Thematic Intelligence
Medical

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Regulated mHealth Apps

Contents

Executive Summary

mHealth app usage is increasing

Mobile health, often abbreviated as mHealth, is a general term for the use of mobile phones and other wireless technology in medical care. Mobile medical devices, including mHealth apps, have revolutionized the way patients are treated. mHealth apps refer to health apps that are available to download on a mobile device such as a smartphone or tablet. They can be used by either a patient or a healthcare provider, and they encourage patients to take control of their health by tracking their own medical data, accessing their medical records, and communicating with healthcare providers. While there are several categories of mHealth apps, this report will focus on medical apps, which are regulated and generally need a prescription or corresponding device (such as an implantable device) to use. Regulated mHealth apps are approved by the relevant national regulator to act as a medical device. Some devices are clinical focused and other are indication specific. GlobalData forecasts suggest that the regulated mHealth app market will reach sales of $15.6 billion by 2033.

Clinical and indication-specific apps

Regulated mHealth apps are specifically developed for the iOS or Android mobile phone platforms. Clinical-focused apps are mobile-based applications that are used by healthcare professionals to monitor patient health remotely and enable increased access to point-of-care tools, which has been shown to enhance clinical decision-making. Indication-specific apps are made to track precise health metrics outside of clinical settings.

Leaders and challengers

The regulated mHealth app market is split into two categories: clinical-focused apps and indication-specific apps. The leaders and challengers for both categories are outlined below.

Clinical-focused apps

- **Leaders:** Viz.ai, Stryker, BrainLAB, Boston Scientific, eKare, Biofourmis, Philips, Siemens Healthineers
- **Challengers:** Gobiquity, Nephosity, MIM Software, Healthy.io, Cambridge Cognition, Portable Medical Technology, CarePICS, Swift Medical

Indication-specific apps

- **Leaders:** Big Health, Voluntis, Welldoc, Dexcom, Akili Interactive, Biofourmis, Pfizer Australia, Abbott, Boston Scientific
- **Challengers:** Mindable Health, Hygieia, MetaME Health, aidhere, Sonormed, Amalgam RX, Mahana Therapeutics, HiDoc Technologies, Oviva, Kranus Health, My Vision Track, Sivan Innovation

Inside

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Players

The figure below highlights the key players in the regulated mHealth app market and identifies which companies are leaders and which are disruptors.

Who are the leading players in the regulated mHealth apps theme

Source: GlobalData

Thematic Briefing

Mobile health

mHealth refers to the use of mobile devices in healthcare delivery and management. Mobile devices can include smartphones, tablets, wearable devices, and other wireless devices. mHealth encompasses a wide range of applications and services aimed at improving healthcare outcomes, enhancing access to healthcare services, and empowering patients and healthcare providers. Some common mHealth applications include remote patient monitoring, telemedicine services, health education, emergency response and disaster management, and mHealth apps.

Mobile health apps

mHealth apps are software applications designed for mobile devices such as smartphones and tablets that offer various health-related functionalities. These apps cater to a wide range of needs, from general health and wellness tracking to specific medical condition management. Some common categories of mHealth apps include health management apps, medication management apps, and regulated mHealth apps.

Health management apps are generally available to anyone without a prescription. They are among the most popular and accessible types of mHealth apps, and are most often used for health and wellness purposes. Most health management apps are available for consumers to download in order to help them reach their personal goals. They include fitness trackers, calorie counters, mood management apps, sleep management apps, and more.

Medication management apps help patients keep track of their medications. This includes reminding patients when to take them, educating patients on instructions and side effects, and more. Consumers use these apps by downloading them from the app store and then inputting information about the patient and the medication list to ensure the dose and timing instructions are correct. Like health management apps, medication management apps usually do not require a prescription.

Regulated mobile health apps

Regulated mHealth apps refer to mHealth apps that have been approved by the relevant national regulator to act as a medical device. Regulated mHealth apps are specifically developed for iOS or Android mobile phone platforms, and many require a prescription to access. Some regulated mHealth apps are used solely by healthcare providers, while some are used by patients at the instruction of, or in conjunction with, healthcare providers.

Clinical-focused apps

Clinical-focused apps refer to regulated mHealth apps that are used by healthcare professionals. Specifically, there are physician- and nurse clinical-focused apps. Physician-focused apps are intended to be used by physicians, and nurse-focused apps are intended to be used by nurses for decision support and patient record taking.

Clinical-focused apps allow healthcare professionals to monitor the health status of their patients remotely. They also enable increased access to point-of-care tools, which has been shown to enhance clinical decision-making.

Indication-specific apps

Indication-specific apps are made to track precise health metrics thar are extremely specific for a given disease, even outside of clinical settings. Indication specific apps have a wide range of applications and uses, including medication tracking and reminders, telehealth capabilities, diet and water consumption tracking, continuous glucose monitoring, and more. Indication-specific apps include cancer apps, depression apps, irritable bowel syndrome (IBS) apps, obesity apps, type 1 diabetes apps, and type 2 diabetes apps.

Trends

The main trends shaping the mobile health theme over the next 12 to 24 months are shown below. We classify these trends into three categories: technology trends, macroeconomic trends, and regulatory trends.

Technology trends

The table below highlights the key technology trends impacting the mobile health theme.

Trend	What's happening?
Artificial intelligence (AI)	mHealth apps are collecting more patient data than ever before, contributing to large databases of health information. The natural barrier to this is the processing of said information, which has traditionally relied upon healthcare professionals with expert knowledge being available to interpret the data. AI is poised to reduce this burden. Now, machines can learn algorithms to help healthcare professionals make clinical decisions faster and more accurately, or replace the need for them all together. See AI in Medical
Internet of Things (IoT)	The IoT is an umbrella term used to describe the use of connected sensors and actuators to control and monitor the environment, the things that move within it, and the people that act within it. This concept is highly relevant to mHealth apps, which are applications hosted within mobile devices that connect to sensors, probes, medical devices, databases, or other mobile devices through the Internet. See Internet of Things in Healthcare
Cloud	Cloud computing is a fundamental building block of the majority of mobile apps, especially mHealth apps. Cloud storage systems offer increased flexibility, storage, and automation, as well as reduced cost, compared to traditional physical servers. Given these advantages, mHealth apps often store large amounts of patient data using cloud storage systems. Using cloud storage, clinical images can be accessed by multiple doctors, electronic health records (EHRs) can be accessed from any location, and patient-level health and fitness information can be stored and tracked over time, and more. See Cloud Computing in Medical
Cybersecurity	Cybersecurity and data protection are huge concerns in mHealth since many apps and platforms collect and process confidential patient health information. Data breaches in mHealth apps could have serious consequences, ranging from malicious alteration of medical diagnoses to theft of personal health information for malicious purposes, loss of reputation of the healthcare provider, and more. These negative consequences, along with the increasing use of mHealth apps and their concurrent cloud data storage systems, will drive the need for malware protection services and awareness programs. Additionally, ransomware will encourage mHealth apps to engage in storage back-up options. See Cybersecurity in Medical
Wearable tech	Some mHealth apps are closely connected with wearable technology, as many wearables operate through or with an associated app or platform. Integration with wearables and monitoring devices allows for real-time data collection and the tracking of various health metrics, providing valuable insights into patient behavior. Understanding patient-generated data about a patient's fitness, health habits, and cardiovascular performance can provide a robust data set to physicians that can be useful for making clinical decisions. See Wearable Tech in Medical

Trend	What's happening?
Remote patient monitoring (RPM)	RPM is becoming more prevalent as a method to reduce patient monitoring costs while also reducing the intrusiveness of the recovery process for patients. Since the COVID-19 pandemic, RPM has become an essential tool to ease the pressure on healthcare systems, and the growth of RPM technologies has helped to expand the reach of mHealth apps. Patients can access care and healthcare professionals can monitor their health status from anywhere, leading to increased engagement and adherence.

Source: GlobalData

Macroeconomic trends

The table below highlights the key macroeconomic trends impacting the mobile health theme.

Trend	What's happening?
Increasing healthcare costs	Global healthcare expenses have consistently escalated, primarily driven by an aging population, the surge in chronic ailments, and broader healthcare accessibility. These escalating expenses compel healthcare systems to seek cost-efficient strategies without compromising care quality. Mobile health is a viable cost-effective option, utilizing technology to remotely administer interventions, monitor patients in real-time, and advocate preventive healthcare, either independently or in conjunction with conventional services.
Aging population	Many countries are seeing a shift towards aging populations, which typically face higher rates of chronic illnesses like diabetes and cardiovascular issues, straining healthcare systems. mHealth apps are particularly suited for addressing these conditions among older adults. By tailoring interventions to their specific needs and tackling age-related health challenges, mHealth apps can significantly enhance the overall health outcomes for this demographic.
Patient consumerism	The increase in the digital engagement of physicians and healthcare facilities with mHealth apps, wearable technology, RPM, and digital health records is just beginning. Patient consumerism enables the patient to be a knowledgeable and savvy consumer of their medical needs. Because the patient now plays an active role in purchasing and consuming medical services, this means that the patient is a major driver of the medical device industry. The demand for the adoption of these digital services is clear, and physicians and healthcare facilities must keep up. In particular, telemedicine services such as mHealth apps have enabled patient consumerism by increasing patient access to those who may not have a doctor within traveling distance or who may be unable to travel. Telemedicine and mobile health are also beneficial due to their ease of patient use, where the patient does not have to travel to the doctor's office and wait in the waiting room with other potentially ill individuals, and instead remains in the comfort of their own home. While telemedicine cannot fully replace certain instances in which in-person consultations are required, demand for telemedicine will continue to increase due to its convenience and ease of access.
Generation Hashtag	Generation Hashtag is the instant messaging generation and is naturally attuned to virtual communication. These digital natives are innately connected and seeking to connect via online environments for work, socializing, finances, entertainment, and increasingly, healthcare. Generation Hashtag will act to drive the mobile health sector forward as a growing number of patients demand mobile connectivity in every aspect of their healthcare.
Public health emergencies	Public health emergencies, such as the COVID-19 pandemic, can disrupt healthcare systems, shift priorities, and accelerate the adoption of digital health solutions. Public health emergencies emphasize the need for flexible and scalable healthcare solutions. Due to their remote capabilities, mHealth apps can play a critical role in addressing challenges during emergencies by ensuring continuity of care, offering telehealth services, and supporting individuals in managing their health from home.

Source: GlobalData

Regulatory trends

The table below highlights the key regulatory trends impacting the mobile health theme.

Trend	What's happening?
FDA regulation of mobile health	The rapid increase of mHealth apps in recent years has prompted regulatory bodies such as the FDA to explore new oversight options that allow for quick innovation with simultaneous effective monitoring of device safety and efficacy. In 2015, the FDA set out guidelines that categorized mHealth apps as high risk or low risk, and stated its intent to only regulate high-risk apps whose functionality could pose a risk to patient safety. To reach their full, transformational potential, mHealth apps must be accurate and effective enough to warrant use by healthcare practitioners or consumers, and the current FDA guidelines may not be doing enough to ensure this is the case. Broad reviews have revealed that many mHealth apps make clinical claims that lack scientific support, with some even contravening evidence-based guidelines. This is bolstered by the fact that clinical evidence for the efficacy of mHealth apps is sparse, as mHealth apps generally undergo slim, if any, preclinical testing, and post-market assessments are similarly minimal. Following the COVID-19 pandemic, the FDA stated it recognizes that mHealth apps can provide valuable insight and be useful tools for the general public and health officials. Furthermore, low-risk mHealth apps will not be strictly regulated by the policies. The FDA will continue to refine its approach to mobile health regulation, and thus will support the growth of mHealth apps, since patients and healthcare providers will place more trust in apps that are properly regulated.
Software as a medical device	Most mHealth apps rely on smartphones. In Europe, the new Medical Device Regulation and In Vitro Diagnostic Device Regulation includes a Medical Device Software (MDSW) consideration. A software digital health app will qualify as a medical device if it is intended to be used for one or more of the medical purposes specified in the definition of a medical device or *in vitro* diagnostic, which include the diagnosis, treatment, and monitoring of a disease, injury, or disability, among other things. The regulations are still evolving as the technology progresses. Regulations are likely to remain behind technology developments, and are therefore likely to become an impediment or bottleneck to new product launches. However, FDA policies on apps are based on function, not on the platform. The FDA intends to apply its regulatory oversight to only those software functions that are medical devices with a functionality that could pose a risk to a patient's safety if the device were not to function as intended. This is a significant difference from the EU approach, which may consider for regulation any software that is intended to benefit a patient.
HIPAA	The Health Insurance Portability and Accountability Act of 1996 (HIPAA) is US legislation that protects medical data privacy and security. It provides guidelines to ensure compliance related to the security and proper management of confidential information.
General Data Protection Regulation (GDPR)	The GDPR was introduced in the EU in May 2018. It is a regulation in EU law about data protection and the privacy of EU and European Economic Area residents. In the first year of its enforcement, more than 89,000 personal data breach notifications were sent to EU data protection authorities (DPAs), while over 144,000 queries and complaints were made to DPAs by individuals who believed their rights under the GDPR had been violated. Authorities have begun using the powers provided by the GDPR to levy significant fines on noncompliant companies.

Source: GlobalData

Industry Analysis

This section covers how big the theme is, how fast it will grow, its timeline, and how the theme will develop.

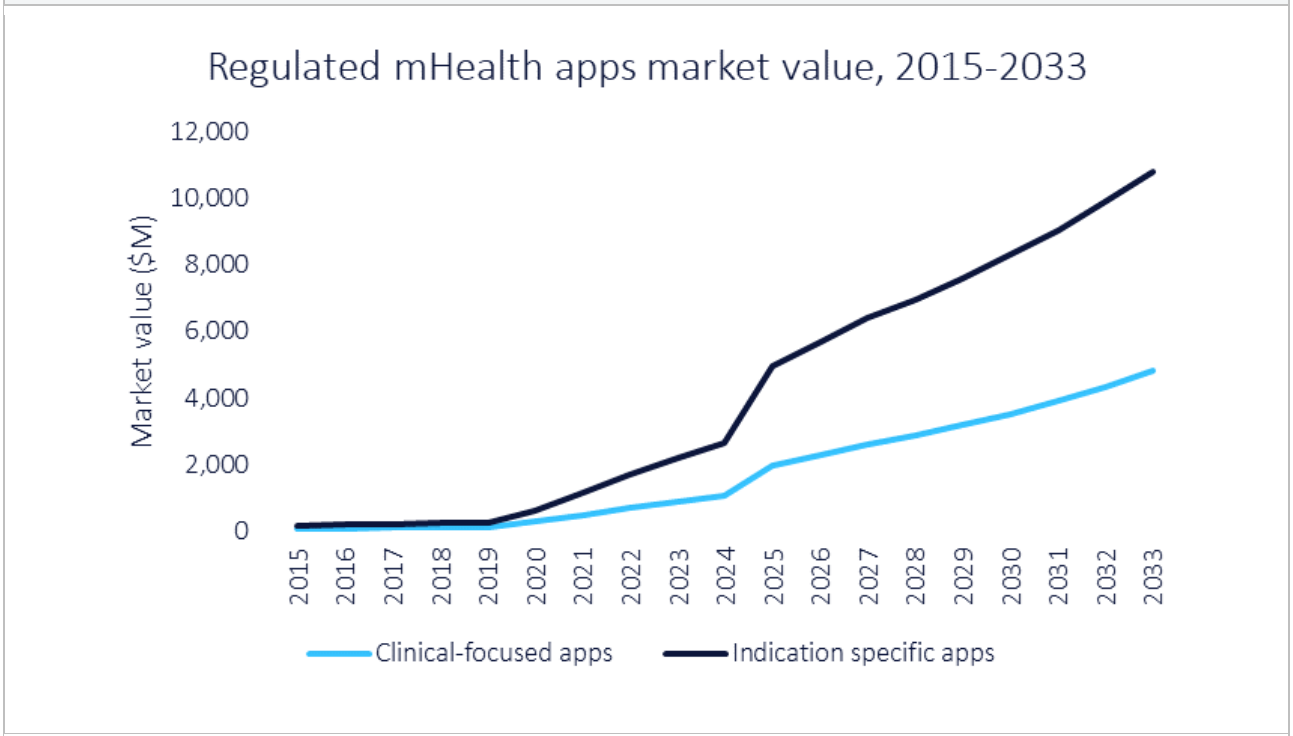
Market size and growth forecasts

The figure below outlines the regulated mHealth market value for 2015–33, showing the difference between the two different types of apps. While indication-specific apps have more value, clinical-focused apps are growing more. This is likely a result of indication-specific apps being more popular and accessible among patients, and a more recent digital shift among hospitals and healthcare professionals.

The regulated mHealth app market has been continuously growing since 2015, but it really picked up in 2020 and 2021, with the numbers doubling and steadily increasing in both categories. The initial spike is likely a result of the COVID-19 pandemic and rapid adoption of digital health tools to flatten the curve, but the usage of digital health devices, including mHealth apps, has not slowed with the end of the COVID-19 pandemic.

GlobalData forecasts that the clinical-focused apps category is at a compound annual growth rate (CAGR) of 18.66% for 2023–33. Specifically, nurse-focused apps have a forecast CAGR of 18.81% and physician-focused apps have a forecast CAGR of 18.06%. Indication-specific apps are forecast to have a CAGR of 17.38% for 2023–33. The total regulated mHealth app market is forecast to reach sales of $15.6 billion by 2033.

The mHealth app market value will reach $15.6 billion by 2033



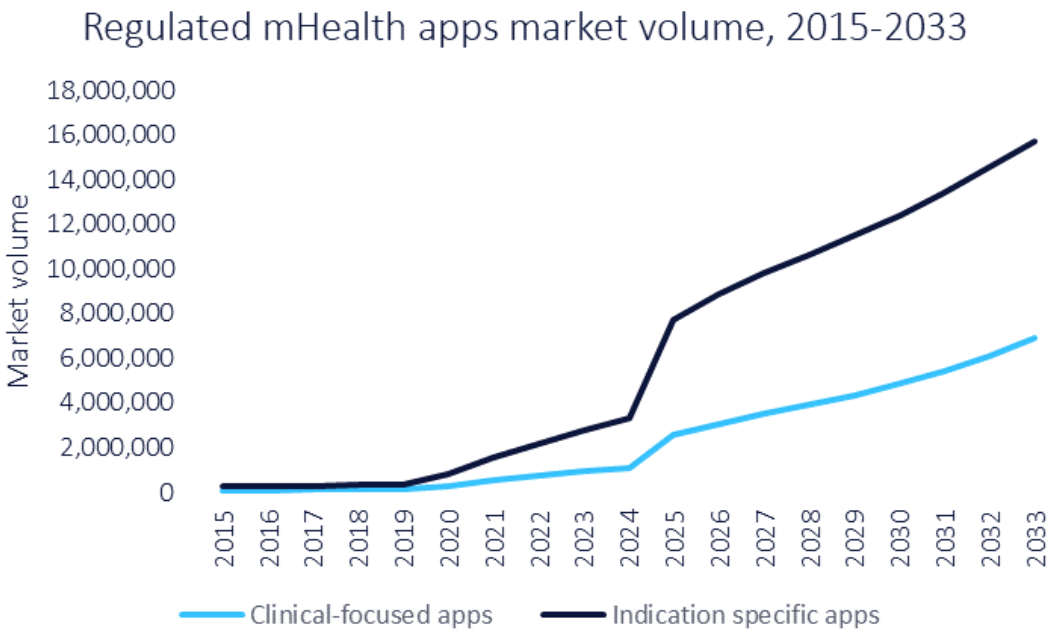
Source: GlobalData

Market volume

Similar to the market value, regulated mHealth app market volume is quickly increasing. The number of apps was steadily growing from 2015–19, but more than doubled from 2019-20. Since then, app volume has been rapidly increasing and will continue to do so until 2033.

GlobalData forecasts that the number of clinical-focused apps on the market will increase to 6.9 million by 2033, with a CAGR of 22.33%. Additionally, the number of indication-specific apps is forecast to reach 15.7 million by 2033, with a CAGR of 19.01%. Of the indication specific apps, the most growth will be in obesity apps (20.68% CAGR) and the least growth will be seen in cancer apps (14.29% CAGR).

Regulated mHealth app market volume will continue to increase through 2033

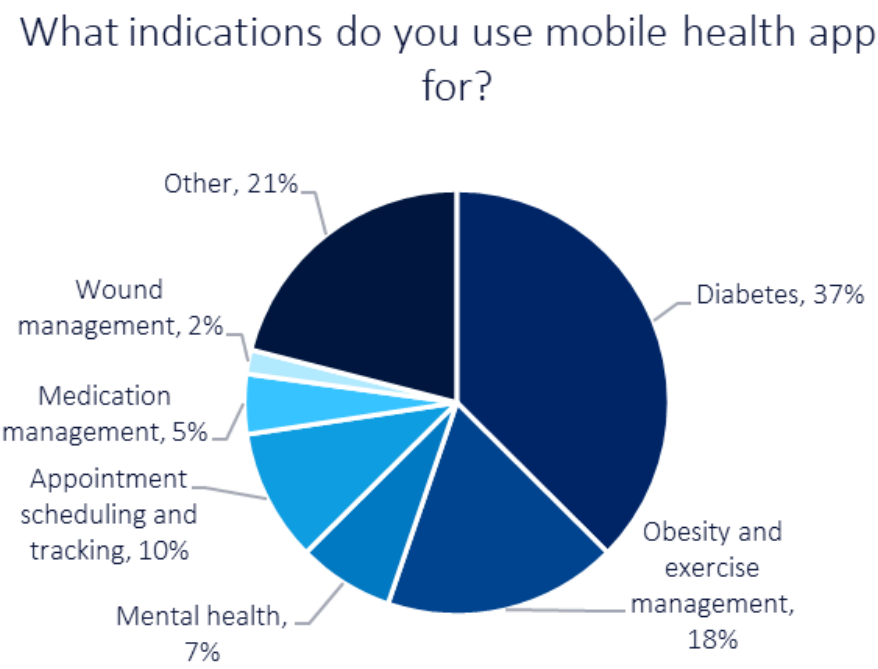


Source: GlobalData

App indications and usage

A recent GlobalData poll (closed March 2024) asked respondents what indications they use mobile health apps for. The poll had 219 respondents. Of those, 82 said they use mHealth apps for diabetes. The second most common response was for “other” indications, but following that was obesity and exercise management, with 39 respondents selecting that answer. According to GlobalData, type 1 and type 2 diabetes apps will see considerable growth during 2023–33 in both market value and volume, as will obesity apps.

Diabetes is the most common indication for mHealth app usage



Source: GlobalData

Timeline

Approximately 50 years ago, the very first phone call on a mobile phone was made by Martin Cooper using the Motorola DynaTAC8000X. Shortly after, mobile phones were much more common, with new brands and variations coming into existence. In 1994, IBM's Simon was the first smartphone released to consumers. Once again, shortly after Simon's release, smartphones became much more popular and common. Since the releases of the first mobile phone and smartphone, technology has only improved.

With smartphones came the development of mobile apps, eventually including mHealth apps. In 2013, analysts estimated that there were over 97,000 mHealth apps across major app stores. As of 2021, there were over 350,000 mHealth apps available across the major app stores. The COVID-19 pandemic caused increased use of digital health tools, including mHealth apps. The major milestones in the Mobile Health journey are set out in the timeline below.

The mobile health story

How did this theme get here, and where is it going?

1973	The first call on a mobile phone was made by Martin Cooper using the Motorola DynaTAX 8000X.
1989	The FDA released its first general policy on regulation of computer or software-based products.
1993	The American Telemedicine Association was founded.
1994	The first smartphone, IBM's Simon, was released to consumers.
2005	The FDA withdrew its software policy, citing a lack of adequacy in addressing software-related regulatory issues.
2006	Dexcom launched its first continuous glucose monitor.
2007	Fitbit was founded.
2007	Apple revealed the first iPhone.
2008	The Apple iTunes Appstore was launched, giving users the ability to download apps from an online store.
2009	Research reports showed the number of physicians using iPhones doubled from 2008–09.
2009	Physicians began using iPhone apps to access AllScripts electronic medical records.
2013	Analysts estimated that over 97,000 mHealth apps existed.
2014	The number of mobile devices exceeded the global population.
2015	Fitness tracking app MyFitnessPal was acquired by Under Armour for $475 million.
2015	The FDA gave AliveCor clearance for two new algorithms which gave automatic ECG feedback to the user.
2015	Pear Therapeutics was founded.
2017	Butterfly Network's mobile ultrasound scanner received FDA clearance.
2018	Siemen's mobile CT scanning platform, SOMATOM Go, received 510(k) premarket clearance.
2018	Pear Therapeutics received FDA clearance for reSET, the first prescription digital therapeutic for substance use.
2019	More than 1.4 billion Apple devices were active globally.
2019	The FDA launched its Software Precertification Program in a test phase.
2020	Telemedicine receives boost in development due to the COVID-19 pandemic.
2020	MyFitnessPal was sold for $345 million to investment firm Franscisco Partners.
2021	More than 350,000 mHealth apps were available in major app stores.
2033	The regulated mHealth app market value will reach $15.6 billion.

Source: GlobalData

Signals

In this section, we use the 180 million signals generated by our thematic engine to predict how the mobile health theme will develop and who the likely leaders are. These signals are a useful source of competitor intelligence in the mobile health market. Our signals include M&As, venture financing deals, patents, company filings, hiring, and social media mentions.

M&A trends

The key M&A transactions associated with the mobile health theme since January 2023 are listed in the table below.

Date announced	Acquirer	Target	Value ($M)	Target company description
Jan 2024	EyecareLive	Visibly	Not disclosed	Provider of optometry-focused telemedicine services
Dec 2023	CoachCare	Verustat	Not disclosed	Healthtech company that offers remote patient monitoring solutions
Dec 2023	Move Health	Lyte Medical	Not disclosed	Provider of virtual primary healthcare services
Dec 2023	Kwangdong Pharmaceutical	BL Healthcare	23.1	Provider of devices and apps that connect patients with healthcare providers
Jul 2023	Axxess	Complia Health	Not disclosed	Provider of technology and expertise for the long-term and post-acute care market
May 2023	Florence Labs	Zipnosis	Not disclosed	Provider of an asynchronous-first virtual care solution
Feb 2023	Molbio Diagnostics	Prognosys Medical Systems	Not disclosed	Provider of digital imaging equipment and telemedicine products
Feb 2023	Oncoclinicas	Cardiomobile Cardiologia	Not disclosed	Provider of medical services in several therapy areas, including telemedicine

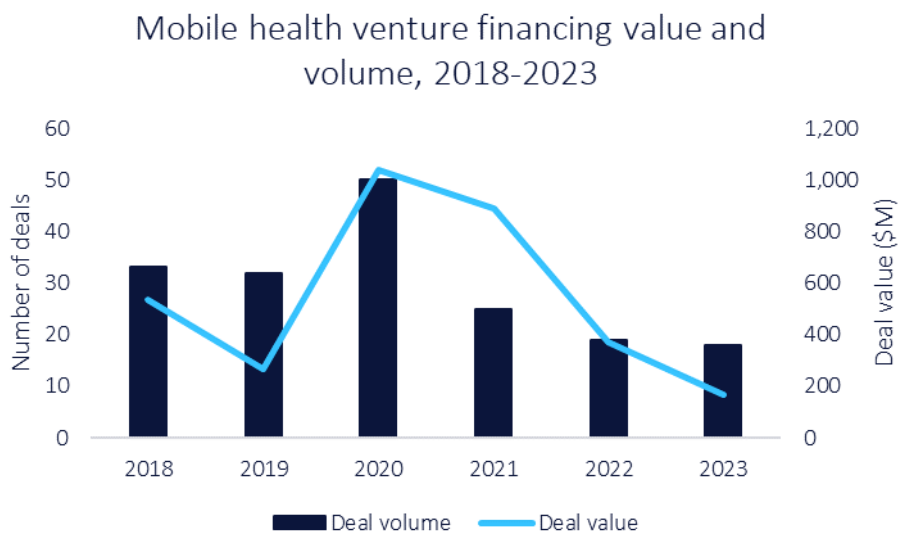
Source: GlobalData © GlobalData

Venture financing trends

The figure below shows the venture financing activity in the mobile health theme over the last five years. Both the deal value and volume peaked in 2020, which could be a result of digital health technology adoption and the beginning of the COVID-19 pandemic. However, after 2020, both value and volume began to fall. Deals remained consistent during 2022–23, but the numbers were still below pre-pandemic deals. While the initial peak of M&A deals saw higher value than the peak in venture financing, the drop in venture financing deal values has not been as drastic as for M&A values.

Venture financing value and volume were highest in 2020

Deal volumes have declined since 2022, but not as much as M&A transactions.



Source: GlobalData

The key venture financing deals associated with the mobile health since the beginning of 2023 are listed in the table below.

Date announced	Company	Amount raised ($M)	Company description
Feb 2024	Cordio Medical	Not disclosed	Provider of speech-based technology that enables remote monitoring of patients for several medical conditions
Feb 2024	HealthSnap	25	Provider of a RPM and chronic care management solution
Jan 2024	Mesh Bio	3.5	A health deep tech startup
Dec 2023	Conexa Saude	5.05	Provider of a digital platform that promotes the connection of patients and healthcare professionals
Dec 2023	Primary Record	1	An early stage company developing an mHealth app to streamline collection and sharing of personal health data

Date announced	Company	Amount raised ($M)	Company description
Nov 2023	Vivodyne	38	Provider of technology services that develops automated robotic drug discovery systems
Nov 2023	Jana Care	6	Provider of a smartphone-based diagnostic system
Oct 2023	SmartCardia	Not disclosed	Developer of an AI platform and ECG patch for cardiology and RPM
Sep 2023	Vivante Health	31	A digital digestive health company
Aug 2023	Luminoah	Not disclosed	A medical technology company that provides a connected nutrition system
Jul 2023	VitalConnect	30	A provider of RPM and in-hospital wearable biosensor technology
Jun 2023	Cecelia Health	3.41	A virtual specialty clinic.
Jun 2023	Ami	6.51	Developer of a telemedicine stethoscope with a heart disease diagnosis assist function
May 2023	UCM Digital Health	1.75	A technology company engaged in providing emergency telemedicine and virtual care solutions
Apr 2023	Scene Health	17.7	Provider of an app for directly observed therapy with video and a platform of adherence tools
Apr 2023	InkWell	0.03	Developer of a RPM system
Apr 2023	Dozee	6	Provider of a RPM and AI-based early warning system for COVID-19 and health deterioration
Mar 2023	Atmo Biosciences	5.3	Developer of solutions for the diagnosis and treatment of gastrointestinal disorders, including an mHealth app for data collection
Feb 2023	Caretaker Medical	7.3	Developer of wireless medical devices for remote patient monitoring and continuous blood pressure monitoring.
Feb 2023	Natural Cycle	7	Developer of a mobile fertility tracking application.

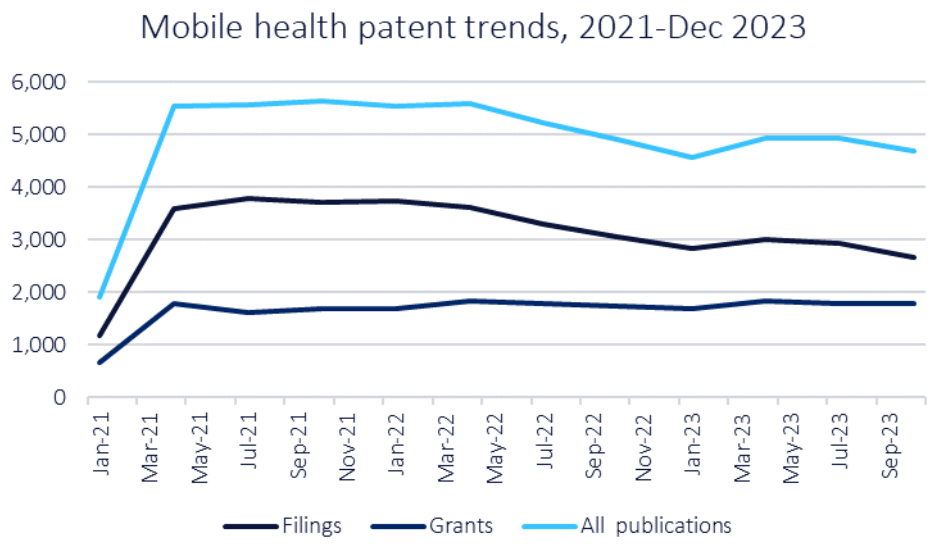
Source: GlobalData

Patent trends

Over the last three years, the patent trends in the mobile health theme have varied slightly. In March 2021, patent activity increased significantly and remained relatively consistent until May of 2022, when activity began to decline. This was likely a result of the rapid adoption of digital health tools in 2021 and 2022. Patent activity remained fairly consistent until December 2023.

The most sub-sectors with the most patents in mobile health are “other RPM” and "healthcare information technology (IT)”. The top three authorities with the most patents in mobile health are the US (19,546), China (11,109), and the European Patent Office (8210).

Patent activity peaked in July 2021

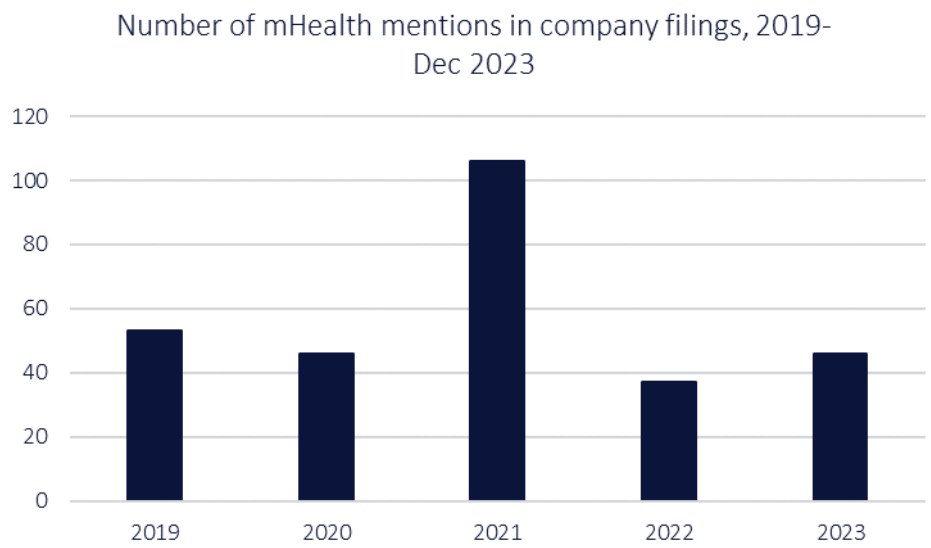


Source: GlobalData

Company filing trends

The figure below outlines the company filing mentions in the mobile health theme. Similar to the patent trends, company filings in mobile health peaked in 2021, more than doubling the previous year's numbers. This is most likely a result of the COVID-19 pandemic and the need for digital health tools, including mHealth apps, to help keep people out of hospitals when possible. While the numbers have since gone down, they are similar to pre-pandemic levels and will likely remain consistent. While the need for mHealth apps may not be as dire as when COVID-19 case numbers were at their highest, the demand is still present and digital health technologies will only gain in popularity and use.

Company filings peaked in 2021

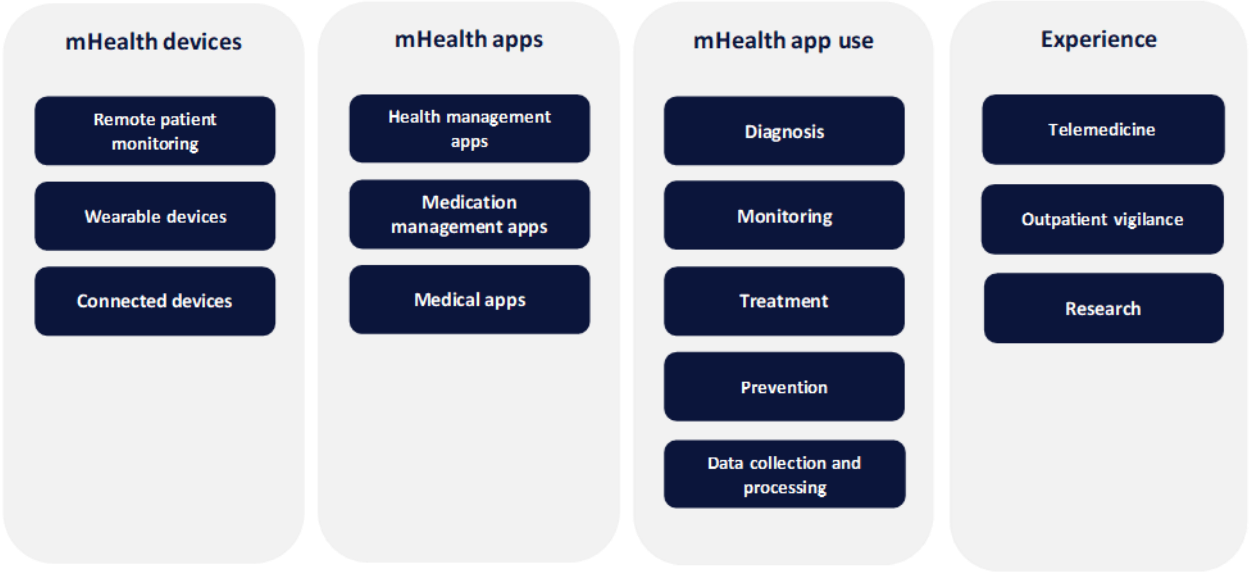


Source: GlobalData

Value Chain

The mobile health value chain is first categorized by devices, as there are several types of medical devices that use mobile health tools. These are RPM devices, wearable devices, and connected devices. While mHealth apps can be used with any type of mHealth device, they are most common among connected devices and wearable devices. mHealth apps are then categorized into three segments: health management apps, medication management apps, and medical apps, which include regulated mHealth apps. mHealth apps are used for a multitude of things, most often surrounding patient diagnosis, monitoring, treatment, prevention, and data collection and processing. Due to the multitude of uses offered by mHealth apps, the experience can be one of telemedicine services, outpatient vigilance, or research.

The mobile health value chain



Source: GlobalData

In the following sections, we will look more closely at each segment of the value chain.

mHealth devices

mHealth devices come in different forms. They can be RPM devices, wearable devices, or connected devices. While RPM devices can include mHealth apps, they also refer to a number of other types of devices such as continuous monitoring devices and implantable devices. Often, RPM devices work in conjunction with an mHealth app, like with continuous glucose monitors. The continuous glucose monitor is on the patient's body, but the monitor results are usually visible through a corresponding mHealth app.

Connected devices and wearable devices also often work together when it comes to mHealth apps. There are some apps that work on wearable devices such as smartwatches, but the app must first be downloaded on the patient's phone for it to work on the watch as well. While this is often the case with mHealth apps, many are still catered to the smartwatch. For instance, different apps may appear different on one's phone versus on their watch, and this is a result of the app being built in such a way that it can be used effectively on a wearable device like a smartwatch. This is especially common with health management apps, as they are consumer based and usually accessible to a large audience. One example is the health and fitness app, MyFitnessPal. MyFitnessPal has a different layout on a smartphone than on a device, such as an Apple Watch, but both are equally as usable. On a smartphone, it has a large overview and different tabs to view things like the user's caloric intake that day, weight, macros, saved meals, and so on. On a device such as an Apple Watch, MyFitnessPal has several pages to swipe through, with the same information but tailored to the watch face, and options to quickly add if the user wishes to add water or food intake.

Connected devices such as a smart phone or a tablet are the most common devices for mHealth use. Regardless of the brand of device, there is an Appstore available where consumers, patients, physicians, and so on are able to download mHealth apps. Connected devices are often the main device needed for mHealth apps. While they may be used alongside other devices like RPM devices or wearable devices, they often need a connected device to operate as intended.

mHealth apps

mHealth apps are segmented into three categories: health management apps, medication management apps, and medical apps, including regulated mHealth apps.

Regulated mHealth apps fall under the medical app category. The category of regulated mHealth apps includes clinical-focused apps, specifically for healthcare professionals such as nurses or physicians, and indication-specific apps. Indication-specific apps can include apps for cancer, diabetes, obesity, and more. Many regulated mHealth apps need a prescription to access, or they are linked to other devices to provide insights.

The mobile health value chain
Regulated mHealth app players

Source: GlobalData

mHealth app use

mHealth apps have a number of different uses depending on the type of app, including diagnosis, monitoring, treatment, prevention, and data collection and processing. Health management apps are most often used for prevention and monitoring, but can also be used for data collection and processing. Many health management apps are wellness-based apps (fitness or sleep trackers, for example), and their purpose is therefore to monitor and improve the user's health and wellness. Medication management apps are usually used for monitoring and treatment, but they can also be used for prevention, as well as data collection and processing. Medical apps have the most uses, as they can be used for diagnosis, monitoring, treatment, prevention, and data collection and processing. Any app's use depends on what the main function of the app is. For instance, the Clarius Ultrasound App is designed to work with a Clarius ultrasound scanner and delivers ultrasound images to one's phone via the app. This would be classified as a medical app, and the purposes of the app are largely diagnostic.

Experience

As there are many different uses for mHealth apps, there are also different experiences with them. The experience of mHealth apps will differ depending on the type and purpose of the app, but generally they are telemedicine, outpatient vigilance, and research. Telemedicine and outpatient vigilance are a result of apps that are diagnosis, monitoring, treatment, and prevention based, whereas research is a result of apps that are data collection and processing based.

Companies

In this section, GlobalData highlights companies making their mark within the mobile health theme.

Public companies

The table below lists some leading listed players associated with this theme and summarizes their competitive position.

Company	Country	Competitive position in the mobile health theme
Boston Scientific	US	Boston Scientific develops and manufactures devices for a range of interventional medical specialties. In the regulated mHealth space, Boston Scientific offers the MyLATITUDE and myLUX apps. MyLATITUDE is an mHealth app for patients and caregivers to deliver information and improve remote monitoring compliance. The app is compatible with several different implantable monitoring devices and provides information such as the status of the implanted device battery, the patient's last scheduled remote follow up, next scheduled transmission, and status of the implanted device. The myLUX apps include both a clinician and patient version. It is designed to help reduce clinic workload, enhance efficiencies, empower patients, and improve compliance. The app connects to the patients implantable cardiac monitor (ICM) and collects and transmits data to the app.
Cambridge Cognition	UK	Cambridge Cognition develops and markets digital health solutions to assess brain health. In the regulated mHealth space, Cambridge Cognition offers CANTAB Mobile, a digital memory screening tool used in primary care settings. The app combines a sensitive touchscreen memory test with a depression screen to differentiate symptoms in patients ages 50–90 years. In March 2024, Cambridge Cognition announced a scientific advisory board. The board consists of experts to provide scientific guidance and market insights focusing on emerging trends. The goal is to help Cambridge Cognition effectively identify market trends and ensure its services and technologies continually adapt to the intricate landscape that life science companies face.
Pfizer	US	Pfizer develops and manufactures biopharmaceuticals for the treatment of various conditions in different therapy areas. In 2022, Pfizer Australia acquired digital health company ResApp Health for $179 million. In doing so, Pfizer also gained control of ResAppDx, an mHealth app to diagnose and measure the severity of a wide range of chronic and acute diseases such as pneumonia, asthma, bronchitis, and chronic obstructive pulmonary disease (COPD).
Philips	Netherlands	Philips offers RPM and mHealth solutions, including multiple apps: IntelliVue GuardianSoftware, Philips Care Assist, Philips NightBalance, Philips IntelliSite Pathology, Philips Venous IVUS Tutor, and Philips Coronary IVUS Tutor. In Philips's 2023 annual report, the company reported a double-digit growth in monitoring within the connected care segment.
Stryker	US	Stryker is a medical technology company that spans several therapy areas including orthopedics, general surgery, and neurology. In 2021, Stryker acquired Gauss Surgical, and in doing so entered into the mHealth space. Stryker now offers several mHealth apps, including Triton, an app for sponge counting and blood loss monitoring.

Source: GlobalData © GlobalData

Private companies

The table below lists some interesting private companies associated with this theme and summarizes their competitive position.

Company	Country	Competitive position in the mobile health theme
Big Health	US	Big Health is an online medical firm that offers personalized behavioral medicine programs for users to manage their health. Big Health offers Sleepio, a digital sleep improvement app that uses cognitive behavioral therapy for insomnia. The company also offers Daylight, an app for people with anxiety. In July 2023, Big Health announced the acquisition of Limbix, creators of the first regulated mHealth app for teens and young adults with symptoms of depression. As a result of the transaction, Big Health's portfolio has expanded to include Spark Direct for people ages 13 years and older who are experiencing symptoms of depression.
Biofourmis	US	Biofourmis is a provider of advanced technology and clinical support for home care and digital therapies. The company offers a Care@Home platform to deliver virtual care for patients with acute, post-acute, and chronic medical conditions; a software-based therapeutic to treat and manage patients with unmet clinical needs. Its decentralized clinical trials solutions provides telehealth, active electronic patient-reported outcomes (ePRO), and passive sensor data collection, and other features.
BrainLAB	Germany	BrainLAB is a medical technology company that develops and manufactures software to help optimize treatment outcomes. BrainLAB's portfolio includes the apps Brainlab KNEE3, which assists surgeons in assessing cutting block position during knee surgery; Brainlab Cognition, which gives healthcare professionals supplementary neurocognitive data on their patients; and TraumaCad Mobile, a medical software for orthopedic surgeons to help plan total joint replacement in advance. In September 2022, BrainLAB acquired Dr. Langer Medical, a developer of intraoperative neuromonitoring solutions. The acquisition has allowed BrainLAB to further differentiate its portfolio and will aid in providing end-to-end workflows for neurosurgery, spine surgery, and innovate in neuromonitoring.
Viz.ai	US	Viz.ai is a healthcare company that provides AI-powered products and solutions. The company provides Viz.ai, an intelligent care coordination platform and app that helps healthcare professionals facilitate emergency treatment using advanced imaging techniques. It provides a HIPAA-compliant texting and calling platform that enables healthcare professionals to coordinate with patients and make immediate treatment decisions.
Voluntis	France	Voluntis offers medical software solutions and designs digital therapeutics (DTx) solutions for people suffering from chronic and rare diseases. The company's therapeutic areas include oncology and chronic conditions, such as diabetes and coagulation. Voluntis's portfolio includes the mHealth app Insulia, which is designed for patients with type 2 diabetes and supports insulin titration for people using any brand of basal insulin.

Source: GlobalData © GlobalData

Sector Scorecard

At GlobalData, we use a scorecard approach to predict tomorrow's leading companies within each sector. Our sector scorecards have three screens: a thematic screen, a valuation screen, and a risk screen.

Mobile health is a theme that impacts many of the sectors we cover. In this section, we focus specifically on the medical devices sector.

Medical devices sector scorecard

Who's who

Who does what in the medical devices space?

Medical Devices
(34 companies)

Company	Ticker	Sector	MKT CAP (US$ M)	Country	Description
3M	MMM	Medical Equipment	59,088	USA	Technology company that creates electronic devices and products
Abbott	ABT	Medical Equipment	191,859	USA	Designs, manufactures and markets medical products relational to orthopedic and surgical products
Agilent Tech	A	Measurement equipment	43,211	USA	Manufacturer of bioanalytical and measurement systems
Alphabet	GOOGL	Internet ecosystems	1,880,194	USA	Internet ecosystem monetised by advertising, primarily through the Google search engine
Apple	AAPL	Mobile phones	2,660,327	USA	Internet ecosystem monetised by the sale of proprietary hardware (smartphones and computers)
Baxter	BAX	Medical Supplies	21,298	USA	Offers diagnostic services for human infusion, respiratory therapies, ultrasound and echo cardiography
Becton Dickinson	BDX	Medical Equipment	71,142	USA	Manufactures eyecare products
Biotronik	Unlisted	Medical equipment	Unlisted	Germany	Biomedical technology company
Boston Scientific	BSX	Medical Equipment	99,205	USA	Provide medical tech for imaging, lab diagnostics and reading solutions for health care applications
Coloplast	COLO B	Medical Supplies	28,602	Denmark	Provides diagnostic, detection and information systems for veterinary food and water testing applications
Danaher	DHR	Industrial conglomerate	188,476	USA	Manufacturer of medical, professional, commercial and industrial products.
DexCom	DXCM	Medical Supplies	51,343	USA	Develops and markets advanced medical devices such as orthopaedics, endoscopy and wound management
Edwards Lifesciences	EW	Medical Supplies	56,396	USA	Develops, manufactures and markets products for chronic acute medical conditions
Garmin	GRMN	Wearable tech	28,247	Switzerland	Manufacturer of navigation and comms devices - esp. GPS
GE HealthCare	GEHC	MedTech	40,859	USA	Medical technology company spun off from General Electric in 2023
Getinge	GETI B	Medical Equipment	5,012	Sweden	Produces and sells medical products for the treatment of neurological disorders
Illumina	ILMN	MedTech	21,807	USA	Manufacturer of life science equipment used for gene sequencing
Intuitive Surgical	ISRG	Surgical robots	139,678	USA	Manufacturer of surgical robotic systems
Johnson & Johnson	JNJ	Pharmaceuticals	374,071	USA	Researches, develops, manufactures and sells pharmaceutical products, medical devices and consumer products.
Medtronic	MDT	MedTech	110,316	Ireland	Developer of therapeutic and diagnostic medical products
MicroPort	853	Medical equipment	1,536	China	Medical device developer and manufacturer
Nihon Kohden	6849	Medical Equipment	2,378	Japan	Develops, manufactures and sells medical equipment
Omron	6645	Robotic components	7,737	Japan	Manufacturer of electronic components, equipment and systems used for factory automation.
Philips	PHIA	MedTech	18,339	Netherlands	Manufacturer of medical systems and lighting products (sold its TV and consumer businesses in 2013)
Qiagen	QIA	Medical Supplies	9,706	Netherlands	Global provider of sample to insight solutions to transform biological materials into valuable molecular sights
Quest Diagnostics	DGX	Medical Equipment	14,314	USA	Provider of diagnostic information services to patients and physicians
Roche	ROG	Medical Supplies	207,779	Switzerland	Biotechnolog y company that develops drugs and diagnostics to treat major diseases.
Siemens Healthineers	SHL	Health Care Providers	67,473	Germany	Provider of medical solutions
Smith & Nephew	SN.	Medical Equipment	11,497	UK	Develops, produces and sells personal care products
Stryker	SYK	Surgical robots	134,089	USA	Manufacturer of robotic orthopedic solutions
Teleflex	TFX	Medical Supplies	10,397	USA	Develops, produces and sells dental implants that are implantable in the jaw
Terumo	4543	Medical Equipment	28,214	Japan	Manufactures products for ostomy, incontinence, mastectomy, wound healing and skin care
Thermo Fisher Scientific	TMO	Medical Equipment	222,339	USA	Develop therapeutic and diagnostic medical products for heart and movement conditions
Zimmer Biomet	ZBH	Medical Equipment	26,087	USA	Develop, manufacture and market specialty surgical products including navigation

Source: GlobalData

Source: GlobalData © GlobalData

Thematic screen

Our thematic screen ranks companies based on overall leadership in the 10 themes that matter most to their industry, generating a leading indicator of future performance

Medical Devices
(34 companies)

Company	MKT CAP (US$ M)	Ticker	Country	Weighting	20% Artificial Intelligence	10% Wearable Tech	10% Cybersecurity	5% Mobile Health	10% Remote Patient Monitoring	15% Internet of Things	5% ESG	10% Digital Health	10% Cloud	5% Augmented Reality	100% Thematic Ranking
Medtronic	110,316	MDT	Ireland		5	4	4	5	5	5	4	5	3	5	1
Apple	2,660,327	AAPL	USA		5	4	4	5	5	5	2	4	4	5	2
Johnson & Johnson	374,071	JNJ	USA		5	4	4	4	4	5	4	4	4	5	3
Abbott	191,859	ABT	USA		4	5	3	5	5	5	3	5	4	4	4
GE HealthCare	40,859	GEHC	USA		5	4	3	3	5	4	5	4	5	5	5
Roche	207,779	ROG	Switzerland		4	4	4	4	4	5	5	4	5	4	6
Philips	18,339	PHIA	Netherlands		4	3	4	4	5	4	4	4	5	5	7
Alphabet	1,880,194	GOOGL	USA		5	4	5	5	4	2	3	4	5	4	8
Siemens Healthineers	67,473	SHL	Germany		4	3	3	4	4	5	3	4	5	4	9
DexCom	51,343	DXCM	USA		4	4	3	5	5	5	3	4	4	1	10
Baxter	21,298	BAX	USA		4	4	3	4	5	5	3	3	4	3	11
Boston Scientific	99,205	BSX	USA		4	4	3	4	4	4	3	4	4	5	12
3M	59,088	MMM	USA		5	4	3	4	3	3	5	3	5	4	13
Nihon Kohden	2,378	6849	Japan		5	4	3	2	4	4	3	3	3	5	14
Zimmer Biomet	26,087	ZBH	USA		5	4	1	4	5	3	3	4	3	5	15
Becton Dickinson	71,142	BDX	USA		4	4	3	1	4	4	3	3	5	4	16
Omron	7,737	6645	Japan		4	3	2	4	5	5	3	4	2	4	17
Intuitive Surgical	139,678	ISRG	USA		4	3	3	3	3	4	3	4	5	3	18
Stryker	134,089	SYK	USA		4	4	3	2	3	4	2	4	4	5	19
Thermo Fisher Scientific	222,339	TMO	USA		4	2	3	3	3	4	3	3	4	5	20
Illumina	21,807	ILMN	USA		4	3	3	3	3	3	3	3	5	1	21
Smith & Nephew	11,497	SN.	UK		4	4	3	3	3	2	3	4	2	4	22
Agilent Tech	43,211	A	USA		4	3	3	3	3	3	3	2	3	4	23
Qiagen	9,706	QIA	Netherlands		4	3	2	3	3	3	3	3	4	2	24
Garmin	28,247	GRMN	Switzerland		1	5	2	4	4	4	3	3	4	3	25
Biotronik	Unlisted	Unlisted	Germany		2	4	2	4	4	5	3	4	1	1	26
Quest Diagnostics	14,314	DGX	USA		4	3	1	2	3	3	4	2	3	3	27
Getinge	5,012	GETIB	Sweden		2	2	1	2	2	5	3	3	4	5	28
Danaher	188,476	DHR	USA		2	2	3	3	3	3	3	2	3	3	29
Edwards Lifesciences	56,396	EW	USA		1	3	2	2	2	4	4	2	3	5	30
Teleflex	10,397	TFX	USA		1	3	3	1	3	3	3	3	2	1	31
MicroPort	1,536	853	China		1	3	1	1	2	4	3	3	2	4	32
Coloplast	28,602	COLO B	Denmark		1	3	1	3	3	3	4	2	2	3	33
Terumo	28,214	4543	Japan		1	3	1	1	2	3	3	2	2	3	34

Source: GlobalData

Thematic Screen

Thematic leader

Thematic laggard

Key: 1 (red) implies this theme will have a negative impact on earnings over the next 12 months, 3 (amber) implies a neutral impact, and 5 (green) implies a positive impact. See the methodology section at the end of this report for an explanation of our research methodology.

Source: GlobalData

Valuation screen

Our valuation screen ranks our universe of companies within a sector based on selected valuation metrics

Medical Devices

(34 companies)

Company	MKT CAP (US$ M)	Ticker	Country	Weighting 25% EV/Sales	20% P/E	15% Net margin %	20% P/Book	20% FCF yield %	100% Valuation Ranking
Baxter	21,298	BAX	USA	2.2	8.0	17.9	2.5	4.9	1
Quest Diagnostics	14,314	DGX	USA	2.0	16.8	9.2	2.3	6.0	2
Johnson & Johnson	374,071	JNJ	USA	4.5	10.6	41.3	5.4	4.9	3
Getinge	5,012	GETI B	Sweden	1.8	21.9	7.6	1.8	3.0	4
Omron	7,737	6645	Japan	1.2	15.6	8.4	1.6	0.7	5
Zimmer Biomet	26,087	ZBH	USA	4.3	25.5	13.8	2.1	3.4	6
Philips	18,339	PHIA	Netherlands	1.2	-36.5	-2.6	1.4	9.5	7
Garmin	28,247	GRMN	Switzerland	5.0	21.9	24.7	4.0	4.2	8
Medtronic	110,316	MDT	Ireland	4.1	29.4	12.0	2.1	4.2	9
Teleflex	10,397	TFX	USA	4.0	29.2	12.0	2.3	4.0	10
Roche	207,779	ROG	Switzerland	3.5	16.0	19.6	6.3	2.8	11
Nihon Kohden	2,378	6849	Japan	1.5	20.7	8.3	2.1	-3.0	12
GE HealthCare	40,859	GEHC	USA	2.5	26.1	8.0	5.7	4.2	13
Qiagen	9,706	QIA	Netherlands	5.2	28.4	17.4	2.5	3.1	14
Alphabet	1,880,194	GOOGL	USA	5.8	25.5	24.0	6.6	3.7	15
Smith & Nephew	11,497	SN.	UK	2.6	43.7	4.7	2.2	1.6	16
Apple	2,660,327	AAPL	USA	7.1	27.4	25.3	42.8	3.7	17
Danaher	188,476	DHR	USA	8.4	39.6	19.9	3.5	3.1	18
Abbott	191,859	ABT	USA	5.0	33.5	14.3	5.0	2.6	19
Thermo Fisher Scientific	222,339	TMO	USA	5.8	37.1	14.0	4.8	3.1	20
Siemens Healthineers	67,473	SHL	Germany	3.6	41.4	7.0	3.5	2.1	21
Agilent Tech	43,211	A	USA	6.5	34.8	18.1	7.4	3.4	22
Becton Dickinson	71,142	BDX	USA	4.4	47.9	7.7	2.8	3.0	23
3M	59,088	MMM	USA	2.1	-8.4	-21.4	12.3	8.6	24
MicroPort	1,536	853	China	2.8	-3.5	-51.9	1.4	-37.7	25
Stryker	134,089	SYK	USA	7.0	42.4	15.4	7.2	2.3	26
Terumo	28,214	4543	Japan	5.2	47.1	10.9	3.8	1.1	27
Edwards Lifesciences	56,396	EW	USA	9.2	40.2	23.4	8.5	1.1	28
Coloplast	28,602	COLO B	Denmark	8.8	41.0	19.5	11.3	1.5	29
Boston Scientific	99,205	BSX	USA	7.6	62.3	11.2	5.1	1.8	30
Illumina	21,807	ILMN	USA	4.9	-18.8	-25.8	3.8	1.3	31
Intuitive Surgical	139,678	ISRG	USA	18.9	77.7	25.2	10.5	0.5	32
DexCom	51,343	DXCM	USA	14.1	94.8	14.9	24.8	1.0	33
Biotronik	Unlisted	Unlisted	Germany						34
Median				**4.4**	**27.9**	**12.9**	**3.8**	**3.0**	
Mean				**5.1**	**27.6**	**10.4**	**6.2**	**1.8**	

Source: GlobalData

Cheap

Expensive

Key: 1 (red) implies this theme will have a negative impact on earnings over the next 12 months, 3 (amber) implies a neutral impact, and 5 (green) implies a positive impact. See the methodology section at the end of this report for an explanation of our research methodology.

Source: GlobalData

Risk screen

Our risk screen ranks companies within a particular sector based on overall investment risk

Medical Devices

(34 companies)

Company	MKT CAP (US$ M)	Ticker	Country	Weighting	Risk Screen 40% Operational Risk	30% Financial Risk	15% Industry Risk	15% Country Risk	100% Risk Ranking
Edwards Lifesciences	56,396	EW	USA		4	4	4	5	1
Intuitive Surgical	139,678	ISRG	USA		4	4	4	4	2
Roche	207,779	ROG	Switzerland		4	3	4	5	3
Johnson & Johnson	374,071	JNJ	USA		4	3	4	4	4
Apple	2,660,327	AAPL	USA		5	3	3	4	5
Quest Diagnostics	14,314	DGX	USA		4	3	3	5	6
Alphabet	1,880,194	GOOGL	USA		4	4	3	4	7
Thermo Fisher Scientific	222,339	TMO	USA		4	3	4	4	8
Abbott	191,859	ABT	USA		4	3	4	4	9
Omron	7,737	6645	Japan		3	4	3	4	10
Siemens Healthineers	67,473	SHL	Germany		4	3	4	3	11
Danaher	188,476	DHR	USA		3	3	4	4	12
Coloplast	28,602	COLO B	Denmark		3	3	4	4	13
Medtronic	110,316	MDT	Ireland		4	3	4	4	14
Nihon Kohden	2,378	6849	Japan		2	4	4	4	15
Terumo	28,214	4543	Japan		3	3	4	4	16
Stryker	134,089	SYK	USA		4	2	4	5	17
3M	59,088	MMM	USA		4	3	3	3	18
Agilent Tech	43,211	A	USA		3	3	4	4	19
Qiagen	9,706	QIA	Netherlands		4	3	4	4	20
DexCom	51,343	DXCM	USA		3	3	4	5	21
Biotronik	Unlisted	Unlisted	Germany		3	3	4	5	22
Philips	18,339	PHIA	Netherlands		3	3	4	4	23
Boston Scientific	99,205	BSX	USA		4	2	4	4	24
Baxter	21,298	BAX	USA		3	3	4	3	25
Illumina	21,807	ILMN	USA		3	3	4	3	26
Becton Dickinson	71,142	BDX	USA		3	2	4	4	27
GE HealthCare	40,859	GEHC	USA		3	2	4	5	28
Getinge	5,012	GETI B	Sweden		3	3	4	3	29
Smith & Nephew	11,497	SN.	UK		3	2	4	4	30
Garmin	28,247	GRMN	Switzerland		3	4	3	3	31
Teleflex	10,397	TFX	USA		3	2	4	3	32
Zimmer Biomet	26,087	ZBH	USA		3	2	4	3	33
MicroPort	1,536	853	China		2	2	4	4	34

Source: GlobalData

Key: Green denotes low risk. Amber denotes medium risk. Red denotes high risk. See the methodology section at the end of this report for an explanation of our research methodology.

Source: GlobalData

Glossary

Term	Definition
Algorithm	A finite sequence of well-defined instructions implemented by a computer to solve a class of problems or to perform a computation
AI	Refers to software-based systems that use data inputs to make decisions on their own
Big data	Extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions
COPD	An umbrella term for lung diseases that obstruct airflow from the lungs, causing difficulty in breathing
Cloud computing	Computing delivered as an online service, which encompasses the provision of IT infrastructure, operating software, middleware, and applications hosted within a data center and accessed by the end user via the internet
Continuous monitoring	An evolution on the current paradigm of intermittent testing that allows for non-stop monitoring of patient vitals to ensure that a patient's disease symptoms are fully managed
Cybersecurity	The practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks
Data analytics	The practice of extracting meaning from raw data using specialized computer systems
Data management	The process of ingesting, storing, organizing, and maintaining the data created and collected by an organization
Digital therapeutics	An intervention-based on software (such as mobile devices, apps, sensors, IoT) to make behavioral and lifestyle changes in patients
European Data Protection Board (EDPB)	An independent European organization that is responsible for ensuring consistent application of the GDPR and also promotes cooperation among the EU's data protection authorities
Fitness bands	An electronic device, usually worn around the wrist, that is embedded with computing power that monitors and records physical activity including walking or running, heart rate, number of calories burned, and sleep
GDPR	A regulation that came into force across the EU in May 2018, giving consumers certain rights and protections over the data that organizations hold on them, including the right to data portability
Generation Hashtag (or digital natives)	Refers to a group of people born between 1991 and 2005, incorporating younger Millennials and older members of Generation Z
Guided health	Conveniences being sought by consumers that make their health goals easier to reach, often using the internet and mobile applications, including functional health products and more transparent nutrition labeling to help guide consumers towards their personal health and wellbeing targets

Term	Definition
Health and wellness	Increasing interest in pursuing healthier lifestyles and maximizing quality of life, leading to health considerations exerting a significant influence on consumers' product choices; products that mitigate against the future prospects of various health problems, attracting a wide variety of consumers and possessing many benefits that can be included in categories that consumers already buy
Healthtech	The application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures, and systems developed to solve a health problem and improve quality of life
IoT	An umbrella term used to describe the use of connected sensors and actuators to control and monitor the environment, the things that move within it, and the people that act within it
Medtech	A broad term referring to the use of digital hardware, sensors, optics, data analytics, and AI to simplify, enhance, and personalize the prevention, diagnosis, monitoring, and treatment of diseases
Platform as a service (PaaS)	The next level of abstraction of cloud computing after infrastructure as a service (IaaS), referring to those aspects of the traditional IT stack that are covered by the operating system, middleware, analytics, and database, with uses that include application development, application testing, data warehousing, business intelligence, and database provision
Remote patient monitoring	Technology allowing for patients' health to be tracked outside of the conventional clinical setting (such as smart inhalers that track patient use via an app and send to the physician)
Sensor	A device that detects or measures a physical property and then responds accordingly
Smart and connected	Refers to today's hyper-connected, technology-enabled society, where consumers seamlessly integrate the use of multiple technologies into their lives and buying behavior
Smartwatches	Computerized wristwatches with several smartphone-like features such as touchscreen interface, cellular connectivity, internet access, health and fitness monitoring, and interoperability with other connected devices
Software as a service (SaaS)	Consists of IaaS plus PaaS and the application that runs on them, usually invoiced on a per-user subscription basis or on a transactional basis; allows users to access applications over the internet that are managed by a third-party vendor without having to download the software locally (such as Salesforce)
Wearable tech	Am umbrella term for electronic devices that can be worn on the body, either as an accessory (like a watch or a pair of glasses) or as part of the material used in clothing (such as sportswear that measures biometrics)

Source: GlobalData

Further Reading

GlobalData reports

Publication date	Report title
February 2024	Thematic Intelligence: DTx in Medical
November 2023	Thematic Intelligence: Internet of Things in Healthcare
October 2023	Thematic Intelligence: AI in Medical
October 2023	Thematic Intelligence: Wearable Tech in Medical
September 2023	Thematic Intelligence: Virtual Care and Telemedicine
July 2023	Thematic Intelligence: Hearables in Medical
July 2023	Thematic Intelligence: AI in Healthcare
April 2023	Thematic Intelligence: EMR Systems
March 2023	Thematic Intelligence: Smart Hospitals
February 2023	Thematic Intelligence: Mobile Health Apps
Source: GlobalData	© GlobalData

Our Thematic Research Methodology

Companies that invest in the right themes become success stories. Those that miss the important themes in their industry end up as failures.

Viewing the world's data by themes makes it easier to make important decisions

We define a theme as any issue that keeps a senior executive awake at night. GlobalData's thematic ecosystem is a single, integrated, global research platform that provides an easy-to-use framework for tracking all themes across all companies in all sectors. It has a proven track record of identifying critical themes early, enabling companies to make the right investments ahead of the competition and secure that all-important competitive advantage.

Traditional research does a poor job of picking winners and losers

The difficulty in picking tomorrow's winners and losers in any industry arises from the sheer number of technology cycles—and other themes—that are in full swing right now. Companies are impacted by multiple themes that frequently conflict with one another. What is needed is an effective methodology that reflects, understands, and reconciles these conflicts.

That is why we developed our thematic engine

At GlobalData, we have developed a unique thematic methodology for ranking all major companies in all major sectors based on their relative strength in the big themes that are impacting their industries.

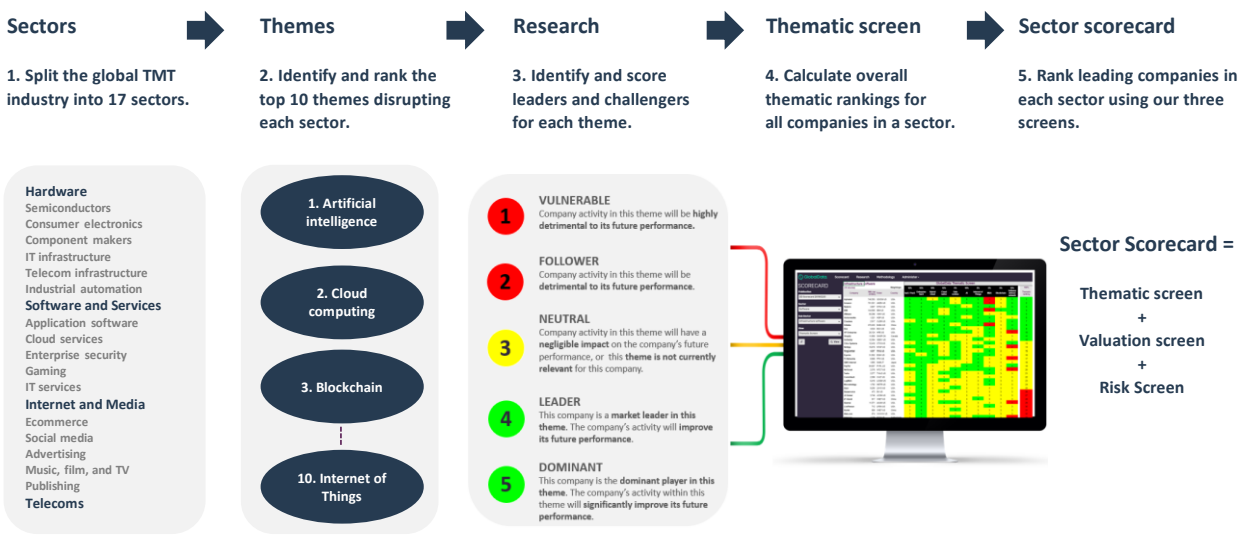
Our thematic engine tags over 180 million data items across six alternative data sets—patents, jobs, deals, filings, social media, and news—to themes. The vast datasets within our thematic engine help our analysts to produce sector scorecards that identify the companies best placed to succeed in a future filled with multiple disruptive threats.

How do we create our sector scorecards?

First, we split each industry into sectors because a different set of themes drives each sector. Taking the technology, media, and telecom industry as an example, we split this industry into the sectors shown in the figure below.

Our five-step approach for generating a sector scorecard

Here we use technology, media, and telecom industry as an example sector for illustration purposes.



Source: GlobalData

Second, we identify and rank the top 10 themes for each sector. These can be technology themes, macroeconomic themes, or industry-specific themes. Third, we publish in-depth research on specific themes, identifying the winners and losers within each theme. The problem is that companies are exposed to multiple investment themes, and specific themes' relative importance can fluctuate. So, our fourth step is to create a thematic screen for each sector to calculate overall thematic leadership rankings after taking account of all themes impacting that sector. Finally, to give a crystal-clear picture, we combine this thematic screen with our valuation and risk screens to generate a sector scorecard used to help assess overall winners and losers.

What is in our sector scorecards?

Our sector scorecards help us determine which companies are best positioned for a future filled with disruptive threats. Each sector scorecard has three screens:

- **The thematic screen** tells us who are the overall leaders in the 10 themes that matter most, based on our thematic engine.
- **The valuation screen** tells us whether publicly listed players appear cheap or expensive relative to their peers based on consensus forecasts from investment analysts.
- **The risk screen** tells us who the riskiest players in each industry are, based on our assessment of four risk categories: operational risk, financial risk, industry risk, and country risk.

How do we score companies in our thematic screen?

Our thematic screen ranks companies within a sector based on overall leadership in the 10 themes that matter most to their industry, generating a leading indicator of future earnings growth.

Thematic scores predict the future, not the past. Our thematic scores are based on our analysts' assessment of their competitive position in relation to a theme, on a scale of 1 to 5:

1	**Vulnerable**	The company's activity in this theme will be highly detrimental to its future performance.
2	**Follower**	The company's activity in this theme will be detrimental to its future performance.
3	**Neutral**	The company's activity in this theme will have a negligible impact on the company's future performance, or this theme is not currently relevant for this company.
4	**Leader**	The company is a market leader in this theme. The company's activity in this theme will improve its future performance.
5	**Dominant**	The company is a dominant player in this theme. The company's activity in this theme will significantly improve its future performance.

How do our research reports fit into our overall thematic research ecosystem?

Our thematic research ecosystem is designed to assess the impact of all major themes on the leading companies in a sector. To do this, we produce three tiers of thematic reports:

- **Single theme**: These reports offer in-depth research into a specific theme (such as AI). They identify winners and losers based on thematic leadership, market position, and other factors.
- **Multi-theme**: These reports cover all themes impacting a sector and the implications for the key players in that sector.
- **Sector scorecard**: These reports identify those companies most likely to succeed in a world filled with disruptive threats. They incorporate our thematic screen to show how conflicting themes interact with one another, as well as our valuation and risk screens.

About GlobalData

GlobalData is a leading provider of data, analytics, and insights on the world's largest industries. In an increasingly fast-moving, complex, and uncertain world, it has never been harder for organizations and decision makers to predict and navigate the future. This is why GlobalData's mission is to help our clients to decode the future and profit from faster, more informed decisions. As a leading information services company, thousands of clients rely on GlobalData for trusted, timely, and actionable intelligence. Our solutions are designed to provide a daily edge to professionals within corporations, financial institutions, professional services, and government agencies.

Unique Data

We continuously update and enrich 50+ terabytes of unique data to provide an unbiased, authoritative view of the sectors, markets, and companies offering growth opportunities across the world's largest industries.

Expert Analysis

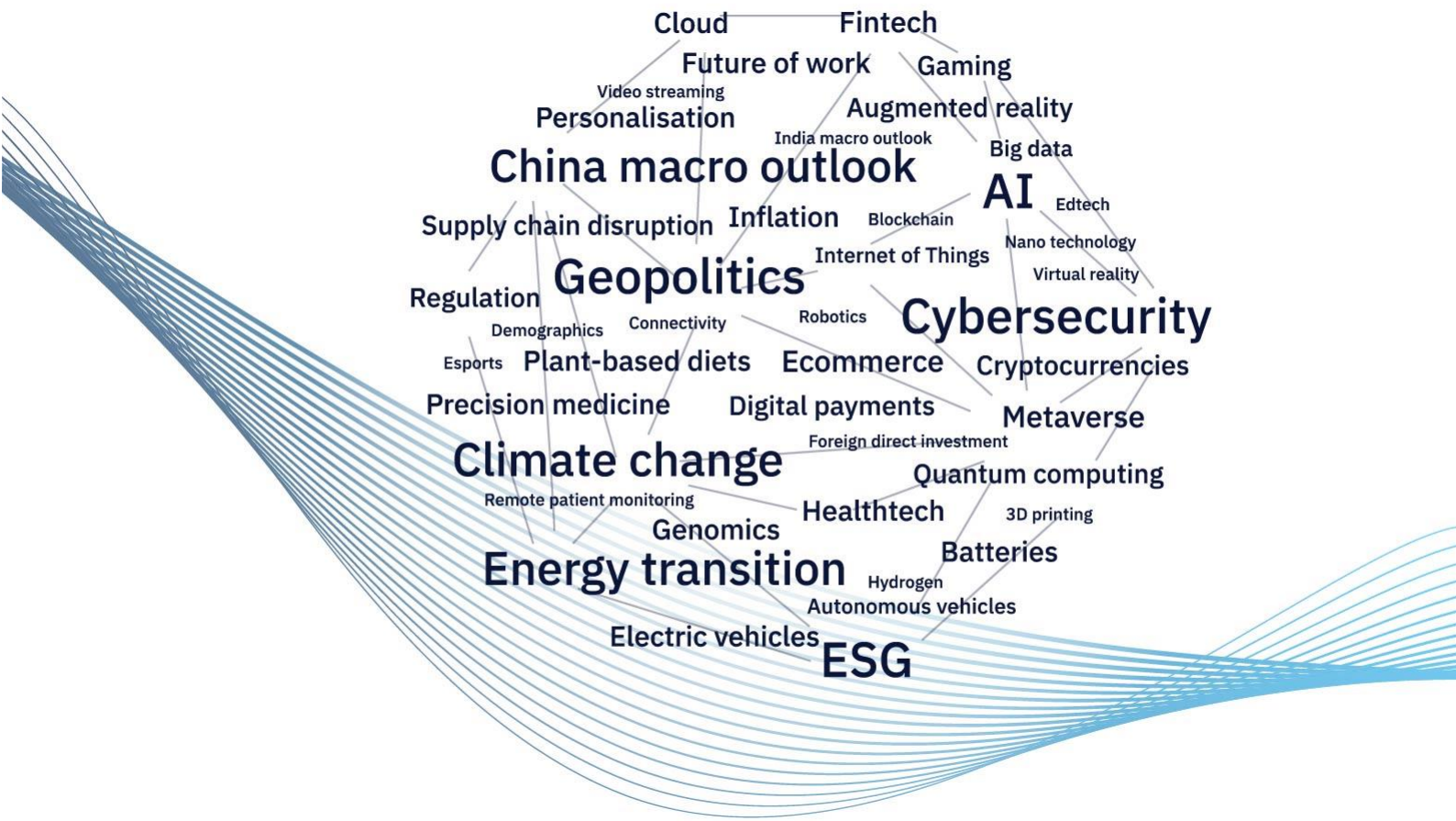
We leverage the collective expertise of over 2,000 in-house industry analysts, data scientists, and journalists, as well as a global community of industry professionals, to provide decision-makers with timely, actionable insight.

Innovative Solutions

We help you work smarter and faster by giving you access to powerful analytics and customizable workflow tools tailored to your role, alongside direct access to our expert community of analysts.

One Platform

We have a single taxonomy across all of our data assets and integrate our capabilities into a single platform, giving you easy access to a complete, dynamic, and comparable view of the world's largest industries.



Contact Us

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