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Key Takeaways and Projections

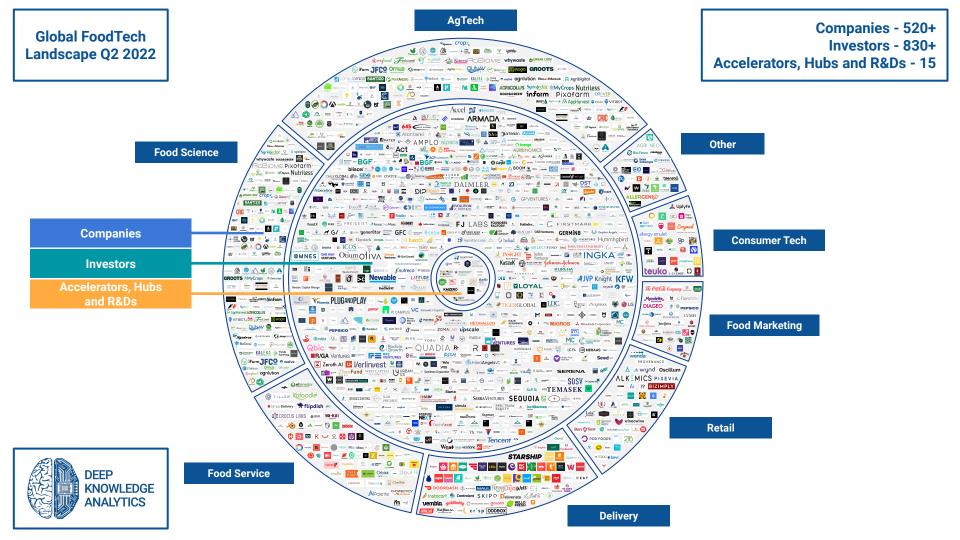
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Introduction

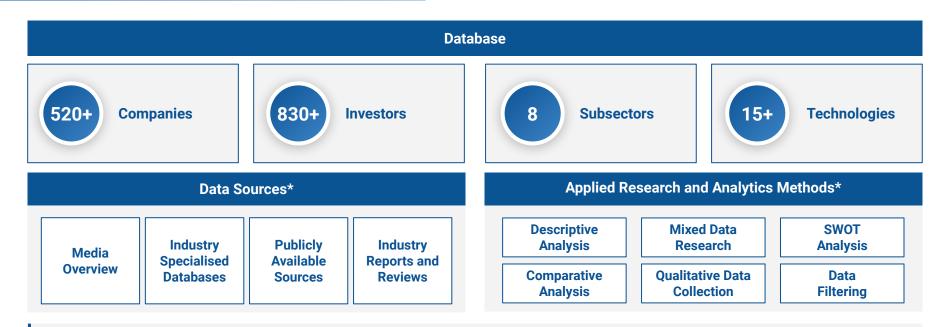
Deep Knowledge Analytics has prepared the next generation interactive report 'Global FoodTech Landscape Q2 2022'. The report includes a collection of advanced analytics on the FoodTech sector, an overview of technologies, and case study that explore FoodTech solutions implementations. The goal of the report is to provide readers with a comprehensive understanding of the current state of the FoodTech sector, as well as its future potential. This is a one-stop resource for anyone with an interest in the FoodTech sector.

We are dedicated to giving businesses access to the most reliable and up-to-date data on emerging trends and key industry insights. Our report offers a wealth of valuable information and analysis on the major opportunities, challenges, and trends that are currently shaping the food tech sector. Drawing on extensive research across a variety of primary and secondary sources, this comprehensive report provides unique insights into topics like food safety, product innovation, automation, intelligent supply chains, digital health promotion, sustainability initiatives, and much more.

FoodTech is unlocking the large and underpenetrated food market. This report profiles 520+ FoodTech companies, 830+ investors, and 15 Accelerators, Hubs and R&Ds based on their innovation potential and business activity across the globe.



Report Methodology and Approach



Containing a comprehensive overview of the FoodTech Industry, the report relies on various research methods and analytics techniques. Although there are varying views on the definition of FoodTech, our definition is based on industry research, ecosystem feedback, and expert advice. Deep Knowledge Analytics is not responsible for the quality of the secondary data presented herein; however, we do our best to minimise possible risks by cross-checking data and using different analytics techniques. Please note that we did not deliberately exclude certain companies from our analysis due to the data-filtering method used or difficulties encountered. In fact, the main reason for their non inclusion was incomplete or missing information in the available sources.

Report Methodology and Approach

AgTech: improving farming output and quality using drones, sensors and farm management software. AgTech is also about new farm products, next generation farms and urban farming.

Delivery: answering the delivery challenges in the food industry, with home delivery of groceries, restaurant meals or meals prepared in their kitchens.

Food Marketing: marketing solutions that influence customers' behaviour and purchasing decisions. CPG food and beverage companies are the main representatives of marketing category in the FoodTech industry, generating consumer awareness, brand recognition and stimulating sales.

Consumer Tech: developing services and devices to help the consumer cook, identify the best foods for him and reach his personal goals.

Food Science: developing new ingredients and food products answering the need for more transparency, health and environmental concerns. Products range from market innovations to radical disruptions using revolutionary ingredients.

Food Service: improving the way HoReCa businesses are managed today. They also create the conditions for the restaurant of the future with robotics and cloud kitchens.

Retail: developing solutions for the food retail industry, from the digitalisation of the supply chain to a better in-store shopper experience.

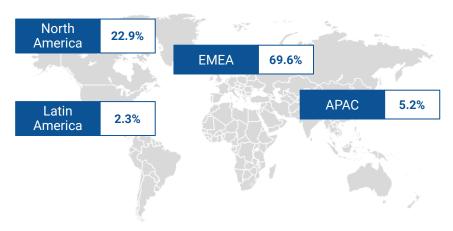
Others: Food Safety and Food Processing, cutting-edge food processing solutions for manufacturers helping preserve the nutritional values and organoleptic qualities.

Subsectors



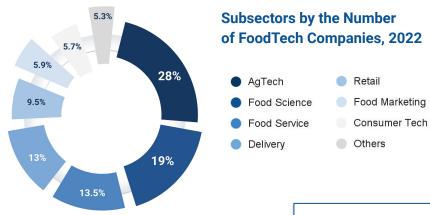
Executive Summary

Regional Distribution of FoodTech Companies, 2022

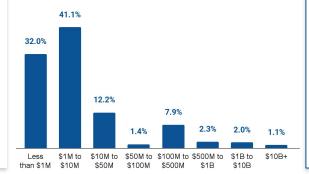


Top 10 Countries by the Number of FoodTech Companies, 2022





FoodTech Companies by Estimated Revenue in 2022, %



Key Trends to Watch in 2022



Alternative Proteins



Food Safety & Transparency



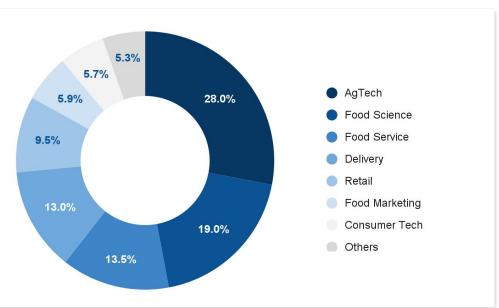
Nutraceuticals



Food Waste Reduction

The State of FoodTech in 2022

Share of FoodTech Companies by Subsector



Technologies and Solutions Used in FoodTech

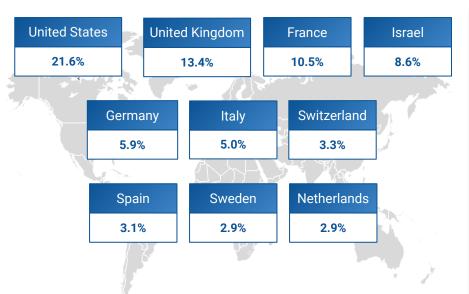
Advanced Analytics	Artificial Intelligence	Automation	
Big Data	Blockchain	E-Commerce	
Intelligent Data Analysis	Internet of Things	Machine Learning	
Robotics	Sustainability & Waste Management	Software and Platform	
Supply Chain Management	Sensing Technology	Biotech	

AgTech is the largest category, comprising 28% of all analysed companies. This subsector includes such companies as <u>Agribody Technologies</u>, <u>Augmenta</u>, <u>Caulys</u> aiming to bridge the gap between agriculture and technologies. The second and the third biggest types are Food Science (e.g. <u>BUG</u> and <u>Flying SpArk</u>) and Food Service (e.g. <u>Choco</u> and <u>Deliverect</u>), with a 19% and 13.5% share, respectively.

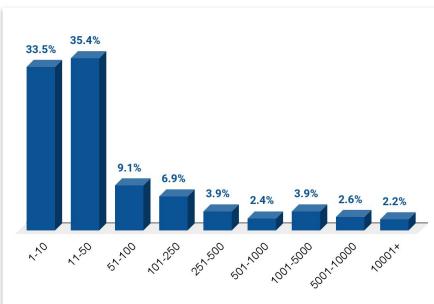
Deep Knowledge Analytics Sources: DKA Database

The State of FoodTech in 2022

Top-10 Countries by the Number of FoodTech Companies



Breakdown of FoodTech Companies by Number of Employees

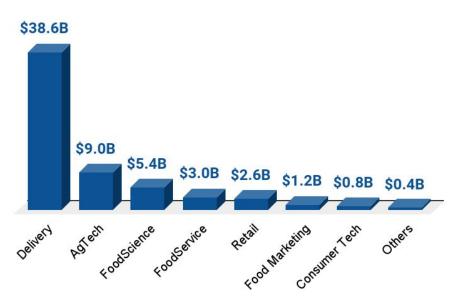


Some 69.6% of FoodTech companies are located in the EMEA region. The second biggest region is North America, with more than a 22.9% share of the analyzed FoodTech companies. The top three countries by the number of analysed companies are the United States (113), the United Kingdom (70), and France (55). According to research, most FoodTech companies are micro-sized enterprises with fewer than 50 employees.

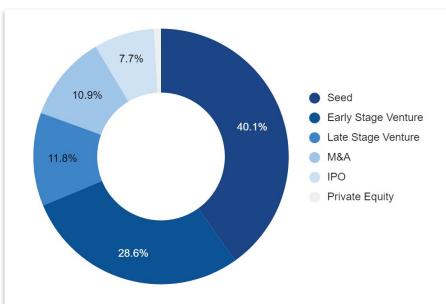
Deep Knowledge Analytics Sources: DKA Database

The State of FoodTech in 2022

Total Funding Amount by Subsector



Funding Status of FoodTech Companies, %



One of the latest trends to emerge is FoodTech, which refers to the use of technology to improve the safety, quality, and efficiency of food production. As of April 2022, \$61 billion had been invested in FoodTech companies globally. While the overall size of the food industry indicates there is plenty of room for growth, the rapid pace of change means that FoodTech companies will need to continue to innovate in order to stay ahead of the curve.

Deep Knowledge Analytics Sources: DKA Database

Four Trends Shaping FoodTech Growth in 2022

As the world continues to grapple with the ongoing pandemic, the food industry is also facing significant challenges. The outbreak of COVID-19 has led to a sharp focus on food safety. In response, startups and brands are beginning to develop new technologies that will enable them to meet these changing needs. Among the most prominent trends in the move towards sustainable and personalised food choices. This includes the development of alternative protein sources, as well as initiatives to reduce food waste and improve food safety.

Alternative Proteins

The ever-growing demand for meat has put a strain on traditional production methods, which are often criticized for their inhumane treatment of animals and negative environmental impact. In response, a number of startups develop sustainable alternative protein sources. 3D printing, fermentation, and molecular biology are just some of the tools being used to create plant-based substitutes for meat that are indistinguishable from the real thing.

Nutraceuticals

One of the key drivers of demand for nutraceuticals is the growing body of scientific evidence supporting their efficacy. Numerous studies have shown that nutraceuticals can provide health benefits against a wide range of disorders, including those related to oxidative stress. The potential health benefits of nutraceuticals are helping to drive demand for these products among consumers who are looking for natural ways to improve their health.

Food Safety & Transparency

As customers now are more thoughtful about the quality of food products they buy, food safety is a significant concern. With smart labels and standalone food grading devices available to customers, it is easy for them to make knowledgeable decisions before choosing food items. Also, advancements in blockchain and real-time food monitoring using the Internet of Things (IoT) devices enable food brands to provide end-to-end traceability.

Food Waste Reduction

A large fraction of the food produced globally is lost or wasted., curbing food wastage is critical to addressing food insecurity. Food entrepreneurs and large corporations now focus on reducing food wastage to minimize environmental footprint and save costs. Food monitoring solutions help food producers, restaurants, and smart cities reduce their food waste. Also, there is a paradigm shift in the way people view food wastage.

Cutting-Edge Technologies in the Food Industry

Robotics

The global Food Robotics market was valued at \$1.5 billion in 2019 and is expected to reach \$3.2 billion by the year 2027, at a CAGR of 11.5%.

In the modern competitive business, the role of robots is becoming significant for industrial applications. The important factor for using robots in the industry aims at reducing human inference and to increase the productivity.

The shortage of manpower led the global industry to use more robots and it enhanced the annual growth rate of robots globally.











Al

The artificial intelligence in the food and beverage market was valued at 3.07 billion in 2020 and is expected to reach \$29.94 billion by 2026 at a CAGR of over 45.77% during the forecast period, (2021 - 2026).

Changes in consumer demands toward preferring fast, affordable, and easily accessible food options have led to a transformation in the food and beverage industry, with market leaders leveraging advanced technologies, such as artificial intelligence and machine learning to scale operations and help companies stay relevant in a dynamic market environment.











Blockchain

The global blockchain in agriculture and food supply chain market size was estimated at \$133 million in 2020; it is projected to grow at a CAGR of 48.1% to reach \$948 million by 2025.

Blockchain technology is expected to bring multiple benefits to the multiple players in the food industry. First, supply chains can revitalize their management and handling, as they will have detailed information on member profiles, which provides a higher level of certainty over the safety of food. The proof of this to the consumer is by implementing QR codes and product labeling.











Upcoming Events 2022



Anuga FoodTec April 26 - 29, 2022, Cologne or online



Food 4 Future May 17 – 19, 2022 Bilbao, Spain



FoodHack Summit May 12-13, 2022, Switzerland



Future Food-Tech September 22 – 23, 2022 London, UK



Milan
June 14-15, 2022, Milan



Web Summit November 1-4, 2022, Lisbon



Digital Food & Beverage 2022 July 25-26, 2022, Austin



Fi Europe 2022 December 6-8, 2022, Paris

Predictions

The global FoodTech business would be valued at \$342.5 billion by 2027. Growth of eCommerce platforms and increasing adoption of advanced technologies by food processing industries are projected to be key drivers for FoodTech over the next 5 years.

FoodTech will see even more funding in 2022, following record levels of investment the previous year. Substantially larger rounds are expected at both the seed and later stages as the industry and individual firms mature. Also a higher number of initial public offerings (IPOs) and acquisitions are anticipated.

- Key trends in 2022: Alternative Proteins, Food Safety & Transparency, Nutraceuticals, Food Waste Reduction.
- The Alternative Proteins market is expected to grow at a CAGR of 12.4% during 2022-2029 and reach \$36.6 billion, driven by the increasing number of venture investments in alternative protein companies, innovations in food technology, and the environmental sustainability benefits of alt-protein.
- The global Food Traceability market size reached \$4.5 Billion in 2020 and is expected to rise to \$9.9 billion by 2028, driven by rising demand for food traceability systems to identify necessary documentation and tracking for each stage of food processing.
- The global **Food Robotics market** was valued at \$1.5 billion in 2019 and is expected to reach \$3.2 billion by the year 2027, at a CAGR of 11.5%. The North America region accounted for the largest share of the market in 2019, owing to the food safety regulations and the increasing labor costs in the region.

\$342.5B

The FoodTech Market by 2027

\$36.6B

The Alternative Proteins Market by 2029

\$9.9B

The Food Traceability Market by 2028 \$3.2B

The Food Robotics Market by 2027

\$30B

Al in the Food and Beverage Market by 2026 \$948M

Blockchain in Agriculture and Food Supply Chain by 2025

Key Findings



The FoodTech Industry can be divided into **8 subsectors, covering all stages of the food value chain** from agriculture to consumption. **AgTech** is the largest FoodTech category, comprising 28% of all analysed companies. The second and the third biggest subsectors are **FoodScience** and **FoodServices** with a 19% and 13.5% share, respectively.

70% EMEA

About 70% of FoodTech companies are located in the EMEA region with such leading countries as the United Kingdom and France. The second biggest region is North America with a 23% share of the analysed FoodTech companies. Developing countries form the untapped potential of the FoodTech Industry prosperity.



Early-stage startups, middle-market enterprises, and publicly traded companies all make up the **diverse ecosystem of the FoodTech Industry**, which is quickly developing. Among them, 73 percent have yearly revenues of up to \$10 million each.



Environmental issues are now the number one global problem for consumers¹. For the entire food sector, **sustainability** is a monumental problem that is fueling a lot of innovation (and the investment to support it, too). Sustainability is a top buying motivation for many consumers, and for others, it is the deciding factor when choosing between items².

Alt-protein sources as an emerging trend:

\$11.1 billion

Alternative protein companies raised in the past decade (2010 – 2021)

\$4.96 billion

The alternative protein industry raised in 2021

\$1.96 billion

Plant-based meat, egg, and dairy companies received in 2021

FoodTech Dashboard: Dynamic 360° Views of the Industry Ecosystem



For companies

Market Research and B2B Matching Tool

- Obtain competitor analysis, product and market research
- Find partners or service providers that specialize in your niche'





For investors

Locate Startups and Take a Closer Look at Them

- Browse FoodTech startups, scale-ups and public companies to invest in or work with
- Analyse industries and companies of interest
- Monitor updates in real time

About Deep Knowledge Analytics

<u>Deep Knowledge Analytics</u> is a DeepTech focused agency producing advanced analytics on DeepTech and frontier-technology industries using sophisticated multi-dimensional frameworks and algorithmic methods that combine hundreds of specially designed and specifically weighted metrics and parameters to deliver sophisticated market intelligence, pragmatic forecasting and tangible industry benchmarking.



It is an analytical subsidiary of <u>Deep Knowledge Group</u>, an international consortium of commercial and non-profit organizations focused on the synergetic convergence of DeepTech and Frontier Technologies (AI, Longevity, MedTech, FinTech, GovTech), applying progressive data-driven Invest-Tech solutions with a long-term strategic focus on AI in Healthcare, Longevity and Precision Health, and aiming to achieve positive impact through the support of progressive technologies for the benefit of humanity via scientific research, investment, entrepreneurship, analytics and philanthropy.

Deep Knowledge Analytics specializes in conducting special case studies and producing advanced industry analytical reports on Artificial Intelligence, GovTech, Blockchain, FinTech and Invest-Tech. It has made many comprehensive analytical reports in coordination with the UK All-Parties Parliamentary Groups on All and Blockchain, including its All in UK Landscape Overview 2018 and Blockchain in UK Landscape Overview 2018, unprecedented in their scope and length and collectively more than 3,000 pages. The company has also recently deployed advanced interactive online IT platforms that feature dynamic mindmaps and filterable, customizable databases updated with new industry developments in real-time.

Deep Knowledge Analytics will continue to expand the scope, depth and topics covered by its analytical reports on frontier technology-driven industries, to develop the subsequent iterations of their analytical frameworks with a broader breadth and depth of metrics and overall analytics, to apply efficient methods to cross-sector analysis between different industries, and to apply both existing and new analytical frameworks to the design of the new Invest-Tech solutions (novel investment technologies and strategies relevant for the third decade of the twenty-first century), which is the only suitable way to implement the long-term strategic vision of Deep Knowledge Ventures.





Link to the Report: www.dka.global/global-foodtech-q2-2022

E-mail: <u>info@dka.global</u> Website: <u>www.dka.global</u>

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