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MedTech Startups in Europe Overview

AGING ANALYTICS & INVESTTECH ADVANCED SOLUTIONS

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Overview Report at a Glance

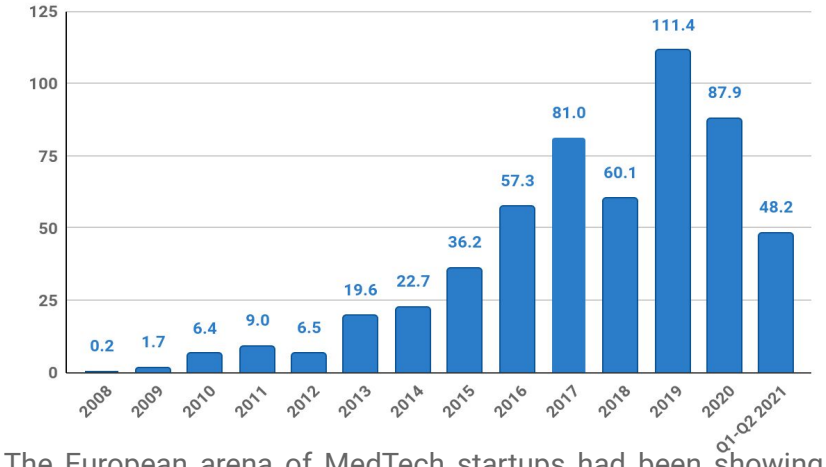
MedTech startups in Europe Overview summarizes essential information about European startups participating in the medical device (MedTech) industry. The medical technology industry (commonly referred to as medical devices) consists of instruments, apparatuses, or machines that are used in the prevention, diagnosis or treatment of illness or disease or for detecting, measuring, restoring, correcting, or modifying the structure or function of the body for some health purpose.

Important notice. The report covers European MedTech startups that **have raised up to €5M** or its equivalent and are **up to Series A in their investment round**. We consider only the startups that are already in clinical trials with their prototype device or beyond. Thus, when referring to Industry in the report, it means only its part that fits the conditions.

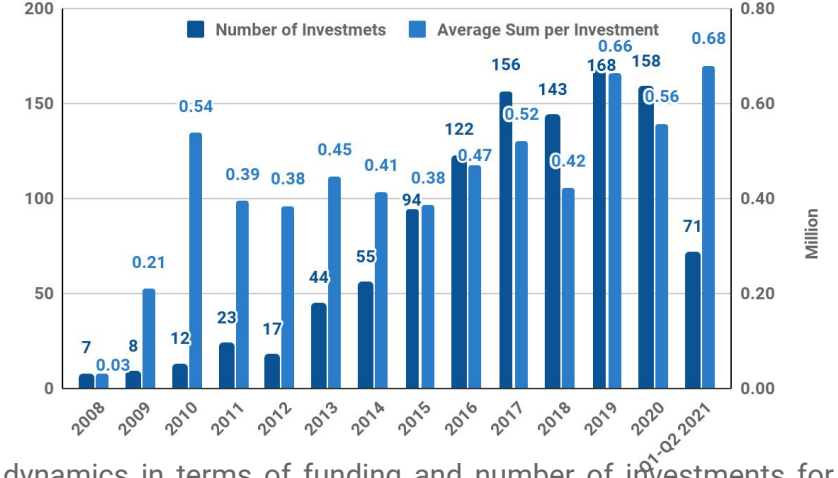
The report shows information about **530 startups distributed across 29 out of 50 European countries**. This overview analyses them in terms of funding dynamics and country distribution and summarizes the biggest MedTech deals in 2021 and key sector investors. We also provide startups' categorisation and their split in sub sectors to provide a more detailed overview. Additionally, we spotlight prominent companies for initial screening in investment decision making.

INDUSTRY OVERVIEW

Funding Up to Series A Round by Years, M €



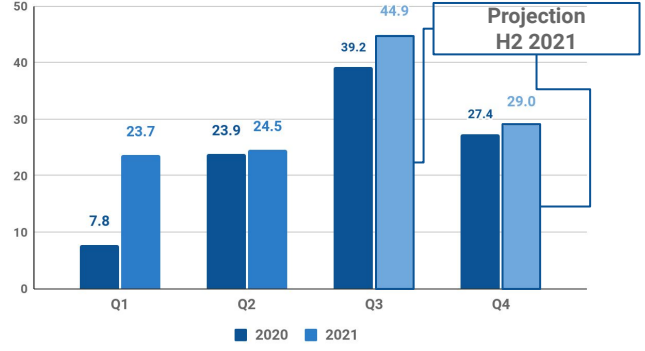
Funding Up to Series A Round Distribution



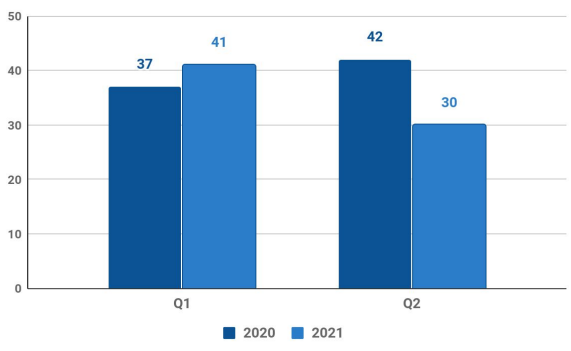
The European arena of MedTech startups had been showing positive dynamics in terms of funding and number of investments for five consecutive years from 2013 to 2017, as seen on the graphs above. In 2018 there was a 213% and an 8% decrease in funding and number of investments, respectively, compared to the previous year. However, the following year, 2019, became a leader in both funding amount and number of investments reaching 111.4 million EUR in 168 investment rounds. COVID-19 pandemic effect has slowed down the 2019 spike in 2020 and decreased it by 19% in funding amount and 6% in the number of investments. However, both stats remained higher than in pre-pandemic time, showing an overall positive trend. 2021 has already demonstrated the highest value per one investment, almost reaching 0.7 million EUR per funding. It is too soon to tell due to a lack of information on how H2 2021 will eventually perform, but several encouraging deals are already available for review. Q1-Q2 2021 already keeps up with 2020 and continues a positive trend for MedTech startups in Europe. A detailed overview of Q1-Q2 2021 is shown on the next slide.

Q1-Q2 2021 OVERVIEW

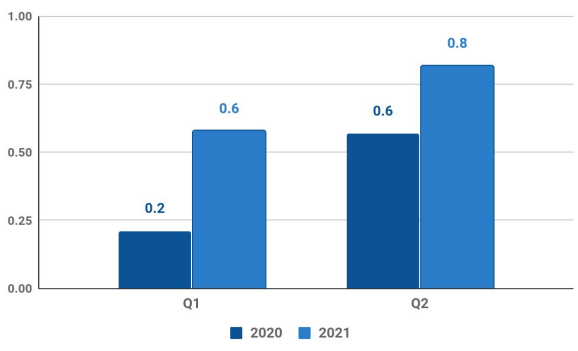
Funding Amount 2020 vs 2021, M €



Number of Investments 2020 vs 2021



Average Sum per Investment 2020 vs 2021, M €

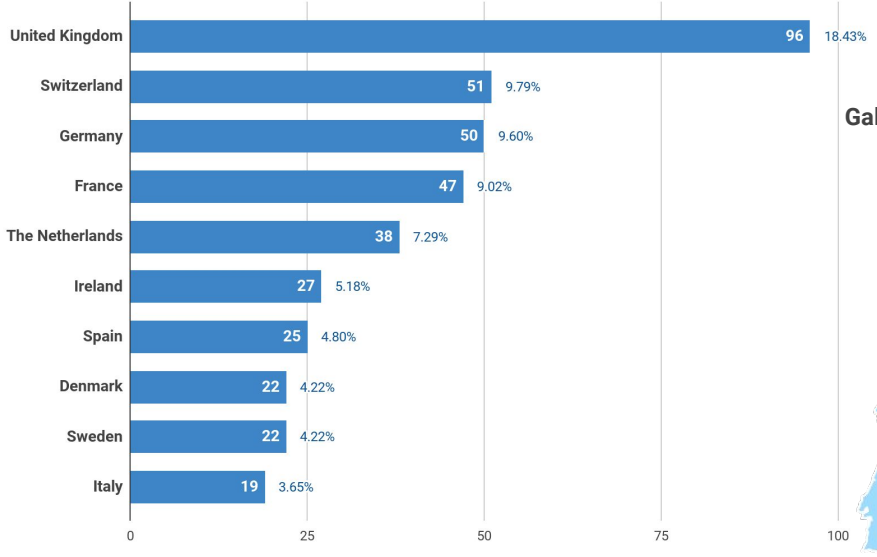


Funding in H1 2021 has outperformed H1 2020. Due to the previous year, the funding amount is higher by 217% and 7% in Q1 and Q2, respectively. The number of investments has grown by 10% in Q1 2021 in comparison with Q1 2020. However, Q2 was performed with 28.5% decline of number of deals in comparison with the same period of the previous year. On the other hand, the average sum per investment has been steadily increasing over Q1-Q2 2021, with an increase of 42% from Q1 to Q2. In comparison with Q1-Q2 2020 average sum per investment in Q1-Q2 2021 is higher by 250% and 42%, respectively. In Q3 2021 we can already highlight several big fundings such as seed rounds for Aether Biomedical and Biospectal, raising 3.01 million EUR and 3.61 million EUR, respectively. Funding for H2 2021 is presented in nonlinear time series prediction based on the Taken's theorem that allows to work with classical time series as if they were dynamical systems. All factors from Q1-Q2 2021 and some prominent deals in Q3 2021 indicate that the general trend of increasing attractiveness of MedTech start-ups among investors is still prevailing.

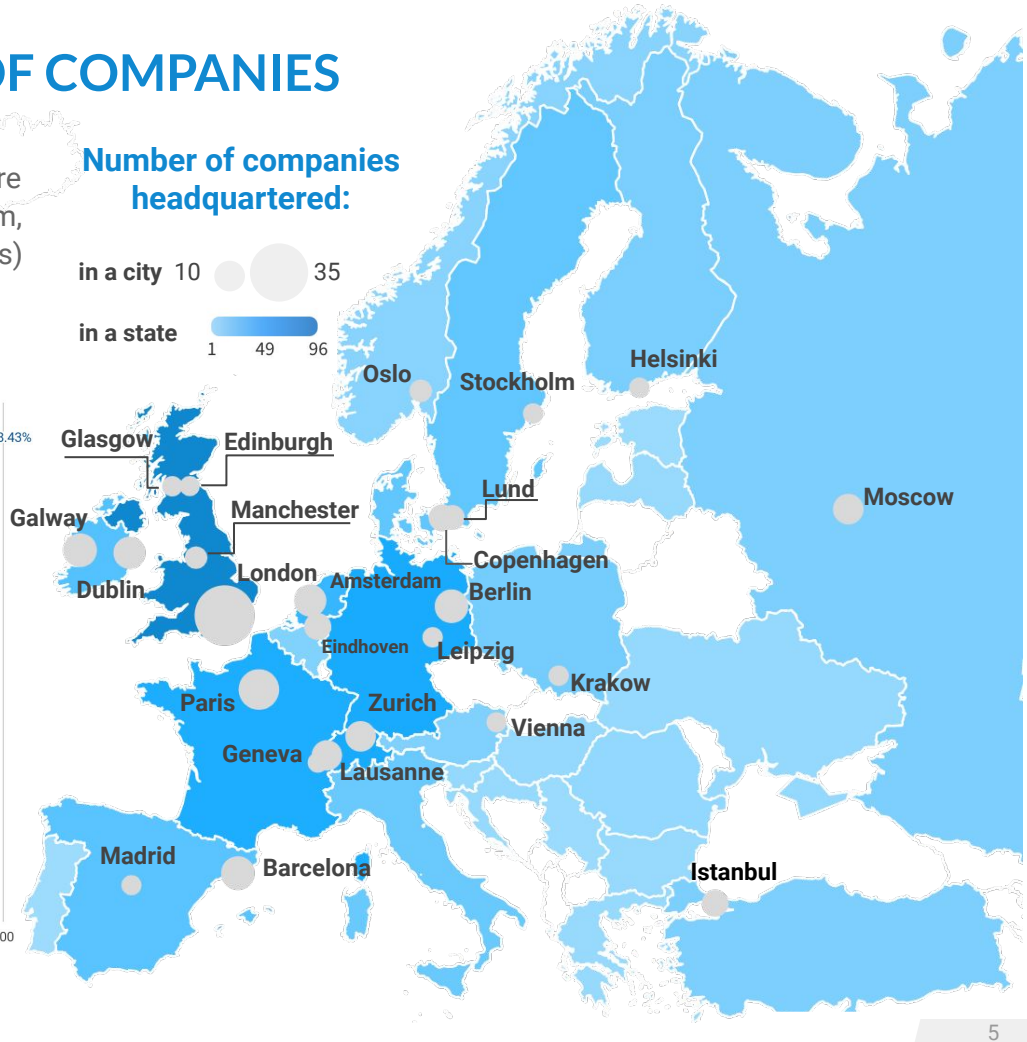
MEDTECH MAPPING BY NUMBER OF COMPANIES

The regional mapping shows that 521 MedTech companies are distributed among 29 European countries. The United Kingdom, with 96 companies (18.4% out the total number of companies) headquartered there, is the leader in the European region.

Top 10 European Countries by Number of Companies



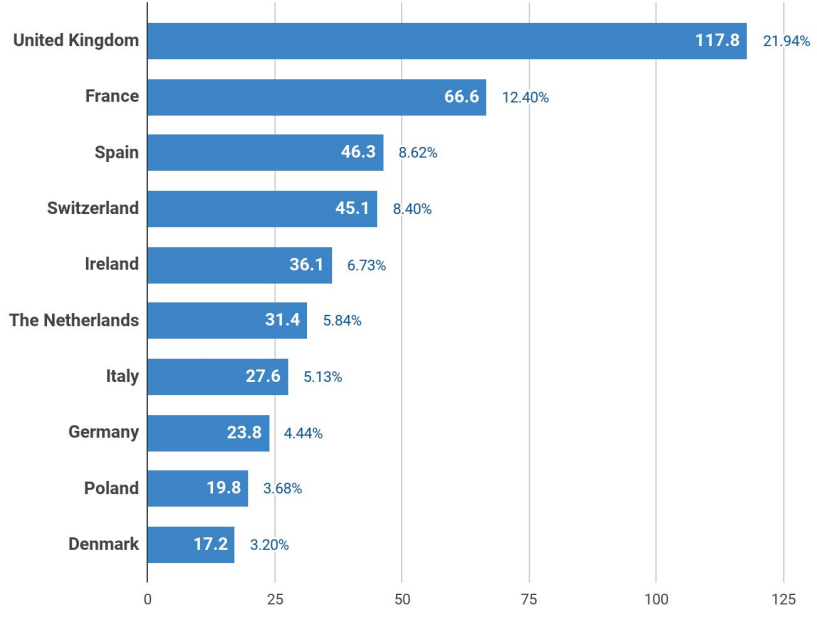
Number of companies headquartered:



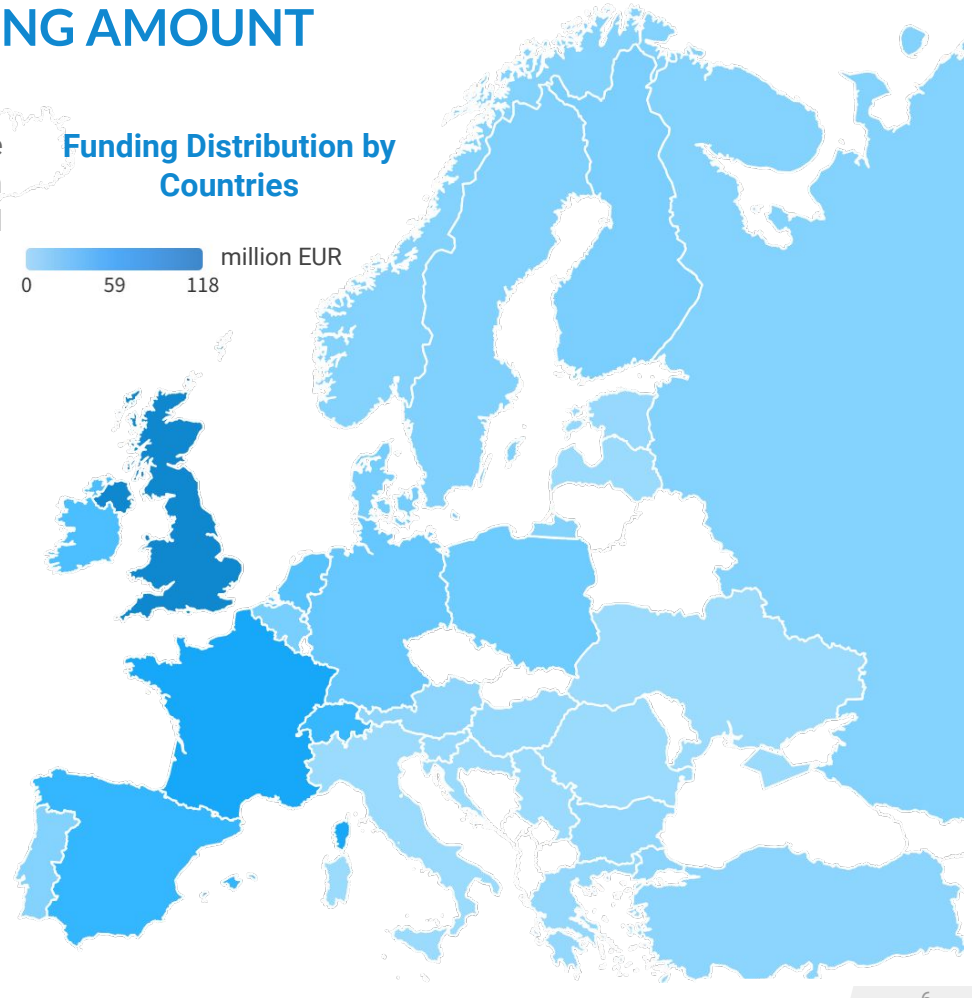
MEDTECH MAPPING BY TOTAL FUNDING AMOUNT

The companies located in the United Kingdom accounts for the most significant total funding amount among the European countries: 117.8 million EUR or 21.94% of total funding of all companies.

Top 10 European Countries by Companies Total Funding, M €



Funding Distribution by Countries

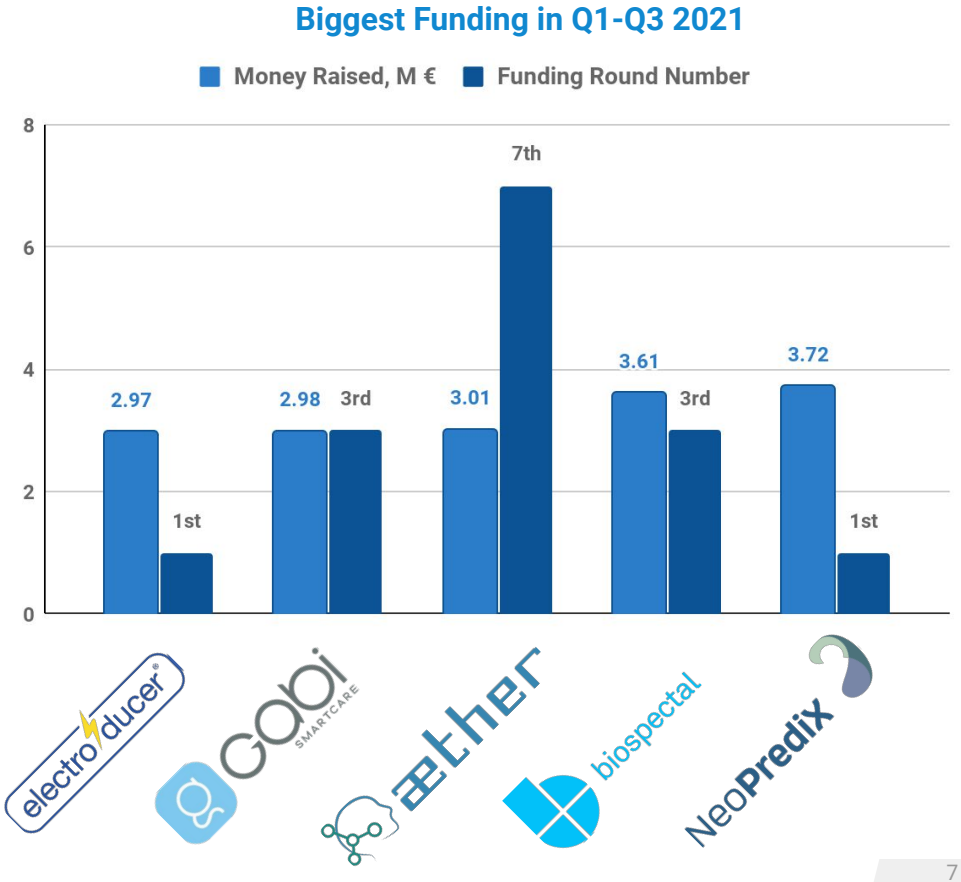


BIGGEST DEALS Q1-Q3 2021

Among 76 fundings that happened in 2021, 20 investments were higher than 1 million EUR, with the biggest one reaching 3.72 million EUR in its first funding round. Top 5 highest fundings received the following companies:

1. NeoPrediX – 3.72 million EUR received in venture round to further develop its software solutions.
2. Biospectal – 3.61 million EUR received in seed round for scaling its products worldwide.
3. Aether Biomedical – 3.01 million EUR received in seed round to further develop its technology and expansion to the US market.
4. Gabi SmartCare – 2.98 million EUR received in series A funding round to further develop its technology.
5. Electroducer – 2.97 million EUR received in series A funding round will be used for marketing its new technology – the Electroducer Sleeve.

The funding track record of the Biospectal, Aether Biomedical, and Gabi SmartCare places these companies at the top of the investment practicality in terms of safeness, confirming their desirableness from the investors' point of view.



INVESTORS OVERVIEW

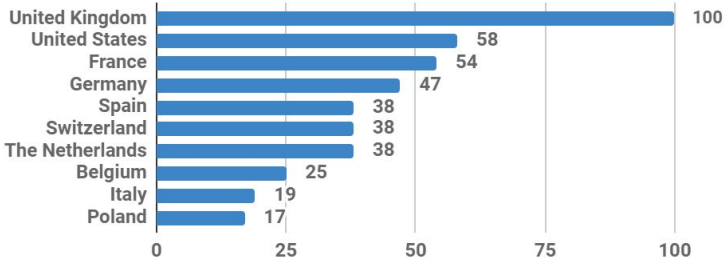
Investors Engaged in the Biggest Deals in 2021

Investor	Investor type
Bayern Kapital	Government Office
Eckenstein-Geigy-Stiftung	Family Investment Office
LifeCare Partners	Private Equity
Chiratae Ventures	Corporate VC
Joyance Partners	VC
Story Ventures	Micro VC
Sunfish Partners	VC
Meusinvest (Noshaq)	VC
WING by Digital Wallonia	VC

Top Industry Investors (by Total Number of Investments)

Investor	Investor Type
EASME - EU Executive Agency for SMEs	Government Office
Techstars	Accelerator, VC
MassChallenge	Accelerator
SOSV	Accelerator, Micro VC
Plug and Play Tech Center	Accelerator, Corporate VC
Venture Kick	Incubator
Wayra	Corporate VC
Creative Destruction Lab (CDL)	Entrepreneurship Program

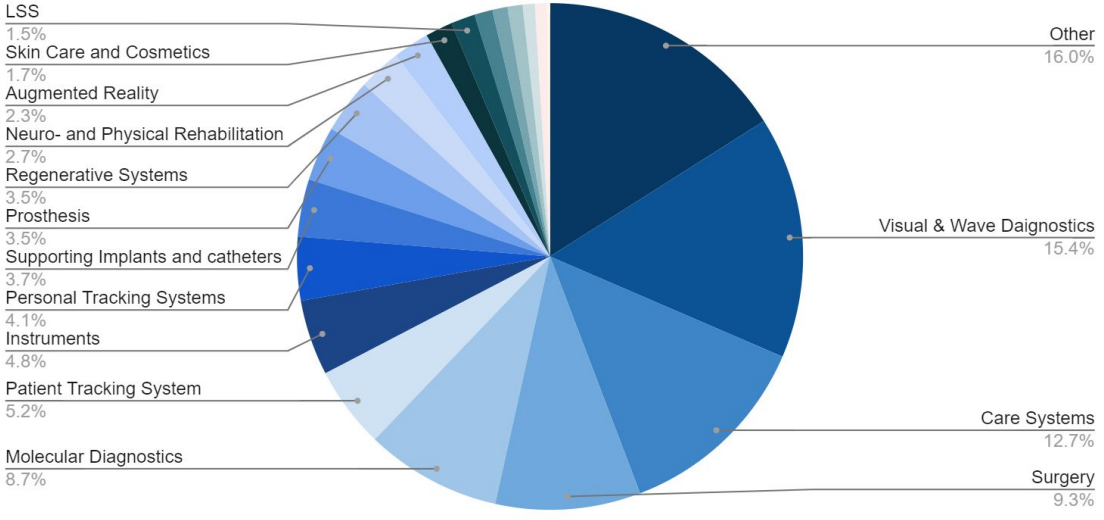
Top 10 Countries by Number of Investors



The regional mapping shows that 712 investors are distributed among 43 countries worldwide, the United Kingdom being the leading country. Top 10 countries locate 61% of all investors.
Out of the top 5 deals in 2021, only in three cases, the list of investors was disclosed, and it included 9 investors investing 9.75 million EUR in total.

CATEGORIZATION BY PRODUCT APPLICATION

Categorization was carried out based on the primary purpose and qualities of the company's products. The medical startup industry includes a wide range of specialized goods that do not use particular categorization. Still, a classification was developed to assess advances in the field and gain a sense of their regional distribution. We have determined **15+ categories of medical devices** that cover a wide range of MedTech clinical applications. While some of those devices types has a long history of utilization (for example, catheters were applied since the 18th century), others are an emerging output of current technological progress.

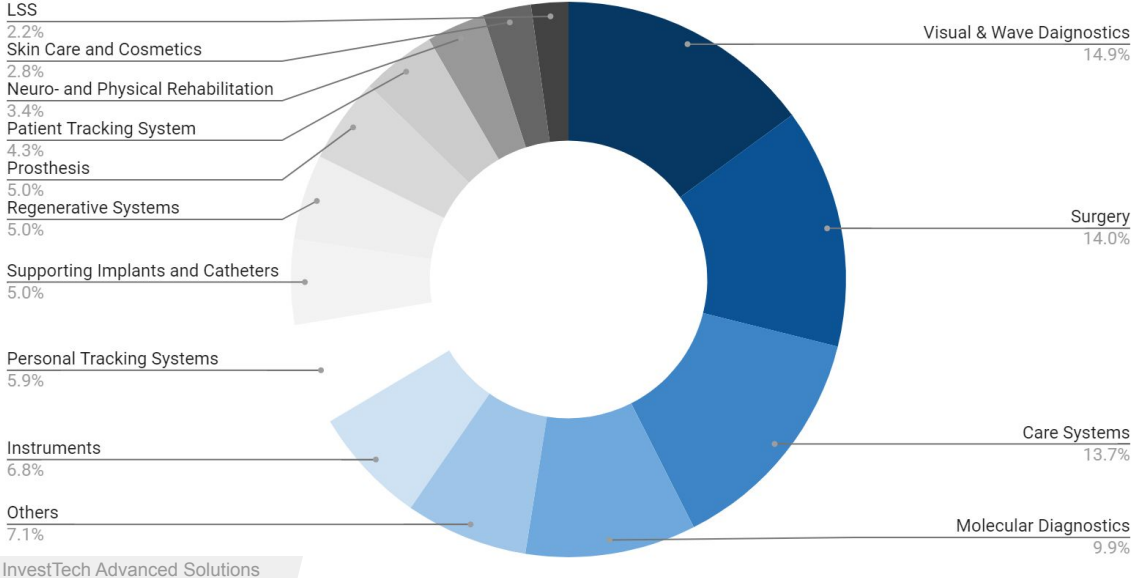


Among them are wearable/implanted devices that allow for continuous, real-time observations - **Personal Tracking Systems collect health data for self-assessments**. At the same time, the **Patient Tracking Systems include real-time reporting devices that transfer various health-related data to the patient's physician or medical provider**. The data collected mainly simplifies the disease/treatment progress tracking or performs the preventive check of a health state. While being used for centuries, the **prosthesis is also undergoing dramatic changes** - now they serve not only as a morphological substitute but rather as functional body parts - an artificial limb can perform directed movements by being trained to recognize the host's nerve signals. **Surgery is also one of the classical and old fields that undergo technological modification** - its robotizations make interventions much more precise and prone-less.

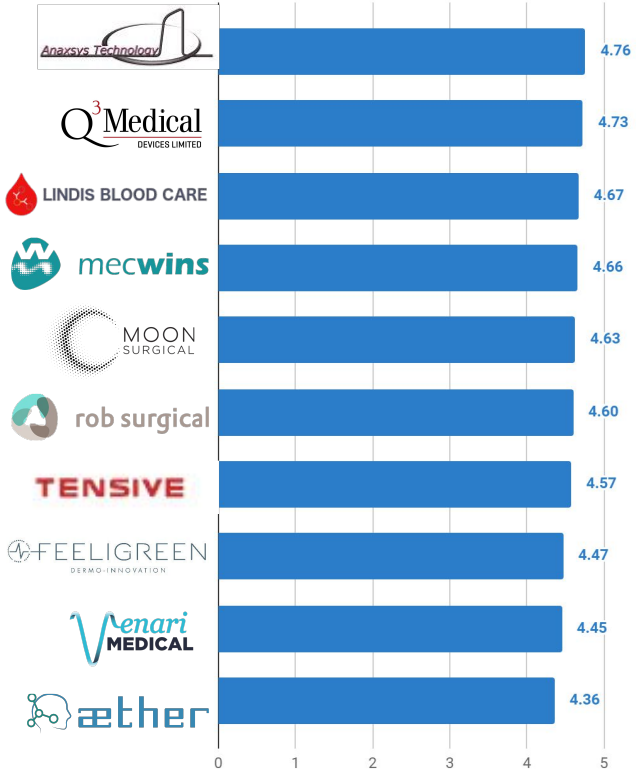
MEDICAL DEVICES (MDs) SECTOR OVERVIEW

In this report **MedTech** is divided into **Medical Devices** and **Digital Health Solutions Sectors**, which represent physical devices and digital solutions to those devices (such as operational systems).

The **Medical Devices Sector** comprises 349 companies manufacturing products that prevent, diagnose, monitor, treat, and care for human beings, along with non-invasive tests used on biological samples to determine a person's health status. **Anaxsys Technology**, a medical device company that develops and markets respiratory devices, holds first place with **4.76 million EUR** of total funding.

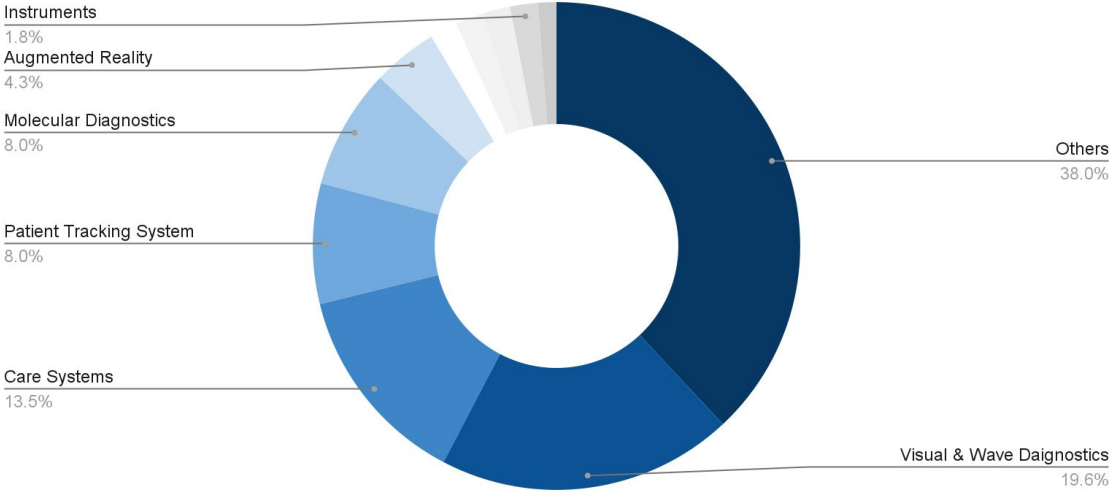


Total Funding Up to 2021, M €

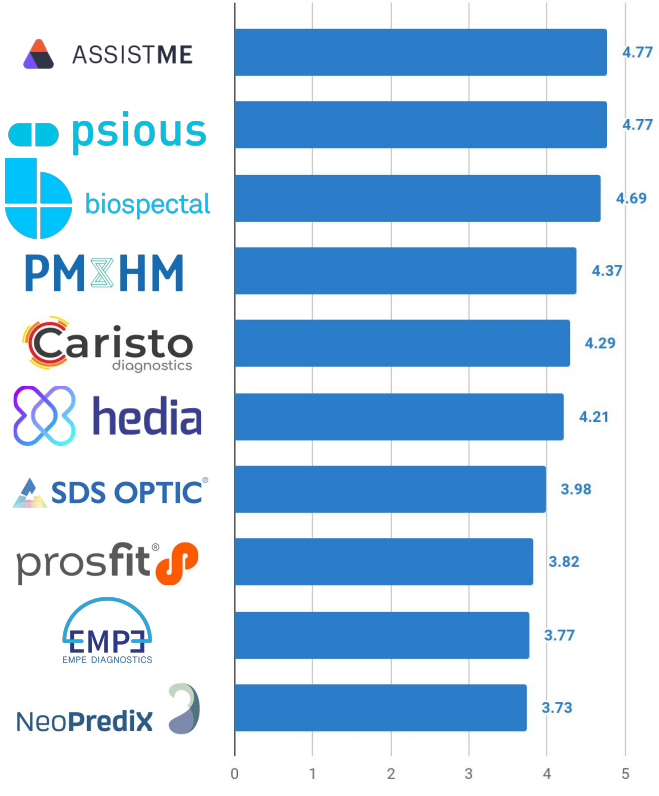


DIGITAL HEALTH SOLUTIONS SECTOR OVERVIEW

Digital Health Solutions Sector refers to tools and services that use software and connectivity technologies for devices management, health data analytics and network security solutions. 172 companies out of 521 focus on developing the digital platforms, software, and apps used in medical devices' applications. Germany-based company **AssistMe** creating a care infrastructure through intelligent incontinence solutions, hold first place with **4.77 million EUR** of total funding.



Total Funding Up to 2021, M €



PROMINENT PLAYERS IN MEDICAL DEVICE INDUSTRY (1/4)

ReadyGo Diagnostics Limited developed a pen-like device that allows testing of multiple infections. Additionally, it can distinguish between coronavirus and influenza, and testing for viral conjunctivitis, herpes and dengue fever. The technology is described as a small portable real-time PCR device that enables molecular diagnostic testing.

Rheo Diagnostics developed RheoDX, an inexpensive medical device that form a drop of a blood can detect diseases and conditions such as blood coagulation disorders, malignant hemopathies, malaria, hereditary anaemias, etc. It focuses on minimum changes in rheological properties of red blood cells and it is automated and based on machine learning and pattern recognition.

Vagustim developed wearable device for stimulation of auricular vagus nerve. It is a mobile app-controlled non-invasive neuromodulatory device that rebalances autonomic nervous system activities and can eliminate and treat autonomic dysfunction triggered conditions.

Skinive uses the power of ComputerVision technology and the experience of dermatologists to train the AI -algorithm to find skin diseases by visual signs in the database of clinical examples.

Ablute developed a way to diagnose and monitor the changes in urine by urinalysis device. Based on a Lab-On-a-Chip (LOC), collection of urine samples by disruptive toilet allows monitoring of the different parameters in urine. The results are transmitted to the user.

PROMINENT PLAYERS IN MEDICAL DEVICE INDUSTRY (2/4)

MobilMed is developing a wireless biosensor technology to monitor, detect, diagnosis, and aid in directing the treatment of cardiovascular disease. They developed wireless, wearable biosensors and mobile app to track, display heart rate and detect atrial fibrillation.

Cath Latch developed a catheter that is both patient and clinician friendly. The device stays *in situ* for extended periods of time with a low risk of complications. It is based on unique microarray technology providing single-use adhesive-free securement to the skin.

SpotLab is pushing for the revolution of the internet of medical things. They developed a smartphone-based scanning and analysis system. It is possible to digitize from the smartphone to devices manufactured in 3D to remotely diagnose or share cases.

Connexicon Medical Ltd. specialises in the manufacture of tissue adhesives and sealants for topical and internal applications.They developed Indermil® flexifuze™ for the easy application of the tissue adhesives and sealants.

Delseni is developing diagnostics device, that measures vascularity or blood-vessel formation in the breast. It is a pain-free breast cancer screening with no adverse health risks, that can detect changes at an earlier stage than is currently the case.

PROMINENT PLAYERS IN MEDICAL DEVICE INDUSTRY (3/4)

Medow produced IV-bracelet, easy to use bracelet to which intravenous tubes can be attached to keep them and the vascular access device in place.

Pulsify Medical developed patches that enable monitoring of the cardiac performance continuously. The technology is based on ultrasound and results are present immediately.

Brinter developed evolutionary modular 3D-bio printer for global markets designed for medical, pharmaceutical, and life science industries. The device can print anything from living tissues and transplantable organs to personalized medicine and food, and it depends on bio inks used.

Mursla Diagnostics developed ExoPheno™, a novel exosome characterisation platform. It consists of new immunocapture-and-release and nanoelectronics technologies. Disease-specific exosomes (from disease tissue) are perfect circulating snapshots of disease activities and can offer clinical insights if they are analysed via a single blood draw.

Biospectal developed an OptiBP smartphone app and data platform for instantaneous blood pressure measurement and monitoring. A medical-grade device is integrated directly into the smartphone, which allows measurement of a user's blood flow via the built-in camera and fingertip pressure, quickly and easily.

PROMINENT PLAYERS IN MEDICAL DEVICE INDUSTRY (4/4)

WeWALK developed an innovative cane for visually impaired people by adding three revolutionary features. It detects obstacles at head and chest level with its onboard ultrasonic sensor and warns its users with vibration patterns. With WeWALK application GPS navigation is easy. Additionally, WeWALK include "Google Maps" and Alexa virtual assistant service.

BioCam developed non-invasive and accurate capsule endoscopy examinations. It is based on AI solutions and advanced electro-optics.

Bedal nv develops catheter stabilization devices that excel in performance, ease of use and patient comfort.

EnteraSense is developing an ingestible biosensor that detects bleeding in the gastrointestinal tract in real time without requiring a complicated intervention. Once the device is activated it will start detecting, using optical technology and it can be used for monitoring up to three days.

Printivo Group provides pharmaceutical companies with bone tissue grafts on-demand that can be used for drug testing in pre-clinical trials. It is based on 3D-bioprinting pneumatic extrusion technology. Artificial human tissues can fill the gap between pre-Clinical and clinical phases of the whole drug development value chain.

PROMINENT COMPANIES PROFILES (1/4)

Company	Total Funding Raised, M €	Number of Funding Rounds	Investors	Founders	Foundation Date & Location
ReadyGo Diagnostics	1.087	1	Midlands Engine Investment Fund	Ben Cobb, Mike Catt, Mike Pearson	2019, United Kingdom
RheoDx	0.392	1	Capital Cell, mVenturesBCN	Joan Grasas, Oliver Balcells Navarro	2018, Spain
Vagustim	0.15	1	Erman Turan	Ali Can Erk, Ali Veysel Özden, Seyyid Bucak	2019, Turkey
Ablute	0.12	2	Portugal Ventures	Nuno Marujo	2019, Portugal
Skinive	0.27	2	Angel Band, Rockstart	Kirill Atstarov	2018, The Netherlands

PROMINENT COMPANIES PROFILES (2/4)

Company	Total Funding Raised, M €	Number of Funding Rounds	Investors	Founders	Foundation Date & Location
MobilMed	0.05	2	Nexus Venture Partners, Nexus Ventures, StartupFon, Istanbul Startup Angels	Asli Ergun, Armağan Ergün	2015, Turkey
Cath Latch	0.04	5	EIT Health, Atlantic Bridge Capital, Enterprise Ireland, NovaUCD	Nicky Bertollo, Ronan Byrne	2017, Ireland
Spotlab	Closed Information	2	WA4STEAM	Jose Nistal, Eva Rojas, Jaime García Villena	2017, Spain
Connexicon Medical	4.53	5	Enterprise Ireland, Enterprise Equity Venture Capital, Halo Business Angel Network, Irrus Investments	Padraig Leamy	2014, Ireland
Delseni	Closed Information	2	Gesellschaft für Markt und Kapital, Kickstart Venlo	Ton Kleeven	2017, The Netherlands

PROMINENT COMPANIES PROFILES (3/4)

Company	Total Funding Raised, M €	Number of Funding Rounds	Investors	Founders	Foundation Date & Location
Medow	Closed Information	3	SmiLe Incubator, Leapfrogs, VentureLab	Frida McCabe, Linn Wrangmark	2016, Sweden
Pulsify Medical	9.34	2	imec.xpand, University of Leuven, PMV, VLAIO	Steve Stoffels, Xavier Rottenberg, Lieven Herbots, Jan D'Hooge	2019, Belgium
Brinter	1.46	1	Innovestor Ventures	Piira Marko, Tomi Kalpio	2018, Finland
Mursla	2	4	Government of UK, Cambridgeshire & Peterborough Combined Authority	Pierre Arsene	2019, United Kingdom
Biospectal	5.58	3	MassChallenge, SeedLink, AEON Foundry, LabCorp Ventures	Eliott Jones, Patrick Schoettker, Reinhard Stary	2017, Switzerland

PROMINENT COMPANIES PROFILES (4/4)

Company	Total Funding Raised, M €	Number of Funding Rounds	Investors	Founders	Foundation Date & Location
WeWALK	0.75	3	Shishir Mehrotra, Vestel Ventures, Ali Karabey, E. U.	Gokhan Mericliler, Kürşat Ceylan, Sadik Unlu	2017, United Kingdom
BioCam	0.27	1	LT Capital	Maciej Wysocki, Robert Stachurski	2019, Poland
BEDAL	Closed Information	5	Limburgse Reconversie Maatschappij	Alexander Van Damme, David Munter, Falk Beerten	2011, Belgium
EnteraSense	4.02	3	Horizon 2020, NDRC	Christopher Thompson, Donal Devery	2015, Ireland
Printivo Group Jsc	0.57	3	Eleven Ventures	Spas Kerimov	2016, Bulgaria

KEY TAKEAWAYS

- MedTech industry remains to be one of the most diverse and innovative industries in Europe. This can be seen in the high number of companies, patents, and trade flows. **Small and medium-sized companies (SMEs)** account for a substantial part of the overall MedTech companies in Europe (up to 95%), most of which employ less than 50 people.
- The Medical Devices (MDs) sector operating in the development and manufacturing of **minimally invasive devices, robotics, MDs for cancer surgeries, cardiovascular and infectious diseases** are gaining significant funding from investors.
- **Mental health treatment, diagnostic solutions for infectious diseases and medical image analysis** are the most promising subsectors within the digital health solutions sector. The companies applying AI, IoT and Big Data to develop medical platforms and software for MDs demonstrate the most favourable results, thereby becoming the object of interest of investors.
- **United Kingdom, Germany, Italy, France and Switzerland** are the countries with the most significant number of companies, amounts of investments in MedTech companies receiving early-stage investments and R&D of new medical devices.
- Among **76 funding deals** that happened in 2021, 20 investments were higher than 1 million EUR, with the highest one reaching 3.72 million EUR in its very first funding round.
- 2021 has shown the highest value per one investment ever, almost reaching 0.7 million EUR per funding. 2021 seems to keep up with 2020 and continues a positive trend for MedTech startups in Europe.
- The European MedTech market possesses capital-efficient investment opportunities: the region has a high potential scale-up environment that can help growing startups transform into competitive global players.

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