



# Medical Technology

*Contributing to Europe's Health,  
Innovation and Economy*



**MedTech Europe**  
from diagnosis to cure



Medical technologies are medical devices, in vitro diagnostics, imaging equipment and e-health solutions used to diagnose, monitor, assess predispositions and treat patients suffering from a wide range of conditions. The products manufactured by the medical technology industry range from lenses and smartphone dongles to cardiac implants and blood-glucose monitors all the way to hospital beds and MRI scanners.

As a result of the innovations the medical technology industry has made possible, many people now live healthier, longer, more active and independent lives. Medical technology is also improving the productivity and efficiency of healthcare systems, steering them onto a sustainable path. As a European industry with a rapid innovation cycle that employs many specialised professionals, the medtech industry is also a significant catalyst for economic growth.

# Enabling people to live healthy and productive lives

**Medical technology is responsible for increasing life expectancy in many disease areas, improving quality of life and allowing people to remain integrated, economically productive and socially active members of society. Between 1980 and 2011, a European citizen's life expectancy at birth increased by more than 6 years; improvements in medical technology have played an important part in this.**



The industry has provided considerable advances in how chronic conditions such as cardiovascular and circulatory disease, diabetes and musculoskeletal diseases are managed and treated. In addition, individuals who undergo surgical procedures now benefit from improved techniques. There are more and better treatment options: procedures are less invasive, recovery times have been reduced, and there are fewer complications. Diagnoses are more precise, determining the most effective course of treatment with increasing accuracy. Better monitoring tools keep patients out of hospitals, and home monitoring enables patients to manage their disease while remaining independent. Patients can go back more quickly to a productive and social life.

Better monitoring tools keep patients out of hospitals, and home monitoring enables patients to manage their disease while remaining independent. Patients can go back more quickly to a productive and social life.

Medical technology has also facilitated a shift to and increased use of community care, allowing treatment to be delivered at or close to the individual's home.

Community care can bring improved quality of life and greater independence to many people and for those with chronic conditions, there are considerable benefits in not having to travel to a hospital for routine healthcare. Diagnosis and treatment can be carried out in the same facility for an increasing array of conditions thanks to point-of-care diagnostics, which bring the lab to the patient.

Within the field of diagnostics, our industry has also developed essential technologies for use in low-resource settings. Rapid diagnostics make it possible for medical professionals to decide on the best course of treatment under challenging conditions.

While medical technologies enable people to live healthy and productive lives, there is no direct link between innovations in medical technology and the rising cost of healthcare. The portion spent on medical technology has remained relatively small and stable in the last decades at around 7.5% of total healthcare expenditure.



## Increasing the productivity and efficiency of healthcare systems

**The advances provided by medical technology are also helping to increase the efficiency of healthcare systems. The industry's continuous cycle of innovation and improvement is bringing new solutions to existing challenges as well as addressing unmet medical needs.**

As Europe's population ages and the expectation of well-being increases, the financial demands on European healthcare systems are rising faster than economic growth. It will therefore be vital to improve the efficiency of care. The medtech industry is helping to make the healthcare systems more efficient, more cost-effective and more sustainable.

For example, there are now many surgical procedures whereby a device is implanted. These procedures have seen a dramatic reduction in the length of hospital stay. In other cases such as cataract surgery, the vast majority of procedures are now performed without any need for an in-patient stay. And when hospitalisation is necessary, modern diagnostics determine whether a patient is resistant to antibiotics. This way, ineffective and costly use of pharmaceuticals can be reduced. Similarly, the use of e-health solutions such as telemonitoring, as well as the shift from hospital to community care also contribute to reducing overall care costs by preventing hospital visits and hospitalisations.

There are other benefits too, such as improved patient safety, thanks to medical devices designed to minimise the risk of adverse events and complications. Because of more sophisticated tools for diagnosis, the course of treatment can be determined more effectively. With the rise of personalised medicine, physicians can determine what specific treatment patients will respond to without the need for trial and error.

With the rise of personalised medicine, physicians can determine what specific treatment patients will respond to without the need for trial and error.



## AN INDUSTRY THAT MAKES A DIFFERENCE

>575,000  
EMPLOYEES



ROUGHLY  
€100  
BILLION  
MARKET  
SIZE

25,000 MEDTECH  
COMPANIES



A POSITIVE  
TRADE  
BALANCE  
OF €15,5  
BILLION

95%  
SMEs

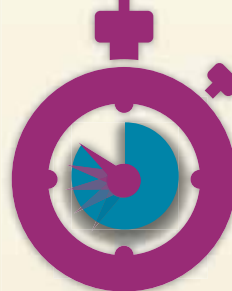


NUMBER #1  
INNOVATION PATENTS FILED

30% OF  
WORLD  
MARKET

18-  
24  
MONTHS

INNOVATION  
CYCLE



WITHIN  
3  
MONTHS

NEW  
DIAGNOSTIC

GROWING  
AT AROUND  
4% PER  
ANNUM

THE INDUSTRY FILES A PATENT  
EVERY 50 MINUTES!

## Contributing to economic growth

The medical technology industry in Europe is also an engine of innovation. In 2012, more than 10,000 patent applications were filed with the European Patent Office (EPO) in the field of medical technology.

This is equivalent to 7% of the total number of applications, and comprises more patent applications than any other technical field.

There is a third important component to the medical technology industry; its contribution to Europe's economy. With a total market of roughly €100 billion, equivalent to around one third of the global medical technology market, this sector as an industry provides a substantial potential to Europe's economy. It provides more than 575,000 high-quality jobs, across almost 25,000 medical technology companies in Europe. At the same time, the industry allows millions of citizens to be more healthy and remain productive, contributing to economic growth.

The medical technology industry in Europe is also an engine of innovation. In 2012, more than 10,000 patent applications were filed with the European Patent Office (EPO) in the field of medical technology. This is equivalent to 7% of the total number of applications, and comprises more patent applications than any

other technical field. Since 2001, the number of EPO filings in the field has doubled. The industry is characterised by a very high proportion of Small and Medium-sized Enterprises (SMEs). In fact around 95% of all medical technology companies in Europe have less than 250 employees. The speed and flexibility of these SMEs, working collaboratively with healthcare professionals and academia, stimulates the rapid development of improved or breakthrough products addressing specific patient needs. Innovation cycles are on a par with those in information technology; a new introduction is usually replaced by an improved version every 18-24 months. This continuous commitment to innovation, and the substantial investment that underpins it, is crucial to Europe's ambitions to become a smart, sustainable and inclusive economy fuelled by an active and healthy population.



# Benefits of the EU regulatory system in access to novel technologies

The European Union's regulatory system for medical devices has proved highly successful, and is recognised as providing the 'gold standard' globally; it has demonstrated its efficiency in rapidly bringing the benefits of innovation to people.



The EU model provides a robust set of requirements capable of dealing with diverse and novel technologies. They are the benchmark for the global regulatory model (GHTF).

According to independent studies, people in the European Union on average benefit from advances in medical technology 3-5 years earlier than in Japan and 3 years earlier than in the US, without compromising safety.

The basis of this success lies in the decentralised approach adopted in Europe, meaning that member states are responsible for ensuring compliance with European regulations. The EU model provides a robust set of requirements capable of dealing with diverse and novel technologies. They are the benchmark for the global regulatory model (GHTF).

Currently, this regulatory framework is being revised with the rollout of the new regulation planned for 2016. Many groups and experts in Europe, including doctors, patients and industry, agree that the current European system needs to be improved to cope with new medical technologies and innovations. However, a radical overhaul won't guarantee more safety and risks introducing unnecessary delays.

By avoiding excessive delays, the European regulatory system provides an incentive for innovation. Designers and manufacturers are encouraged to develop better products that address patient and healthcare needs more quickly.



## About MedTech Europe, EDMA and Eucomed

MedTech Europe is an alliance of European medical technology industry associations. The Alliance was founded by EDMA, representing the European in vitro diagnostic industry, and Eucomed, representing the European medical devices industry. Other European medical technology associations are welcome to join the Alliance, established to represent the common policy interests of its members more effectively and efficiently.

The mission of MedTech Europe is to make value-based, innovative medical technology available to more people, while supporting the transformation of healthcare systems onto a sustainable path. The alliance promotes a balanced policy environment that enables the medical technology industry to meet the growing healthcare needs and expectations of its stakeholders. In addition, MedTech Europe demonstrates the value of medical technology by encouraging the respective memberships of EDMA and Eucomed to execute the industry's 5-year strategy.

EDMA advocates for the interests of the in vitro diagnostic industry and its enormous contribution to transforming healthcare systems by improving healthcare efficiency and reducing costs. EDMA's strength lies in its close co-operation with European institutions, patients groups, trade associations, health professionals and academia, working together to shape the EU policy that will have the most impact on the lives of Europeans and reinforce the European IVD industry's voice globally.

Eucomed represents the European medical device manufacturers industry, a sector producing some 500,000 different medical technologies from sticking plasters and wheel chairs, to minimally-invasive surgical techniques, pacemakers and replacement joints.

Eucomed and EDMA members include both national and pan-European trade and product associations as well as medical technology manufacturers.



## The medical technology industry at a glance

The medtech industry in Europe has a market size of roughly €100 billion – comprising around 30% of the global market. The European industry is growing on average at 4% per annum;<sup>1,2,3</sup>

Europe has a positive medical device trade balance of € 15.5 billion (2012), more than a twofold increase since 2006;<sup>2</sup>

There are almost 25,000 medical technology companies in Europe; of these some 95% are SMEs employing less than 250 people. The total number of people employed exceeds 575,000;<sup>4</sup>

There are around 500,000 medical technologies currently available to healthcare professionals, ranging from syringes and bandages to orthopaedic implants and pacemakers;<sup>5</sup>

Improvements in medical technology happen at a remarkable speed; on average a product will be superseded by an improved version within 18-24 months of introduction;

In 2012 more than 10,000 patent applications were filed with the European Patent Office (EPO) in the field of medical technology – equivalent to ~7% of the total number of applications – more than any other technical field. Since 2001, the number of EPO filings in the field has doubled;<sup>6</sup>

EU Member States spend 10.4% of their GDP on healthcare; on average, medical technology accounts for only ~7.5% of total healthcare expenditure – less than 1% of GDP;<sup>1</sup>

## Sources

<sup>1</sup>WHO Global Health Expenditure Database, Eurostat, Eucomed calculations based on the data obtained from National Associations of 15 countries for the latest year available. Countries with (partially) provided data: Belgium, Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Sweden, UK, Switzerland. Europe refers to EU + Norway, Switzerland. Weighted average.

<sup>2</sup>Espicom, Eucomed calculations. Manufacturer prices. Medical devices and Imaging excluding in vitro diagnostics. Europe refers to EU + Norway, Switzerland.

<sup>3</sup>Espicom, Eucomed calculations. Average growth rate over 2006-2011 years. Manufacturer prices. Medical Devices and Imaging excluding in vitro diagnostics. Europe refers to EU (excluding Cyprus, Luxembourg, Malta) + Norway, Switzerland.

<sup>4</sup>Eucomed calculations based on the data obtained from National Associations of 15 countries for the latest year available. Europe refers to EU + Norway, Switzerland.

<sup>5</sup>Global Medical Devices Nomenclature (GMDN) Agency, 2010.

<sup>6</sup>European Patent Office, Eucomed calculations. Medical technology as defined by World Intellectual Property Organization (based on the WIPO IPC-Technology concordance as revised in August 2012).



For more information, visit  
[info@medtecheurope.org](mailto:info@medtecheurope.org) • [www.edma-ivd.eu](http://www.edma-ivd.eu) • [www.eucomed.org](http://www.eucomed.org)