

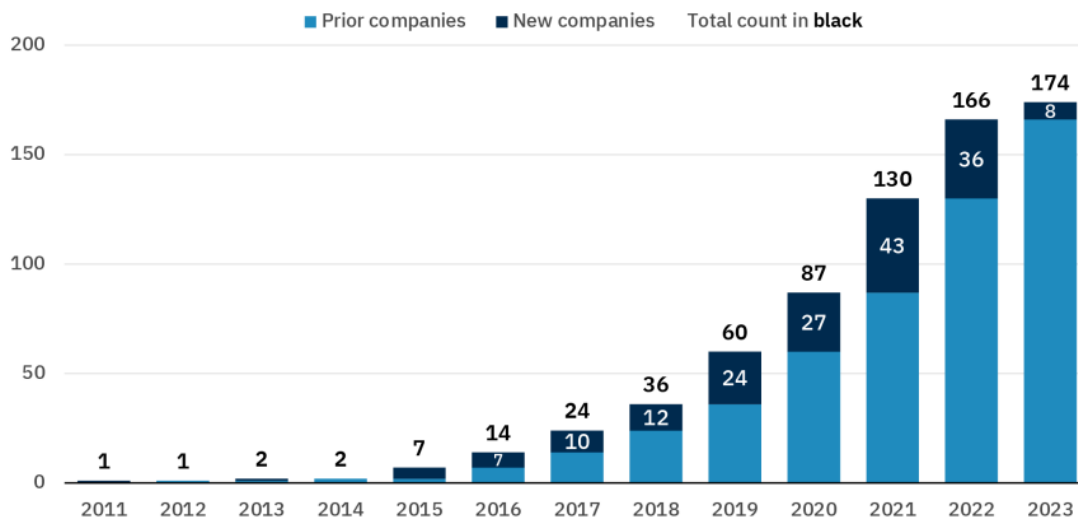
- **We believe that STKH's 3D printing products can allow global alternative protein companies to scale their popular products, driving efficiency and allowing them to become cost competitive.** STKH's stance of positioning itself as a B2B biomimicry platform creates a great opportunity, not only for STKH, but for the alternative protein industry at large, by giving access to advanced manufacturing technologies to small and local manufacturers. The company is creating a template where even the small and niche plant-based meat manufacturers can use their technology to scale production of their popular and market-validated products. This democratization of technology in the alternative protein market can create strong growth momentum. Automation can also allow them to launch their products at newer locations to drive penetration, and hence address the two bottlenecks that continue to hurt smaller players in the market.
  - Also, once the company has demonstrated its effectiveness with small players, it can work on establishing partnerships with traditional meat companies looking to diversify into the alternative food space as well as established plant-based food companies.

Fast-Growing Cultivated Meat Market Bodes Well for STKH

**Key Takeaway:** The traction in cultivated meats market is increasing with more jurisdictions providing regulatory approvals to cultivated meat products. In 2023, US gave approvals to two companies and in 2024, Israel and UK have joined the list of countries where such products are approved for commercial sale. This emerging sector is gaining attention from established meat processing giants such as JBS and Tyson Foods that are trying to establish their presence in this market. **STKH is looking to advance its product development focus toward creating hybrid products that use plant-based ingredients and cultivated animal cells, which should allow it to capture the growth opportunities in this market which is expected to reach \$20 billion by 2030.**

- The cultivated meat industry continues to reach significant milestones marking a transformative period in alternative protein commercialization.** The regulatory acceptance of cultivated meat products started in 2020 with Singapore becoming the first country to approve the sale of cultivated meat, granting Eat Just's chicken nuggets pre-market approval. In June 2023, the U.S. Department of Agriculture approved the production and sale of cultivated chicken by companies such as GOOD Meat and Upside Foods, making the U.S. the second country to allow cultivated meat sales, and in January 2024, Israel's Ministry of Health granted regulatory approval for Aleph Farms' cultivated beef product, marking Israel as the third country to advance the approval of cultivated meat and the first to approve cultivated beef. Most recently, in July 2024, the UK became the first European nation to commercialize lab-grown meat, starting with cultivated chicken for pet food, following regulatory approval from the Animal and Plant Health Agency and the Department for Environment, Food and Rural Affairs. This regulatory progress has been accompanied by substantial industry infrastructure development, with ten new production facilities opening in 2023, bringing the global total to approximately 21 facilities. Notable among these is Believer Meats' 200,000-square-foot commercial facility in North Carolina, demonstrating growing confidence in large-scale production capabilities.
- Given the above developments, this sector is attracting increasing participation from food majors worldwide.** JBS, the world's largest meat company, commenced construction of a cultivated meat center in Brazil. Another meat giant Tyson had participated in a \$36.5 million series A funding round of cultivated meat company Onmeat; it had earlier invested in Upside Foods (2018) and Believer Meats (2021). The industry's maturation is further reflected in its expanding ecosystem, with the number of companies primarily focused on cultivated meat and seafood growing to 174 in 2023, supported by at least 88 additional companies engaged through investments or partnerships. Significantly, the industry is experiencing increased specialization, with companies focusing on specific segments of the value chain such as bioprocess design, cell line development, and culture media optimization.

Chart 42: Number of Companies Primarily Focused on Cultivated Meat and Seafood



Source: ICR Inc., Good Food Institute.

## Industry Opportunity and STKH's Positioning

- The cultivated meat market presents a substantial growth opportunity, with industry forecasts for 2030 ranging from \$5 billion to \$140 billion.** Growth estimates from McKinsey put the market size at \$1 billion by 2025 and grow 20x by 2030 to reach \$20 billion. Longer-term estimates from Euromonitor expect the market to grow to \$230 billion by 2040. While these projections require significant technological advancement and regulatory approvals to materialize, the market's growth potential is supported by compelling environmental and food security imperatives as discussed above. Success in this market depends on scaling production capabilities, reducing costs, and navigating regulatory frameworks – areas where STKH's technology platform could play a crucial role. While current cultivated meat sales are limited to a few products in select markets, the sector is attracting increasing attention from governments and investors due to its potential to address critical global challenges in food security and environmental sustainability.

Chart 43: Forecasts for Global Cultivated Meat Industry Market Size



Source: ICR Inc., Good Food Institute, A.T. Kearney, Barclays, Bryan, Garnier & Co, Euromonitor, McKinsey. \*Some forecasts projected the share of the total market rather than the industry size in dollars. For those forecasts, we estimated the dollar size of the cultivated meat sector using Barclays' forecast for the total 2040 meat market.

- STKH is focusing its R&D efforts toward developing hybrid alternative proteins that use plant-based ingredients with cultivated animal cells and can benefit from the growth of cultivated meat market.** The company is strategically advancing its technology platform beyond current plant-based applications toward hybrid products that combine plant-based ingredients with cultivated animal cells, positioning itself at the forefront of next-generation alternative proteins. It is focusing on developing hybrid meat blends; cell line development and cultivation processes; creating food-grade growth media free of fetal bovine serum; and utilizing software-controlled systems to optimize cell proliferation for hybrid meat production.
  - We believe that this broad-based approach toward advancing its product portfolio using latest biotechnology will keep the company ahead of the curve in this increasingly competitive market. Also, since we have seen large CPG companies and meat processors partner with innovative companies, STKH's strong R&D focus can also open doors for similar partnerships.

### Favorable Government Stance Should Act as a Tailwind Even as Investor Sentiment Remains Mixed

**Key Takeaway:** The global funding winter has also impacted the alternative protein market, with investors remaining non-committal and the weak economic sentiment impacting exits in the sector. That said, the sector remains a relative outperformer. Further, governments remain bullish on this sector as various government programs continue to fund innovation in the sector. **STKH is a beneficiary of this trend and has received a \$1 million grant from the Singapore-Israel Industrial R&D Foundation (SIIRD).** Further, the USFDA approving a couple of cultivated meat products should act as a tailwind for STKH and the sector.

- 2024 has been a challenging year for the alternative protein sector; however a favorable interest rate cycle could result in a turnaround.** While the plant-based industry achieved significant milestones in product development, distribution, and scaling, continually innovating processes and products, the private funding environment for plant-based and alternative protein companies has been weak in 2024 so far. As of 3Q24, the alternative protein industry has raised ~\$900 million this year, compared to \$1.6 billion raised in 2023. In 3Q 2024, alternative protein companies secured \$233 million in investments, a 37% decline from the previous quarter but a 25% increase compared to the same period last year. In terms of composition of the funding pie, we see a strong shift in funding toward fermentation-based protein companies and away from plant-based protein companies. As of 3Q24, fermentation-based protein companies have received funding of \$572 million, and have already surpassed the total funding of \$443 million, received in 2023. On the other hand, plant-based companies that contributed 57% to the alternative protein funding pie in 2023 by raising \$908 million, have managed to raise only \$194 million in the first three quarters of 2024. The third contributor to the pie is cultivated protein companies that have raised \$133 million as of 3Q24, compared to \$226 million raised in 2023. However, with the Federal Reserve cutting rates by 50 basis points in September and more rate cuts likely in the coming quarters, we expect fundraising by plant-based meat and seafood companies to pick up pace in the medium-to-long term.

Chart 44: Investments in Plant-based Meat and Seafood: Top 10 countries (2014–2023)

	Invested capital Q3 2024	Invested capital YTD 2024	Invested capital 2023	Invested capital 2015-Q3 2024
Total alternative protein	\$233 MM	\$899 MM	\$1.6 B	\$16.3 B
 Plant-based	\$56 MM	\$194 MM	\$908 MM	\$8.5 B
 Fermentation	\$174 MM	\$572 MM	\$443 MM	\$4.6 B
 Cultivated	\$3 MM	\$133 MM	\$226 MM	\$3.2 B

Source: ICR Inc., Good Food Institute

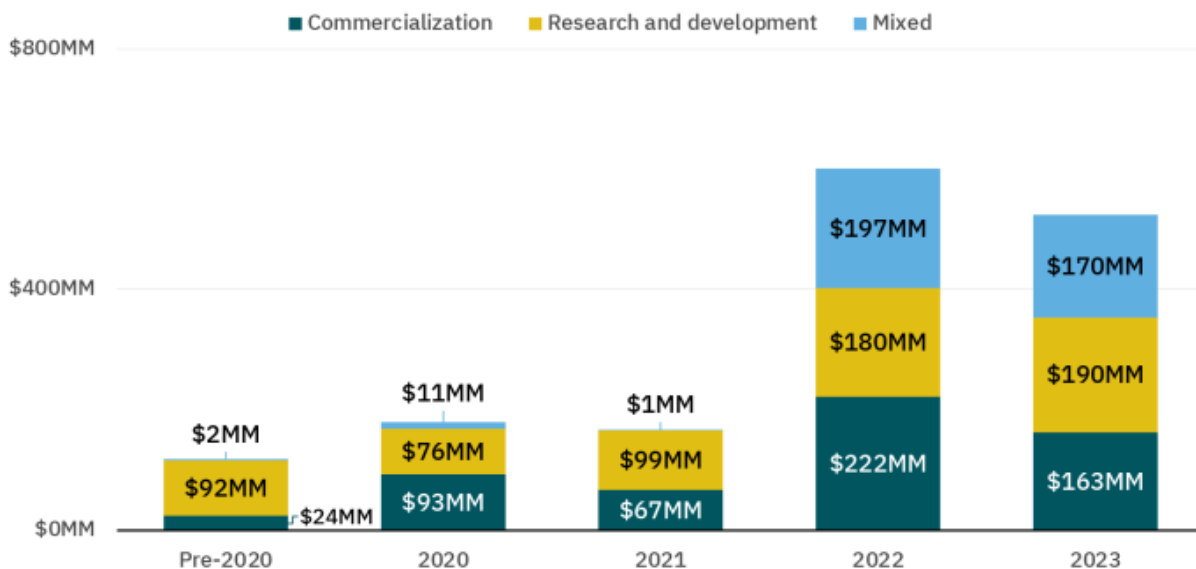
- As the private investment climate remains volatile, alternative protein companies are likely to focus on more diversified sources of funding.** Alternative proteins remain crucial for transitioning to more efficient and sustainable meat production methods, presenting valuable ESG opportunities for investors and the industry. As the venture funding landscape gains momentum with further lowering of interest rates, the industry is likely to adopt a more positive trajectory going forward. Companies demonstrating clear pathways to revenue and profitability will be better positioned to attract equity investments. Additionally, accessing long-term debt, grants, and government incentives will be essential for reducing production costs and achieving price parity during scaling. Creative solutions, such as product off-take agreements and leveraging government and philanthropic funding, will facilitate access to necessary

## Industry Opportunity and STKH's Positioning

capital. As the alternative protein sector matures, companies are expected to seek diverse funding strategies beyond venture capital to support manufacturing expansion, moving away from the VC-driven growth observed between 2019 and 2022.

- **Favorable government support across the world will continue to drive the alternative protein sector higher.** Governments worldwide announced substantial investments in the alternative protein industry, totaling approximately \$523 million in 2023. This brings the cumulative global public funding to \$1.67 billion. The allocations included \$190 million for research and development, \$162 million for commercialization, and \$170 million for initiatives combining both aspects. In 2023, global government support for plant-based alternative proteins included Canada investing CAD 150 million to support market growth; The United Kingdom and Germany announcing substantial commitments to alternative protein research and commercialization; and Initiatives in Brazil, Japan, Singapore, South Korea, and other countries to support alternative protein startups and product development.
  - **The momentum has continued into 2024.** In February 2024, the Department of Energy (DOE) identified alternative protein production—including plant-based, precision-fermented, and cell-cultivated products—as a critical area for reducing greenhouse gas emissions. This opened a \$83 million funding opportunity for the sector. The DOE's funding aims to foster innovations that cost-effectively reduce emissions across various manufacturing and processing stages. Additionally, the Horizon Europe program has issued calls for proposals related to alternative proteins, with deadlines in early 2024. These calls offer significant funding opportunities for researchers and companies focused on plant-based, cultivated meat, and fermentation-based foods.
- **Regulatory greenlighting in the U.S. bodes also well for the cultivated meat industry.** In 2023, the alternative protein sector achieved significant regulatory milestones in the U.S. Early in the year, Good Meat became the second company, following Upside Foods, to successfully complete the Food and Drug Administration's (FDA) premarket consultation process, affirming the safety of their cultivated meat products. By June, both companies received grants of inspection and label approvals from the U.S. Department of Agriculture (USDA), authorizing the commercial sale of their cultivated chicken products. With these approvals, Upside Foods and Good Meat began offering their cultivated chicken to consumers, marking a pivotal moment in food and agriculture history. These developments positioned U.S. as the second country, after Singapore, to permit the production and sale of cultivated meat, highlighting a growing global acceptance of alternative protein sources.

Chart 45: Yearly Government Funding Announcements by Type



Source: ICR Inc., Good Food Institute

Chart 46: Global Regulatory Leaderboard

### Stars of 2023

*These countries dramatically increased their investments in alternative proteins in 2023, rising above their peers:*



**The United Kingdom** announced a new cellular agriculture research hub, funded over 20 research projects, and included cultivated meat in a national biotechnology plan.



**Germany** announced a €38 million program to develop alternative protein production capacity and incentivize alternative protein uptake among consumers and producers.

### Leading public investment

*These governments invested in alternative proteins with world-leading R&D and commercialization funding:*



Canada



European Union



Denmark

### Leading in regulation

*These countries are leading the development of thorough, fair, and timely regulation of alternative proteins:*



Israel



Singapore



United States

### Powering plant-based

*These countries support the development of plant-based proteins, boosting local agriculture and manufacturing:*



Australia



France



New Zealand

### Advancing cultivated meat and fermentation

*These countries are building up biotechnology, supporting the future of food with research and infrastructure:*



Finland



Israel



The Netherlands



Singapore



South Korea



United States

### Countries to watch

*These countries are laying the groundwork for significant investment:*



Brazil



China



India



Japan



South Africa



Spain

Source: ICR Inc., Good Food Institute

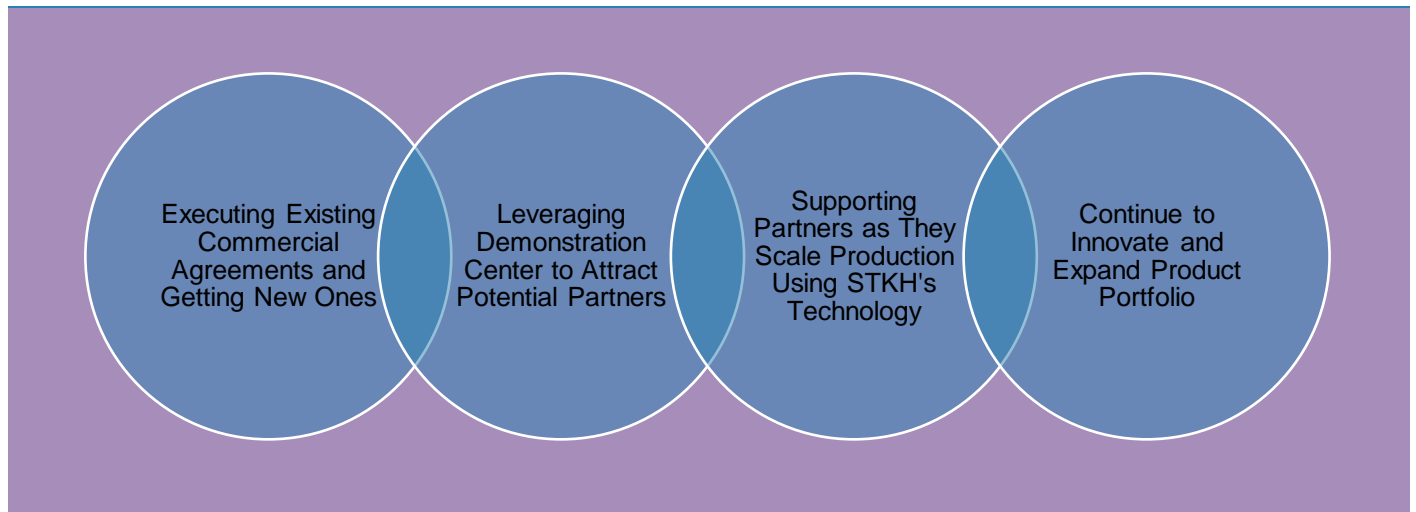
- **STKH is a beneficiary of this trend, and its strong R&D efforts have already been recognized through the \$1 million grant from the Singapore-Israel Industrial R&D Foundation (SIIRD), with \$490,000 already received based on successful achievement of development milestones.** With the company continuing to innovate in the plant-based and cultured meat segments, it could be eligible for additional funding as well. Also, as STKH's commercial partnerships are on the verge of generating revenue, it should allow the company to intensify its R&D efforts, as well as look to acquire new technology through some M&A action.
  - **STKH has also received feasibility reports from Mérieux NutriSciences regarding its proprietary, plant-based, 3D-printed whitefish and steak products.** These reports concluded that the raw materials used are permitted for use in plant-based substitutes or are Generally Recognized as Safe (GRAS), indicating their safety for consumption in key markets such as the United States and the United Arab Emirates. Notably, the 3D-printing process employed does not alter the structure or composition of the materials, suggesting that the final products are unlikely to be classified as novel foods. Consequently, they are expected to undergo a conventional approval process, potentially facilitating a more streamlined regulatory pathway.

## Growth Strategy

### Focused on Growing Commercial Relationships and Driving Product Innovation

- The STKH management has put in place a four-step growth strategy to guide its near-and-medium term business development efforts. We discuss these steps in detail below.

Chart 47: STKH's Four Step Growth Strategy



Source: ICR Inc., Company Filings

- **Executing existing commercial agreements and signing new ones.** Having tasted success with its dual revenue B2B platform approach with a couple of clients – Bondor Foods Ltd. and Wyler Farm – STKH's prime focus is on ensuring that it is able to execute these contracts to generate value for its two clients, and their end-customers. This will create a template for the company to replicate in its future commercial agreements. The company is already witnessing strong interest from other commercial consumers, which is evident from the fact that it received six letters of interest at an expo event in London in November 2024.

Chart 48: STKH's Full-scale Demonstration Center Featuring its Innovative 3D printers



Source: ICR, Inc., STKH Website



- **Leveraging its full-scale Demonstration Center to attract potential partners.** STKH has established a state-of-the-art Demonstration Center as a cornerstone of its commercial strategy, designed to showcase its advanced 3D printing capabilities and accelerate partner acquisition. The facility, built to commercial food production standards, features the company's flagship printers - the MX200, which utilizes Fused Paste Layering (FPL™) technology for meat alternatives, and the HD144, which employs Drop Location in Space (DLS™) technology for seafood products.
  - **The center provides potential partners and clients with a comprehensive and immersive experience of STKH's production capabilities, from raw material preparation through final packaging, including live demonstrations and product tasting sessions.** This hands-on approach enables prospective partners to evaluate the full scope of STKH's technology platform and visualize its integration into their operations. The demonstration center, which has already begun hosting international visitors and conducting virtual tours, represents a strategic investment in customer engagement and relationship building, serving as a powerful tool for converting interest into commercial partnerships. By providing tangible proof of its technological capabilities and product quality, the center is expected to play a crucial role in accelerating STKH's market penetration and partnership development efforts.
- **Supporting partners as they scale production using STKH's technology.** The company has designed its commercialization strategy in such a way that ensuring customer success is critical to its revenue generation. As a result, the company has put in place elaborate efforts to provide installation and training support, as well as provision for ongoing technical support to ensure that the clients are able to maximize and use their printers. Since the company is at the beginning of its commercialization journey, we expect it to understand the challenges customers are facing with their machinery, so that they can continue to improve their machinery.
- **Innovating and expanding product portfolio.** STKH is strategically advancing its technology platform beyond current plant-based applications toward hybrid products that combine plant-based ingredients with cultivated animal cells, positioning itself at the forefront of next-generation alternative proteins.
  - **The company's innovation pipeline focuses on developing hybrid meat blends that aim to deliver superior "meatiness" characteristics - including taste, texture, and nutritional values - that more closely replicate conventional meat products.** This development has already shown promising results, with the company's cultivated muscle cells demonstrating amino acid profiles matching native tissue, suggesting potential for achieving nutritional equivalency with traditional meat products. Further, initial taste tests have indicated that incorporating just 10-25% of STKH's cultivated fat biomass into plant-based products can significantly enhance mouthfeel and overall eating experience.
  - **The company has made significant technological breakthroughs in cell line development and cultivation processes critical for scaling hybrid product production.** STKH has developed proprietary immortalization processes that enable cell lines to proliferate for up to one year while maintaining consistent division rates, a crucial advancement for industrial-scale production. Additionally, the company has successfully adapted various cell lines to suspension growth processes, overcoming a major challenge in scaling up operations beyond traditional laboratory plate cultivation.
  - **These advancements are complemented by innovative approaches to media development,** where STKH is creating food-grade growth media free of fetal bovine serum while maintaining cost effectiveness through in-house formulation, media recycling, and bioprocess optimization.
  - **STKH's bioreactor development program represents another key area of innovation, utilizing software-controlled systems to optimize cell proliferation for hybrid meat production.** The company has achieved significant progress in cell cultivation protocols, demonstrating high cell density production in short time frames within small-scale bioreactors. This success in developing proprietary cell-growth processes is expected to facilitate efficient scaling to industrial-scale bioreactors, positioning STKH to overcome one of the primary challenges facing the cultivated meat industry – achieving cost-competitive production at scale. These technological developments, combined with the company's existing 3D printing capabilities, create a comprehensive innovation platform that could potentially revolutionize alternative protein manufacturing.

### Management Team

#### Best-In-Class Management Team Led by Arik Kaufman

- We believe STKH has a best-in-class management team with the right expertise to lead the company's transition into a revenue-generating alternative protein company. All members of the STKH management team have strong experience in the foodtech industry and have worked with similar companies in the past. Brief biographies of the management team and board members are listed below.

#### Chart 49: STKH's Management Team

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Arik Kaufman  
CEO



Itamar Atzmony  
CTO & VP R&D



Yair Ayalon  
VP Business Development



Mor Glotter-Nov  
VP marketing



Avraham Hampel  
VP Corporate Development



Moran Attar  
VP Finance

Source: ICR Inc., STKH Investor Presentation

- **Arik Kaufman – Chief Executive Officer:** Arik Kaufman has served as Chief Executive Officer of STKH since January 2022, bringing extensive experience in foodtech entrepreneurship and corporate law to the company. With a track record of founding multiple Nasdaq and TASE-listed foodtech companies, Mr. Kaufman currently serves as a director of Wilk Technologies Ltd. and is a founding partner of BlueSoundWaves collective, led by Ashton Kutcher, Guy Oseary, and Effie Epstein, which has partnered with STKH to accelerate growth. His expertise spans foodtech and biotech law, with significant experience in leading complex international negotiations, fundraising, M&A transactions, and licensing agreements. Under his leadership, STKH has transformed from a research-focused organization to a commercial-stage company, securing multiple strategic partnerships and advancing its technology platform toward revenue generation. His vision focuses on establishing STKH as a global leader in alternative protein production technology while creating sustainable shareholder value. Mr. Kaufman holds a Bachelor of Arts degree in Law from Reichman University (formerly the Interdisciplinary Center Herzliya), providing him with the legal foundation crucial for navigating the complex regulatory landscape of the alternative protein industry.
- **Itamar Atzmony – Chief Engineering Officer:** Itamar Atzmony serves as Chief Engineering Officer at STKH, following a rapid progression within the company from mechanical engineer in 2020 to his current role in September 2023. His expertise spans three critical areas: 3D printing systems, robotics, and industrial automation, developed

## Management Team

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through roles at leading technology companies including Highcon Systems, Polygon T.R., and Nano Dimension. At STKH, Mr. Atzmony has been instrumental in developing the company's proprietary 3D printing systems, including the MX200 meat printer and HD144 fish printer. Under his leadership, the engineering team has achieved significant breakthroughs in printing technology, including the development of proprietary Fused Paste Layering (FPL) and Drop Location in Space (DLS) technologies. Mr. Atzmony holds a B.Sc. in Mechanical Engineering from Afeka College of Engineering. In his current role, he leads the company's engineering strategy, overseeing technology development, system optimization, and manufacturing scale-up efforts, crucial for the successful deployment of STKH's technology across customer installations.

- **Yair Ayalon – Vice President of Business Development:** Yair Ayalon serves as Vice President of Business Development at STKH, bringing a strong background in business development, sales, and project management. His role is crucial in driving the company's commercial strategy and revenue growth as it transitions from technology development to market deployment of its 3D printing solutions. Prior to joining STKH, Mr. Ayalon gained valuable experience as a senior consultant at KPMG Israel, where he developed expertise in strategic planning, market analysis, and business optimization. This consulting background, combined with his strong track record in sales and business development, enables him to identify and capture strategic opportunities in the rapidly evolving alternative protein market. Mr. Ayalon's educational background includes a bachelor's degree in accounting and business/management, providing him with a solid foundation in financial analysis and business strategy. At STKH, he leads initiatives to expand the company's B2B partnerships and develop new market opportunities for its proprietary 3D printing technology and premix solutions. His ability to understand both the technical and commercial aspects of the business makes him instrumental in translating the company's technological capabilities into valuable customer solutions.
- **Mor Glotter-Nov – Vice President of Marketing:** Mor Glotter-Nov serves as Vice President of Marketing at STKH, bringing expertise in marketing innovative technologies and building high-performing teams in fast-paced environments. Her background spans multiple cutting-edge sectors, including foodtech, Web 3.0 technologies (NFT, Crypto, DAOs, and DeFi), consumer goods, and cosmetics, providing her with diverse perspectives on market development and consumer engagement. At STKH, Ms. Glotter-Nov leads the company's marketing strategy, focusing on positioning its breakthrough 3D printing technology and alternative protein solutions in the B2B market. Her entrepreneurial mindset and hands-on approach have been instrumental in developing effective marketing campaigns that communicate the company's value proposition to potential partners and investors. Ms. Glotter-Nov holds an MBA with a focus in Entrepreneurship Technology and Innovation from Tel Aviv University, reflecting her commitment to understanding and marketing advanced technologies.
- **Avraham Hampel – Vice President of Corporate Development:** Avraham Hampel serves as Vice President of Corporate Development at STKH, leveraging over two decades of experience in finance, fundraising, and corporate governance within high-tech and life science startups. His extensive background in strategic development and corporate finance makes him instrumental in shaping the company's growth trajectory. At STKH, Mr. Hampel plays a multifaceted role overseeing fundraising initiatives, regulatory compliance, business development, and legal processes. His expertise in corporate governance and strategic planning has been crucial in establishing robust organizational structures as the company scales its operations and enters new markets. Mr. Hampel's academic credentials include an MBA in Finance and Accounting from Hebrew University of Jerusalem and a B.A. in Economics and Logistics from Bar-Ilan University. This strong educational foundation in finance and economics, combined with his extensive experience in technology companies, enables him to provide comprehensive oversight of the company's corporate development initiatives. His leadership has been particularly valuable in securing strategic partnerships and maintaining strong relationships with investors and regulatory bodies.
- **Moran Attar – Vice President of Finance:** Moran Attar joined STKH as Vice President of Finance in May 2023, bringing nearly two decades of financial leadership experience across the pharmaceutical, retail, high-technology, and foodtech sectors. Her career is distinguished by nine years as CFO for various companies listed on major global exchanges, including Nasdaq, London Stock Exchange, and the Tel Aviv Stock Exchange. Ms. Attar served as CFO at BGI Investments Ltd. (now Israil Group Ltd.) and BSD Crown from 2015 to 2019, and at Univo Pharmaceuticals Ltd. from 2019 to 2022. Her experience also includes six years as an executive consultant at EY Israel, providing her with extensive exposure to complex financial transactions and international accounting standards. At STKH, she plays a crucial role in financial strategy development and maintaining strong relationships with the investment community. Ms. Attar holds a B.A. in Accounting & Economics from Ben-Gurion University and an M.A. in Accounting from Bar-Ilan University.

## Management Team

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The management team is supported by an experienced set of board members that brings a strong industry network and strategic direction to the table.

- **Yaron Kaiser – Director:** Yaron Kaiser brings extensive experience in foodtech entrepreneurship and corporate law to STKH's board. As a founder of various Nasdaq and TASE-traded foodtech companies and former Chairperson of Wilk Technologies Ltd. (2021-2023), he provides valuable insight into scaling technology companies in the alternative protein sector. Mr. Kaiser is a founding partner of the BlueSoundWaves collective since 2021, demonstrating his ability to forge strategic partnerships and attract investment. His legal practice, as founding partner of Kaufman Kaiser Law Firm since 2021, following his tenure at JST & Co. Law Office (2010-2021), focuses on securities, commercial, and corporate law. He has extensive experience representing public companies in fundraising, IPOs, M&A transactions, and corporate governance matters. His combined expertise in foodtech entrepreneurship and corporate law makes him particularly valuable in guiding STKH through its growth phase and commercial expansion. Mr. Kaiser holds an LL.B. degree from the College of Management Academic Studies, Israel, providing him with the legal foundation crucial for navigating complex regulatory and corporate matters.
- **Eli Arad – Director:** Eli Arad has served as a director of STKH since February 2018, bringing extensive experience in life science investments and financial management. As CEO of Merchavia Holdings and Investments Ltd (TASE:MRHL) since 2011, he demonstrates strong leadership in managing investments across real estate and life sciences sectors. Mr. Arad's board experience spans multiple innovative companies, including Cleveland Diagnostics, Inc., a clinical-stage biotechnology company, and several privately-held ventures. His directorship at E.N. Shoham Business Ltd. (TASE:SHOM) since 2019 and various private companies (Veoli, Train Pain, EFA, Nervio, and Cardiosert) provides him a broad perspective on technology commercialization and corporate governance. A certified practicing accountant, Mr. Arad holds a diploma in Accounting from Ramat Gan College and an Executive B.A. (Hons.) in Business Administration from Ruppin Academic Center. His combination of financial expertise and experience in scaling biomedical startups makes him a valuable asset in guiding STKH's growth strategy and financial oversight.
- **David Gerbi – Director:** David Gerbi has served as a director of STKH since August 2019, bringing substantial financial and accounting expertise to the board. As managing partner of the accounting firm Gerbi & Co., he provides valuable insight into financial management and corporate governance. Mr. Gerbi's extensive experience as CFO of multiple publicly traded companies, including Israil Group Ltd. (TASE:ISRG), Erech Finance Cahalacha Ltd. (TASE:EFNC), Nur Ink Innovations Ltd. (TASE:NURI), and Bee-io Honey Ltd. (TASE:BHNY), demonstrates his capability in managing complex financial operations across diverse industries. His academic credentials include a B.A. in Business Administration and Accounting from the Israeli College of Management Academic Studies and an M.B.A. in Finance from Tel Aviv University. This combination of practical experience and academic background enables him to provide sophisticated oversight of STKH's financial strategies and corporate development initiatives.
- **Sari Singer – Director:** Sari Singer has served as a director since March 2021, bringing significant expertise in corporate law and strategic transactions. As General Counsel and Executive Vice President at NewMed Energy LP since 2012, she has demonstrated exceptional capability in managing complex international transactions and strategic processes. At NewMed Energy, the oil and gas arm of the Delek Group and a partner in the Leviathan offshore gas field, Ms. Singer has led numerous significant strategic initiatives, including restructurings and complex financing rounds totaling approximately \$7 billion across international and domestic markets. This experience in large-scale transactions and strategic planning provides valuable perspective to STKH's board. Ms. Singer holds an LL.B. (cum laude) from Tel Aviv University and has been a member of the Israel Bar since 2007. Her legal expertise and experience in international business transactions make her particularly valuable in guiding STKH's strategic initiatives and corporate governance matters.

## Fundamentals & Valuation Analysis

### Impending Revenue Generation to Mark an Inflection Point in Fundamentals

- **STKH is set to transition into a revenue generating company as its commercial partnerships start bearing fruit of long-term investment that the company has made in technology development, product development, and training.** As discussed in earlier sections of the report, STKH has been engaged with multiple commercial partners since the beginning of the year. In recent months, a couple of these partnerships have progressed into the purchase order stage, and as a result the company is expected to start generating revenue in late 2024 or 1H 2025, marking a key inflection point in its commercialization journey. Fundamentals are also strengthened by STKH's focus on reducing R&D costs and optimization of marketing expenses.
  - **Sharp reduction in R&D expenses.** STKH has a strong focus on R&D, which has allowed it to develop its best-in-class 3D printing technology. Between 2021 and 2023, R&D expenses of the company increased from \$4.8 million to \$7.1 million. However, as the company approaches commercialization, it is working toward controlling its expenses and recorded a 55.6% decline in R&D expenses between 1H2023 and 1H2024, with R&D costs declining from \$3.6 million to \$1.6 million.
  - **Strong cost discipline:** R&D expense is one of the biggest cost head for the company, and a sharp reduction there allowed STKH to trim its losses in 1H2024. Management is also working toward controlling other costs, such as marketing and general and administrative expenses, which allowed STKH to reduce its overall loss from \$9.5 million in 1H2023 to \$4.4 million in 1H2024, a 53.7% y/y reduction driven by strong cost discipline.
  - **Improved cash position:** As a result of the strong cost discipline, STKH improved its cash position from \$4.2 million in 1H2023 to \$5.8 million as of June 30, 2024.
- **We believe STKH is at an inflection point in its commercialization journey, with multiple revenue streams expected to materialize between late 2024 and early 2025.** The company's financial outlook is underpinned by its dual revenue model comprising printer system sales and recurring premix blend revenue, both of which have been validated through recent commercial agreements. While initial revenue in late 2024 is expected to be modest, reflecting the typical ramp-up period in B2B technology deployment, the company is likely to experience accelerated growth starting 2025 as commercial partnerships mature and production volumes increase. STKH's financial trajectory is supported by multiple strategic partnerships secured in 2024, including agreements with established food manufacturers and distributors worldwide. These partnerships not only provide revenue visibility but also establish a foundation for scaling operations across different geographic markets. As STKH progresses with its commercialization strategy, we expect it to benefit from increasing market penetration of its printer systems while building a growing base of recurring revenue from premix sales. This combination of equipment sales and consumables is designed to create a robust and sustainable revenue model as the company scales its operations in the alternative protein sector.
- **Balance sheet strengthened by crypto investments.** On November 21, 2024, STKH announced that its Board of Directors has approved the purchase of up to \$1 million in Bitcoin or cryptocurrency tracking indices. The decision, driven by the recent approval of cryptocurrency ETFs and growing support from institutional investors for this asset, is aimed at strengthening STKH's treasury reserves by benefiting from crypto's positioning as a store of value and support STKH's treasury strategy.

Chart 50: Income Statement – 2023 and 1H24 (As of June 30, 2024)

\$ 000s	Dec-21	Dec-22	Dec-23	Y/Y Change	1H2023	1H2024	Y/Y Change
Operating expenses:							
Research and development	4,779	6,529	7,095	8.7%	3,600	1,600	-55.6%
Marketing	1,115	2,874	1,937	-32.6%	1,600	700	-56.3%
Marketing with related party	590	2,210	745	-66.3%			
General and administrative	6,948	5,485	4,401	-19.8%	2,200	2,000	-9.1%
<b>Total operating loss</b>	<b>13,432</b>	<b>17,098</b>	<b>14,178</b>	<b>-17.1%</b>			
Financial expenses (income), net	(9,571)	(2,565)	1,369	-153.4%			
<b>Loss from continuing operations</b>	<b>3,861</b>	<b>14,533</b>	<b>15,547</b>	<b>7.0%</b>			
Net loss from discontinued operations	18,057	7,326	1,317	-82.0%			
<b>Loss for the year</b>	<b>21,918</b>	<b>21,859</b>	<b>16,864</b>	<b>-22.9%</b>	<b>9,500</b>	<b>4,400</b>	<b>-53.7%</b>

Source: ICR Inc, STKH SEC Filings

## Fundamentals & Valuation Analysis

Chart 51: Balance Sheet – Dec 2023 vs. Dec 2022

\$ 000s	Dec-22	Dec-23	Y/Y Change
<b>Assets</b>			
Current assets:			
Cash and cash equivalents	6,284	4,248	-32.4%
Restricted deposits	24	-	-100.0%
Other investment	136	-	-100.0%
Marketable securities with related party	-	351	-
Prepaid expenses and other current assets	685	367	-46.4%
<b>Total current assets</b>	<b>7,129</b>	<b>4,966</b>	<b>-30.3%</b>
Restricted deposits	331	301	-9.1%
Other investment	1,156	-	-
Right-of-use asset	3,687	3,212	-12.9%
Property and equipment, net	3,497	2,344	-33.0%
<b>Total assets</b>	<b>15,800</b>	<b>10,823</b>	<b>-31.5%</b>
<b>Liabilities and stockholders' equity</b>			
Current liabilities:			
Accounts payables and accruals	2,104	1,783	-15.3%
Other liabilities	199	193	-3.0%
Trade payables	746	154	-79.4%
Current lease liability	601	355	-40.9%
Warrant liability	4	-	-100.0%
<b>Total current liabilities</b>	<b>3,654</b>	<b>2,485</b>	<b>-32.0%</b>
Long term lease liability	2,746	2,456	-10.6%
<b>Total liabilities</b>	<b>6,400</b>	<b>4,941</b>	<b>-22.8%</b>
Commitments and contingencies			
<b>Stockholders' equity</b>			
Ordinary shares	-	-	-
Additional paid in capital	62,942	76,058	20.8%
Accumulated other comprehensive loss	(230)	-	-
Accumulated deficit	(53,312)	(70,176)	31.6%
<b>Total stockholders' equity</b>	<b>9,400</b>	<b>5,882</b>	<b>-37.4%</b>
<b>Total liabilities and stockholders' equity</b>	<b>15,800</b>	<b>10,823</b>	<b>-31.5%</b>

Source: ICR Inc, STKH SEC Filings

Chart 52: Cash Flow – 2023 vs. 2022

\$ 000s	Dec-21	Dec-22	Dec-23	Y/Y Change
<b>Cash flows from operating activities:</b>				
Net loss	(21,918)	(21,859)	(16,864)	-22.9%
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	380	837	503	-39.9%
Change in fair value of financial liabilities	(9,209)	(2,603)	(4)	-99.8%
Change in fair value of other investment	(193)	(99)	1,148	-1259.6%
Change in fair value of marketable securities with related	-	-	84	-
Change in lease right of use assets	287	494	417	-15.6%
Change in lease liabilities	(306)	(486)	(524)	7.8%
Change in other investment	1,223	-	-	-
Share-based compensation	3,209	1,146	1,114	-2.8%
Share-based compensation with related party	590	2,210	745	-66.3%
Impairment loss on fixed asset	-	1,210	-	-100.0%
Loss of control of discontinued operation	-	-	(178)	-
Decrease (increase) in prepaid expenses and other curr	(2,339)	1,904	153	-92.0%
Research and development expenses	12,926	1,562	-	-100.0%
Foreign exchange gain or losses	(87)	210	162	-22.9%
Increase (decrease) in trade payables	(97)	452	(460)	-201.8%
Increase in accounts payables and accruals	1,097	201	977	386.1%
<b>Net cash used in operating activities</b>	<b>(14,437)</b>	<b>(14,821)</b>	<b>(12,727)</b>	<b>-14.1%</b>
<b>Cash flows from investing activities:</b>				
Acquisition of fixed assets	(1,776)	(2,901)	(270)	-90.7%
Increase (decrease) in restricted deposit	(340)	5	16	220.0%
Loan provided	(367)	-	-	-
Proceeds from other investment	149	143	88	-38.5%
Investment in in-process research and development ass	(6,808)	(838)	-	-100.0%
Investment in marketable securities with related party	-	-	(435)	-
Net cash decrease from loss of control over discontinued	-	-	(163)	-
<b>Net cash provided by investing activities</b>	<b>(9,142)</b>	<b>(3,591)</b>	<b>(764)</b>	<b>-78.7%</b>
<b>Cash flows from financing activities:</b>				
Proceeds from issuance of shares and warrants	29,282	6,300	12,500	98.4%
Issuance costs	(3,283)	(454)	(1,243)	173.8%
Proceeds from exercise of stock options	3,222	53	-	-100.0%
<b>Net cash provided by financing activities</b>	<b>29,221</b>	<b>5,899</b>	<b>11,257</b>	<b>90.8%</b>
Effect of exchange rate changes on cash	(22)	(379)	198	-152.2%
<b>Net change in cash and cash equivalents</b>	<b>5,620</b>	<b>(12,892)</b>	<b>(2,036)</b>	<b>-84.2%</b>
Cash and cash equivalents at beginning of period	13,556	19,176	6,284	-67.2%
<b>Cash and cash equivalents at end of period</b>	<b>19,176</b>	<b>6,284</b>	<b>4,248</b>	<b>-32.4%</b>

Source: ICR Inc, STKH SEC Filings

### STKH – An Undervalued Small Cap Play on the Alternative Protein Market

- **Our analysis shows that STKH, which has raised a total of \$72 million so far, is an undervalued alternative protein name with large upside potential.** We use multiple approaches to arrive at this conclusion, including comparison with trading peers, its market capitalization, and its cash-adjusted enterprise value. The company is available at a deep discount based on all these approaches. We believe that long-term investors that want to play the alternative meat story have a great entry point into STKH's stock at current price. Its unique positioning as a B2B biomimicry platform can attract business customers and generate product sales and royalty revenue linked to the success of its customers' products. We believe that STKH's diversified revenue base will provide it with a reliable growth path in the alternative protein market.
  - **With a price/book multiple of 0.8x, STKH is undervalued compared to peers in the alternative protein market who have an average multiple of 2.4x.** When compared with its listed peers, we find that STKH is significantly undervalued. We believe that as STKH transitions to a revenue generating company, the valuation gap is likely to narrow as STKH gets re-rated higher. We note that STKH is also trading at a discount to large meat processors like JBS and TSN that are trading at a p/b multiple of 1.4x.
  - **The market capitalization of STKH has significant headroom for expansion as commercialization plays out, as its current market capitalization of ~\$6 million is a fraction of the average market capitalization of listed peers.** The average market capitalization of STKH's peers in the plant-based food and milk space is \$476 million (as of 11/25). In comparison, STKH has a market capitalization of just \$6.2 million. This creates massive headroom for market capitalization expansion for the company as it progresses on its commercialization journey.
  - **An enterprise value of (\$2.7) million suggests that the market is significantly undervaluing STKH's technological capabilities and commercial potential.** With \$5.8 million in cash on its balance sheet and an EV of (\$2.7) million, STKH is trading below its liquidation value, providing investors with a rare opportunity to own a modestly valued disruptive small cap name that has a proprietary technology platform, extensive IP portfolio, and growing commercial partnerships in a fast-growing market. This valuation disconnect is particularly striking given the company's recent commercial achievements, including multiple strategic agreements with established food manufacturers and its successful technology demonstrations at major industry events. We expect the company's dual revenue streams to act as catalysts for value creation, and believe that as STKH executes its commercial strategy, its valuation is likely to grow at an accelerated pace, thus offering significant upside from current levels.

Chart 53: Trading Comps – STKH vs. Peers

Company	Ticker	M. Cap (\$Mn.)	EV (\$Mn.)	Price/ Sales (x)	Price/ Book (x)	TTM Revenue (\$Mn.)
<b>Steakholder Foods</b>	<b>STKH</b>	<b>6.2</b>	<b>(2.7)</b>	<b>-</b>	<b>0.8</b>	<b>-</b>
Beyond Meat, Inc.	BYND	342.3	1,440.0	1.1	-	323.5
Maple Leaf Foods Inc.	MFI.TO	2,044.8	3,308.6	0.6	1.9	3,455.5
Oatly Group AB	OTLY	439.9	812.0	0.5	1.9	813.5
Else Nutrition Holdings Inc.	BABYF	3.0	4.5	0.4	2.9	8.8
Burcon NutraScience Corporation	BRCNF	20.5	21.7	71.0	4.3	0.3
<b>AVG (ALTERNATIVE PROTEIN COS.)</b>		<b>476.1</b>	<b>930.7</b>	<b>14.7</b>	<b>2.4</b>	<b>920.3</b>
JBS	JBSS3.SA	13,350.0	28,050.0	0.2	1.7	68,360.0
Tyson Foods	TSN	22,700.0	30,770.0	0.4	1.2	53,310.0
<b>AVG (MEAT PROCESSORS)</b>		<b>18,025.0</b>	<b>29,410.0</b>	<b>0.3</b>	<b>1.4</b>	<b>60,835.0</b>

Source: ICR Inc, Yahoo Finance. Data as of 11/25/24 close.

## Technical Analysis

### Stock Primed for Reversal After Consolidation

Chart 54: STKH Stock Price History

Beta (5Y Monthly)	-21.45
52 Week Range	-62.17%
S&P 500 52-Week Change	31.18%
52 Week High	7.70
52 Week Low	2.01
50-Day Moving Average	2.7302
200-Day Moving Average	3.8717

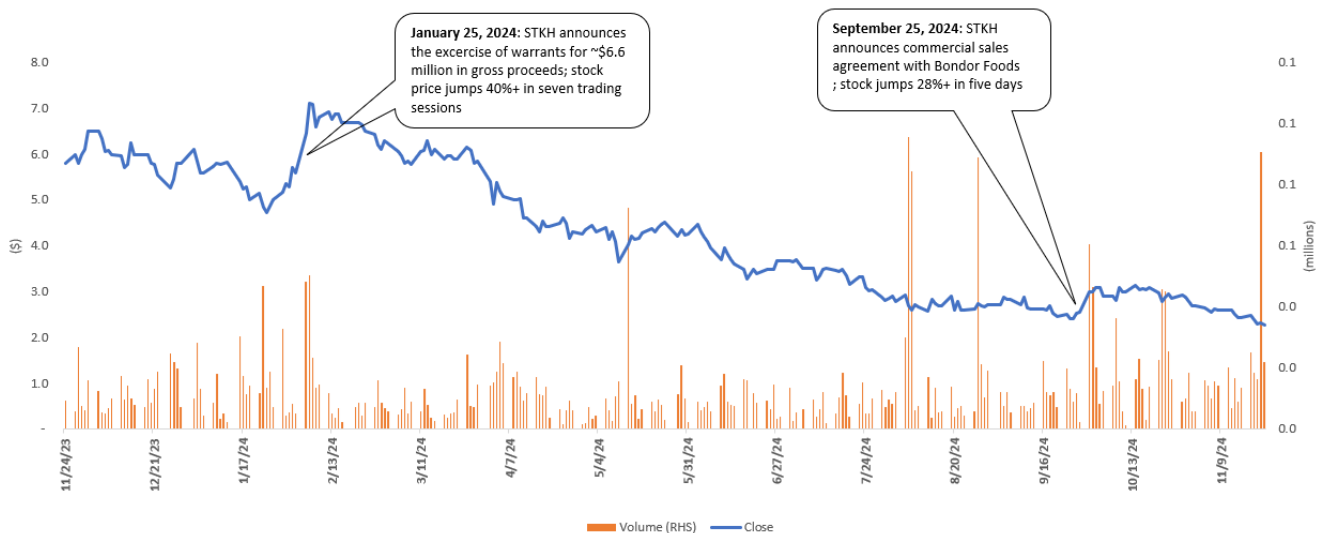
Chart 55: STKH Share Statistics

Avg Vol (3 month)	17.94k
Avg Vol (10 day)	23.88k
Shares Outstanding	2.88M
Implied Shares Outstanding	395.7M
Float	277.81M
% Held by Insiders	1.57%
% Held by Institutions	3.17%

Source: ICR Inc., Yahoo Finance. Data as of 11/22/24.

- Technical analysis indicates that STKH's stock has likely completed time- and price- correction and is ready for an upward move.** STKH's stock price has experienced a significant correction YTD and is trading at \$2.27, down ~68% from its peak of \$7.11. It has seen significant consolidation in the last six months and is primed for a trend reversal. The 14-day RSI dipped below the oversold level (RSI=30) on November 22, which provides a buying opportunity, and a trend reversal is likely as the RSI moves above 30. The money flow index, which has also remained in the oversold region, is likely to follow the path set by RSI. We believe that the stock, which is trading below its 50-day moving average as well as 100-day moving average, provides a good opportunity to accumulate at a reasonable price.

Chart 56: STKH – Annotated Share Price and Volume Chart

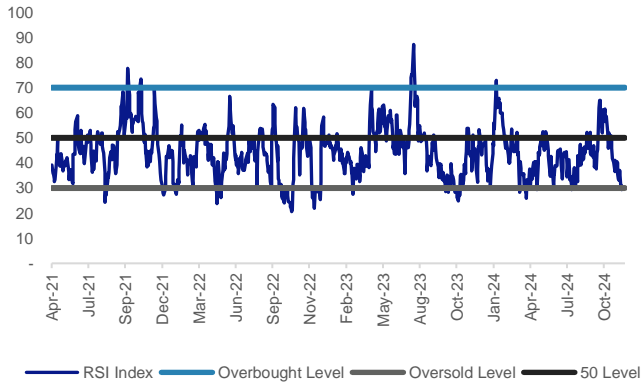


Source: ICR, Inc., Investing.com

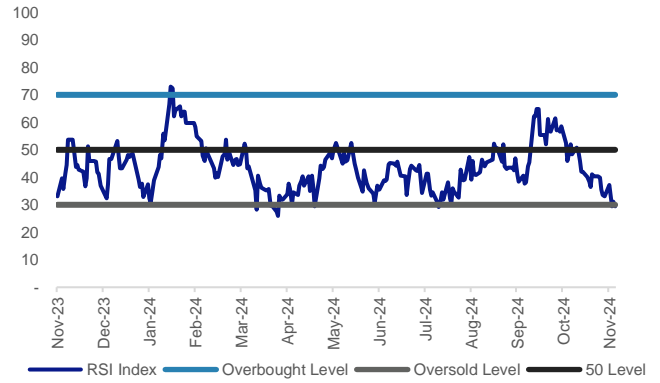


# Technical Analysis

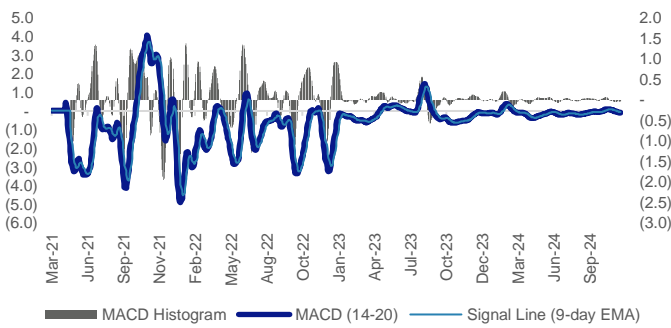
**Chart 57: Relative Strength Index - 14 Day (Since Listing)**



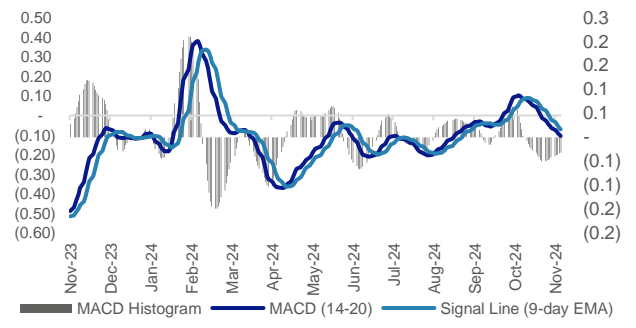
**Chart 58: Relative Strength Index - 14 Day (1 Year)**



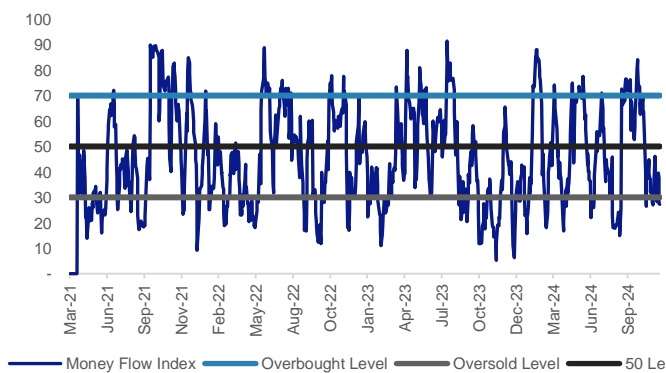
**Chart 59: MACD - (Since Listing)**



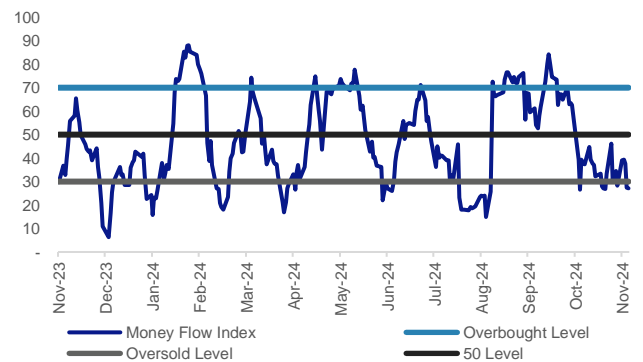
**Chart 60: MACD - (1 Year)**



**Chart 61: Money Flow Index 14-Days (Since Listing)**



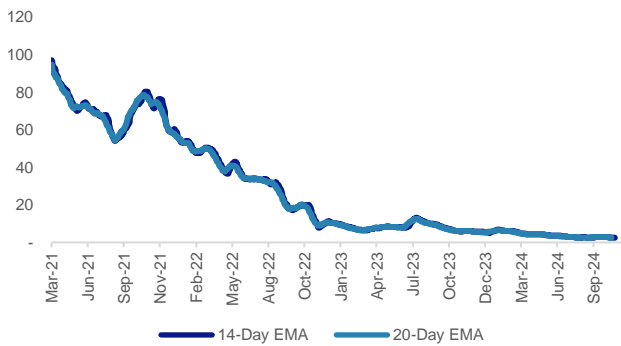
**Chart 62: Money Flow Index 14-Days (1-Year)**



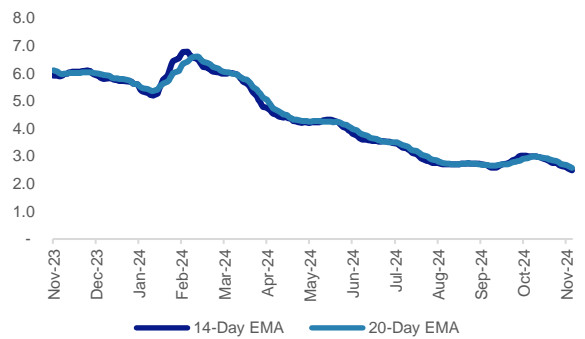
Source: ICR, Inc., Investing.com. Stock Price data as of 11/22.

## Technical Analysis

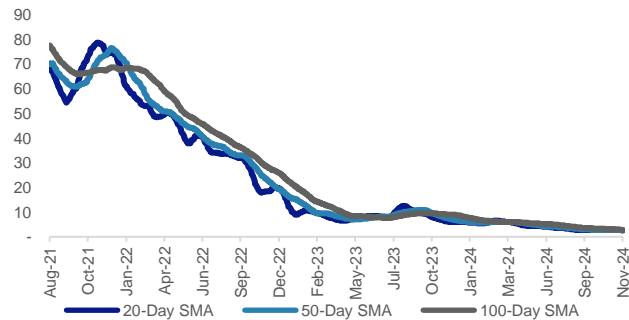
**Chart 63: Exponential Moving Average (Since Listing)**



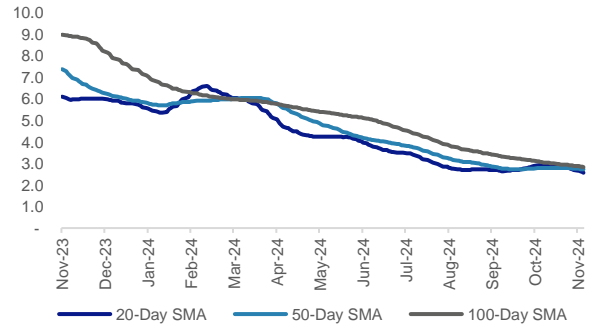
**Chart 64: Exponential Moving Average (1 Year)**



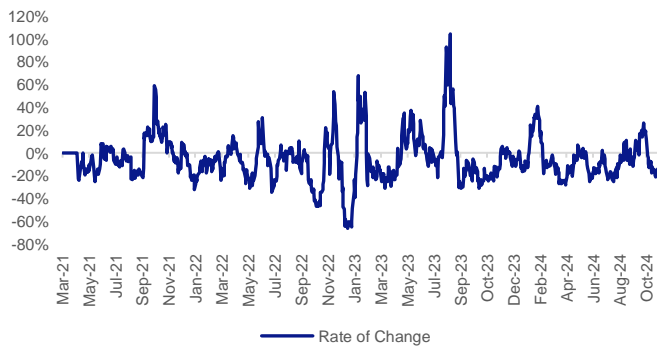
**Chart 65: Simple Moving Average - (Since Listing)**



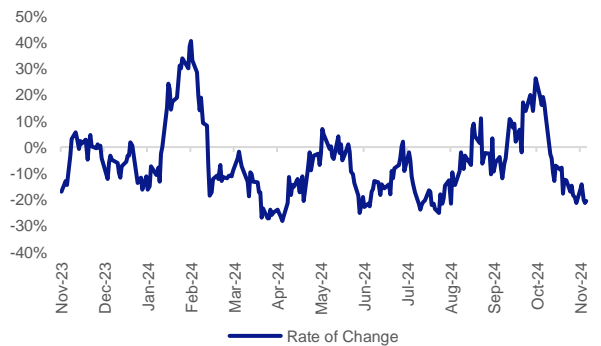
**Chart 66: Simple Moving Average - (1 Year)**



**Chart 67: Price Rate of Change (%) - 20 Day (Since Listing)**



**Chart 68: Price Rate of Change (%) - 20 Day (1 Year)**



Source: ICR, Inc., Investing.com. Stock Price data as of 11/22.

## Technical Analysis

- Low short interest is unlikely to support a rebound in STKH's stock price.** Our analysis of short interest data indicates that short covering is unlikely to help boost the stock price of STKH due to insignificant short positions, which stand at 0.7% of the ~2.9 million shares outstanding. Short interest, which stood at 17,329 million at the end of October, is <57,600 shares (<2% of shares outstanding) and days to cover, which presently stands at ~1 day is well below 7 days; hence, short interest buildup is unlikely support buying through a short squeeze.

Chart 69: Short Interest and Price

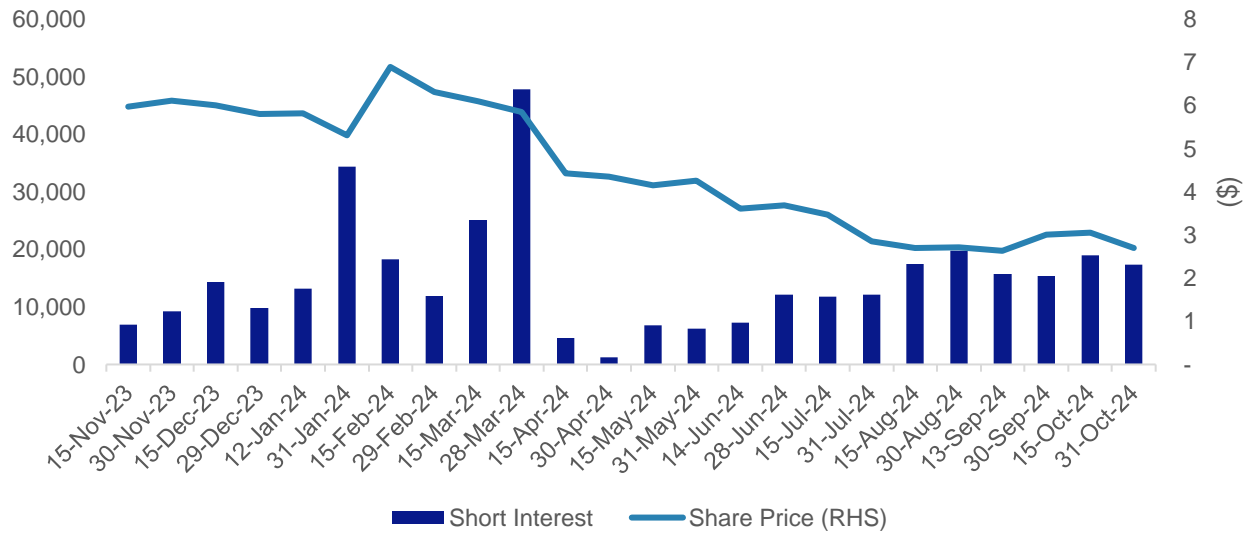
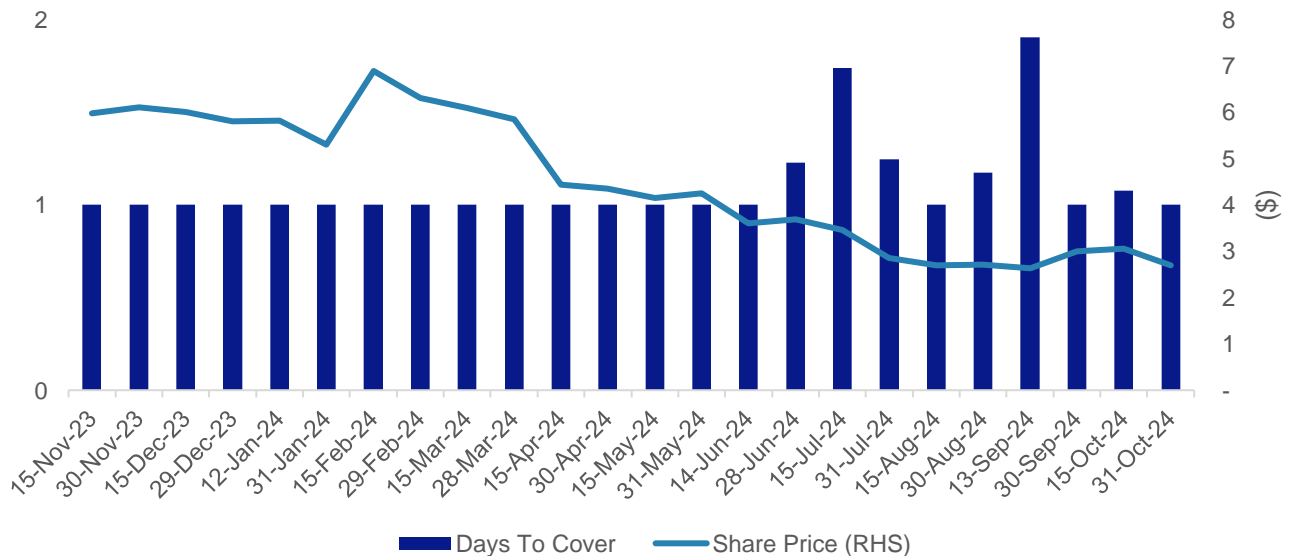


Chart 70: Days to Cover and Price



Source: ICR, Inc., NASDAQ

### Risks

- **Growth uncertainty.** STKH faces significant risks related to scaling its operations and managing growth effectively. While the company continues to invest in research and development, marketing, and customer support infrastructure, there is no guarantee that these investments will yield proportional returns or that the company can successfully leverage economies of scale. The company must manage an increasingly complex operation, including product design, materials procurement, and expanding relationships with suppliers, distributors, and customers. This expansion requires substantial management attention and additional resources, potentially diverting focus from day-to-day operations. The company's growth strategy necessitates significant capital expenditures and additional personnel across multiple functions, including managerial, operational, sales, marketing, financial, and legal roles. There is a risk that investments made in anticipation of growth may not be matched by corresponding revenue increases, potentially impacting financial performance. If STKH cannot effectively scale its infrastructure, manage operational complexities, or maintain product quality during growth phases, it may face operational inefficiencies, increased costs, missed business opportunities, and challenges in implementing its business strategy. The company's investment in new product development also carries the risk that target markets may not develop as anticipated, potentially resulting in unrecovered R&D expenditure.
- **Competition.** STKH operates in an increasingly competitive alternative protein market, where success depends on multiple factors including product taste, texture, nutritional value, convenience, and price point. The company faces significant competition not only from other alternative protein technology providers but also from well-established multinational food corporations with substantially greater resources and market presence. These larger competitors possess extensive financial, marketing, manufacturing, and distribution capabilities that could be leveraged to launch competing products or acquire existing players in the market. Such companies can sustain longer periods of price competition, invest more heavily in research and development, and respond more quickly to changes in consumer preferences. The competition for limited retailer shelf space and foodservice customers is particularly intense, requiring significant investment in marketing, advertising, and trade support. There is no guarantee that products manufactured using STKH's technology will achieve or maintain competitive advantages in taste, texture, or cost-effectiveness. Furthermore, competitive pressures could force price reductions or increased marketing expenditure, potentially eroding margins and profitability. Its future success depends on its ability to maintain competitive positioning in a market where larger players can deploy significant resources to protect their market share.
- **Quality control and reputational risk.** STKH faces significant reputational risks associated with food safety and quality control in a B2B business model where final product quality largely depends on its customers' manufacturing practices. While the company provides advanced production technology and premix solutions, it has limited control over how customers implement these systems or maintain quality standards in their operations. Any real or perceived quality issues, even if unrelated to STKH's technology, could significantly damage the company's reputation and market position. The risk is particularly acute in the alternative protein sector, where consumer trust is crucial, and negative publicity can spread rapidly through social and digital media channels. Furthermore, the company operates in an industry where regulatory compliance is critical, and any food safety incidents, whether directly related to its technology or occurring elsewhere in the alternative protein sector, could trigger broader scrutiny of the industry. The complex nature of the company's technology and its application in food production means that quality control depends on multiple factors, including customer handling, storage practices, and end-user preparation methods, all of which are beyond the company's direct control.
- **Evolving consumer preference.** STKH's success is inherently tied to consumer acceptance of alternative proteins, a market segment that remains subject to evolving consumer preferences and potential shifts in dietary habits. The company's business model assumes continued and growing consumer interest in plant-based and hybrid protein products, but this demand could fluctuate, or decline based on various factors including health perceptions, nutritional preferences, economic conditions, and changing social trends. While current market trends favor alternative proteins, consumer sentiment could shift away from these products due to concerns about ingredients, processing methods, or a return to traditional protein sources. The company's significant investment in alternative protein manufacturing technology could be adversely affected if consumer interest in meat alternatives wanes or if competing protein alternatives gain greater market acceptance. Furthermore, as a B2B technology provider, the company faces a double layer of market risk - both in terms of consumer acceptance of alternative proteins and its customers' success in marketing these products to end consumers. Any significant shift in consumer preferences away from alternative proteins could materially impact the company's growth prospects and financial performance, particularly given its focused strategy in this specific market segment.