

MedTechWeek

EUROPEAN MEDTECH WEEK MAGAZINE • VOL. 04 • 2018



a MedTech Europe Initiative

The MedTech Week

Showcasing life changing technologies across Europe

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Working together to deliver value for all



Each year in June, MedTech Week offers a collective opportunity to take a step back as an industry to celebrate, but also anticipate, the impact that medical technology can have on patient lives and health outcomes in Europe.

Currently, we are riding perhaps the steepest evolutionary curve in our history. We are thinking smarter and working harder to bring the best possible solutions to health systems, care providers and patients. Our longstanding mission to deliver value at every stage of the care pathway means undergoing a medical procedure today has never been safer, and patient outcomes continue to improve.

The role medtech plays in improving people's health and wellbeing across Europe is more important today than ever before. But what about tomorrow?

It is universally agreed that our ageing population and the increasing prevalence of chronic disease will be one of the greatest barriers to high quality and sustainable healthcare in Europe's future.

The medtech industry is uniquely positioned to work collaboratively with decision makers to help set the governing standards of value-based healthcare, and I believe we have a critical role to support health systems to look beyond budgets to holistic healthcare. This is where innovation is born and how sustainable healthcare will flourish.

During MedTech Week 2018, the medtech industry observed and evaluated our contribution to healthcare quality today and, in doing so, renewed our commitment to delivering the best possible future to those we serve.



Michelle Brennan, Chair of the Board of MedTech Europe and Company Group Chair, Johnson & Johnson Medical Devices Companies, Europe, Middle East & Africa (EMEA)



Showcasing the best of medtech

Want to see the value of medtech? Look no further

Wow – what a week!

First of all, I take this opportunity to sincerely thank our members for their enormous efforts in making the role of medical technologies more widely known during MedTech Week 2018 last June.

Now in its fourth year, MedTech Week brings out the best in the companies and national associations that represent our industry. Together, they have served up dozens of examples in unwavering ingenuity to illustrate the value of medtech.

As you read through these pages you will, I'm sure, have your own highlights but let me give you a sneak preview: This publication talks about the work that our sector undertakes in the EU research and innovation landscape. It illustrates how we support value-based healthcare and help improving outcomes and delivering efficiencies; It reads about the potential of digital health and many other topics.

The stories release the dedicated mindset of joining society combat the biggest challenges of our time: challenges arising from chronic diseases and our ageing population; the fight against antimicrobial

resistance and healthcare associated infections; the desire for better prevention, timely and accurate diagnosis and best possible care.

I also hope you will leave with a good sense of our industry's dedication in playing a constructive and responsible role in discussions on key policy areas such as the transition to new EU CE Marking Regulatory Framework for medical devices and in vitro diagnostics, new innovative procurement models or the role that health technology assessment plays for medtech.

Above all, you will see an industry devoted to adding value for patients, health professionals, payers and policymakers through tireless innovation.

Enjoy reading!



Serge Bernasconi -
Chief Executive Officer, MedTech Europe

Inspiration, collaboration, action



For the Fourth successive year, MedTech Week has inspired our associations to create exciting new ways to showcase the value of medical technologies.

While we all spend 52 weeks of the year engaging with decision makers and increasing the public visibility of medical technologies, MedTech Week gives us all an extra push to go the extra mile.

One of the key features that shines through these pages is the diversity of our industry. MedTech Week is an opportunity to engage with patients, health professionals and others so that they can appreciate the breadth of impact that medical technologies can have throughout the health system.

This year we saw increased collaboration across the sector with strong partnerships between companies and national associations. More organisations than ever were involved this year and, as this initiative has matured, it is particularly good to see how ideas, projects and activities are being shared across Europe.

We are also enormously grateful for the engagement in MedTech Week from employees within our sector. It is heartening to

see the pride that they have in their work – and in the life-saving and life-improving technologies we bring to the public and to health professionals.

We hope you will find this publication informative and that by reading about how others are putting medical technologies on the map, you might find inspiration for engaging in next year's MedTech Week.



Michael George -
Communications & Public Affairs Director
EMEA, Edwards Lifesciences



Carlos Sisternas -
Director, FENIN

this is **MedTech**

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people's lives transformed by
medical technologies

Do you want to **publish a blog**?
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AMR Action

Medical Technologies play key role in beating superbugs in a healthcare setting

Every year, more than 4.1 million Europeans develop a healthcare-associated infection (HAI). Effective infection prevention and control can avoid 1 in 3 HAIs. This means less need for antibiotics, which in turn reduces the spread of AMR. The International Health Regulations (IHR) position effective infection prevention and control as a key strategy to address public health threats of international concern, such as AMR.

The European Commission's 'One Health Action Plan on Antimicrobial Resistance' is currently being discussed with the European Parliament. On 6 June, policy-makers, academics, clinicians, public health organisations and industry came together to discuss sustainable solutions to the AMR crisis with an emphasis on the need to control infections in a healthcare setting.

The event, organised by 3M, produced a strong consensus that urgent and holistic action is needed to tackle AMR. **"HAIs represent another piece of the puzzle of the complex topic of AMR,"** said Fredrick Federley MEP, host of the event. Karin Kandenbach MEP, who is leading the Parliament's work on the issue said: **"Transformation is needed – the challenges need to be rooted in political agendas at all levels followed with bold choices and decisive actions."**

Dominique Gilsoul, 3M Europe, said uptake of innovation was vital. **"Several medtech solutions have been proved to be cost-effective and are recommended in infection prevention guidelines. EU policy should urgently incentivize hospitals to adopt these proven effective medical technologies."**

The event helped to shape EU policy, ensuring that medtech remained part of the conversation on solutions to tackle AMR. One week after the meeting, the European Parliament unanimously accepted an AMR Action Plan with key amendments on the importance of HAI Prevention and the role of medical technologies in this critical area.



"The issue of AMR is at the top of the EC's political agenda. The One Health Action Plan reflects the need for linking health policies and health systems with research" said Jean Eric Paquet, Director General at the European Commission's DG-RTD. The recent EU-funded i-4-1-Health Interreg cross-border research project that combines antimicrobial stewardship and active infection prevention was highlighted by Prof Herman Goossens, University Hospital Antwerp.



"EU-JAMRAI strengthens coordination efforts directed at AMR and HAI issues following a One Health Approach. We need to keep it simple and use existing infection prevention guidelines who urgently need to be implemented in hospitals" said Olle Aspevall from EU-JAMRAI







Keeping you running

MedTech Europe go the extra mile in Brussels

The MedTech Europe team joined 40,000 runners on a warm day in Brussels for the annual 20km road race on 27 May, just as preparations for MedTech Week reached fever pitch.





Representatives from the Brussels office, member companies, national affiliates and patients, in collaboration with the Belgian Paralympic Committee, ran to raise awareness of the life-improving technologies that touch our lives. An even larger group from the Brussels office was on hand to cheer on the runners and direct supports and participants to our booth at the finish line in Parc Cinquanteenaire.

Passers-by were also invited to take photos in our photo booth. This was more than just great fun. For every photo taken, a donation was made by MedTech Europe to "la Tête hors de l'Eau", a charity that provides prosthetic limbs to children in need. A video summary on the value of medical technology was shot on the day and is available online.

'The Brussels 20km helped to illustrate how people facing physical challenges can run, dance, walk, and live life to the fullest thanks to their new hips, insulin pumps, lenses, or pacemakers,' said Tanja Valentin, Director External Affairs of MedTech Europe.





Ethical innovation goes global

Trust between patients and their physicians is critical in healthcare. It empowers patients and enables them to make informed decisions knowing that their caregivers have their best interests in mind. Though the practice of medicine varies in different parts of the world, this is a universal constant.

 **Jesús Rueda Rodríguez**, Co-Chair GMTA, Director International Affairs MedTech Europe

As such it is important that everyone understands how healthcare professionals interact with the industries, which provide the tools of modern medicine.

The Global Medical Technology Alliance (GMTA), of which MedTech Europe is a founding member, represents the medical technology industry around the globe. The Alliance has agreed on a set of global principles of ethical business practices through a Joint Global Ethical Declaration.

The GMTA principles lay down simple and pragmatic approaches for the development of codes of ethics for industry around the world, underpinned by two simple concepts:

1) Supporting the development, research and use of innovative technologies for the benefit of the patient

2) Addressing the key interactions of the Companies with healthcare professionals (HCPs) and healthcare organizations (HCOs) through Codes of Ethics.

In Europe, we entered in a new phase of the MedTech Europe Code of Ethical Business Practice on the 1st of January 2018. It is no longer allowed for companies to provide direct financial support to individual HCPs to attend either local or international Third Party Organised Events, and this is done through Educational Grants provided to HCOs instead.

We are delighted that not only MedTech Europe, but also AdvaMed China, Mecomed, and APACMed have decided to take the same path to enhance compliance practices across the globe.



Time to talk

Patients and MedTech companies share an interest in making health systems more patient-centred, more efficient and more innovative. That is why the European Patients' Forum (EPF) and MedTech Europe devised the Patient-MedTech Dialogue in 2011 as a Forum for exploring topics of mutual interest.

 **Nicola Bedlington**, Secretary General of EPF, European Patients Forum

The latest workshops took place in Brussels in late May, focussed on Health Technology Assessment (HTA) and community care. These highly interactive sessions were attended by representatives from patient organisations and MedTech companies

Why now?

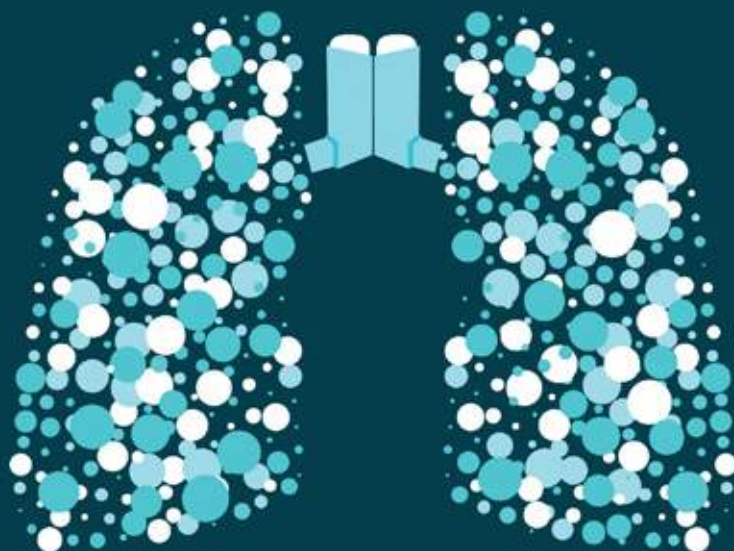
HTA and community care are hot topics in healthcare in Europe. HTA is a process that summarises information about the medical, social, economic and ethical issues related to the use of a health technology. A legislative proposal on strengthening EU cooperation on HTA was presented by the European Commission on 31 January 2018 – patient and industry input is essential.

The workshop provided participants with the opportunity to learn about the role of HTA for medical technologies and to hear from the European Commission, patients and industry.

The second day of discussion centred on the role of community care in the future of healthcare. Participants discussed barriers and challenges to home and community care as well as the benefits to the patient and to the sustainability of healthcare systems.

The need to break down silos, optimise the use of eHealth, and secure political leadership in shifting some services to community care was emphasised.

Both workshops were successful in meeting the objectives set, providing a vibrant and open environment for discussion and exchange.



PERSPECTIVE



Reinventing asthma inhalers For the digital age

For people with asthma, their inhaler plays a central role in managing the condition. These simple drug delivery devices have been used for decades to deliver medication to the lungs.



Prof. Fan Chung, Professor of Respiratory Medicine and Head of Experimental Studies at National Heart & Lung Institute, Imperial College London, and Respiratory Physician at the Royal Brompton Hospital, London

The myAirCoach consortium, funded through the EU Horizon 2020 research programme, has been working to extend the utility of inhalers by developing adaptors to make inhalers 'smarter'.

Companies, hospitals and universities – in collaboration with patients – want a device that tells us when and how it was used. Advances in sensor technology allow lots of tiny gadgets to be added to the inhaler through an adaptor. These can measure breathing rate, cough, breath sounds, and activity that will tell us about the health of the lungs; detect nitric oxide levels in the breath to indicate inflammation in the airways; and monitor environmental factors such as temperature, humidity and pollution.

We are already making progress and have developed a prototype for an adapter to attach to a conventional inhaler to study in asthmatics. This work, which includes close interactions

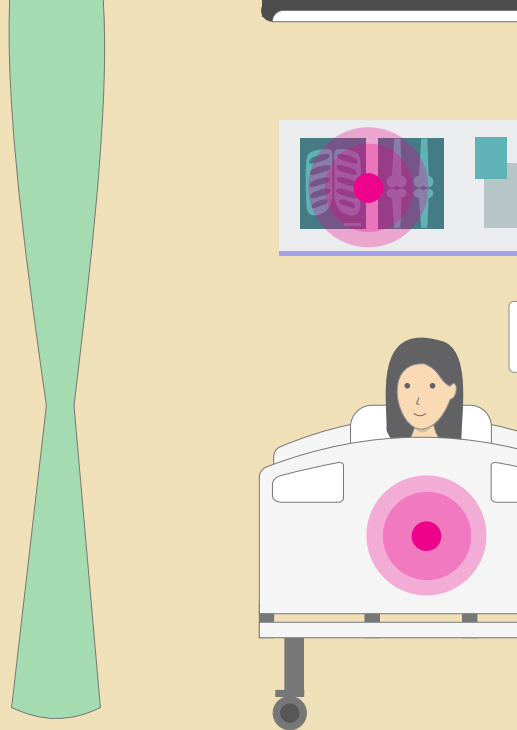
with the European Federation of Allergy and Airways Diseases Patients' Associations (EFA) and Asthma UK, will tell us whether the prototype is user-friendly and beneficial in the long term.



And that's just the hardware. Equally exciting is the information side. The sensing units in the adaptor are linked to an App in the mobile phone via Bluetooth connectivity and such information can be transmitted to the clinic where it can be analysed. The App itself will include standard asthma questionnaires, a patient action plan and asthma diaries.

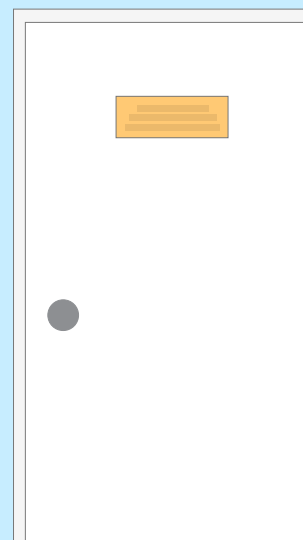
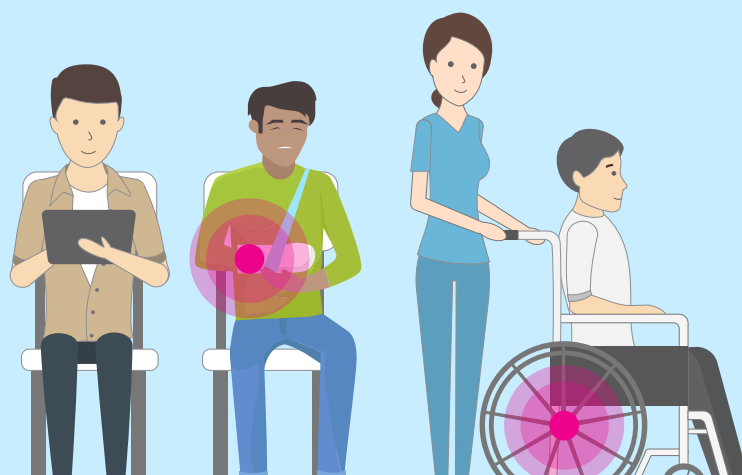
Furthermore, using modelling tools, there will be prediction of clinical state and a feedback plan for optimal asthma treatment for the patient.

The next step for the my AirCoach project will be to test whether the new device will help the patient in better controlling his/her asthma. It could be the start of a new chapter in asthma care.



Hidden heroes

Medtech is all around us but often goes unseen
– and undervalued





Are medical devices and diagnostics the most underrated contributors to modern healthcare? MedTech is everywhere but the power of these products is underappreciated.

During MedTech Week, CzechMed launched a media campaign to remind the public of the indispensable role of medical devices in everyday care. **‘You can easily identify them, they are all around you,’** the trade association said in a press release. ‘When you visit the hospital or a doctor’s office, everything that is not a pill is a medical device.’

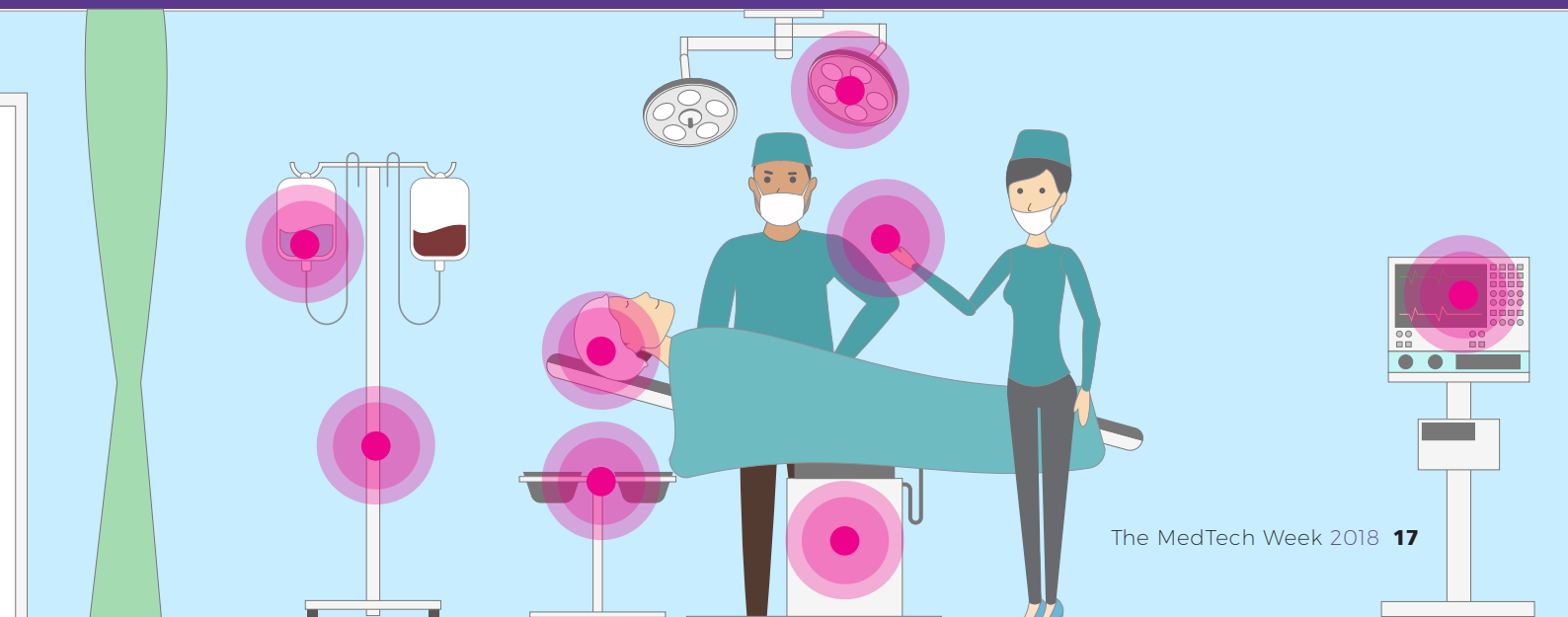
Some technologies are almost invisible to patients – such as surgical instruments or medical lab equipment. As a result, they may not be given the same weight by the

public, and even by policymakers. However, changes in how technologies are reimbursed in the Czech Republic promise to make the system more transparent and flexible.

CzechMed wants to go further by opening a public debate on procurement of medical technologies. They want hospitals and health authorities to choose the best product based on the overall value they deliver to patients and the health system – rather than simply choosing the cheapest product on the market.

‘In this spirit, we want to demonstrate, through practical examples, the inefficiencies and imminent risks of purchasing without due regard for quality,’ said Dr Miroslav Palat, President of CzechMed.

If successful, awareness of medical technologies would increase, with greater value attached to innovative technologies: MedTech’s hidden heroes would come out of hiding.





Virus or bacterium?

Knowing the cause of an illness helps accelerate recovery, avoids waste of resources and reduces antimicrobial resistance

Most infections are caused by viruses or bacteria. Flu, for example, is caused by a flu virus; tuberculosis, on the other hand, is caused by a bacterium. Knowing the true cause of an infection matters. For a start, it allows doctors to initiate the right treatment promptly. This usually improves outcomes for patients significantly.



Raising awareness of this among the public and medical professionals was the goal of a conference on antibiotic resistance hosted by French daily newspaper, Le Progrès, on 7-9 June. The event attracted speakers from industry, academia and senior health sector leaders. It attracted 2,500 people and generated media coverage that put the issue in the spotlight.

'Antibiotic resistance is considered the greatest threat to our health and our children's health,' said Dr Marie-Francoise Gros, Medical Affairs Director, bioMérieux. 'The role of diagnostics is very important because it enables the cause of an infection – viral or bacterial – to be determined. Only a bacterial infection justifies a prescription for antibiotics.'

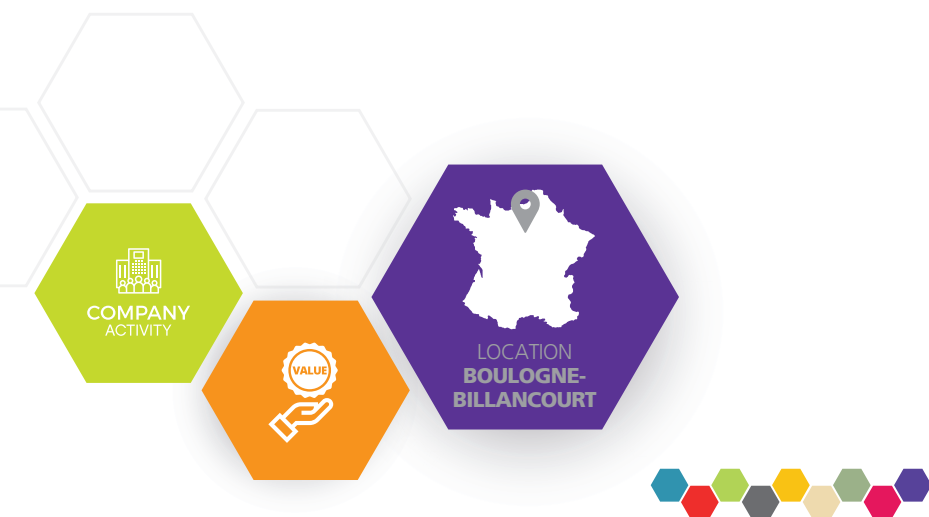
Around 25,000 deaths in Europe are associated with resistant bacteriae and this will increase if common antibiotics become useless. Better use of diagnostic tools will help to ensure smarter use of antibiotics in the years ahead.

A bacterial illness can be treated with antibiotics, but these medicines are ineffective against viruses. However, because the clinical symptoms of some illnesses may be similar (such as fever, pain and fatigue), it is not always easy for doctors to identify the source of infection. In some cases, antibiotics are prescribed for viral illnesses such as the flu.

This is a problem. Not only will the treatment not work, and is therefore wasteful, it also contributes to antimicrobial resistance. Inappropriate use of antibiotics is among the causes of antimicrobial resistance which threaten to reduce the effectiveness of antibiotics. Without antibiotics, even routine surgery would become high-risk.

To Further public awareness on this topic, bioMérieux has created a website explaining the threat and how to combat it.

www.antimicrobial-resistance.biomerieux.com



Sports therapy

Exploring the connection between sport, health and medtech

A public conference put the spotlight on the role of medical technologies in the lives of sportspeople, and the value of staying healthy through physical activity. The event, held on 7 June in Boulogne-Billancourt, was hosted by Medtronic France, attracting high-level Figures from the world of sport.



Speakers included Professor Etienne Aliot, a cardiologist and member of French Football Federation; Stéphane Tardieu, French Paralympic rowing champion; M. Serge Schaefer, a long-distance runner with cardiovascular problems; and M. Stéphane Augé a cyclist with chronic pain.

All four provided personal insights about health issues and sport, including how athletes have managed to overcome health challenges to engage in a new life – thanks to medical technologies and sport. The discussion was led by Isabelle

Gayraud, the chief editor of French health websites, medisite.fr and e-sante.fr.

Prof Etienne Alliot stressed that health problems need not be a barrier to physical activity, noting that staying active can have a positive effect on health. **‘It is the underlying illness that can be a contraindication e.g. in case of cardiopathy or arrhythmia but the practice of a sport - avoiding violent sports that could cause a shock to the device - is not contraindicated’** he said.

The event was well received by attendees and helped to highlight the ways in which medtech can support people in living normal and healthy lives.

‘We are convinced that physical activity is one of the component to help live a longer life and in better shape,’ said Yves Morel, Marketing manager at Medtronic France. **Chronic diseases – or even minor aches and pains – must not prevent the practice of sport.’**

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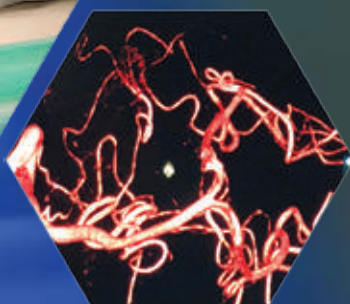
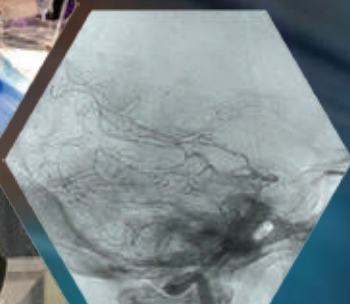
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Race against time

Blood clots blocking the flow of oxygen to the brain can cause severe damage and are sometimes fatal. Commonly known as a 'stroke', these blockages are a major cause of paralysis and disability.



Outcomes from stroke patients are improving, thanks to innovative new technologies that allow skilled surgeons to clear clots and restore blood flow.

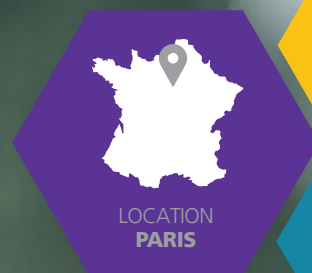
To help the public learn more about these devices, French medtech firm, Balt Group, welcomed a group of 15 journalists to its headquarter in June. The press trip, organised by Snitem, the French medtech association, was timed to mark MedTech Week and was an opportunity to showcase the meticulous work behind the production of live-saving 'flow-diverter' devices used to treat aneurysms and stroke.

The press trip generated strong interest from journalists – and excellent media coverage – with several stories focusing on the skills of those working for Balt Group.

Journalists were also able to follow live surgery on a 49-year-old patient with abnormal blood vessels in the brain. The procedure demonstrated how carefully created products can, in the hands of skilled surgeons, save the lives of people with serious illnesses.

Experts explained the procedure, emphasising the value of innovative products as well as the need to act swiftly. **'There is still room for improvement in the technique, but also in terms of logistics,'** said Dr Michel Plotin, head of interventional radiology at the Rothschild Foundation. **'For ischemic stroke, it is necessary to intervene quickly, ideally in the first three hours.'**

The media coverage also focused on the economic potential of medtech companies (SMEs) like Balt which operate in a high-growth area. By addressing unmet medical needs, innovative companies are well positioned to expand to new markets – saving thousands of lives along the way.





The next French medtech Unicorns

Young companies rewarded
For innovative new creations

French medtech start-ups are helping to solve some of the trickiest problems in modern healthcare. From new ways to manage diabetes to life-saving devices for people suffering cardiac arrest, small companies are showing that they can have a big impact on medtech.





Some of the best and brightest were celebrated at the 4th Snitem Start-up Day in Paris on 6 June at an event attended by Agnès Buzyn, Minister of Health, and Delphine Geny-Stephann, Secretary of State to the Minister of Finance.

For the 12 finalists, it was also an opportunity to pitch their ideas to industry leaders – ensuring that every had the opportunity to be a winner.

Diabeloop, a Grenoble-based company, won the 'Start-up 2018' prize for their breakthrough technology – a 'artificial pancreas' that automatically monitored glucose levels, calculates the required dose of insulin, and administers the hormone as needed. The award, based on the selection of a jury of experts, is worth €5,000 euro and ensured widespread media coverage for the young company.

The device mimics the three key components of the pancreas. It features a blood glucose sensor that sends data to a tiny computer where an algorithm determines the best dose of insulin. This information is then sent to a pump which delivers the hormone.

The second prize – the 'Coup de Cœur' – chosen by the public, went to CorWave for a cardiac arrest device. Their technology is a membrane that can produce a pulse and blood-flow rate similar to that of a healthy heart.

The other finalists also enjoyed media coverage and interaction with experts, but the real winners will be the patients who benefit from the entrepreneurial culture fostered by Snitem.





Boot Camp

Start-ups Find inspiration in six-month accelerator program

Four new companies have been working with experts and mentors from different departments from B. Braun to turn their big ideas into solutions for healthcare problems. The B. Braun Acceleration Program empowers startups, entrepreneurs & B. Braun employees to quickly transform ideas into successful business innovations. Part of the accelerator are, among others, multiday boot camps that are geared towards the company locations Melsungen, Tuttlingen, and Berlin. Boot camp number two took place just ahead of the annual MedTech Week, connected established expertise with bright ideas from start-ups.

IDEA LAB





The program was heavily promoted during MedTech Week on social media, offering an opportunity to raise awareness of the companies involved as well as the innovative culture supported by B. Braun.

The format is a chance to exchange knowledge and experiences, providing the startups founders with tailor-made skills to fast-track their product development. The experience also benefits B. Braun mentors.

“As an employee, it is important to obtain new inspiration and better understand new technologies and trends. That makes the

participation in this program so interesting. Also, it’s about acquiring new methods of customer centric product development and integrated business-model generation”, says Alger Tessin, Senior Manager Marketing & Sales Critical Care at B. Braun.

For the startups this cooperation is an exciting and helpful way to drive forward the development process of their product or business area, discuss challenges, and come up with new market access solutions and validations with customers. Within the B. Braun Accelerator the young companies Recare, Bluedrop Medical, Admetsys, and

Boca Health, were able to perform intensive market research, refine their business plans, and finally finish their prototypes, which already have been presented at the B. Braun Accelerator Demo Day in the beginning of September 2018.

For B. Braun the next steps are ready to take, as Alexander Katzung, Vice President Acceleration & Innovation at B. Braun, announced at the Demo Day: **“With a second worldwide call for startups and B. Braun employees, we will continue with the accelerator, which has been successfully launched, in the future.”**



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Food For thought

Access to innovation was on the menu at 'parliamentary breakFast'

Home care and eHealth can improve the lives of patients, by bringing healthcare closer to the user and streamlining how services are delivered. That was among the key messages for politicians at a breakFast meeting on 6 June hosted by SPECTARIS, the German industry association for high-tech medium-sized businesses in medical technology.





The event attracted Dr Ralf Brauksiepe, the Federal Government's Commissioner for Patient Affairs; Dr Roy Kühne, a leading member of the Bundestag Committee on Public Health; Dietrich Monstadt, board member of the parliamentary group representing medium-sized businesses, and numerous other members of parliament

The interactive meeting was an opportunity for companies to share the industry's positive impact on patients, and for politicians to explore how policy can support this.

Martin Braecklein of Linde Healthcare called for an easier path to market for digital applications. **'Above all, eHealth means increased benefits for the patient,' he argued. 'Illnesses can be detected earlier, diagnoses can be made more reliable, hospital stays avoided**

or shortened. We therefore need to secure digital networking of all stakeholders in the healthcare sector.'

Participants also heard how the quality of homecare can be improved and why focusing on the overall value – rather than purchase prices – improves outcomes for patients and health systems. Company leaders also offered insights on how regulation affects innovative companies that drive progress and economic growth in the sector.

Politicians recognised the importance of the industry to the health sector and the economy and agreed that the constructive exchanges would continue at future parliamentary events.





Extraordinary stories, ordinary lives

Meet the patients For whom medtech is a way of life

H

Heart problems, joint replacement, incontinence – people living with these conditions all want the same thing: to live a normal life.

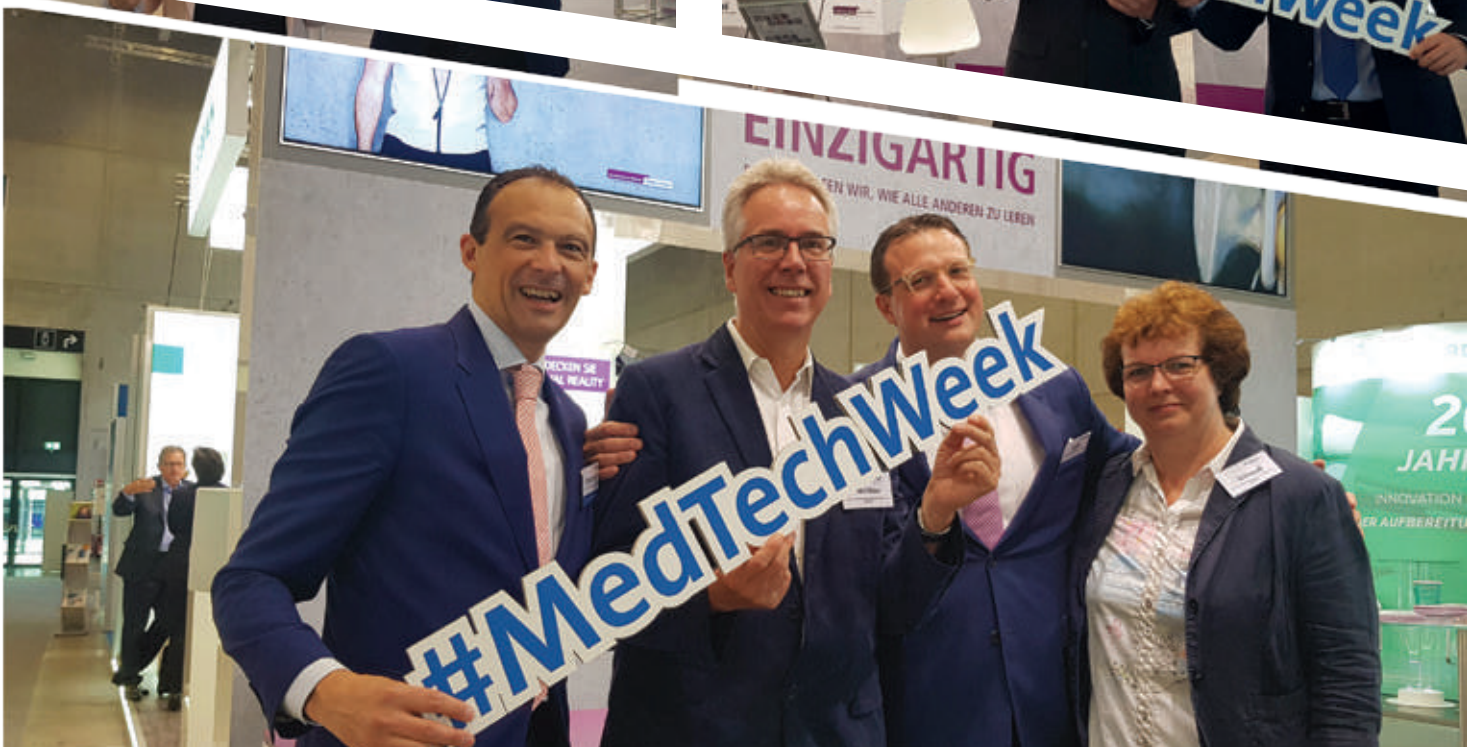
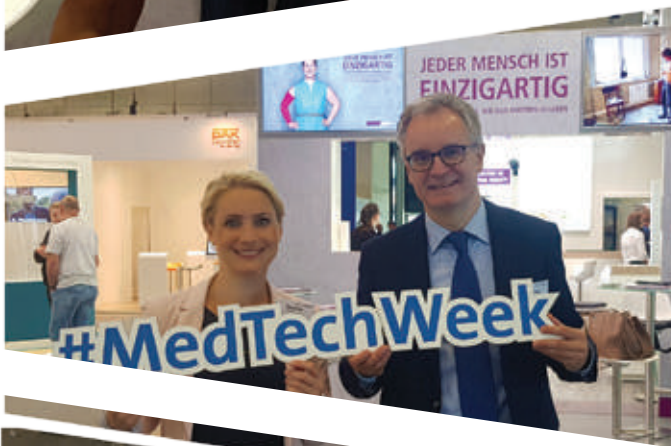
The 'Body Pride' campaign organised by BVMed, the German Medical Technology Association, shares the stories of people whose lives have been transformed by medical technologies.

The initiative uses storytelling to engage the public by adding a human face to the daily challenges people with chronic conditions can face. While their stories are unique, and the technologies can be extraordinary, the stories show how people enjoy getting on with their lives – through sports, work, and relationships.

The campaign was featured at BVMed's booth at the German Capital Congress 'Medicine & Health', which ran from 6 to 8 June in Berlin. The event was attended by 8,500 decision-makers, politicians, health professionals, and health insurers – making it the biggest of its kind in Germany.

'The campaign portrays patients with chronic diseases who live their lives to the fullest,' says Joachim M. Schmitt, BVMed CEO. **'It aims to improve the public's understanding of the situations the patients face in their lives, and to show the importance of medical devices for independent living.'** The 'Body Pride' motto emphasises how individuals can benefit from modern healthcare: **'Every human being is unique – we help some of them to live like everybody else.'**





EVERYONE IS UNIQUE

WE HELP PEOPLE TO LIVE LIKE EVERYONE ELSE

Claudia Weber (53) underwent hip replacement surgery – as 230,000 patients do each year in Germany. Thanks to the latest medical technology she is physically active, doing sports and working without pain. Find out more: www.bvmed.de/koerperstolz

PERSPECTIVE



Der Mensch als Maßstab Medizintechnologie
DIE UNTERNEHMEN IM BUNDESVERBAND MEDIZINTECHNOLOGIE

“I am active, pain-free and proud of my body”

In 2009, I was diagnosed with hip dysplasia. I didn't decide to have a hip replacement until eight years later – when the pain became unbearable and was impacting my life too much. Today, I can barely remember the pain that I once lived with. I decided to share my story through the Körperstolz campaign so that others might benefit from my experience.

 Claudia Weber, Patient Advocate

I first discovered the problem with my hip by chance. In 2000, I injured my knee when skiing and experienced pain in my hip during a knee arthroscopy in 2009. Further examinations revealed that I had dysplasia – a congenital defect in the position of the hip. I was told that sooner or later I would need an artificial hip joint. Depending on how much strain is placed on it, my hip should last between one and 15 years.

By 2015, I was finding it difficult to do daily tasks like climbing the stairs and putting on socks. I was unable to participate in sport and, within a year, could sleep only with the help of sleeping pills.

My quality of life was massively restricted, and my family life continually had to take a back seat because I couldn't move very much.



I was unsure whether to have surgery but at some point, I said to myself: 'OK, I'm going to do it now, I really can't go on like this'. I finally had surgery in June 2017.

After two weeks of rehabilitation, I was able to walk quite well without crutches and I was pain-free. Soon after that I was walking out the door of the rehabilitation centre without crutches. I was so happy!

EVERYONE IS UNIQUE

WE HELP PEOPLE TO LIVE LIKE EVERYONE ELSE

Torsten Kraft (34) is one of around 9 million people in Germany who lives with incontinence. Modern incontinence aids such as incontinence briefs or pads makes everyday life easier and means they are in control of their lives. Find out more: www.bvmed.de/koerperstolz

PERSPECTIVE



Der Mensch als Maßstab | Medizintechnologie
DIE UNTERNEHMEN IM BUNDESVERBAND MEDIZINTECHNOLOGIE

“Breaking the incontinence taboo”

I am one of around 9 million people in Germany who lives with incontinence. In my case, I was born with it. Doctors tried all sorts of medicines when I was a teenager, but they had very strong side effects for me so, at some point, I accepted that incontinence is simply part of who I am.

 **Torsten Kraft, Patient Advocate**

After talking to my GP, I decided to use pads. I'm out and about a lot working as a carpenter, so pads are actually the best product for me. I get them from a medical supply store in the next town. Home delivery should be for people who really need it, like older people who can't get around anymore.

Leak-proof pads are very important for me, especially with my job. And, of course, they have to be absorbent and odour-proof. With pads you really get what you pay for... The expensive ones are good, but they cost extra.

I normally change the pads around six times a day – although this can increase if I'm at Oktoberfest drinking beer!



These days, I'm not restricted by incontinence. Of course, I always have to make sure I've got enough spare pads with me. And, you're limited with swimming, but that's about it. I can still go hiking, spend time with my girlfriend and do my work.

My advice for others living with incontinence is simple: Don't hide or conceal it, deal with it openly and learn to live with it.

EVERYONE IS UNIQUE

WE HELP PEOPLE TO LIVE LIKE EVERYONE ELSE

Angela Jaschke was 80 when she was diagnosed with aortic stenosis. She underwent minimally invasive surgery and had a new heart valve implanted by catheter, as do 15,000 other people every year in Germany. She is still alive thanks to this minimally invasive method and is just as active and in control of her life as before. Find out more: www.bvmed.de/koerperstolz

PERSPECTIVE



Der Mensch als Maßstab Medizintechnologie
DIE UNTERNEHMEN IM BUNDESVERBAND MEDIZINTECHNOLOGIE

“New heart valve gives 82-year-old new life”

At the end of February 2016, during a routine examination my doctor explained I had severe calcification of the aortic valve and had to be operated on immediately. He explained the minimally invasive TAVI method to me and a surgeon explained classic aortic valve replacement when the chest is opened up.

 **Angela Jaschke, Patient Advocate**

I soon realised that I wanted them to use the TAVI method for the operation. My body was otherwise very fit – I’m a keen swimmer – but, when you’re 80 years old, they don’t like opening up your chest.

Even after I’d made my decision, I still asked the surgeon endless questions. As a lay person, I needed to be able to visualise how the operation would be done. It’s important, because knowledge lessens your fears. And a good relationship with your doctor is also important.

The catheter containing the new heart valve, which is folded up very small, was inserted by the cardiologist through the main artery and then moved up through the body to the correct position in the heart, where the calcified valve is located.

The new valve was then opened up using a balloon. It presses the old one against the artery wall and starts working. Then catheter is then removed. Under full anaesthetic you don’t notice a thing, not even the small incision of a couple of centimetres that is made to introduce the catheter.

Six weeks after the operation, I was back at the poolside, coaching my water aerobics group.





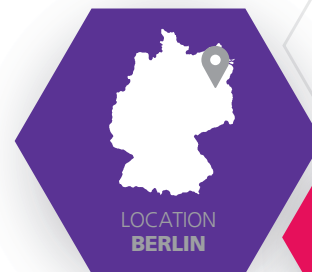
Tomorrow's world

Digital health will boost patient safety and tackle infection control

In the fast-moving world of modern healthcare, patient safety is paramount. eHealth technologies can help to monitor patient safety, while digital surgery promises to make operations safer and more precise.

The future of digital health devices was among the topics addressed at the German Capital Congress 'Medicine & Health'. Among the speakers were senior representatives from J&J which was a partner of the congress. They discuss subjects ranging from smoking cessation and obesity to infection control and the company's 30 years of support for the charity organization Operation Smile.

Throughout the event, digital health was a recurring theme. Jens Spahn, Minister of health, Germany, echoed the call for a focus on digital tools, adding that a clear path to market is needed to incentivize innovative companies. **'We want to be at the forefront of digitising healthcare,'** he said. **'For providers of digital solutions, legal certainty must be created for the approval of medical device and for health insurance reimbursement.'**

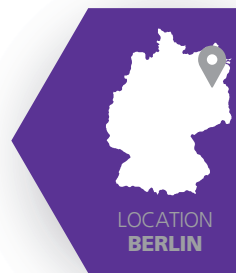




Science V diabetes

Charity Football match champions
diabetes awareness

Both teams lining out. For the match between FC Diabetologie and FC Bundestag shared the same goal – to score a publicity victory in the battle against diabetes.



More than 6.8 million people are known to have diabetes in Germany, with another million likely to be living undiagnosed with the disease. On the eve of the kick-off of the World Cup, the teams – representing diabetes advocates and parliamentarians – raised awareness of diabetes, as well as its diagnosis and control through the government's National Diabetes Strategy.

'Every two minutes, a person falls ill with diabetes,' said Dr Martin Walger, Managing Director of VDPH – a manufacturers association representing

100 companies in the diagnostics and life science research industries. **'Rapid digitisation of healthcare must be at the heart of the strategy, as the diabetes patient benefits from it in everyday life,'** said Walger.

The game took place in the Friedrich-Ludwig-Jahn-Sportpark in Berlin, with VDPH on hand to support the players and promote glucose measurement technologies by offering free glucose tests. This illustrated how blood sugar levels can fluctuate during physical exertion.

'Regular glucose measurement is vital for all people with diabetes, even those who are not insulin-dependent, because they have to manage their own disease 99% of the time,' Walger said, stressing the importance of health insurance companies reimbursing accurate measuring systems.

The charity football match was more than just a game. After the final whistle the teams joined forces for a 'third half' where they discussed – in a political debate - tactics for beating their real opponent – diabetes.





Smart Factories

3D printing, big data, artificial intelligence and robotics are changing manufacturing

The Factories of the Future are here: modern manufacturing combines highly-skilled workers with advances in artificial intelligence (AI), automation and 3D printing to deliver greater productivity. Meanwhile, in the clinic, robotic surgery and data-driven decision aids are making medicine more precise and more personalised.

While medical technologies are driving change in hospitals, the way in which these devices are produced has also been revolutionised. 'New thinking in Enterprise Excellence', a conference on manufacturing, was hosted by the Ibec Medtech and Engineering group on 7 June explored the latest disruptive technologies that are transforming manufacturing. Ireland is at the forefront of this shift. The Galway event was attended by 200 people.

'In Ireland the proportion of workers in high-tech manufacturing sectors is already three times the EU15 average and twice that of any other advanced manufacturing countries, including Germany,' said Seabrook Technology Group CEO and Manufacturing Conference Director Sean O'Sullivan

Adrienne McDonnell, Irish Medtech Association Senior Executive, said embracing modern manufacturing can help medtech companies improve productivity: **'Output per hour worked in Ireland is now amongst the highest of any country globally. For every worker it took to manufacture a unit of output in Irish factories in 1998 it only took**

0.2 of a worker by 2016, outperforming the US at 0.6.'

However, with Irish competitiveness under pressure, she called for investment in advanced manufacturing to ensure sustainable growth. **'Creating 'smart factories' with people-centred operations will support new ways of delivering manufacturing innovation that lead to better patient outcomes,'** she said. **'Along with 3D printing and data analytics, one of the major disruptors is personalised care with the use of AI and robotic surgery revolutionising modern healthcare.'**

At a separate meeting for 50 Ibec members, explored how trends in machine learning, image recognition and natural language understanding will impact on medtech and engineering.

Both events painted a picture of a rapidly changing industrial landscape where the impact of human ingenuity would be accelerated by digital innovation. If managed well, it promises greater productivity and improved patient outcomes.





'We need to talk about MedTech'



Communicating about the value of medical technology – and the economic benefits of a thriving medtech sector – can improve public awareness and appreciation of the sector.

Communicating about the value of medical technology – and the economic benefits of a thriving medtech sector – can improve public awareness and appreciation of the sector.

Recognising great communication campaigns helps inspire others to create innovative ways of engaging with the public about medtech.

That's the thinking behind the inaugural Best European MedTech Week Campaign award, presented at the Medtech Rising conference hosted by Ibec's Irish Medtech Association, Enterprise Ireland, and IDA Ireland, in the Radisson Blu Galway,

The winner, Tinderpoint, is a digital marketing agency based in Dublin and specialising in medical devices, insurance, utilities and

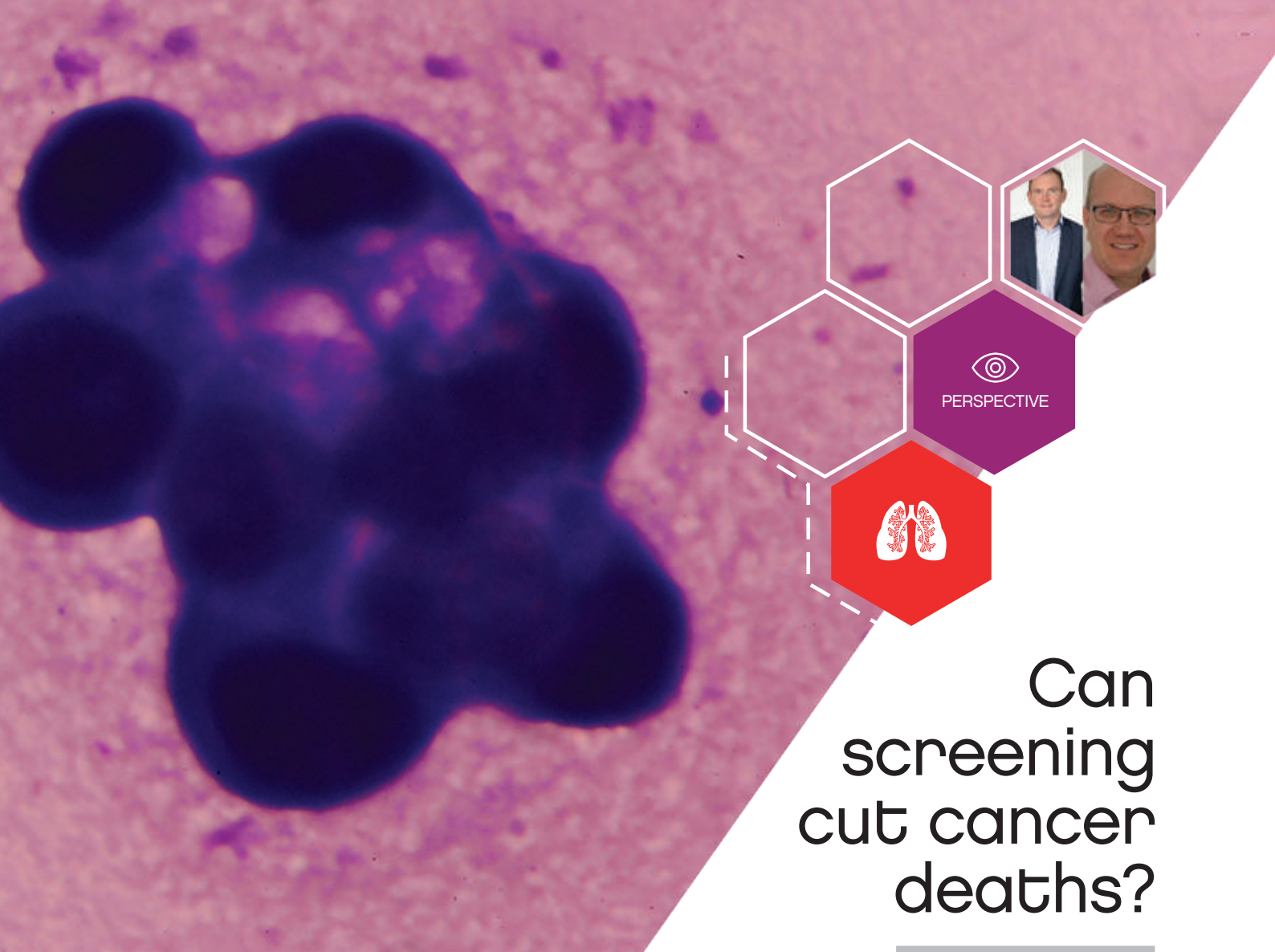
pharmaceutical sectors. With its team of 15 experts, Tinderpoint was Ireland's first Google-Qualified Partner.

The company's award-winning campaign – 'We Need to Talk About MedTech' – featured a vox pop testing the public's knowledge of medical devices. The quiz was also featured on a special micro-site along with infographics and facts about the sector in Ireland.

Entries For the Irish Medtech Awards 2018 can be submitted online

www.irishmedtechassoc.ie/awards





Can screening cut cancer deaths?

We all know someone affected by cancer – a friend, a neighbour, a loved one. While outcomes are improving in many forms of the disease, the word ‘cancer’ still strikes fear in the hearts of those who hear it.

Jo Van den Broeck, Marketing Director EMEA - Disease State Management - Lung Health - Medtronic
Dr. Sebastian Schmidt, Head of Strategy and Medical Affairs Computed Tomography - Siemens Healthineers

Take lung cancer, for example. The disease kills more Europeans than any other cancer: more than 250,000 citizens of the EU-28 die annually. The impact of the disease can be curbed by diagnosing cases as early as possible – maximising the opportunity for successful surgery or treatment.

Low-dose computed tomography (LDCT) lung screening can identify early stage cancer. Clinical trials have shown that 10-year survival in computed tomography CT screen-detected cancer is 88%. That is even higher than the typical 5-year survival for early stage disease in clinical practice.

Other innovations, such as Electromagnetic Navigation Bronchoscopy (ENB) – a minimally invasive approach to visualising and accessing difficult-to-reach areas of the lung – provide for further early diagnosis opportunities.

New technologies will allow us to go even further by providing tools to triage patients prior to CT scanning. Molecular markers in the blood – or even in the breath – will help doctors to decide whether someone is a suitable candidate for low-dose CT screening.

These ‘breathprint’ markers are hugely exciting and will transform cancer diagnostics in the decades to come. Artificial intelligence systems will also add new levels of sophistication to our triage systems. However, developing and validating such tools will take time.

In the meantime, policymakers should act to reduce the burden of lung cancer by implementing policies that enable screening. We have technologies that can save patients’ lives today. Let’s ensure patients have access to screening without further delay.





MedTech magnet

Ireland's Mid-West shows how regions can become thriving medtech hubs

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ith 24 medical technology companies in Limerick and a further 43 firms in the wider region, Ireland's Mid-West has become a medtech cluster. The success story has been attributed to a business-friendly ecosystem, with business leaders saying there is still room for further expansion.

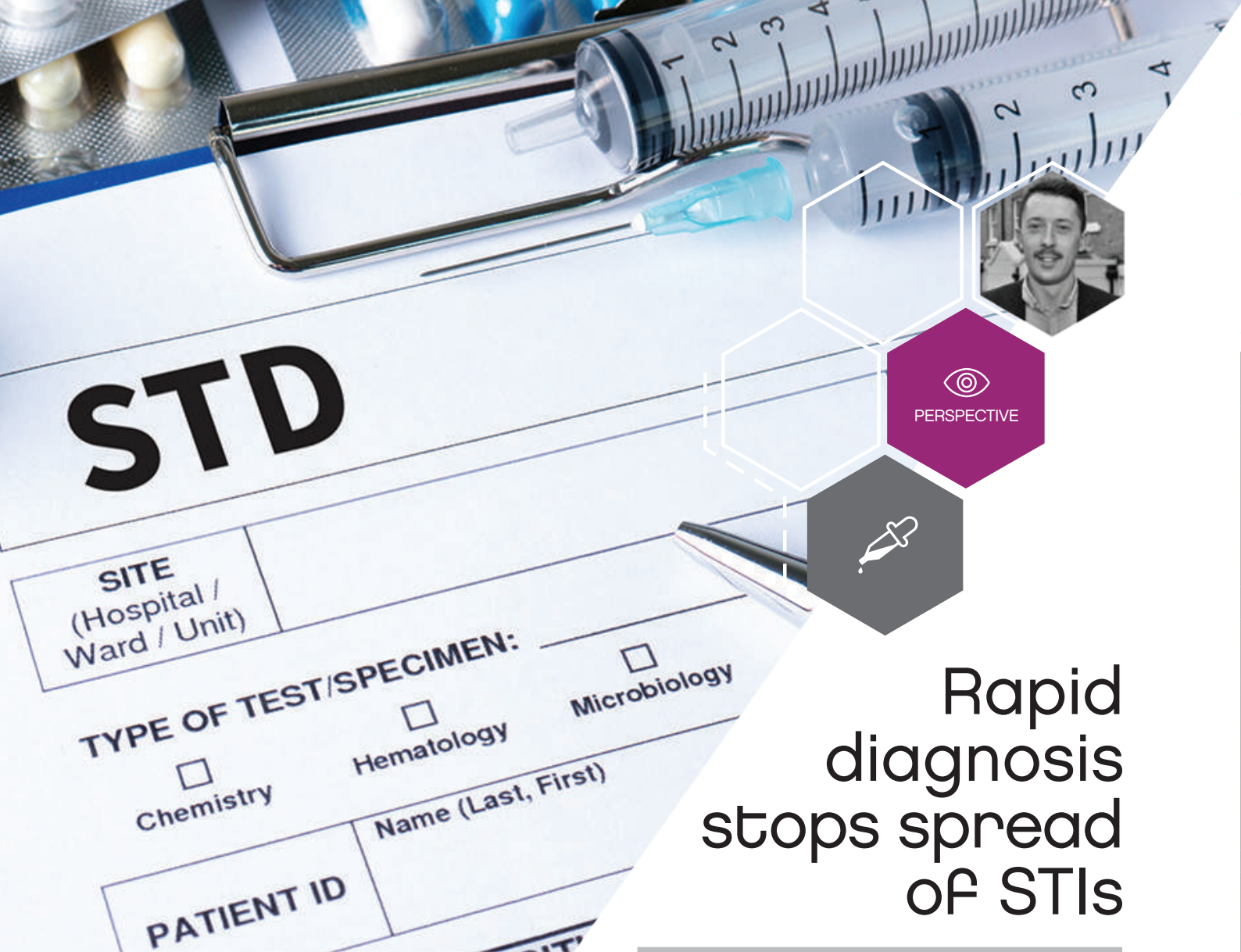
Dozens of senior figures from the medtech sector, the wider business community, academia, politics and the media came together on 6 June in Limerick for a breakfast briefing entitled MedTech in the Mid-West.

The event showcased initiatives designed to make the region attractive to business and talent, highlighting the industry's role in generating high-end manufacturing jobs and other roles. The event was featured in local and national press, as well as on online media and a leading nationwide radio programme.

Bill Doherty of Cook Medical, which organised the briefing, said MedTech Week offered an opportunity to highlight the innovative products and services developed in the region, as well as their role in promoting the health and wealth of citizens across the globe.

'It also gives us an opportunity to reflect on the wider business landscape of the Mid-West,' said Doherty. 'Through continuous dialogue with government, the relevant authorities, educators, local businesses and our industry peers in the Mid-West, we hope to encourage and sustain a strong pipeline of investment into the region.'





Rapid diagnosis stops spread of STIs

When I started working in the public health system in the UK, parts of the patient experience of Sexual Health services were far from ideal. It took a week for a clinic to receive test results and there was further delay in notifying the patient.

 **James Beckett**, Clinical Solutions Executive at Cepheid

One of the most pioneering clinics was at Dean Street Express (DSE) in London's Soho district used an on-demand molecular diagnostics system onsite. Results were delivered to the patient within three or four hours. For STIs like chlamydia and gonorrhoea, patients receive a text message with their test result.

If patients get the all clear, they get on with their lives; if the test is positive, they receive a link that allows them to book an appointment so that treatment could be initiated as soon as possible.

Patients told us that getting results more quickly was much better than having to wait, 94% of patients rated the new experience as 'excellent'.



For the wider health system, there are further benefits. For every two people diagnosed with an infection, one partner is spared exposure to the disease. Research shows that, based on around 60,000 fast tests, 196 new cases of chlamydia and gonorrhoea were prevented at DSE alone. This led to annual savings (from fewer partners exposed and reduced partner attendances) of €142,000.

In my experience, attitudes in this field are shifting. Patient expectations have changed – there are very few things in modern life where we wait nine days for an answer. Faster test results were once seen as a nice-to-have but are quickly becoming a must from the perspective of patients, public health and health system efficiency.



‘It was like Star Wars’

A constellation of tech saved Mick’s life



Mick MacClancy had just walked through the doors of a hotel, on his way to a concert with his wife, when he collapsed without warning.

Fortunately, a woman trained in cardiopulmonary resuscitation (CPR) was in the hotel lobby and she ran to help. The hotel’s defibrillator was used to keep Mick’s heart going until paramedics arrived and took over, using a mechanical chest compression device.

Mick was rushed to hospital where he was admitted to the intensive care unit. His wife, Grainne, was shocked but relieved that her husband was in good hands.

But Mick was not out of danger. His condition deteriorated during the night and Grainne was called back to the hospital urgently. Mick was put into an induced coma for 10 days during which his life was sustained by a range of medical interventions and devices – including a dialysis machine which was essential after his kidneys failed.

‘It was like Star Wars around his bed,’ says Grainne, referring to the array of medtech that Mick needed during his recovery.

Once Mick had stabilised, he was transferred to a cardiac specialist where he had a stent inserted to help unblock his artery.

Dr Ross Murphy, St James’s Hospital in Dublin, who performed the surgery said Mick was fortunate to have trained people on hand

to provide CPR, as well as access to state-of-the art equipment in the community and in the hospital.

‘I first met Mick about two weeks after his cardiac arrest,’ he said. ‘We managed to stent his coronary arteries, which were blocked, and insert a defibrillator – a shock box – that he carries around with him now, under his skin like a pacemaker. This gives him security. He’s back to work living a totally independent life.’

The dramatic story – including the moment Mick collapsed – is captured in a video produced by the Irish Medical and Surgical Trade Association (IMSTA) and published through social media during MedTech Week.

‘Getting home was my ultimate goal,’ says Mick. ‘The fantastic care I had from wonderful people – and technology – was incredible.’





Future proof

Companies will need evidence to provide
the value to innovations

‘Without evidence, there is no Future.’ That was the message Ulrich Oron, healthcare consultant at C3, delivered to a symposium on 6 June organised by NeFemed, the Dutch medtech association.

Data to illustrate the safety, effectiveness – and economic value – of medical technologies will be essential to securing payment in the future. Health technology assessment, market access and reimbursement systems are all demanding more data.

The event, opened by Ricco Buitink from the Ministry of Health, focused on the Dutch government’s vision for medical technologies. With value-based healthcare taking centre stage, companies will need data to justify payment.





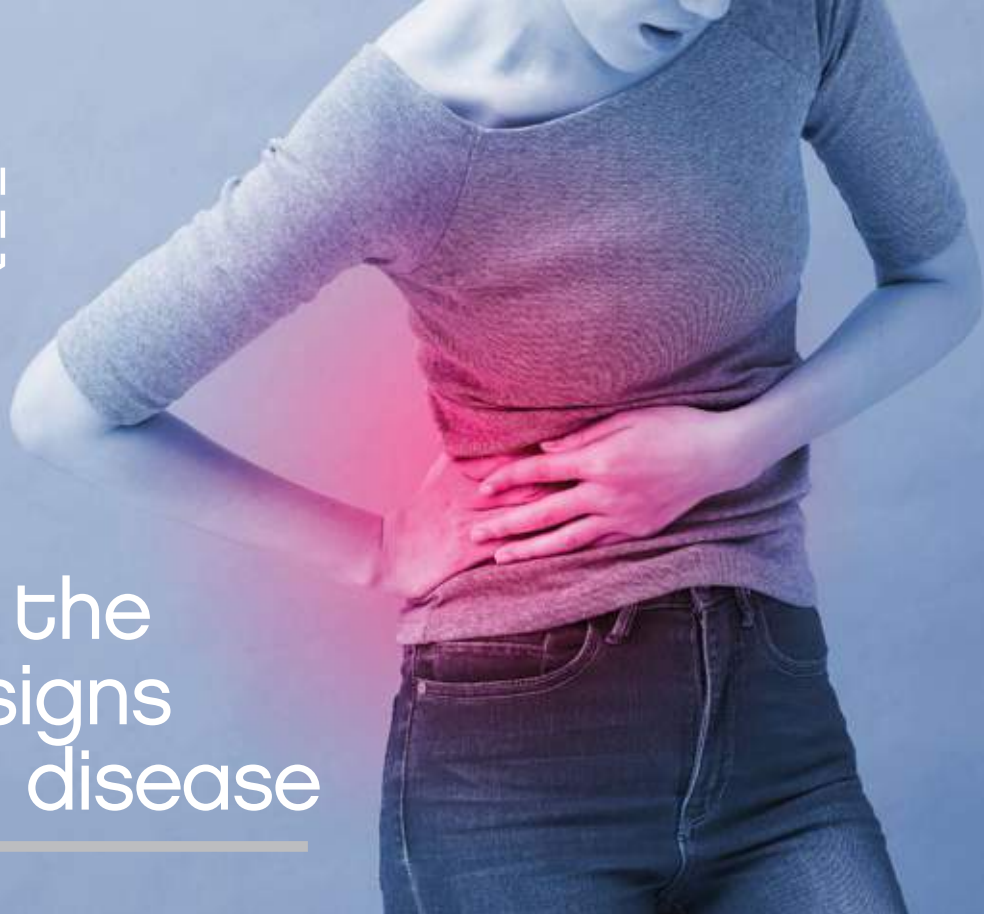
Nicole Poldervaart, purchasing manager at Menzis, gave a presentation on health insurance in a value-based healthcare system. She discussed how today's payment and reimbursement procedures could become obsolete, if insurers decide to reward good patient outcomes and protects that added value to the health system.

This prompted a discussion of the changes companies would need to make to ensure that they are generating the required

data and that they have the skills to engage with payers to define and measure outcomes.

The symposium, attended by 50 people, proves that the industry is already shifting towards a value-based approach to innovation. This new system has the potential to ensure evidence-based healthcare reaches every level of medicine, from product design, to patient care and payment systems.





Spotting the tell-tale signs of kidney disease

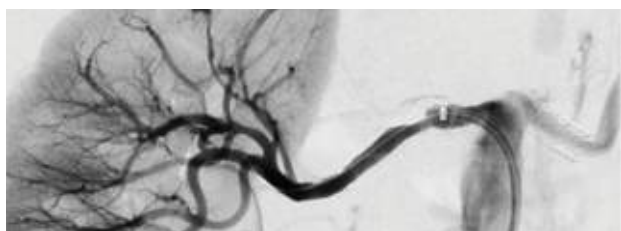
We all know someone living with chronic kidney disease (CKD) – even if they have not yet been diagnosed: it is estimated that 10 percent of the global population is affected by CKD.

 **Jeffrey Mayfield, PhD and Julie Chaney, PhD** - Sr. Scientists at Siemens Healthineers

Timely detection can impact patient outcomes and curb healthcare costs. So, what are the tell-tale signs of kidney problems? The presence of increased amounts of protein (albumin) in urine, or microalbuminuria, is a key indicator of kidney function and is routinely used to monitor the health of patients with diabetes mellitus.

When it comes to routine screening in a point-of-care setting, we believe the best available option for urine creatinine estimation is urine albumin-creatinine ratio (ACR).

Yearly urine ACR tests are recommended for patients with diabetes to identify progression of kidney failure. Urine dipstick analysis allows for a number of tests to be run at once on one sample. For example, complementary urine tests can aid in assessing carbohydrate metabolism or potential infections. Additionally, urine sediment analysis provides information not available from urine ACR or urine dipstick testing.



Automated analysis

Urine sediment analysis has historically been performed manually, but manual analysis is time-consuming and difficult to standardize. Urine dipstick testing has been automated, removing user variation and allowing high-throughput testing. In recent years, automated methods of sediment analysis have also become available and are likely to be of increasing importance in the future.

Urinalysis is one of the oldest and most established methods of medical diagnostics and remains a simple and rapid means of monitoring patient health.

We see the ability to assess kidney function through urine ACR tests as critical, as it may indicate serious complications that require further investigation. It can also potentially be cost-saving as it can be used to screen for good kidney function, thus avoiding other unnecessary tests.

In light of the continuing burden of chronic disease and rising healthcare costs, we expect urinalysis to continue to be critical in the future. Routine screening of diabetic patients for early signs of kidney disease with a simple ACR test can improve the quality of life and help control healthcare costs.



It's in the blood



Blood:
it's the life-giving
liquid coursing through our veins –
carrying oxygen, transporting nutrients and defending us against
disease. But blood is more than a sophisticated transportation system.

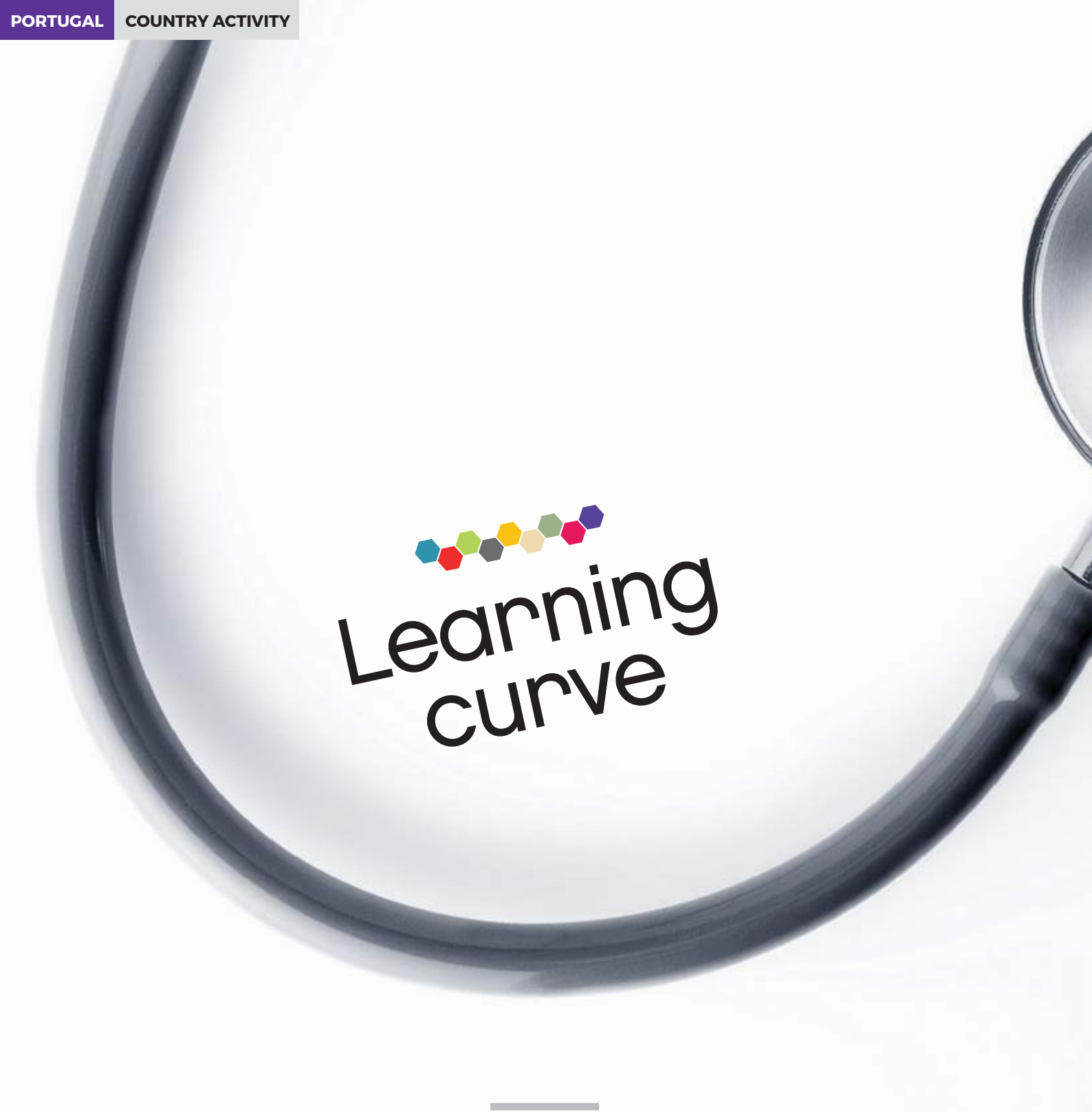
It contains vital information about our health. A few drops of blood can be used to detect infection, calculate the risk of disease, and identify haematological disorders such as anaemia. Modern blood tests can check hormone levels, cholesterol levels and highlight genetic defects – even before physical symptoms develop.

The role of haematological diagnostics was centre stage at a scientific and training conference in Kolobrzeg, Poland, on 7-8 June. Entitled 'Laboratory Medicine the Face of Challenges 2018', the event featured more than 15 leading speakers from hospitals and universities, as well as the National Chamber of Laboratory Diagnostics and the Polish Society for Laboratory Diagnostics

Led by Dr Katarzyna Fischer, Chairwoman of the Organizing Committee, Polish Society for Laboratory Diagnostics in Szczecin, it attracted more than 100 healthcare professionals from northern Poland. The conference was accompanied by an exhibition of laboratory devices as well as meetings with the manufacturers of IVD products.

Józef L. Jakubiec, General Director of IPDDL & MedTech Europe Board Member, highlighted the vital role laboratory technologies play in guiding clinical decisions:

"No other use of medical technology provides at such a low cost of so much information from prophylactic medicine to corrective medicine. MedTech Week is a great opportunity to talk about different aspects of the value of diagnostic information for a patient's care system."



Learning curve

The public knows little about medtech –
it's time to teach them

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hat is medical technology? For some, it's the difference between life and death. But for people who do not have regular interaction with the health system – or who never see the devices and diagnostics that help keep them well – medical technology remains a mystery.



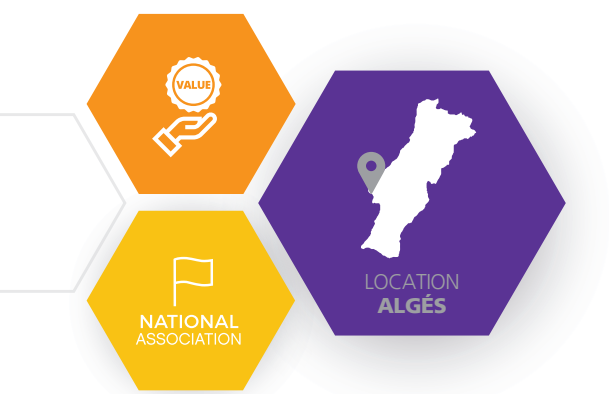
A revealing vox pop by APORMED, the Portuguese medical technology association, found that most people know very little about medtech. This prompted the association to launch a multi-faceted campaign to raise public awareness.

‘The majority of the population does not know what a medical device is, and they are unaware that some of them can save lives and are fundamental for the diagnosis and treatment of many diseases and medical emergencies,’ said Antonieta Lucas, President of APORMED.

The low level of knowledge may contribute to low uptake of innovative technologies. It may also feed the misperception that medical devices are simply a cost to the health system – rather than a means of improving efficiency.

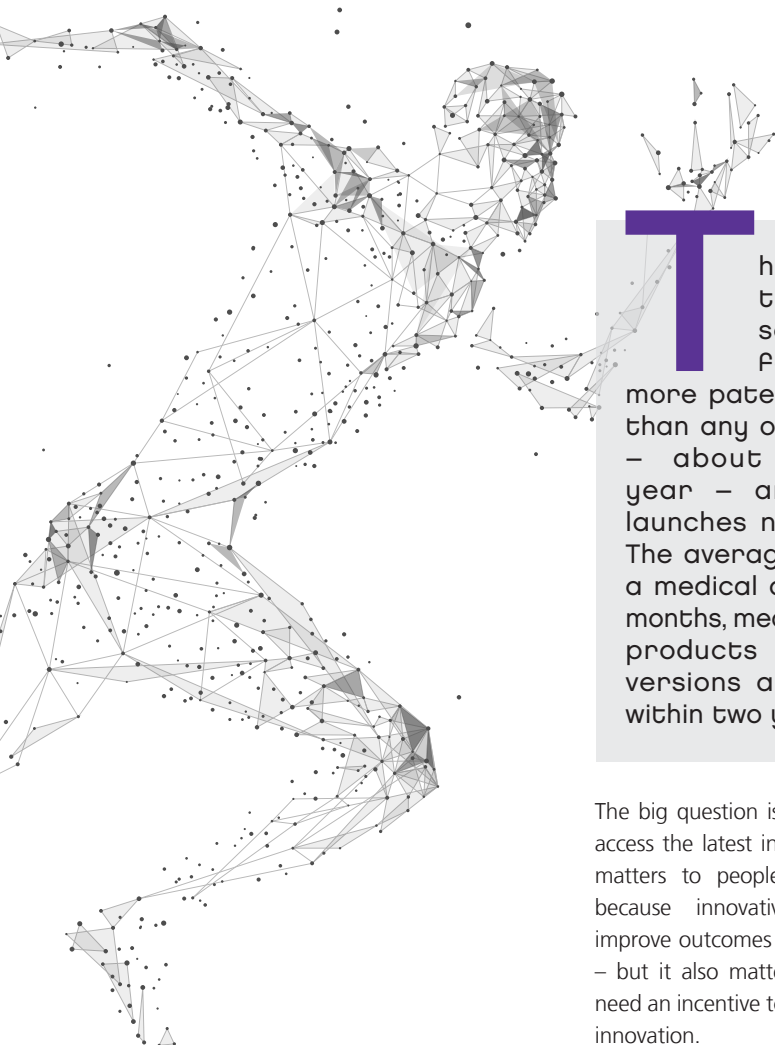
‘Medical technologies should be seen as a source of revenue and not just of expenditure,’ said Ms Lucas. **‘They contribute to the development of the economy, employment and export capacity, which is already €268 million.’**

Quizzes, video testimonials by patients and doctors, newspaper articles and social media campaigns combined during MedTech Week to improve public awareness of medtech in Portugal. The media blitz, including a series of sponsored articles in Diário de Notícias, may have helped to address the deep knowledge deficit – but there is still a lot to learn.



Accelerating access

Innovation is happening Faster than ever –
can the health system keep up?



The medical technology sector moves fast: it files more patents in Europe than any other industry – about 12,000 per year – and regularly launches new products. The average lifecycle of a medical device is 18-24 months, meaning that new products or upgraded versions are developed within two years.

The big question is whether patients can access the latest innovations quickly. This matters to people and health systems because innovative technologies can improve outcomes and deliver efficiencies – but it also matters to companies who need an incentive to invest in research and innovation.

Writing in the Observador online newspaper, João Gonçalves, Secretary General of APORMED, the Portuguese Association of

Medical Device Companies, argued that innovation is essential to the sustainability of the national health service.

'It is therefore essential that the health market in general, and particularly for medical devices, be sufficiently attractive to maintain and attract new investments from companies,' he wrote.

The article, published on 4 June, calls policymakers to accelerate access to the latest medical products by making the healthcare system more receptive to innovation. Mr Gonçalves suggested the removal of obstacles to clinical studies on medical devices; stronger emphasis on overall value in public procurement; and the removal of regulatory hurdles that add costs for Portuguese companies which those in other EU countries do not face.

'Only in this way will it be possible for this industry to continue to ensure quality services and products for the benefit of all Portuguese citizens,' he said.



PERSPECTIVE



Real results, virtual training

believe that one of the most interesting and innovative areas of healthcare today – where technology can add value and improve outcomes – exists before a clinician even reaches the operating room (OR). It's here that technology such as virtual reality (VR) proves itself to be a crucial vehicle to maximize clinician capabilities through training and development.

Filip Standaert, Vice-President of Marketing & Education Solutions,
Europe, Middle East and Africa (EMEA) at Johnson & Johnson

When it comes to delivering education, VR data truly speaks for itself. A study conducted in 2017 with the first Johnson & Johnson VR education module found that 80 percent of 107 interviewed orthopaedic surgeons would like to use VR frequently for training, and 90 percent would recommend VR training to their peers.

VR enables surgeons to train in a fully immersive virtual OR environment that is safe and provides them with flexibility, repeatability and direct feedback to enhance technical skills.

But VR training is not just limited to surgeons. In-service training for nurses is an area that has historically seen little investment. VR may prove a powerful system to address nurses' training needs, helping to build a more confident, multi-disciplinary OR team, and ultimately delivering better results for patients.

The Johnson & Johnson (J&J) Institute has trained residents in minimally invasive surgery using VR simulators. This training has helped to build proficiency in performing procedures, reducing the potential for patient complications.

VR-based training also has positive implications for value-based healthcare with the potential to eliminate travel costs and save time.

I have no doubt that VR training has an important role in the future of professional education, and I'm excited to see a world where technology, delivered together with exceptional training and education, supports the ever-improving standards of healthcare.



Colorectal cancer: don't delay diagnosis




PERSPECTIVE



Almost one in ten cancers are classified as colorectal. Incidence is higher in developed countries and is rising as the population ages. Around 470,000 Europeans are diagnosed with the disease each year. In my country, Portugal, the disease kills close to 4,000 people annually.

A nurse's perspective

However, in working with patients affected by the disease, I have learned that awareness of colorectal cancer – or bowel cancer – is low compared to other cancers. Sadly, the impact of delaying diagnosis is significant.

More than 90% of patient diagnosed with cancer in the wall of the colon will survive for more than five years. For those diagnosed later, in stages III and IV, the outcomes are much less encouraging. Around 50% of patients with stage III colon cancer will survive for more than five years. Only 10-20% of stage IV patients survive beyond five years.

As someone who has had difficult conversations with patients diagnosed with late-stage cancer, I can attest to the importance of early intervention. That is why I was happy to take part in a colorectal screening initiative in Portugal.

This project has shown how testing stool samples for blood can help to raise awareness of the disease and, crucially, identify cancers early. Leaflets, a website, a Facebook page and SMS reminders were part of a multimedia approach to engaging with patients and encourage screening.

The Portuguese Colorectal Society found that the campaign made patients more alert to symptoms of the disease and more proactive about seeking medical attention.

As a nurse, I am proud to have taken part in this campaign. Let's hope we can continue to embrace screening initiatives which are proven to be effective – for patients, for health professionals and for the wider health system.

Digital health is reshaping rehab

Wearables, sensors, gaming technologies – new digital tools are radically changing physiotherapy and rehabilitation. And, by delivering better results for patients and for health systems, they are moving musculoskeletal care to the heart of value-based healthcare.

 **Satschin Bansal,**
Senior Director Business Development, Head
Connected Health EMEA Asia-Pac



Think of rehabilitation after a knee or hip replacement. The six weeks after surgery are crucial to the patients' quality of life after they recover. A major challenge, particularly in older populations, is patient compliance with physiotherapy.

One solution is to use wearable devices with sensors that give biofeedback to patients on whether they are bending their knee correctly or whether their mobility has improved. It can become like a "game", making them more likely to stick with exercising.

For health systems, digital health can deliver better cost-effectiveness. The major costs of rehab are performing physiotherapy at a clinic and then later at home. The strong increase in using mobile technology among elderly patients means physiotherapy can be delivered remotely.

This is potentially a win-win: patients could make fewer trips to the clinic and follow a programme conveniently at home, while health professionals enhance productivity by managing more patients.

A change in mindset is needed from all healthcare players to unlock the potential of digital health. It's time for hospitals, suppliers and payers to discuss how this approach could bring benefits for patients and save costs for society and the health system.





PERSPECTIVE



Artificial intelligence: the next health revolution?

At the turn of the century, healthcare companies were at the zenith of an 'innovate-manufacture-sell' business model. It was a good time to be in medical technology.

 **Mark Lloyd Davies**, Senior Director, Government Affairs & Policy Medical Devices EMEA
and Johnson & Johnson Western Markets Lead

European and American companies were leading the way. While for many companies, this model is still alive and well, those at the forefront of the AI and robotics curve know they are part of a new revolution in healthcare.

In the not-too-distant future our measurements of success won't be in units sold, but instead in dramatically better outcomes for more patients everywhere, as well as in software programmes being used, numbers of surgeons trained, and millions of euros saved for health systems.

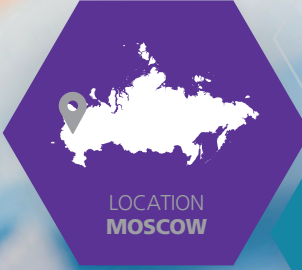
This is all because of the promise artificial intelligence (AI), robotics and big data hold to improve clinical outcomes, reduce health system costs and heighten the patient experience. These just so happen to be the core challenges facing mature healthcare systems in the 21st century.

However, Europe is playing catch-up: China and the US are firmly in the driving seat for AI. One quick win where Europe can lead, is in building societal trust which will foster these technologies and their uptake.

For Europe to have a chance at competing with the US and China on AI, we must also harmonise our approaches, attract back to Europe talented programmers and put in place a framework based on European values.

In this spirit, Johnson & Johnson is proud to be one of the founding members of Artificial Intelligence 4 People, a European multi-stakeholder platform which will work on the social impact of artificial intelligence and propose recommendations for ethical guidelines.

The time is right for Europe to take a leadership position again and Johnson & Johnson is fully committed to contributing to it.



Good vibrations

Scalpel uses ultrasound vibrations
For almost 'bloodless' surgery



State-of-the-art scalpels are changing surgery. In cancer surgery, for example, the new generation of harmonic ultrasonic scalpels allow doctors to cut out a tumour while simultaneously cauterising the tissue – sealing it to prevent bleeding.

The innovative instrument, which allows for comprehensive surgery with almost no blood loss, was just one of the new surgical tools on display at the Russian School of Colorectal Surgery International Conference (2-3 June) in Moscow.

Also presented at the event were the latest stapling devices for laparoscopic operations which can shorten surgery time, infection control, and robot-assisted resection. Best practices in tissue management and advanced ultrasound technology were shared at a masterclass organised by Ethicon.

The conference, attended by 1,500 participants, was an opportunity to showcase the latest surgical products and share knowledge.

'We are proud that many of our participants were able to change their treatment protocols, improve their surgical techniques and achieve more in their patients care,' said Professor Petr V. Tsarkov, Honorary President of the Russian Association of Colorectal Surgeons.



3D hearts

Medical Technologies play key role in beating superbugs in a healthcare setting

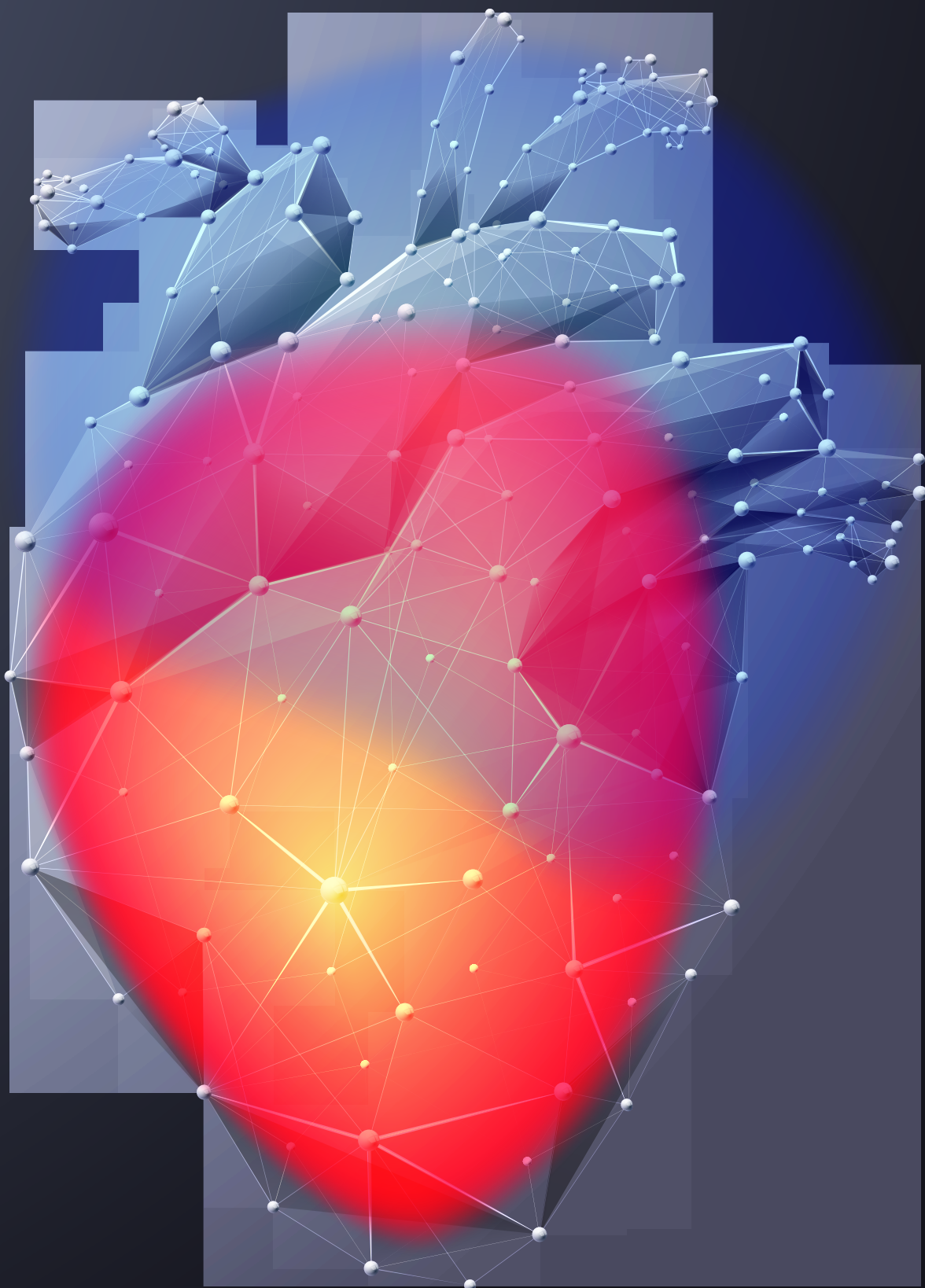
At the end of MedTech Week, 3D hearts were the focus of a satellite symposium organised by Biosense Webster Russia at the Arrhythmology Forum in St. Petersburg, 7-9 June. An irregular heart beat can require surgical or medical intervention. But, for a doctor to determine what action to take, they need to understand precisely what the problem is.



That is where 3D images of the heart come in. The latest imaging systems show problems with the heart’s rhythm. These conduction disorders can arise from how electrical signals pulse through the heart.

During the event, Biosense Webster presented Carto 3, a 3D mapping system that helps electrophysiologists make optimal treatment decisions. Insights from these imaging technologies can help specialists, GPs and patients better understand the impact of medical and surgical treatments.

One of the recurring themes of the conference was the need to bridge the gap between knowledge generated by scientists and clinical decision-making. **‘Doctors engaged in basic research and clinical researchers must support each other,’** said Dmitry Lebedev, Chief of Almazov Arrhythmia Center department. **‘This is what we call translational medicine.’**





“Asthma: imagine carrying a 50kg stone around all day”

I've lived with asthma for 30 years and it can be a daily struggle. Simple things like walking upstairs can be very difficult. If you can imagine carrying a 50kg stone around with you all the time you begin to understand asthma on a bad day when you can't breathe properly. Exacerbations can lead me to miss days at the office and surges in environmental pollen often prompt me to skip walking my dog.

 **Toni Latimer-Simpson, Patient Advocate**

All asthma patients are different and there is no one-size-fits-all solution. We need a smarter approach to asthma management.

The myAirCoach project, which uses the latest sensor technology to reinvent the asthma inhaler, could help patients managing their condition better. The prototype smart inhaler's measures the amount of medication inhaled and records the times that it is taken. This provides patients and doctors with invaluable insights on whether the inhaler is being used properly. Doctors could use it to see whether patients are using their medication as prescribed and how their airways respond to various triggers.

For patients, the information is readily accessible via a smartphone app. The app features a built-in questionnaire

which encourages patients to record details of how they are feeling – giving further insights to discuss during doctor-patient consultations.



MyAirCoach helps clinicians to ensure patients adhere to their medicine and gives them a snapshot of our lives at a given time. It also shows correlations between exacerbations and things like air quality and pollution. This promises a more personalised approach to managing asthma, helping patients and doctors to identify triggers and fine-tune medication use.

There is still some work to do to refine the prototype, but it has real potential to improve the quality of life for people with asthma – giving us a greater sense of control.



‘Walk the talk’

Working together to implement the new MedTech Code

The public wants innovative products that improves their lives – but they also expect companies to behave ethically. For the medtech industry to play a sustainable role in the future of healthcare, it is vital to meet these expectations.

Trust and transparency are key values embedded in the new MedTech Code which covers the interactions between companies, healthcare professionals and healthcare organisations.

SIEDMA and SLOMED have raised awareness of the Code among medtech companies through a series of activities over the past 12 months. On 7 June, the organisations jointly organised a communication workshop designed to move to the next phase: implementing the code and communicating about it to others, including the media.

The meeting included a practical session on public speaking techniques, including how to overcome fear, how to structure messages, and how to present the medtech philosophy effectively. This was followed by informal networking and teambuilding events for members of both associations.



‘MedTech Week was a great opportunity to continue raising awareness about the MedTech Code and its importance, and to prepare for media interest,’ said Mrs Mojca Šimnic Šolinc – president of SLO-MED and Mr Peter Bratušek – president of SIEDMA. **‘It’s time to ‘walk the talk’. We want our members become ambassadors of the core values of the code.’**

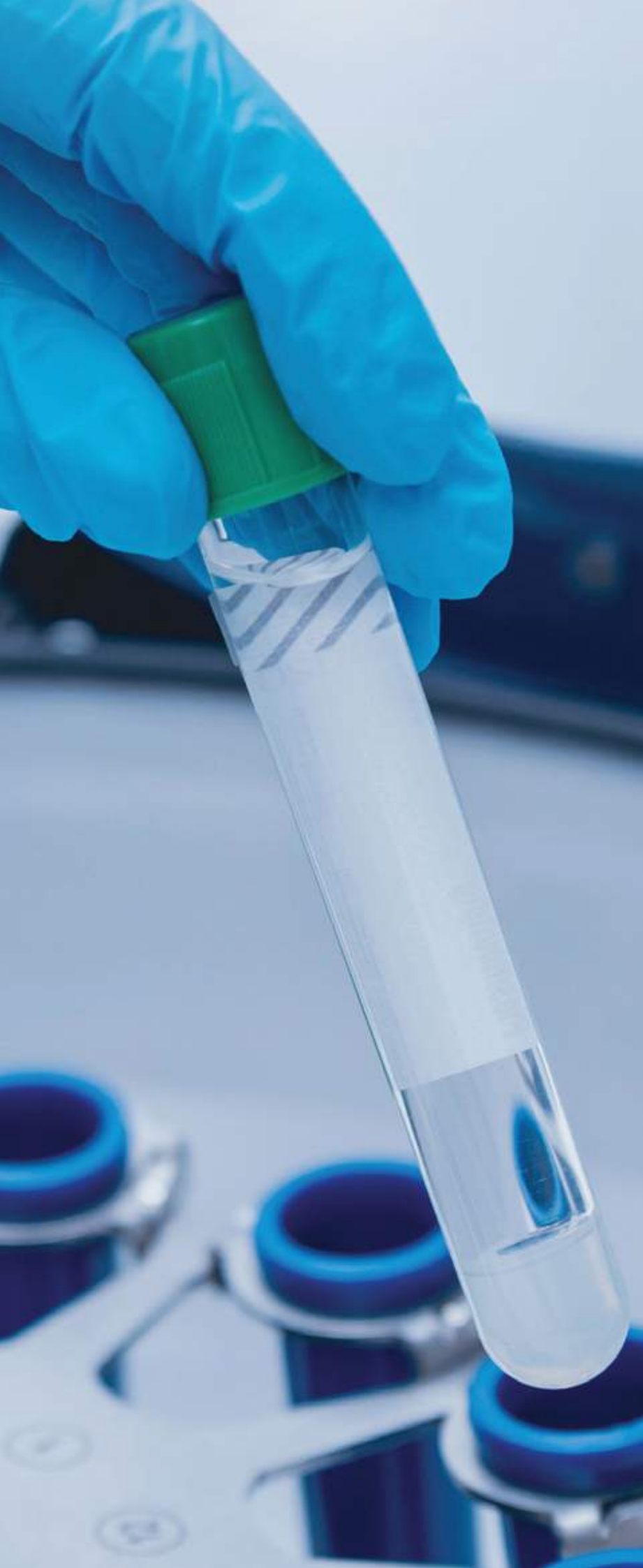
Find out more about the new by visiting MedTech Europe’s website:

www.medtecheurope.org/industry-themes/topic/122



Decision time

Diagnostic information is a powerful tool



nFormation is power. In healthcare, getting the right inFormation quickly can empower clinicians to make life-saving decisions.

In-vitro diagnostics (IVDs) – lab analysis of blood and urine tests, for example – have become central to modern healthcare. In fact, 70% of clinical decisions depend on information from IVDs. In Spain, more than 600 million tests are performed annually with hospitals accounting for 63% of lab activity and primary care responsible for the remaining 37%.

Fenin, the Spanish medtech association, put diagnostics in the spotlight during MedTech Week through a series of infographics promoted on social media. The graphics, shared on Twitter and LinkedIn, explained the role of IVDs and their benefits for patients; the IVD market in Spain, and the impact of IVDs on diagnosis and treatment.

The campaign also helped to promote an in-depth report on IVDs published in February 2018 by Fenin in collaboration with the Spanish Society of Laboratory Medicine.

‘IVD technologies contribute to the screening of diseases, their prevention and early detection, diagnosis, monitoring and prediction of the response to treatment,’ writes Dr Imma Caballé Martín, President of the Spanish Society of Laboratory Medicine, in the foreword to the report.

The report says advances in precision medicine rely on the use of IVDs to detect biomarkers which can guide more personalised treatment choices. It also highlights barriers to uptake of innovation in laboratory medicine and calls for a ‘value-based’ approach to purchasing which reflects the true impact of innovative IVDs on the health of the population.

‘The innovation that emerges from the research, and that is ultimately adopted in our clinical laboratories, are testimony to considerable progress in the health and well-being of the population,’ said Dr Caballé Martín.



Diagnosing deafness

Timely cochlear implant surgery can significantly help deaf children's speech and development. Screening new-born babies improves early detection – and action.

Patrick D'Haese,
Corporate Director of Awareness
& Public Affairs For MED-EL



Helena was born in Vienna in January 2015. The pregnancy and birth were what all parents hope for: unremarkable and normal. Four days after birth, the results of new-born hearing screening were cause for concern.

After further testing, it became clear: Helena was deaf in both ears. The hair cells in the inner ear were not conducting the sound signals to the auditory nerve. The doctors suspected a genetic cause.

Her parents had no experience of hearing loss. Their first thought was that their child might never speak or sing – she might never say 'Mummy'.

But things turned out differently because when doctors told them about the possibility of cochlear implantation.

Today Helena uses cochlear implants in both ears, she enjoys playing her keyboard and the xylophone. She receives regular support from a speech therapist and is developing very well: she is speaking her first words and chats away like hearing children do.

Like all children, Helena is special – but her story is not unique. Over 5% of the world's population has disabling hearing loss. Unaddressed hearing loss can have a profound impact on children's development and on their families. It is also associated with a global cost of \$750 billion dollars per year.

The right tests at the right time, followed by the appropriate intervention, can ensure that children like Helena reach their full potential.



Top model

Outcomes-based model can transform healthcare

A Fundamental shift in how healthcare is delivered will help provide better results for patients and make health systems more efficient. This was a key message at the Conference on Management and Evaluation in Health, hosted by the Signo Foundation in Barcelona with the support of the Department of Health (6-8 June).



'We are focusing on the paradigm shift necessary to provide better care to patients, so that there is a better relationship between primary and hospital care in order to facilitate procedures,' said the chairman of the conference and hospital manager Vall de Hebron, Vicenç Martínez.

This value-based model of healthcare is seen as a way to make health systems more sustainable as population ages, more patient-centred, and more open to innovative technologies that add real value.

Delivering change is never easy and requires new systems and skills that can define, collect and manage information about patient outcomes. Through sessions on big data, artificial intelligence, talent retention, public-private partnerships and new professional roles the event tackled the barriers to value-based healthcare.

More than 600 people from the world of health were present to discuss leadership and the digital transformation. Participants included representatives of FENIN, the Spanish medtech industry association, including Ángel Lanuza, Fenin senior advisor on innovation and entrepreneurship, who spoke about the new models of innovative public procurement of services.



Dialysis at home – saving lives, preserving autonomy

Dialysis can be essential to the wellbeing of people living with kidney failure. However, many patients have concerns about the impact of regular dialysis on their daily activity. Will they lose independence? Will it affect their family and professional lives?

 **Juan Carlos Julian**, Federación Nacional ALCER, supported by Baxter

Today there are technological solutions that allow patients to adapt their treatment to their way of life – and not vice versa. With peritoneal dialysis, the therapy can be delivered at home, without needing to go to a medical centre. For suitable patients, this enables dialysis to be performed while they sleep, thus allowing them to maintain their personal and work activity by day.

Web connectivity platforms enable remote monitoring, so that the process can be supervised and controlled by specialists. This provides patients with security and confidence.

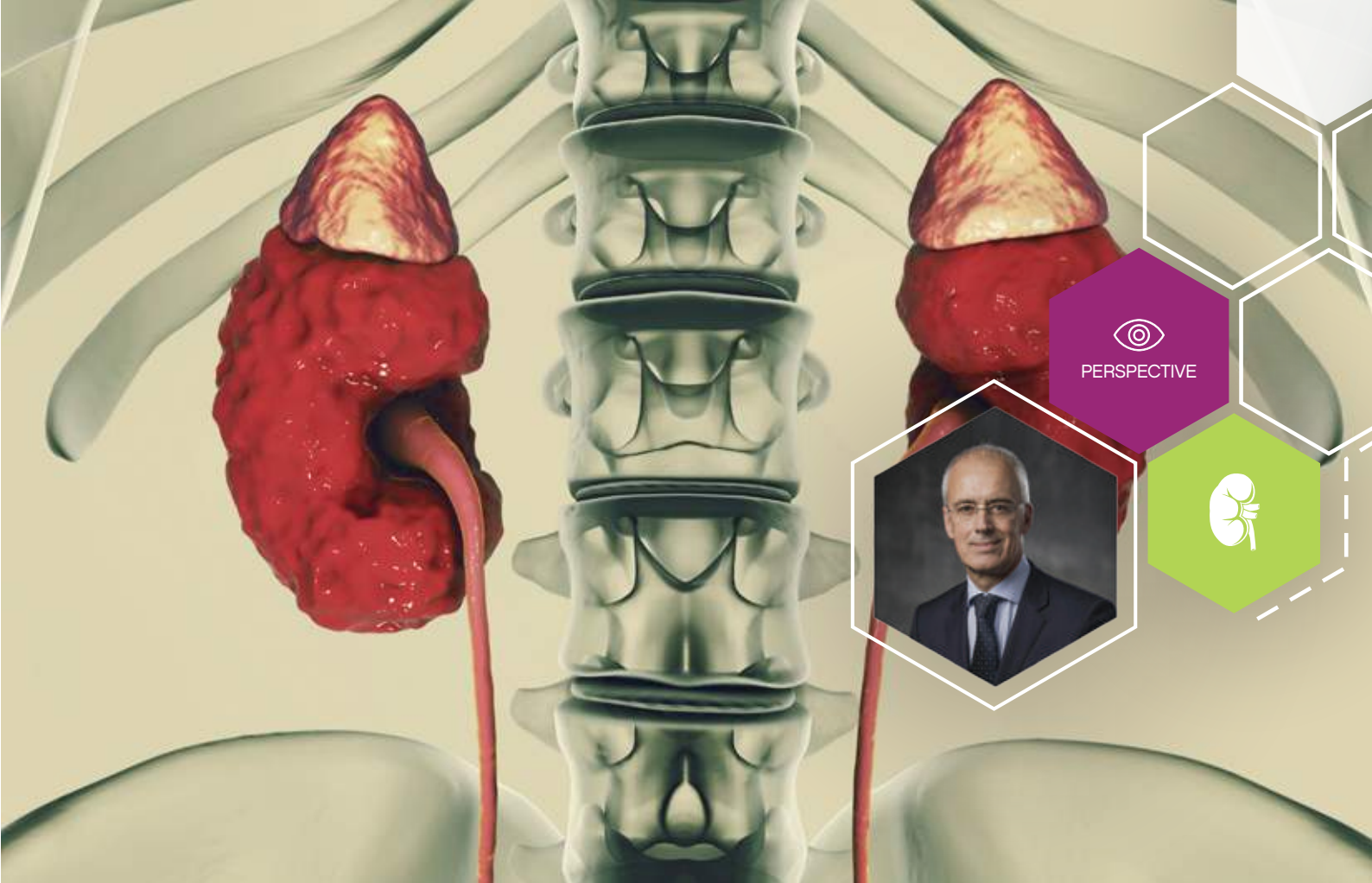
Research shows that when kidney patients receive adequate information about the available treatments, 50% of those who start dialysis choose peritoneal dialysis at home. However, figures of the use of peritoneal dialysis are

strikingly low in Spain: only 5% of patients who require renal replacement therapy use this option (11.43 % of those on dialysis).

A multi-stakeholder organisation – the Support Group for the Development of Peritoneal Dialysis (GADDPE) – was established in 2009 to raise awareness in Spain of the treatment options available to people with kidney failure.

GADDPE would like to see new technological solutions that improve communication between hospitals and patients' home. Not only would this offer additional peace of mind to patients and continue to optimise outcomes, it would offer two things that are sometimes missing from renal replacement therapy - choice and autonomy.





Kidney disease: patient choice key to better outcomes

To me, modern healthcare should be about improving patient outcomes and offering patients as much choice as possible. All of us are patients at certain times in our lives. Shouldn't we have greater input into how and where we are treated?

 **Cristiano Franzi**, Senior Vice President & President, Baxter EMEA

The best treatment for kidney failure is transplantation with a new kidney. However, waiting lists are long and some patients are unsuitable for surgery due to their poor health or other limiting factors. For them, dialysis is the only option.

Dialysis can be done in a clinic or at home. However, some patients with renal failure present so late that dialysis must be started urgently. These patients usually end up using hospital-based dialysis.

Not only are they likely to be denied the time to choose which kind of dialysis they would prefer, their prospects of availing of home dialysis are severely restricted.

People diagnosed early have time to research their options, receive pre-dialysis education programmes, and discuss these with

dialysis nurses and nephrologists. For example, they may opt to have dialysis at home at night time – sparing themselves frequent and lengthy hospital visits.

Of course, patients are not in sole charge of managing their condition. Modern home dialysis machines can connect remotely with hospital healthcare teams, allowing them to monitor therapy sessions.

I strongly endorse the European Kidney Health Alliance's call for fair access and distribution of care options across Europe.

By rethinking reimbursement and incentives to allow patients to choose the best suitable option to them and their lifestyle, we can significantly improve patient satisfaction and outcomes and even reduce healthcare expenditure.



PERSPECTIVE



Growing together

Uppsala event showcased biomaterials that help bones to grow – and highlighted the role of medtech in growing the economy

 **Kristina Svensson, Head of Communication, Medtech4Health**

Uppsala in Sweden is a hotbed of medical innovation. While conducting ground-breaking scientific research and applying it to solve real-world problems is vital to the future of medicine, communicating to the public about medical science is also crucial.

At an event during MedTech Week, hosted by Medtech4Health, some of the latest work in this field was presented. For example, scientists explained how they have developed biomaterials that help bone to grow together, offering faster recovery to people with broken bones.

Also on the agenda were technologies that help doctors to choose the right antibiotic for patients with sepsis, and a discussion on data protection in the medtech sector. The event helped to highlight the region's strength in biomedical industries.

In addition, Medtech4Health produced and promoted three videos highlighting the best of medical innovation in Sweden. The videos were viewed 14,000 times on social media.

One of the technologies featured in the videos is an instrument that reduces pain in varicose vein surgery. A local company, Medvasc, with the support of Medtech4Health and the University of Lund, has developed an instrument that introduces anaesthesia from inside the vein. Rather than inserting the needle several times, as is the current practice, only one injection is needed. This significantly reduces the pain experienced by the patient.

'It also makes the anaesthetic more effective, making it easier to ensure it is complete. Another advantage is that it is likely to make the procedure quicker, which means that you will treat more patients in the same timeframe,' Åkesson said.

The other short films featured protective clothing for health professionals and a suit designed to help people with cerebral palsy manage issues with muscle tension.

The event, the videos and a strong online campaign, helped to keep medtech on the map in Sweden.



Why we need a Connected European Health Area

Modern technologies – including AI, robotics and precision medicine – have immense potential to improve health through health promotion, prevention and protection. This represents not only innovation within a specific area, but a general change for the entire healthcare service workflow.

 **Elin Mignérus**, Chair - Committee on AI, Robotics and Precision Medicine of the European Health Parliament

To succeed, we need to lay a broad foundation – from investments and infrastructure to patients' benefits and acceptance.

For Europe to truly embrace digital health, technologies need to be made: available, affordable and acceptable. Europe has the opportunity to provide end-to-end conditions to shape the future of health technologies, improving the life of citizens.

Success will not come from a sole player. To build trustworthy health databases we need to cross borders and open markets. We need to learn from each other. Front-runner countries must show the way for others. And most importantly, citizens need to trust the system with their data.

The EU cannot reach these results unless all Member States are on board. The specifics of national and regional systems require stakeholders on all levels to work together towards the common goal of advancing infrastructure and engaging citizens.

Therefore, the European Health Parliament is calling for a Connected European Health Area to remove structural barriers and act as a vision for infrastructure. We want to see digital health included in all relevant policy initiatives to accelerate the meaningful adoption of AI and robotics in healthcare.



Ideas worth sharing

Dozens of start-ups shared their innovative concepts at Swiss MedTech Day

Entrepreneurs and high-tech start-ups are working to solve the biggest healthcare challenges of our time. At Swiss MedTech Day in Bern, some of the sector's brightest ideas were on the display.

Highlights included an exhibition of 39 posters introducing innovative research projects. Eight teams also presented their new products in a Science Slam lightening round, with the winner chosen by conference attendees.

The event, jointly organised by the Swiss medical technology association and Innosuisse (formerly CTI), was attended by 600 people. It featured talks on hot topics in medtech, ranging from digital transformation and EU regulations to innovation supports for SMEs and new ways to collaborate.

Big prizes were on offer for big ideas. The award for outstanding achievement in medical technology – worth CHF 50,000 – went to Ava AG, a Zurich-based start-up. The company's wearable fertility tracker combines sensor technologies with algorithms to give users real-time information on their chances of conception.

The wristband measures body temperature and eight other physiological parameters, such as respiratory or heart rate, at night, and sends the data for evaluation via a smart phone app.

The tracker enables women not only to get to know their cycle, but also to interpret specific symptoms and monitor their general health. 'Our vision is to offer products that accompany women through their entire reproductive lifetime,' explains Peter Stein, Ava co-founder and Head of R&D.

The two other nominees, Xeltis AG and BÜHLMANN Laboratories AG, were also recognised at the event for their pioneering medical products: an artificial heart valve and a home test for chronic intestinal diseases.

All three companies are addressing unmet medical needs while creating jobs and boosting the Swiss economy.



CERVICAL CANCER SCREENING TEST


PERSPECTIVE



Why prevent cervical cancer? Because we can

Cervical cancer strikes women in the prime of their lives. The median age for diagnosis is 49 – when people are likely to be active in work and family life – but the virus that causes the disease may have been present for decades before cancer was detected.

 **Dr. Ed Baker, Roche Molecular Diagnostics**

One in 100 women in Europe will develop cervical cancer in their lifetime. In addition to anxiety and pain, the disease can severe reproductive health issues and, in some cases, premature death.

With proper screening, vaccination and treatment, cervical cancer is highly preventable. Today, there are two main screening tests for cervical cancer: Pap tests (sometimes known as smear tests) and HPV DNA tests.

Pap tests have served women well for decades and – if you are called for a routine cervical screening check-up, it is advisable

to attend. However, HPV DNA tests are a more accurate and modern approach to identifying women at risk of cervical cancer now or in the future.

With all the available technology nowadays, it is supposed that more and more people stay healthy. However, the lack of awareness and access to these technologies make it more difficult for patients to be diagnosed early.

We urge decision-makers to ensure that the latest technologies get to as many medical centres in Europe as possible so that we can save lives and money.



“Bariatric surgery changed my life”

For me, weight has always been a sore spot, especially during adolescence. As a teenager I was an easy target for ridicule and, in my mind, I was the butt of all jokes, even when I wasn't. I had problems if I had to walk past a group of boys or if I had to walk by myself in the street.

 **Marzia Gnocchi**, Patient Advocate

I felt uncomfortable shopping because I was sure the clothes wouldn't fit me. Moreover, I felt especially bad when I was compared to my sister, a girl that has always been thin and very beautiful.

When I was 12 my parents went to my general practitioner, who was also a nutritionist. I tried various diets, but nothing seemed to work. In my late teens, the excess weight affected my knees, leading to the rupture of the medial alar ligament with patellar dislocation in 2011.

Then I met a girl who told me her story of undergoing sleeve gastrectomy. It was a turning point – even though it took me four months just to make the first appointment. Then, when the

surgeon recommended that I have the operation my mind was pretty much made up.

When I went to my first appointment with the surgeon, I weighed 136.5 kg. Now I weigh 90 kg. I lost 46.5 kg in a year and I am really very happy with all I have done.

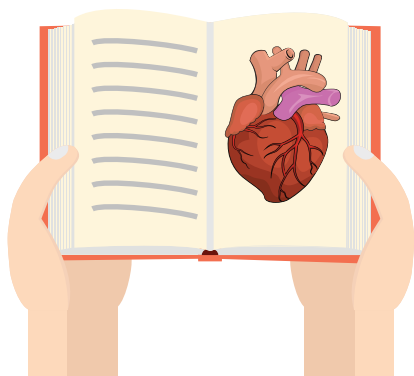
To reach my ideal weight I still need to lose 10 kg but I am confident that I will make it, because even though it has been very hard, I am happy with the results.

These days, I eat everything and live a healthy life; I feel that I took back control of my life, finally

Power to the patients

Prevention and citizen empowerment are the way forward in modern medicine. This means equipping the public – and health professionals – with the knowledge and tools to stay healthy.

Denis Horgan,
Executive Director of the European Alliance
For Personalised Medicine



The long-term benefits of prioritising prevention are both fiscal and humanitarian. Investment in raising awareness of diagnostics, screening and healthier lifestyles can improve outcomes for patients and help to make healthcare more sustainable.

Take lung-cancer, for example. There is a clear need for lung-cancer screening guidelines drawn up by an expert group. While work continues in this area, there is a good case for the immediate implementation of carefully-designed and well-targeted demonstration programmes.

Screening is one way of reducing the burden of lung cancer, but citizens can take the lead in other aspects of prevention. This is because the majority (85%) of lung cancers in both sexes are caused by smoking.

Lack of exercise and other lifestyle choices should be discussed with the younger generation in schools while an easily-accessible course for adults could help raise awareness and trigger action.

Education could also improve understanding among the general public – as well as health professionals and journalists – of full-gene sequencing, personalised medicine, screening and ways to reduce the risk of ill-health.

If we manage all this, we'll be much further down the road to improving prevention and empowering the EU's patients.





Unblocking arteries

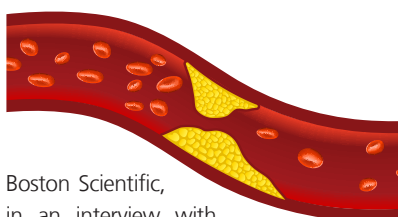
Minimally-invasive procedure prevents heart attacks



Over the past 50 years, cardiac care has been revolutionised. Patients with blocked arteries were once deemed 'untreatable'; any intervention to fix heart problems was considered high risk. Today, thanks to a combination of catheter technology, drug-eluting stents, replacement heart valves and drug treatment, many heart attacks can be prevented – and recovery times have shrunk.

Percutaneous coronary intervention (PCI) – a minimally-invasive procedure for opening blocked coronary arteries, used in the prevention of heart attacks – shows how far the field has come. Once viewed as a high-risk operation for patients unable to have open heart surgery, it is now offered by specialists to a wider population of patients debilitated by cardiac symptoms.

'Interventional cardiology has advanced to a level where patients experiencing an acute heart attack can have the underlying cause of their blocked or blocking coronary artery treated within 90 minutes from the onset of chest pain. And they can start to return to their normal daily activities by the following day,' said Rachel Barnes-Bryant,



Boston Scientific, in an interview with the Association of British HealthTech Industries (ABHI).

Minimally-invasive procedures also mean shorter hospital stays, reducing pressure on hospital beds and healthcare staff. Many procedures are now performed on an out-patient basis.

Ms Barnes-Bryant, previously a nurse in an intensive care unit in the UK, said partnerships between industry and motivated health professionals have driven

continuous improvements in technologies, helping deliver value to the system.

And the best may be yet to come: **'In the future data will be used to refine and optimise patient pathways and treatment protocols, identifying patient populations that best respond to variations in these,'** she said. **'In addition, it will help to make sure all patients are treated equitably.'**

The interview, targeting a UK audience, was just one of several Boston Scientific initiatives during MedTech Week. Others included a social media campaign, a medtech showcase in Spain, an education event with hospital communicators in Italy, and an employee engagement campaign.



“From hospital bed to top of the world”



When Peter Robinson was diagnosed with a Faulty heart valve, he was told he had little chance of survival. But thanks to his surgeon and an innovative approach to heart valve replacement, Peter recovered – and then took on a many more challenges.

 **Peter Robinson, Patient Advocate**

When his heart condition worsened, Peter was transferred to St Thomas's Hospital in London. "My heart was working at 30% efficiency and was fading fast," he says. It was there he met heart surgeon Mr Michael Sabetai. "He brought me a cup of tea, sat down and said: 'You are in a really dark place, but I'm going to fix it,'" recalls Peter.

After discussing the options for a heart valve replacement – either a mechanical valve made of carbon with an indefinite life span but requiring Peter to take blood thinning medications for the rest of his life or a new type of bovine tissue valve with an expected life span of around 20 years – Peter decided to go with the second option.

"Because of an innovative tissue processing method, this valve had one-third less deterioration than the 'gold standard' tissue valves being used up to that point. Peter was only the second

or third person worldwide, and the second in the UK, to have it implanted," says Michael. The valve replacement surgery took place in May 2017 and Peter hasn't looked back.

By August he'd returned to work and taking part in increasingly exciting challenges to support charities including Heart Valve Voice and the British Heart Foundation. Just nine weeks after his procedure, Peter walked three miles around Rye Nature Reserve in England and then climbed all 100 steps of a nearby church. Next year he is planning a sky dive – which his surgeon, Michael, is hoping to do with him – and a 100km walk from Brighton to London.

Commenting on his new lease of life, Peter says: "You've got to fight for everything. You've got to enjoy life. And if I can pay back by doing these challenges, why not? Just watch this space!"



Racing hearts

Rapid recovery from heart surgery
is like a 'miracle'

This morning I saw something close to a miracle treatment,' said Steve McCabe, a Member of Parliament in the UK. 'I witnessed a patient have their aortic valve replaced by what is known as a Transcatheter Aortic Valve Implantation (TAVI).'

The procedure, on 5 June, was of special interest to the politician as he underwent open-heart surgery six years ago to repair his mitral valve. He was struck by how much progress has been made in just a few years, leading to less time in the operating theatre and a speedier recovery.

'I was in the operating theatre for several hours given an enormous volume of anaesthetic and spent time on a ventilator,' he recalled in an article published by the Association of British HealthTech Industries (ABHI). He spent three days in intensive care and another 14 in a recovery ward,

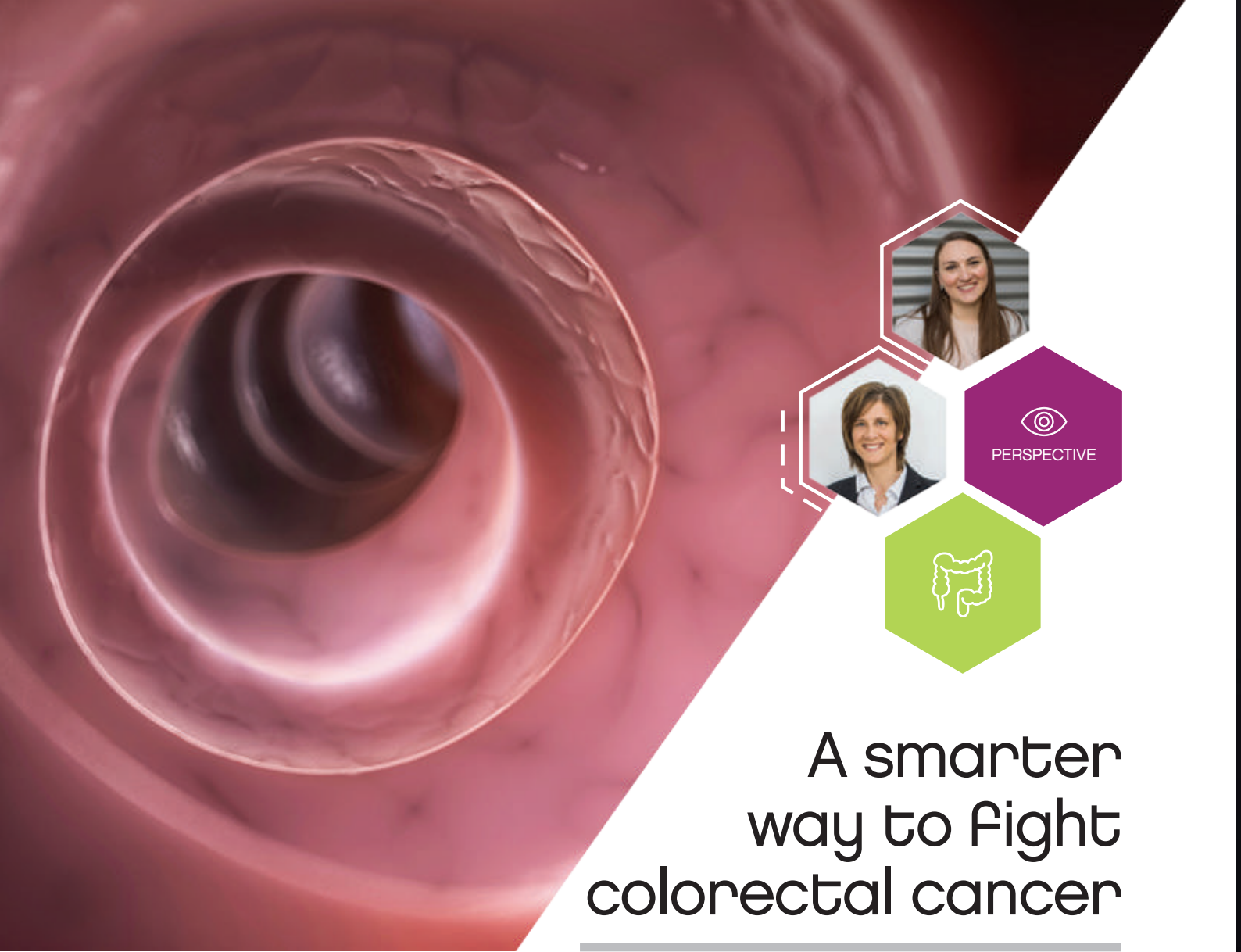


followed by several weeks at home unable to do very much. **'Only after several months of rehab did I begin to feel anything like normal. I was off work for about six months.'**

Technology has moved on. Surgery has become less invasive and faster. **'The procedure today took about 30 minutes, and the patient was conscious throughout. There's every chance he'll be home in three days.'** The MP was impressed by the potential of modern surgery to help health systems cope with the demands of ageing societies.

Mr McCabe's contribution was just one of a series of articles published by ABHI through MedTech Week. Cardiology, hip replacement, wound care and spinal surgery were all in the spotlight, helping to deliver strong increases in traffic to the association's website and social media channels.

'We need a 21st century NHS that can rapidly restore people to good health and minimise the risks associated with extensive, complicated surgery, anaesthesia and lengthy recovery periods,' Mr McCabe said. 'As we launch MedTech Week, I was privileged to witness just such an approach.'



A smarter way to Fight colorectal cancer

Colorectal cancer is a major burden For Europeans and For our health systems. More than 300,000 people in the EU are diagnosed with the disease every year. Sadly, outcomes are sometimes poor: an estimated 150,000 people die From colorectal cancer annually.

 **Nada Pezic**, Health Economics Manager, Olympus
Romy Klausnitzer, Product Manager - ProFessional Expert: GI Imaging, Olympus

As with all cancers, early and accurate diagnosis can help doctors to intervene early and improve outcomes for patients. New technologies can help to improve the efficiency of screening programmes – and make the experience less demanding for patients.

People whose bowel screening shows possible warning signs of cancer are referred for a colonoscopy. Most of these are healthy individuals who do not have colon cancer but need to be checked out.

For doctors performing a colonoscopy, the trick is to determine whether they are looking at the kind of lesion that poses a serious threat. Because it is difficult to be sure, the standard practice is to remove all polyps and send them to the pathology lab for analysis.

However, new technology – known as narrow-band imaging (NBI) – allows for in-vivo optical diagnosis. This means that trained clinicians can accurately decide whether it is necessary to remove the lesion and send a sample to the lab.

Research in the UK and the Netherlands shows that NBI not only saves time and money by optimising the diagnostic process without compromising the diagnostic result, it spares patients the stress of waiting and wondering whether their lab results will come back positive.

The latest waves of medtech innovation in the field of cancer diagnostics promises to unlock major value for patients and the health system – making colorectal cancer screening more cost-efficient and freeing resources that are needed to cope with a growing patient population.



Sleep therapy



Connected health helping patients sleep soundly

We spend around one-third of our lives asleep – or at least we should – so it's no wonder that sleep therapy is at the forefront of the digital health revolution. During MedTech Week, ResMed published a series of three opinion articles making the case for connected health in improving how we live and how we sleep.

Digital devices are helping to empower patients by shifting services into the community, often allowing people to receive care at home. Connected health is among the fastest-growing areas of healthcare with more than 7 million patients using remote monitoring technologies.

More than five million of the world's remote monitoring devices are used to treat sleep apnoea, eclipsing the total number of connected ventilators, diabetic and cardiovascular monitors. Sleep

apnoea is a chronic disease strongly linked with other serious conditions like heart disease, stroke, and type 2 diabetes.

Studies have shown that positive airway pressure (PAP) can improve quality of life, sleepiness and cerebrovascular measures in patients with obstructive sleep apnoea, which decreasing the need for healthcare resources, as well as physician, outpatient and hospital costs. Technology for diagnosing, treating and managing patients with sleep apnoea has rapidly

advanced – adherence to therapy is now tracked more easily and improved through remote monitoring and patient engagement.

In a study of 128,000 patients, PAP users who were both remotely and self-monitored were 87 percent adherent to treatment.¹ In another study, equipment providers managing PAP users saved 59 percent of their labour time by using a remote monitoring platform that sends users automated coaching text messages.

'As we look to the future, digital connected health technologies will play an increasing role in bringing healthcare into the home while still maintaining the highest levels of care and outcomes,' said Lucile Blaise, ResMed's vice president for Western Europe, and vice chair of MedTech Europe's Digital Health Sector Working Group.





Putting health first

Public health, science and policy have always been my primary concerns. My entire career has been devoted to enhancing health and wellbeing for citizens worldwide, as well as improving dialogue between science and policy. As Honorary President of Health First Europe (HFE), I remain committed to these principles.

 **Roberto Bertollini**, HFE honorary president

We must promote equitable access to innovative and reliable medical technology for all citizens. Developing a modern healthcare system, coupled with evidence-based policies for promoting health and preventing disease, is a vital investment in Europe's future.

We must promote equitable access to innovative and reliable medical technology for all citizens. Developing a modern healthcare system, coupled with evidence-based policies for promoting health and preventing disease, is a vital investment in Europe's future.

Together with HFE's 24 stakeholder members, we will work for safer and smarter healthcare in Europe. We aim to tackle some of most pressing problems in health today. I will focus my work on:

Prioritising the development of an innovative and integrated model of care within the discussion on healthcare systems' sustainability and efficiency.

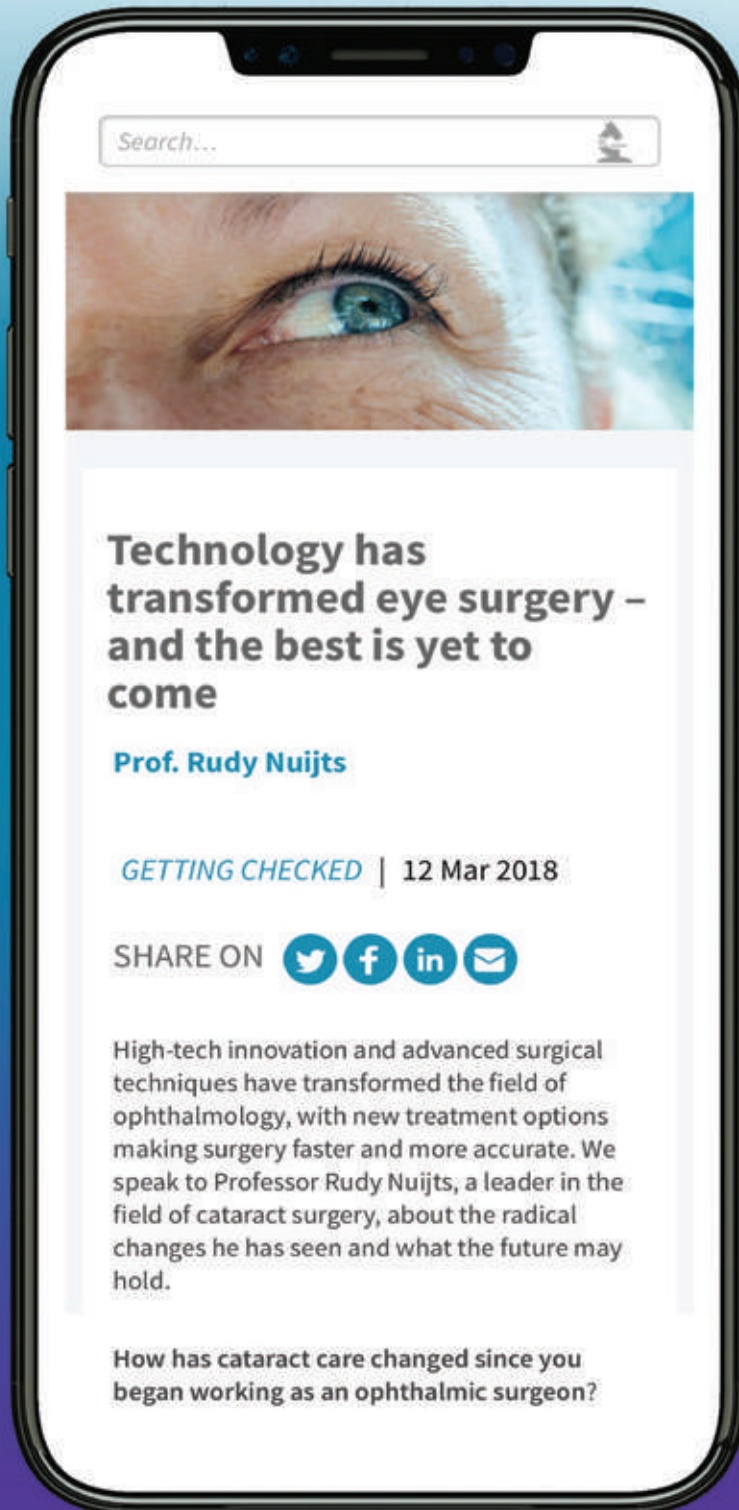
Ensuring that the safety of patients and the health workforce remains in the spotlight during EU institutional debates

Encouraging key health stakeholders and policymakers to invest in early diagnosis and screening programmes to save lives and ensure the sustainability of our healthcare systems.

Fully aware of the EU's limited competencies on health, I strongly believe that more can be done to move towards safer, more sustainable and more integrated healthcare systems in Europe.



MedTech Views



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Viral video

Investing in R&D improves lives and creates growth

W

ant to promote innovation in medtech? What better way to do it than by embracing innovative digital communication tools.



That was the approach Smith & Nephew took to highlighting its commitment to investing in research and development. Through a series of online video clips and social media posts, the company shared short and snappy messages about how R&D can address unmet patient needs, catalyse commercial success and be a great career option for graduates.

The centrepiece of the campaign was a video interview with Vasant Padmanabhan, President of Global R&D at Smith & Nephew. **“Innovation is the lifeblood for Smith & Nephew,”** he says. **“We think of it not just as developing innovative products but also to prove the value of these products both clinically and economically.”**

The video proved very popular, clocking up more than 50,000 views in just a few days. The campaign reached 250,000 people on Twitter and Facebook.

The campaign also highlighted the company's local investments in R&D, its long history in the UK, and what motivates its staff to meet customer needs. **“My biggest motivation comes from having met patients who are living with the kinds of wounds that we are developing solutions for,”** says Helene, Programme Manager, New Product Development. **“Seeing the human impact of my work and hearing patients’ experiences first-hand was very emotional for me.”**

Our generation's plea: Focus on patient outcomes

EUROPEAN
HEALTH
PARLIAMENT



PERSPECTIVE



An estimated 20% of healthcare spending is wasted on ineffective interventions. At a time of limited resources and increased demand for medical innovation and services, this is unsustainable. It's time for change.

 **Thomas Gelin**, Chair - Committee on Outcomes-Based Healthcare
of the European Health Parliament

How? By focusing on value: getting the best possible outcomes at the best possible cost.

While this seems to be a no-brainer for most stakeholders, reaching a common definition of value and putting this into practice remain challenging.

As Chair of the European Health Parliament's (EHP) Committee on Outcomes-Based Healthcare, I represent a multi-disciplinary group of young leaders who firmly believe that the foundational step towards value-based healthcare is to build outcomes-driven healthcare systems.

While pioneering initiatives are emerging to standardize health data sets and indicators, EU Member States still face significant challenges in the collection, assessment and use of health and outcomes data.

To drive the transition towards outcomes-based healthcare, the EHP recommends that the European Commission and stakeholders join forces to launch a multi-stakeholder expert group. This group should develop an EU-wide repository of initiatives designed to improve patient outcomes. It should develop country-specific guidance on how to adopt indicators and standards.

Together, stakeholders can also improve the collection of patient outcomes data by ensuring patient questionnaires are co-created with patients, fostering the inclusion of quality of life indicators and value assessments, and expanding the collection and use of Real World Evidence (RWE).

I believe the highly innovative medical device industry should play its part in this vital initiative, building on its unique expertise in value-based procurement (MEAT).



a MedTech Europe initiative

The MedTech Week

showcasing life changing technologies across Europe

4–8 June 2018

HIGHLIGHTS

20
Countries Engaged

126
Activities

50
Members Involved

16
External Partners

+10%

+14%

Major Medical Technology Topics In Focus

26 Perspectives

from patients and healthcare professionals on the role of medical technologies in the future of healthcare



Code of Business Ethics



Value of Diagnostic Information



EU Research and Innovation



Digital Healthcare



Antimicrobial Resistance & Healthcare-Associated Infections

Brussels Media Presence

EURACTIV

brussels airlines

POLITICO

THE PARLIAMENT
POLITICS, POLICY AND PEOPLE MAGAZINE

THE BRUSSELSTIMES

All percentages are compared to 2017



MedTech Week 2018

COMMUNICATIONS





Heart Valve Voice @HeartValveVoice · Jun 8
It's the final day of #MedTechWeek & in honour of innovation we're remembering the UK's first cryo-catheter ablation procedure that took place in 2007 by Prof Ian Kervic. @Leic_Hospital "having access to new innovative treatments are essential" youtube/11_Z7nddWg @UK_ASH

J&J Medical Devices @JMedDevices · Jun 8
"We will continue building on our development of value-based healthcare through partnerships with the NHS and healthcare providers". As part of #MedTechWeek @UK_ASH set down with Andrew Oulton from @OrySynthes to discuss innovation in orthopaedics [ash.org.uk/membership/news...](#)

MedTech Europe @medtecheurope

Discover how medical technologies are transforming #DigitalHealth bit.ly/2xUUYiG

#eHealth #BigData #MedTechWeek
#ArtificialIntelligence #AI #DigitalEurope

robert madelin @neurohumah
Chairman of Fipra International, Visiting Fellow @Oxford, A&P People, Innovation, Health, Food, fipra.com/our-people/robert

Tweets	Following	Followers
26.7K	15.5K	14.1K

2:11 PM · 8 Jun 2018
Followed by Sae Pietari and 98 others

N. Freshwater @SmithNephewPLC · Jun 8
at @AshMedDevices #MedTech event last night for "When it matters: innovation in medical technology" showcasing the Leaf System, a wireless patient monitoring system as well some of our pioneering wound management products. Did you see us? bit.ly/2xUUYiG



MedTech Europe @medtecheurope

What's the future of #diabetes tech? Today @europarl is discussing the #diabetes. The future is bright #MedTechWeek

Watch full video here: bit.ly/2kRcPxn
@NicolaCaputo @SchaldemoseMEP
@AnnaHedh @NChildersMEP @JoseFariaMEP
@KyllonenMerja @StephaneHogan

Merja Kyllönen @KyllonenMerja
Merjien harminna Brysselissä

Tweets	Following	Followers
1,969	308	3,541

3:26 PM · 6 Jun 2018
Followed by Sae Pietari and 5 others

Cook Medical Europe @CookMedicalEU · Jun 7
Great turn out to our event yesterday on #medtechmidwest for #MedTechWeek. Thank you to our speakers Darach @cookvasisai @AP/MidWest @InstaMed_IDA & moderator @LauraMR & Rachel Shelly for joining our panel





MedTech Europe

@medtecheurope

Following

Great to see @DSMEU supporting better connectivity & #AI for a more #DigitalEurope. We believe that this will have significant impact to #healthcare and in providing patient-centric solutions to EU Citizens. Read @Ansip_EU blog: bit.ly/2sGbLzS #MedTechWeek



eHealth EU

@eHealth_EU

Following

Working to improve EU health & care via policy, innovation & research in #digital tools. Part of @EU_Commission & @OSVeu. #eHealth #H2020 #eHealth #GoingWell

Tweets	Following	Followers
13.3K	9,405	26.7K

12:08 PM · 6 Jun 2018

Retweets 4 Likes

Market,Industry@VUE, EU_Health, Eva Mayoral(Peacock) and 3 others



NSAI Medical

@NSAI_Medical

Jun 5

MedTechWeek is well underway! The safe regulation and #CDMarking of Medical Devices is vital component in patient care. Check out the latest survey from Team NB team: na.org/lap-content/ugp...





Fénix

@fenix_es

Jun 8

Todos los empleados de @fenix_es Madrid en el II Taller sobre Tecnología Sanitaria impartido por Carlos Briz jefe de producto para insuficiencia cardíaca y gestión de pacientes de @ESC_Cardiology @bottanico donde nos ha hablado del desfibrilador subcutáneo. #MedTechWeek

Translated from Spanish by Microsoft

All employees of @fenix_es Madrid in the II Workshop on health technology taught by Carlos Briz, product manager for heart failure and patient management @ESC_Cardiology @bottanico where we have been told about the subcutaneous #MedTechWeek defibrillator





Medicoindustrien

@Medicoindustri

Jun 6

A dear child has many names: health technology, health tech, medical devices, medical technology or simply medtech. Watch and learn more about #medtech in Europe. #medtechweek #medicinskudstyr @medtecheurope



MedTech Europe

@medtecheurope

Following

Are you interested in the Hot Topic #AMR? Check out our recommendation paper on how to implement the @EU_Commission's Action Plan on AMR. #MedTechWeek



ABHI

@UK_ABHI

Following

We support the HealthTech community to provide products and services that help people live healthier lives.

Tweets	Following	Followers
3,708	1,214	3,943

3:14 PM · 8 Jun 2018

4 Retweets 3 Likes

11,000,000, European Commission and 7 others



Medtronic France

@Medtronicfr

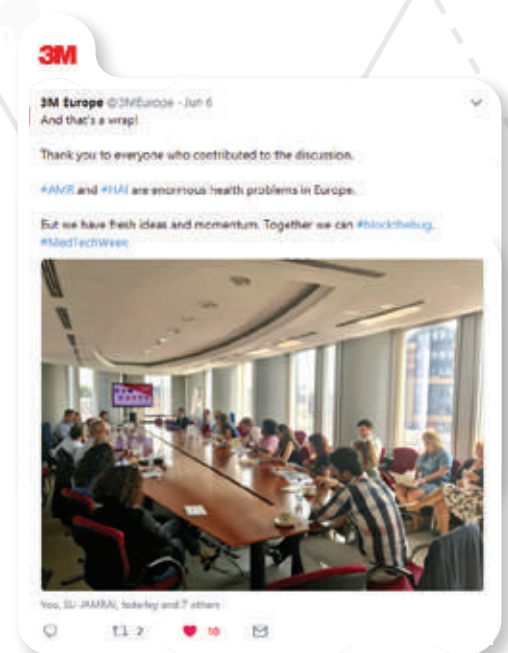
Jun 7

La douleur reste encore mystérieuse car elle est vraiment différente d'un patient à l'autre, d'une perception à l'autre. La neurostimulation et les autres traitements visent à soulager les patients et les aider à retrouver une qualité de vie. #MedTechWeek

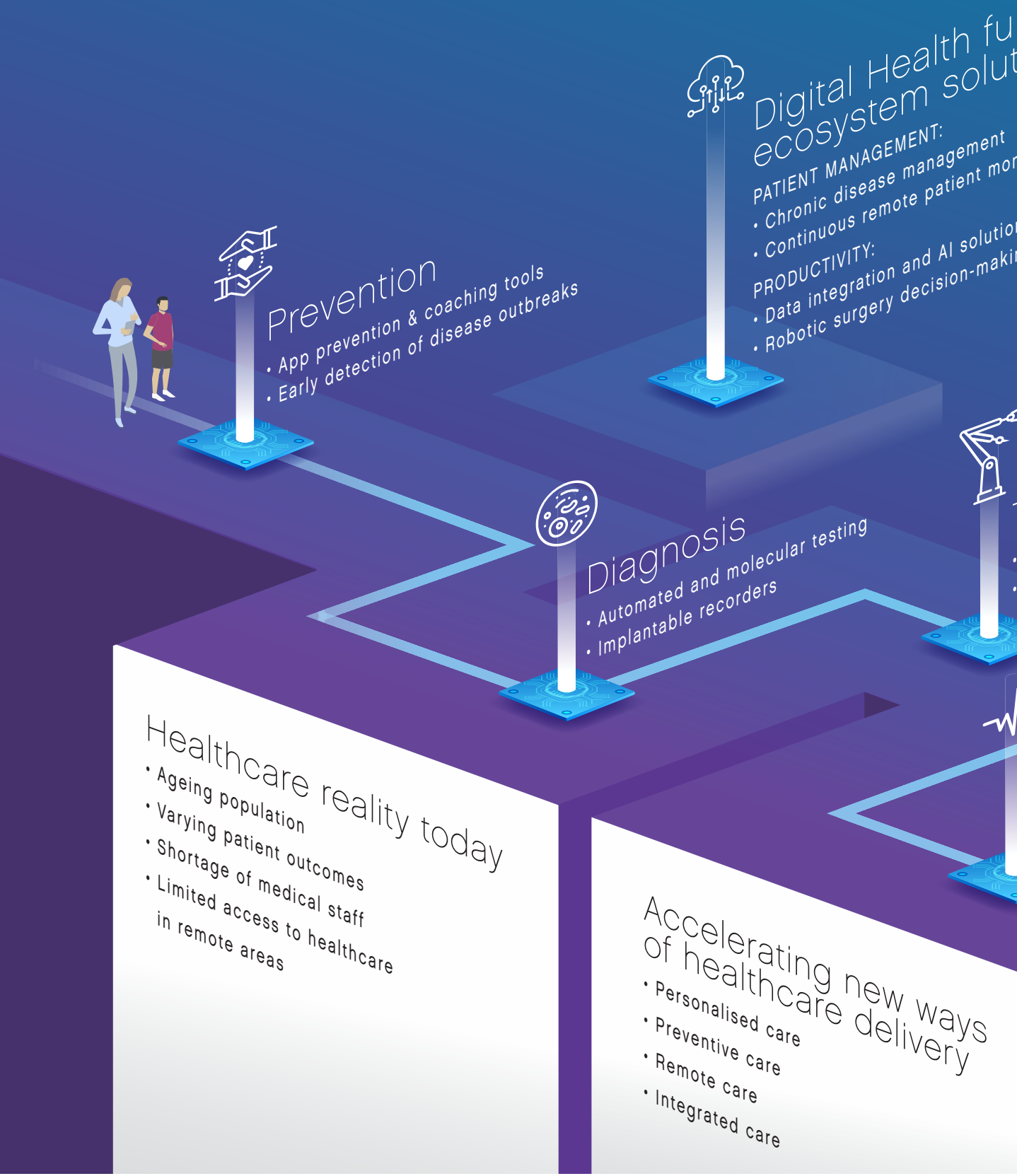
Translate Tweet



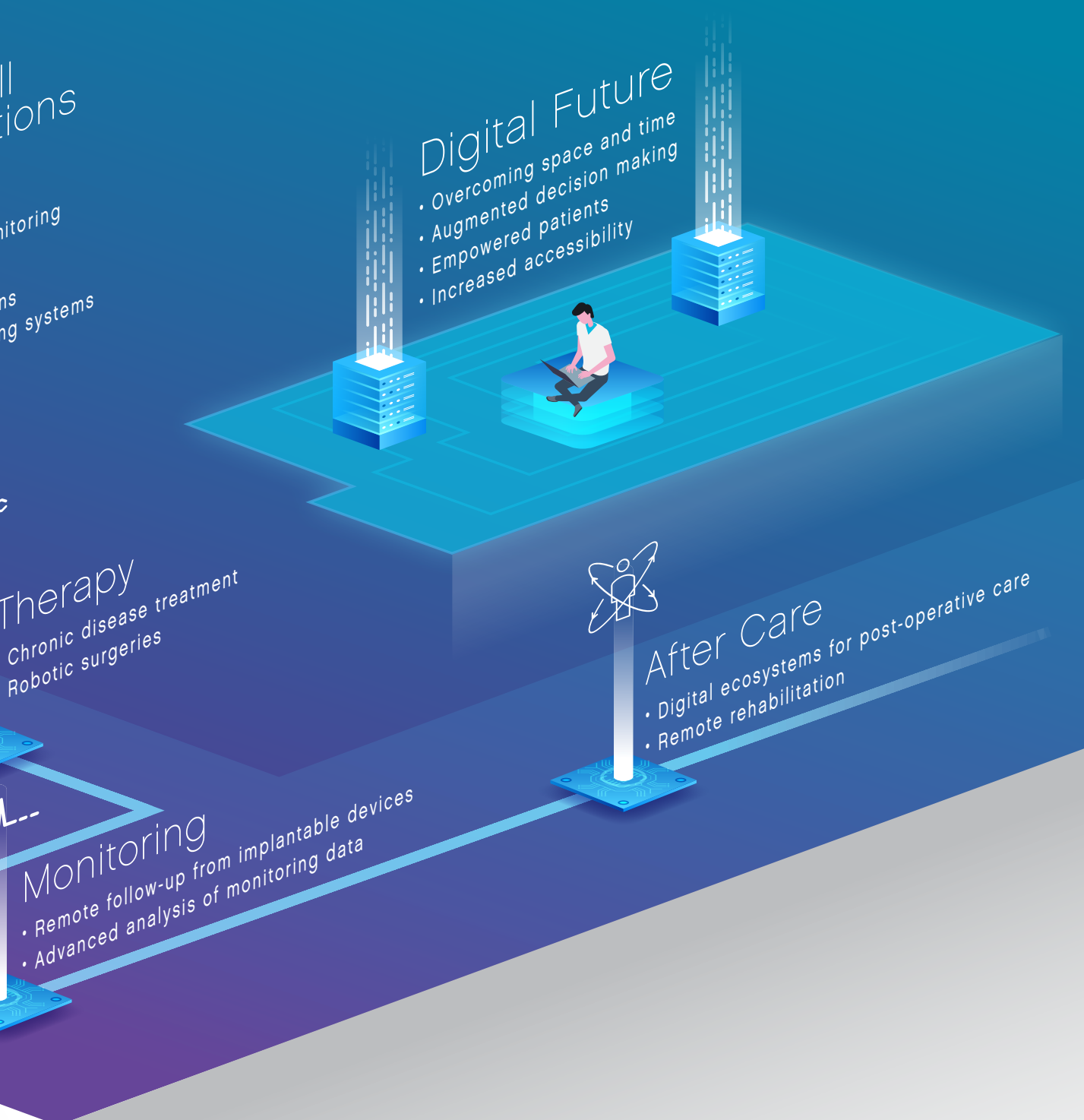
92 The MedTech Week 2018



Medical Technologies – An Enabler of the



Digital Transformation of Health and Care



MedTech Europe

from diagnosis to cure

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The Value of Diagnostic Information

A comprehensive concept of “Value” for diagnostics

In Vitro Diagnostic (IVD)¹ testing has become an indispensable tool in clinical practice. It can provide critical information at every step of the patient pathway, from [prognosis](#), [screening](#), [diagnosis](#) to [monitoring the progression of disease](#), and [predicting treatment responses](#). IVDs also play an increasing role in driving [personalized and cost-efficient healthcare delivery](#).

SOME FACTS AND FIGURES ABOUT IVDs

Results of in vitro testing influence as many as [70% of clinical decisions](#), while IVDs account for just 0,8% of total healthcare expenditure. When IVDs are reimbursed, the decision is typically based on the cost of the test kit itself, the equipment that analyses the sample (usually large laboratory machines) and the cost of staff performing the analysis, rather than on [the value they bring](#). The reimbursement of IVD's varies widely across the continent, from €3.6 (Romania) to €43.5 (Switzerland) per capita per annum, which leads to large [inequalities of access](#). Therefore, there is a major need for a [new evaluation framework](#), that recognizes the comprehensive value of diagnostic information.



INFORMATION ON A WIDE RANGE OF OUTCOMES

The concept of value and its measurement for IVDs is different from that for therapeutic medical devices or pharmaceuticals. IVDs are complex interventions which can provide information on a wide range of different outcomes, depending on the contextual factors and the perspective taken:

- Improved clinical benefits for patients;
- Societal gains of early detection and prevention of disease progression;
- Value of knowing for individual patients;
- Economic savings and resource efficiencies for healthcare institutions and health systems;
- Improved patient management by health care providers;

Essentially, the information resulting from diagnostic testing, provides value by [enabling the different users to make decisions on the expected best course of action with less uncertainty](#).

1) In Vitro Diagnostics are any medical device which is a reagent, reagent product, calibrator, control material, kit, instrument, apparatus, equipment or system, whether used alone or in combination, intended by the manufacturer to be used in vitro for the examination of specimens, including blood and tissue donations, derived from the human body, solely or principally for the purpose of providing information:

• Concerning a physiological or pathological state; or

• Concerning a congenital abnormality; or

• To determine the safety and compatibility with potential recipients; or to monitor therapeutic measures;

Source: [The European Medical Technology Industry – in figures, 2016](#)

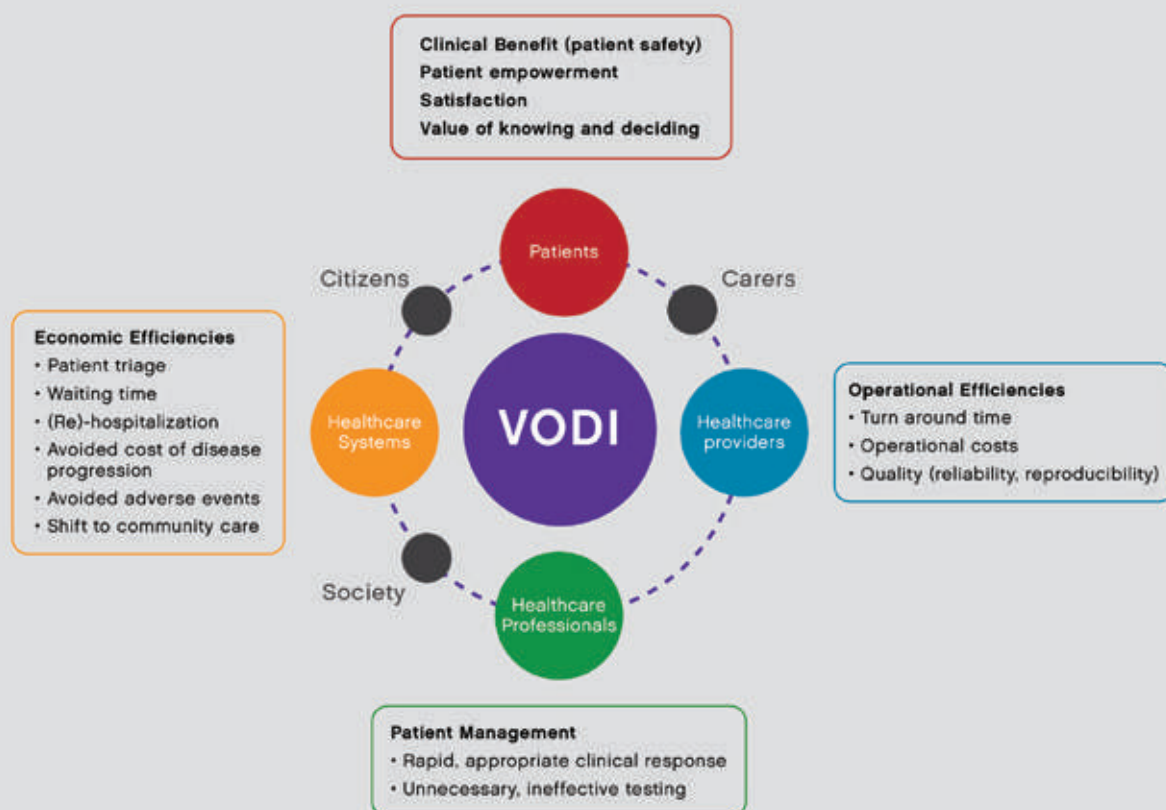
CAPTURING THE COMPLETE PICTURE

To capture the full value of diagnostic information, and appropriately consider what matters to patients, society and to all other players involved in the healthcare delivery, both assessors as well as decision makers on funding and reimbursement should consider the full breadth of value that diagnostic information can provide, including:

- From a patient perspective, the direct and indirect impact on relevant outcomes;
- From a health system perspective, the impact on the use of resources by different actors, in different healthcare pathways and settings, and over time.

If the full potential of diagnostic information is explored, **societal as well as individual health outcomes** will improve in a sustainable way. To achieve that, it is necessary to define relevant and pragmatic assessment methods, which build the basis for **rewarding the value of diagnostic information**. Such assessment would go beyond technological criteria and would comprise the multiple dimensions of value and the multiple outcome measures, relevant for medical decision making.

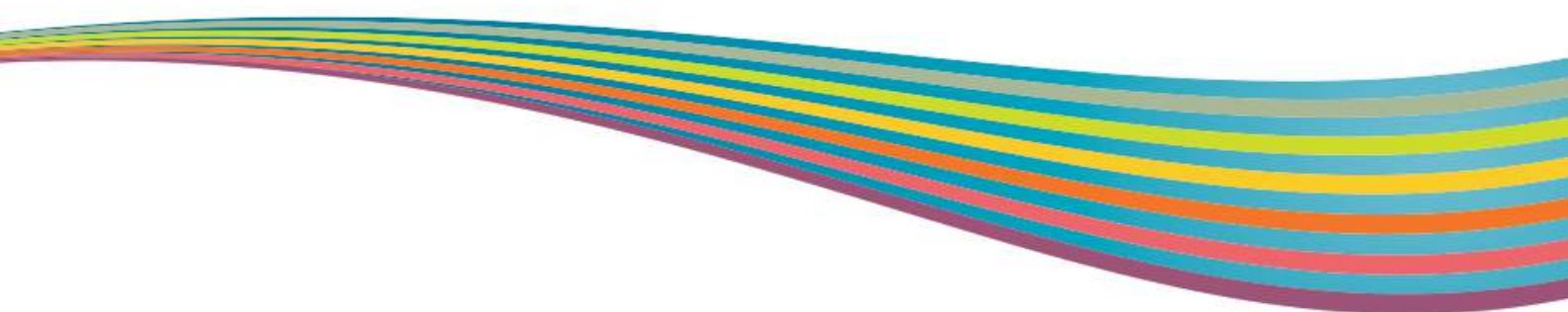
Diagnostic Information Brings Multidimensional Value





Join us next year!

3-7 June 2019



find out more on **www.medtechweek.eu**

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"MedTech Europe is the European trade association representing the medical technology industries, From diagnosis to cure. It represents Diagnostics and Medical Devices manufacturers operating in Europe. 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."

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