



# Sustainability Report 2021

Life-enhancing renal care





# Table of Contents

## 03 CEO letter

## 05 This is Diaverum

## 08 Our approach to sustainability

09 Our approach

10 Reporting frameworks

11 Spotlight: Diaverum becomes an EpiHC signatory

## 12 Our patients

13 Clinical Performance Measurement

15 Measuring what matters to our patients

17 Spotlight: Diaverum Saudi Arabia receives the Joint Commission International's Gold Seal of Approval

18 Our response to COVID-19 – vaccination update

19 Sharing our knowledge with the medical & scientific communities

20 Diaverum a key participant at the 49th EDTNA/ERCA conference

22 Health literacy and care

23 Spotlight: Diaverum partners with WKD 2021

## 24 Employees and well-being

25 Global well-being strategy

26 Training and development

27 Spotlight: Diaverum nurse elected to EDTNA/ERCA ExCo

28 My Opinion Counts

29 Diversity and inclusion

31 Local recruitment

## 32 Access to care

33 The Diaverum Treatment Guidance System

34 Treatment Guidance System: 2021 implementation update

## 35 Operating responsibly

36 The Diaverum CMS

38 Spotlight: The Diaverum Code of Conduct

39 Human-centric, explainable and responsible AI

40 Data privacy and protection

41 Sustainable suppliers

42 Diaverum Risk Framework

## 44 Our environment

45 Water, energy and waste

46 Disaster preparedness at clinic level

## 47 Appendix

# CEO letter

## Sustainability in an uncertain world

2021 was yet another extraordinary year for us all, in which the coronavirus pandemic dominated the headlines. The societal and economic challenges it has created worldwide have been seismic & unprecedented in their scale, posing health and well-being risks to our patients and staff alike, as well as straining national healthcare systems' capacity to serve society.

Now, with the war in Ukraine causing further human suffering and contributing to a looming global recession, it's clear that this uncertainty will stay with us for some time, and our ability to respond

**By putting our patients at the centre of everything we do, we improve medical outcomes, lower mortality rates and decrease hospitalisation, ultimately enhancing their life experiences – even in the most trying medical circumstances.**

to it will continue to shape our daily lives in the years to come.

As a business that provides life-enhancing treatment to those in need, this not only means we need to be able to respond quickly and adapt efficiently to uncertainty over the short term, but we must also never lose sight of our long-term commitments to ensure the sustainability of our business.

### How we approach the challenge

Our sustainability framework delivers on that challenge. It gives us the opportunity to address, both today and tomorrow,

the needs of our internal and external stakeholders – our patients, employees, NHSs, suppliers and local communities, to name but a few – while respecting the environment and assessing our impact as an ethical business, in order to identify where we can do better.

Comprised of five pillars – **patients; employees & well-being, access to care; operating responsibly; and the environment** – our sustainability framework revolves around a clear focus on providing life-enhancing renal care to people with chronic kidney disease (CKD). By putting our patients at the centre of everything we do, we improve medical outcomes, lower mortality rates and decrease hospitalisation, ultimately enhancing their life experiences – even in the most trying medical circumstances.

### Building on strong foundations

In 2020, we began aligning our

**Dimitris Moulavasilis**  
CEO Diaverum



sustainability reporting against globally recognised standards, such as the **United Nations Sustainable Development Goals (UN SDG)** and the **Sustainability Accounting Standards Board (SASB)** healthcare delivery reporting guidelines. We are committed to reviewing our core sustainability topics on a regular basis, aligning these to industry benchmarks – and we have made good progress on this front in the last few years.

In 2021, we became a signatory of the **Ethical Principles in Health Care (EPIHC)**, a global cohort committed to building more sustainable business models, by embedding ethical principles into their operations. It's clear to us that there is a clear connection between ethical operating principles and the development of sustainable business models that can

have a positive impact on countries where private companies operate, benefiting patients, staff, the environment and the communities they serve.

### Moving forward with our sustainability agenda

I am proud of the progress we have made in the past year and to be sharing some of this with you in this Sustainability Report 2021. In the following pages, you'll be able to see how we moved forward with our sustainability agenda in context of the global COVID-19 pandemic.

#### 1. Health literacy & partnerships

CKD is a global, escalating challenge that affects about 10% of the world's adult population, going undiagnosed until it's too late in up to 90% of those cases. With that in mind, we have invested heavily in strategic partnerships to promote health literacy and more specifically, awareness of the importance of kidneys in relation to our overall health. In March last year, we announced a partnership with the World Kidney Day (WKD) organisers to amplify the

conversation around kidney health and reduce the impact of the disease worldwide. WKD is a yearly joint initiative of the International Society of Nephrology (ISN) and the International Federation of Kidney Foundations (IFKF).

#### 2. Vaccines save lives

Our efforts to educate and support vaccination in our network of clinics led to an impressive 86% of patients and 94% of staff being vaccinated with at least one dose, 81% of our patients being fully vaccinated, and 56% of them having already had their booster shot, an outcome well ahead of general populations and our industry peers.

#### 3. Human-centric, explainable & responsible AI

Last year, we announced the development of our breakthrough, highly effective vascular access thrombosis artificial intelligence prediction model, which is now being rolled out across our global network of clinics. Available with no incremental cost to patients or national health systems, the model



Looking ahead, we will continue to deliver care excellence, no matter the circumstances, bringing together our renowned care delivery model and culture of True Care with data, digital and AI, making breakthrough progress with our digital transformation & care delivery innovation.

follows the core principles of ethical AI – it's human-centric, explainable & responsible. Its predictions are presented to the nephrologists together with a set of clear insights, empowering them to offer preventive personalised care to maintain the patient's vascular access survival.

#### 4. Giving our patients and people a voice

Our Health-related Quality of Life (HRQoL) strategy was embraced by more than 80% of our patients. Together with the unique insights from both CPM 2.0 and Patient Perception of Care (PPC) reports, we are now able to deliver more insightful, personalised renal care.

Looking internally, 85% of our employees participated in our global "My Opinion Counts" (MOC) survey, and we were

happy to see an improvement across all categories, with scores at their highest rates since we started the survey in 2013.

#### Care excellence, regardless of uncertainty

Looking ahead, we will continue to deliver care excellence, no matter the circumstances, bringing together our renowned care delivery model and culture of True Care with data, digital and AI, making breakthrough progress with our digital transformation & care delivery innovation.

It's no small deed, but one I'm confident we can deliver on – after all, Diaverum has the right people, culture, strategy and capabilities to respond to challenges, and to capitalise on opportunities that the future holds.



# This is Diaverum

We provide life-enhancing renal care to patients with Chronic Kidney Disease (CKD), enabling them to live fulfilling lives.





**Our strong heritage dates back to 1991 when Gambro Healthcare – a subsidiary of dialysis machine manufacturer Gambro – opened its first dialysis clinic in Lund, Sweden.** Global expansion followed in 1999, when Gambro Healthcare's international division established 100 dialysis clinics across the world, and further growth continued as the company acquired and won tenders for new clinics.

In 2007, Gambro Healthcare was bought by Bridgepoint, a major international asset fund management group, with the vision of enabling healthcare systems worldwide to provide universal access to outstanding renal care. The name Diaverum was adopted in 2008 and further global expansion followed, through both organic growth and acquisitions.

#### **Our societal purpose**

CKD is a global and escalating challenge. It affects about 10% of the world's adult population, but may go undiagnosed until a late stage in up to 90% of those affected. It is a long term, life-altering

condition, usually requiring patients on haemodialysis to receive this treatment 3 times per week, with each treatment lasting 4 hours, or a total of c.12 hours per week in a clinic environment.

CKD has many causes; two of the most common are diabetes and high blood pressure, which may in turn be linked to unhealthy lifestyles. The prevalence of CKD is increasing in developing countries; it currently accounts for 1.2 million deaths annually worldwide and disproportionately affects low-income individuals.

Against that backdrop, Diaverum's vision is to transform renal services, offering the highest quality of care and empowering patients to live fulfilling lives.

We work together with payors to reduce the total cost of care, while partnering with local communities to educate people about their health and the value of disease prevention.

Our care delivery model enables universal access to world-class renal care, and we

are continuously improving our services through research and education.

Our focus is haemodialysis, but we offer a portfolio of treatments ranging from preventive care, peritoneal dialysis and home care to coordination of patients' comorbidities, transplantation services and holiday dialysis.

#### **What makes us different**

##### **1. We have a global care delivery model**

Diaverum delivers consistent, high-quality medical outcomes across the chronic kidney disease care continuum while creating efficiencies for healthcare payors.

At the centre of what we do, all over the world, is our standardised and proprietary care delivery model, enabled by a continuously evolving digital infrastructure.

It provides benchmark quality, holistic and personalised patient care, driving increased longevity and reduced hospitalisation.

## **Diaverum at a glance**

(as of December 2021)

**c. 40,000** patients

**c. 6.3 million** treatments annually

**c. 12,000** staff worldwide

**464** clinics around the world

**24** countries globally





## 2. We develop patient-centric digital innovations

We are dedicated to enhancing the lives of people with CKD, which is why we are continuously developing a range of digital platforms and applications to improve renal care and patients' well-being. In the last 3 years, Diaverum has embarked on an ambitious journey to convert 30 years of dialysis know-how into one digital platform that connects with clinics across the world to ensure the highest standards of care for patients, the most advanced support for our clinical teams and the lowest cost for payors.

Our digital platform's solutions and applications are developed around our patients' needs, improving treatment effectiveness, efficiency and medical outcomes worldwide, while also empowering them to contribute to their own care and well-being. This includes human-centric, explainable, and responsible AI solutions to support our physicians in delivering personalised care to our patients.

## 3. We have a culture of True care

Our culture of True care is defined by our values of **competence, passion and inspiration**. It is our foundation and how we work every day to deliver for our patients, their families and all our stakeholders. It is for everyone at Diaverum, regardless of our role or our location, whether we work in a clinic or in an office. It's at our core, it's non-negotiable, it's how we work: it connects us all.

### Our global footprint

Diaverum has a proven track record of over 30 years of excellence in renal care and sustainable growth driven by organic initiatives as well as acquisitions in existing and new markets.

We operate our renal care services in two geographical segments, Europe and International. In 2021, Europe consisted of 13 markets (**Albania, France, Germany, Hungary, Italy, Lithuania, North Macedonia, Poland, Portugal, Romania, Spain, Sweden and the United Kingdom**), while International consisted of 11 markets (**Argentina, Brazil, Chile, China,**

**Kazakhstan, Malaysia, Morocco, Russia, Saudi Arabia, Singapore and Uruguay**).

This geographical diversity embeds Diaverum within attractive and resilient European markets as well as those with an unmet demand for renal care services, such as Saudi Arabia, Brazil and China. This results in significant relative exposure to markets with high growth potential.

### Strong growth track record

We have been on a transformational journey during Bridgepoint's ownership; we have expanded our operations, both organically, through the expansion of existing clinics, the establishment of greenfield clinics and tender wins, and inorganically, through acquisitions in existing markets & via new market entries.

As a result, **since 2008, we have delivered year-on-year revenue growth of around 10 percent through increasing numbers of patients, treatments and clinics**. The Company's revenue has more than tripled, from EUR 281 million for the year ended 31 December 2008, to EUR 876 million for the year ended 31 December 2021.

**Over 30 years** in operation

### Geographically diversified



Robust, highly predictable European markets and higher growth international markets

### Broad renal care service offering:

Standard dialysis



Integrated dialysis care

### Digitally-enabled business



Standardised and proprietary care delivery model enabled by a continuously evolving digital infrastructure



# Our approach to sustainability

At Diaverum, we define sustainability as meeting our obligations to society and the environment while providing life-enhancing renal care. Our approach to sustainability is based on the belief that it is inextricably linked with our business' success.





# Our approach

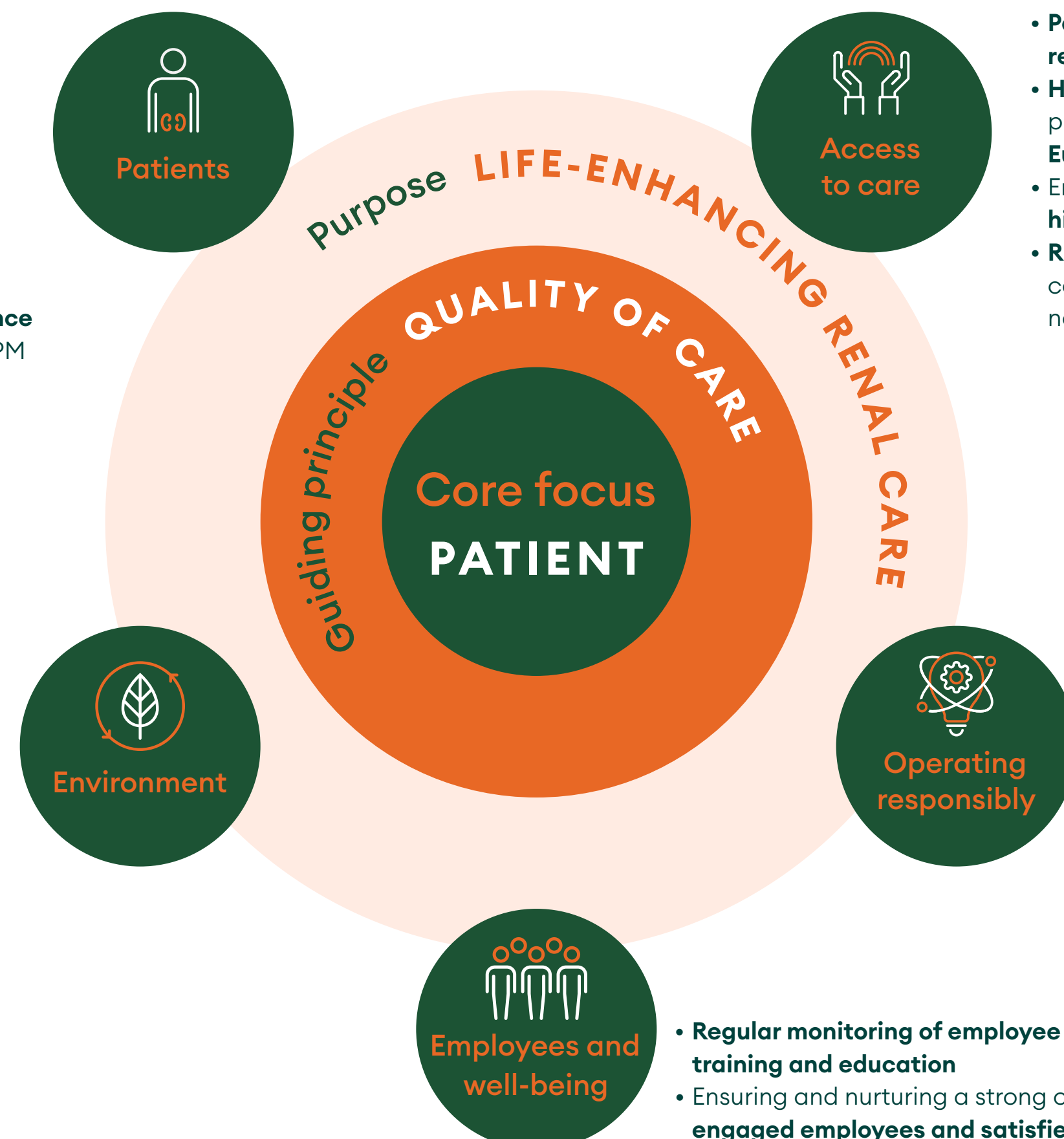
Diaverum's sustainability framework and narrative are structured around five pillars: Our patients; Employees and well-being; Access to care; Operating responsibly; and the Environment.

Through our approach to sustainability, we commit to measuring our performance and developing global targets, as well as conforming to global reporting standards.

The sustainability framework gives us the opportunity to assess our impact as an ethical business and identify where we can do better, whilst also allowing us to leverage commercial opportunities related to sustainability.

- **Patient-centered approach** at the core of the sustainability narrative
- Focus on ensuring **the best clinical standard care**, by continuously monitoring patient satisfaction
- Annual survey to **harness patient experience** and plan on how to **improve treatment quality and outcomes**
- Use of **digital capabilities to enhance medical outcomes** and improve CPM and clinical integration

- **Water consumption from dialysis treatments** is the biggest environmental impact for Diaverum
- Purifying water for dialysis is critical for **treatment quality and patient safety**
- **Contaminated water could make patients severely ill**; maintaining patient safety is a priority
- **Continuous monitoring of resource consumption** to limit environmental impact
- **Critical suppliers auditing** on environmental performance and sustainable resource consumption



- **Passionate about providing life-enhancing renal care** to patients around the world
- **Helping national healthcare systems** to provide high quality renal care **in both European and International markets**
- Ensuring that access to care is given at the **highest ethical standards**
- **Rigorous market entry process**, through codes of conduct and regular clinical and non-clinical auditing

- **Compliance and management of business risks** ensured by internal governance /control frameworks and regular internal audits
- **Control measures in the form of policies and procedures**, reflecting local regulations and requirements at the country level
- **Regular external ISO audits in selected markets**, with results published by external auditors in an independent report

- **Regular monitoring of employee engagement, training and education**
- Ensuring and nurturing a strong correlation between **engaged employees and satisfied patients**
- **Employee empowerment** through pilot programmes, offering **international career opportunities** in markets where we have a presence
- **Global sourcing pool**, upholding Diaverum's standard of **excellence in all clinics and countries**



# Reporting frameworks

In 2020, Diaverum decided to align its Sustainability Reporting to globally recognised standards such as the United Nations Sustainable Development Goals (UN SDGs) and the Sustainability Accounting Standards Board (SASB) healthcare delivery reporting guidelines.

Topics relevant to both reporting guidelines are covered and discussed throughout this report.



## SASB Healthcare Delivery Standard

Disclosure Topic	Topic code	Page #	Diaverum sustainability pillar
Energy management	HC-DY-130a.1	44	Our environment
Waste management	HC-DY-150a.1	44	Our environment
Patient privacy and electronic health records	HC-DY-230a.2	35	Operating responsibly
Employee recruitment, development and retention	HC-DY-330a.2	24-31	Employees and well-being
Climate change impact on human health and infrastructure	HC-DY-450a.1	46	Our environment

To access the SASB Healthcare Delivery Standard, please visit:  
<https://www.sasb.org/wp-content/uploads/2019/08/SASB-Health-Care-Delivery-Industry-Brief.pdf>

## United Nations Sustainability Development Goals

Goal	Targets	Page #	Diaverum sustainability pillar
 Good health and well-being	3.4	12-21	Our patients
 Gender equality	5.5, 5c	29-30	Employees and well-being
 Decent work and economic growth	8.5, 8.7	25-26, 31	Employees and well-being
 Peace, justice and strong institutions	16.5, 16.6	32-34, 35-42	Access to care, operating responsibly



## SPOTLIGHT

# Diaverum becomes an EPIHC signatory



In 2021, Diaverum became a member of Ethical Principles in Health Care (EPIHC), a global cohort committed to building more sustainable business models by embedding ethical principles into their operations.

On 27 March 2019, the World Bank and International Finance Corporation (IFC) unveiled a set of 10 concise, pragmatic and universally applicable values to help private sector healthcare providers

build transparent and resilient operating systems that meet the highest ethical principles. Last year we joined more than 160 EPIHC signatories, including private healthcare providers, payors, investors and their respective associations. Together with their subsidiaries, partners, and other associated companies, the signatories represented at that time more than 4,000 healthcare facilities in over 70 countries.



**Kirsty Bashforth**, Chief Business Officer, said: “Diaverum’s Code of Conduct and True care culture, together, ensure we operate within a rigorous governance framework and that we conduct our business in a transparent & ethical way. Becoming an EPIHC signatory is thus a natural development for us, one

which we embrace proudly as a platform to share our experience with peers, learn from others in the industry and help the private healthcare sector as a whole play its role in advancing global access to high-quality, affordable care.”

Diaverum sees a clear connection between ethical operating principles and the development of sustainable business models that can positively impact the countries in which private companies operate, for the benefit of patients, staff, the environment and the communities they serve. The adoption of the principles by an increasing number of healthcare organisations helps raise the importance of ethical principles for the whole of the healthcare system, guiding and influencing decision-making in a way that promotes high-quality, affordable healthcare for all.

**Elena Sterlin**, IFC’s Global Head of Health and Education, said: “We were very pleased to welcome Diaverum to the EPIHC community. Diaverum’s rigorous governance framework and its commitment to conducting business in a transparent & ethical way embody the EPIHC principles, setting a leading example for the global healthcare sector.”





# Our patients

Diaverum's holistic, patient-centred approach focuses on superior clinic experiences along with improved medical outcomes. Our digital innovations allow us to automate data capture, minimising human error and maximising the time that our staff can devote to our patients. Optimising treatment outcomes through support, education and empowering patients and families is a key priority for us.





# Clinical Performance Measurement

The Clinical Performance Measurement (CPM) is a key performance indicator at Diaverum. It brings together medical and patients' self-reported outcomes data, providing us with a 'combined clinical performance measurement index'.

At Diaverum, we have more than 20 years of experience in measuring clinical outcomes using our Clinical Performance Measurement scores (CPM). In 2019, work began on reviewing and improving how we undertook this. As a result, CPM 2.0 was developed, which includes the Individual Patient Performance Scores (IPPS) unique to Diaverum patients, and also patient self-reported outcomes with the Patient Perception of Care and Health-related Quality of Life surveys (read more on page 15).

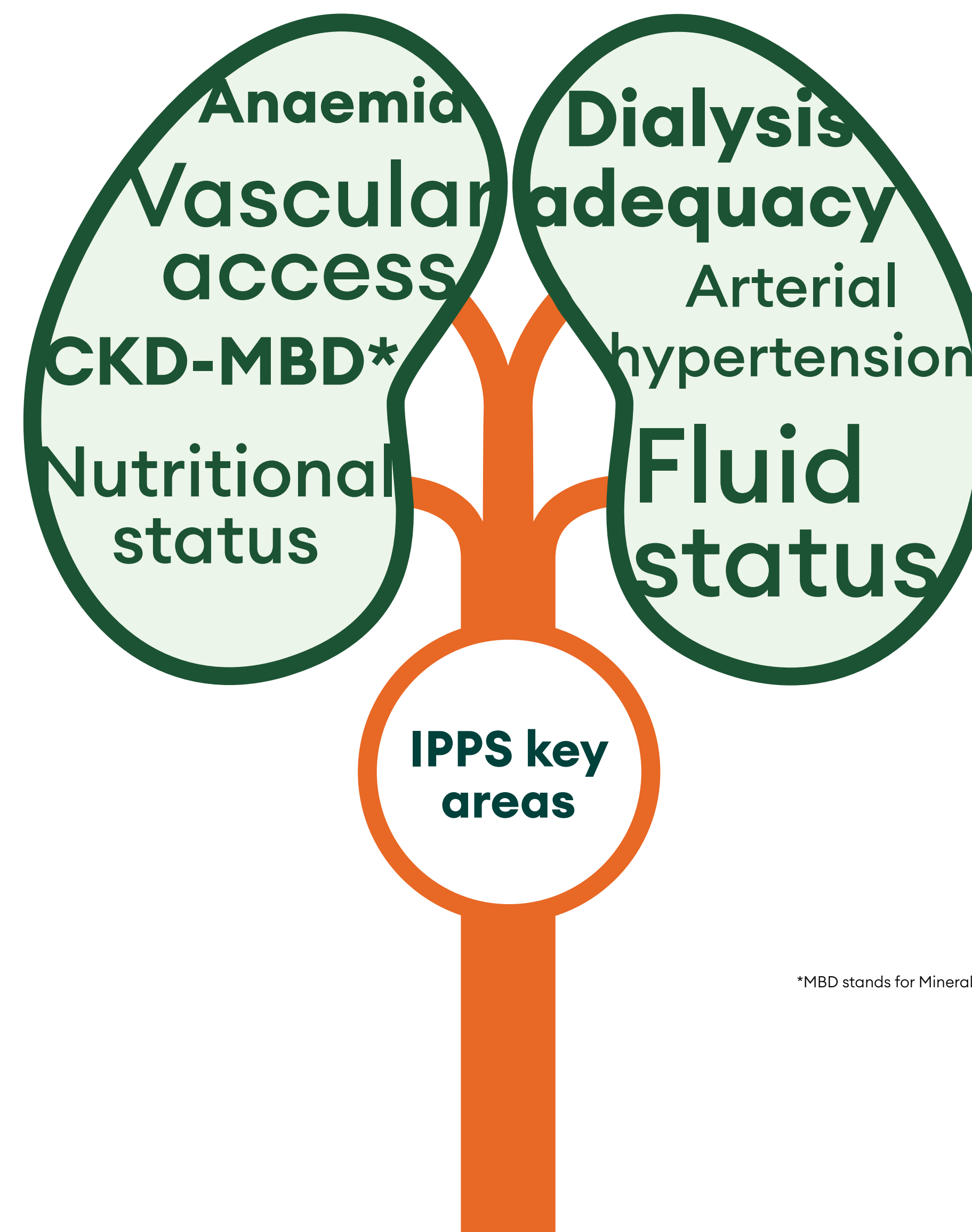
The IPPS covers a number of key areas that are critical for the care management of our patients, as shown in the illustration on this page. For each key area:

- one or more parameters were identified as relevant, with targets and individual weighting defined;

- the parameters are correlated with the intended outcome;
- proper weighting within each area was established.

## Strong medical outcomes

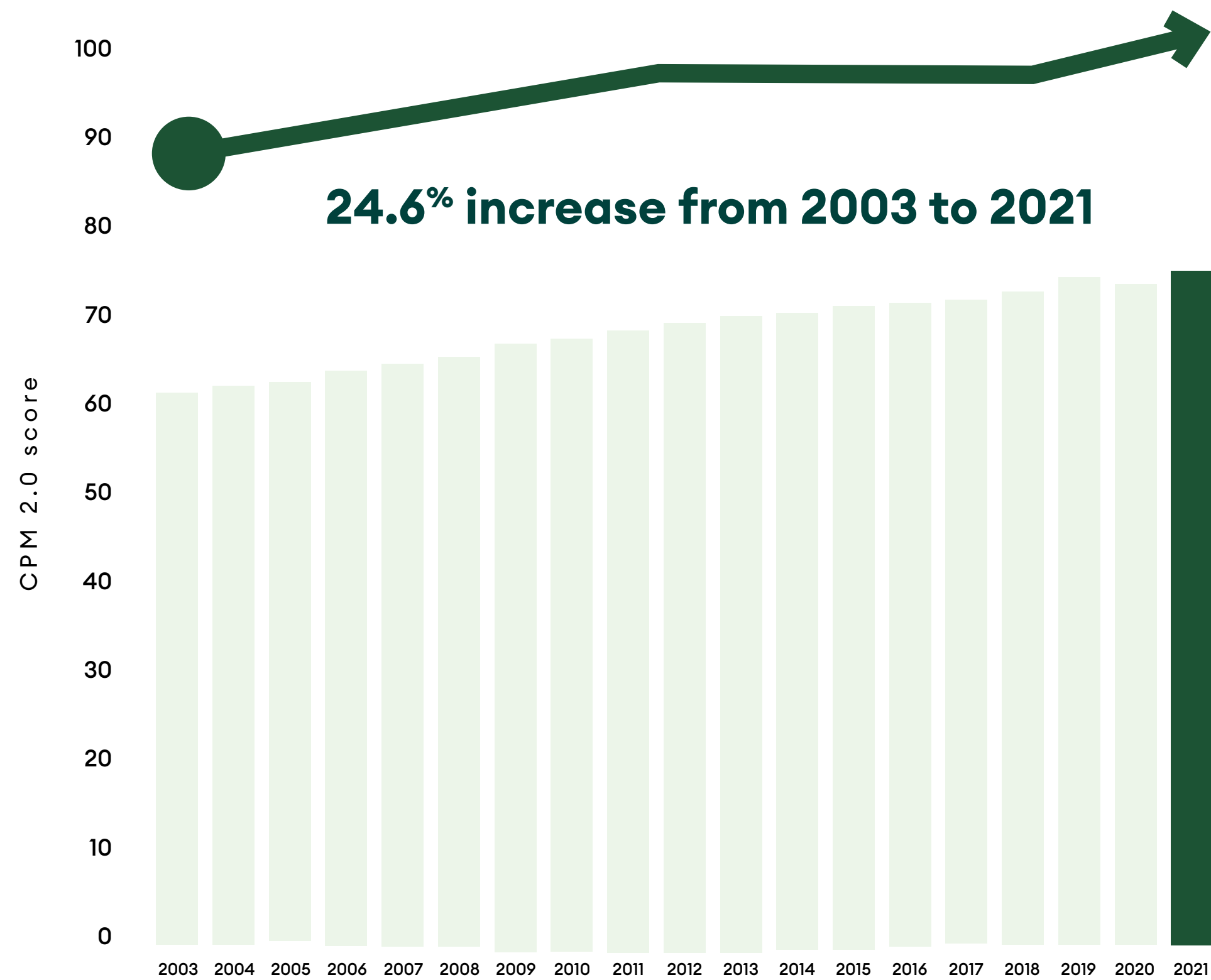
Data collection empowers our medical staff to tailor medical recommendation to patients, delivering a customised treatment adjusted to each patient's needs. We have a strong track record of improving clinical performance within our own clinics, as well as reducing hospitalisation rates. **Between 2003 and 2021, we had a 24.6% improvement rate of our yearly CPM scores, while from 2011 to 2021, the hospitalisation days per patients declined by 14.9%, with our 2021 figures largely in line with the historic improvement trend despite the global pandemic.**



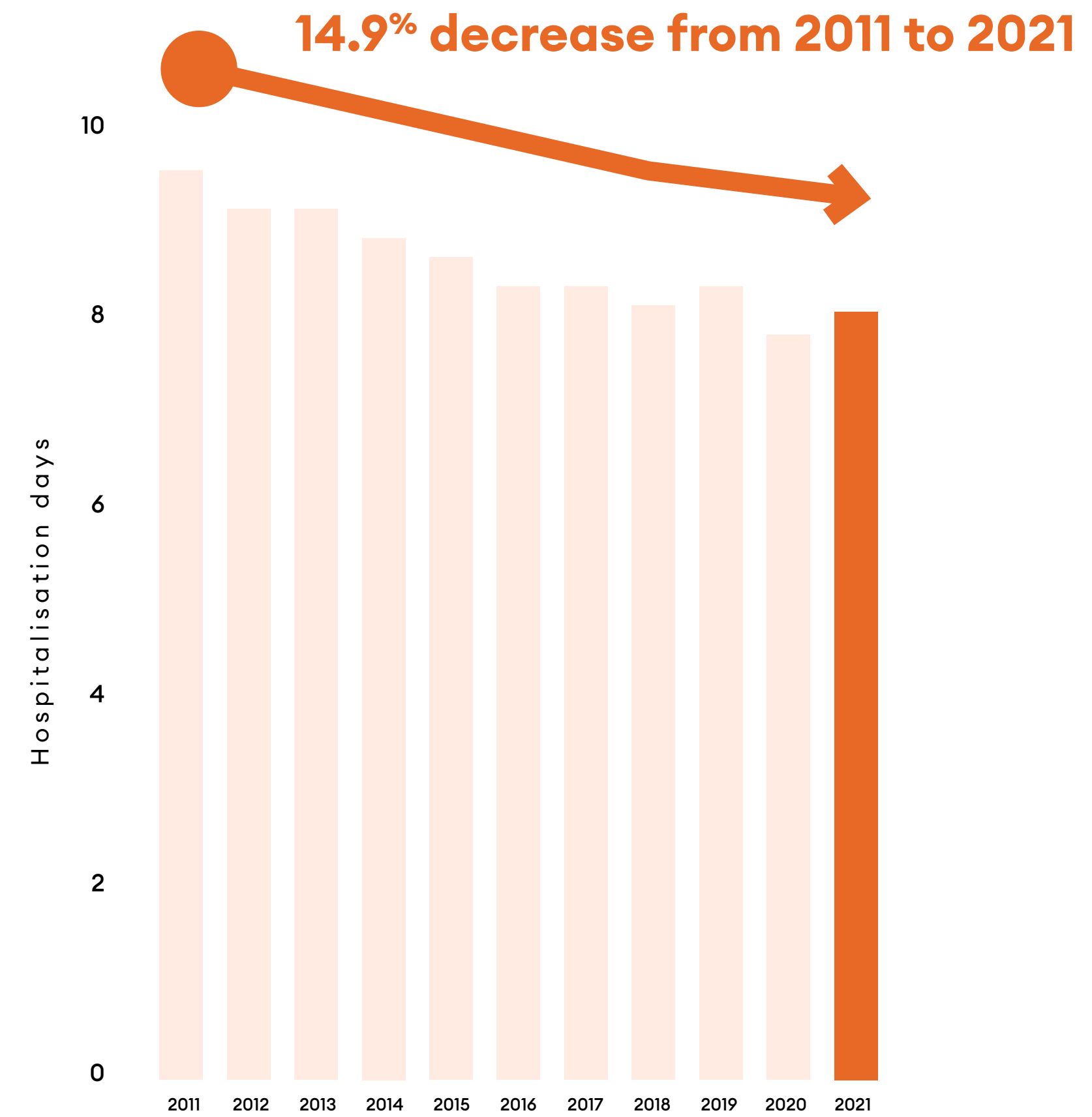
\*MBD stands for Mineral and Bone Disease



Progressive improvement in Clinical Performance Measurements (CPM 2.0) at Diaverum worldwide



Hospitalisation days per patient/year





# Measuring what matters to our patients

Patient self-reported outcomes – captured through our Patient Perception of Care and Health-Related Quality of Life surveys – give us unique insights into what areas are essential to our patients and how they experience their care.

## Patient Perception of Care (PPC)

Until 2020, patients were asked on an annual basis through our Patient Satisfaction Survey to what extent they agreed with statements relating to trust, involvement, diet, waiting time, care improvements and recommending Diaverum to other CKD patients.

In line with our commitment to seeking a holistic view of our patients' perception of care, in 2020 we reviewed our patient reported experience measures and surveys. Subsequently, we developed the Patient Perception of Care (PPC) survey.

The benefit of the survey is that it focuses on the patient's perspective of their own care experience. This helps us drive changes to our services that matter to our patients, for their own benefit.

The 2021 PPC results were shared with all clinics, which developed action plans accordingly. The survey will be repeated next in September 2022 and after that yearly to ensure that we stay focused on our patients' opinions of their care.

## Health-related Quality of Life (HrQoL)

The patients we care for depend on

life-saving treatments. Chronic kidney disease changes lives, such as patterns of eating, sleeping, and day-to-day activities. In addition, it compromises social interaction and the ability to work, for working-age people.

This degree of lifestyle change affects people's health-related quality of life and, when measured, its scores are a predictor of morbidity and mortality.

HrQoL is a unique dimension of chronic disease care; in 2021 we started to capture patient perceptions on the matter via a valid, reliable tool, known as the

## 2021 Patient Perception of Care: global highlights

In its first year, the PPC survey had an excellent response rate of **89%**, from **34,952** patients, in **417** clinics across **21** countries.

The global average overall result was **6.30** out of a maximum score of **7.0**. The domains with some of the highest scores relate to 'fluid and diet advice' with a rate of **6.45** and 'privacy and dignity', with a rate of **6.40**. The lowest scores relate to 'pain on needling' with a score of **5.59** and 'transport' with a score of **5.92**.





Kidney Disease Quality of Life-Short Form (KDQOL-SF36). This tool is widely used to measure health-related quality of life for CKD patients, and is composed of 22 domains.

From April to July, 31,831 (80.9%) of our patients took the opportunity to give their feedback, either using the in-house developed digital survey or the paper survey.

The individual assessment of each patient report informs changes to the patients individual care plan, with the country consolidated data informing the country and clinic action plans. This triggers the attention of our clinical teams to subjects that prevent our patients from living fulfilling lives.

This was one of the most extensive application of a questionnaire of its kind to people with chronic kidney disease. Ongoing analysis over the coming years will allow us to measure the longitudinal evolution of HrQoL, the impact of our interventions, and compare different sub-populations.

As a leading provider of renal care, Diaverum is committed to enhancing patients' well-being, because everyone deserves a fulfilling life. This means that we will continue to invest time and effort to measure and act on what really matters to our patients.

## 2021 Health-related Quality of Life: global highlights



Haemodialysis patients tend to report better health-related quality of life after three months on dialysis



Overall, peritoneal dialysis patients have reported better health-related quality of life when compared with haemodialysis patients



With the highest reported domains, we learnt that our patients feel encouraged by our people to be as independent as possible. Additionally, they feel supported in coping with their kidney disease, find our care environment friendly and that our staff show interest in them as individuals



With the lowest reported domains, we now know that approximately 50% of our patients do not work, or their health keeps them from working at a paying job, and that their physical health interferes with their general health. As a result, they have limitations in performing their daily activities





## SPOTLIGHT

# Diaverum Saudi Arabia receives the Joint Commission International's Gold Seal of Approval

**In 2021, our operations in Saudi Arabia were accredited for the first time by the Joint Commission International (JCI) for their ambulatory care network.**

This accreditation is testament to the standards of excellence Diaverum has achieved since we began offering life-enhancing care to patients with End-Stage Renal Disease (ESRD) in Saudi Arabia over eight years ago. In 2021, we provided care for more than 4,300 patients across 40 clinics in 33 cities and towns, making us the largest renal care provider in Saudi Arabia and the Middle East.

**The world-renowned accreditation demonstrates our company's excellence in renal care provision and organisational management in the country.** The JCI and

its quality mark, Gold Seal of Approval®, have for more than 45 years formed a globally recognised benchmark that represents one of the most comprehensive evaluation processes in the healthcare industry.

The implementation of our integrated, patient-centric model, that delivers superior medical outcomes and patient satisfaction levels, both within the company's global network of clinics as well as industry-wide, has been integral to meeting the JCI's standards of performance. Since we commenced operations in Saudi Arabia in 2013, we have made significant investments in our clinic infrastructure. We have also transferred medical & operational knowledge to

develop both local and international talents through our d.ACADEMY digital training platform which includes a certified training centre located in Riyadh, providing continuous education in practice, with accreditation from the Saudi Commission for Health Specialties (SCFHS).

The world renowned JCI accreditation for ambulatory care networks enhances the sustainability of our Public Private Partnership (PPP) with the Ministry of Health of Saudi Arabia, which has been enabling access to quality care across Saudi Arabia since 2013. This accreditation has strengthened our market position in the region as the renal care provider of choice for patients, national health services and healthcare professionals alike.





# Our response to COVID-19 – vaccination update

At Diaverum, we are committed to delivering life-enhancing renal care irrespective of the global pandemic. Throughout 2021, our ambition to have all our patients and staff fully vaccinated remained unchanged.

Our response to the pandemic has been based on science, education and our True care culture. Our global COVID-19 contingency plans, paired with an ambitious vaccination campaign, have promoted the health and safety of our patients & staff, by minimising the impact of the disease, as well as delivering operational continuity in our clinics worldwide.

Conscious of the potential consequences of COVID-19 for CKD patients and our people, we took

Conscious of the potential consequences of COVID-19 for chronic kidney patients and our people, we started taking precautions early.

early precautions. Our agility in doing so, proved effective in promoting the health and safety of our patients and staff, thereby impact of the disease on our organisation.

With the development and approval of COVID-19 vaccines, in 2021 our focus turned to facilitating the prompt vaccination of our patients and staff as and when it became available in our countries, across our clinics and offices. We also continued adhering to our Contingency Plan to avoid contagion.

Throughout 2021, and even presently, Diaverum has facilitated COVID-19 vaccine availability across all our clinics, while investing in education and well-being so that our employees and patients make the right choices and take the vaccine to protect themselves, their families and their communities.

By the end of 2021, our efforts to educate and support the vaccination of our patients and staff paid off, leading to an **industry-wide benchmark; we recorded an impressive 86% of patients and 94% of staff receiving their first dose, with 56% of patients having already had their booster shot** – well ahead of average vaccination rates for the general population.





# Sharing our knowledge with the medical & scientific communities

At Diaverum, we are increasingly active in world-class clinical research with a strong focus on the patient.

Our presence in 24 countries enables us to study the effect of socio-economic and cultural differences on the severity of CKD.

In 2021, Diaverum participated in a number of medical and scientific events. Our participation in the XXXVII Chilean Congress of Nephrology was focused on sharing information on the next generation of our clinical performance measurement, CPM 2.0, with the medical & scientific community. We also made prominent contributions to EDTNA/ERCA conference organised by the European Dialysis and Transplant Nurses Association/European Renal Care

Association (EDTNA/ERCA), by carrying out high quality scientific research and submitting 20 abstracts to the conference.

By using our resources and by evaluating our preventive strategy, we contributed to the fight against the pandemic, with meaningful scientific knowledge. The COVID-19 pandemic has had a particularly hard impact on patients with chronic diseases. Worldwide, almost 3 million people receive regular dialysis treatment, with preliminary reports indicating that mortality from COVID-19 is especially high among this group. To that end, we conducted a large multi-national study determining the

factors affecting incidence and outcome of COVID-19 in patients with chronic kidney disease receiving haemodialysis treatment. The study, comprising more than 38,000 dialysis patients, is one of the largest multi-national investigations of COVID-19 incidence and complications in haemodialysis patients to date. The results of our study indicated that patients with chronic kidney disease are among the groups with the greatest risk for serious complications and should therefore be granted the highest priority for preventive measures against COVID-19, including early vaccination.

We also found that dialysis patients may experience a delayed effect of COVID-19 vaccine, but extra vaccine doses and longer time intervals between injections can help to improve their immune response.

## Diaverum scientific articles on PubMed in 2021

Scientific publications with at least one author affiliated to Diaverum:	Total number of scientific publications, mentioning Diaverum:
2021 <b>46</b>	2021 <b>49</b>
2020 <b>29</b>	2020 <b>30</b>
2019 <b>30</b>	2019 <b>31</b>
2018 <b>24</b>	2018 <b>24</b>
2017 <b>26</b>	2017 <b>27</b>
2016 <b>24</b>	2016 <b>25</b>
2015 <b>31</b>	2015 <b>31</b>
2014 <b>20</b>	2014 <b>20</b>
2013 <b>6</b>	2013 <b>7</b>
2012 <b>3</b>	2012 <b>3</b>
2011 <b>5</b>	2011 <b>6</b>
2010 <b>3</b>	2010 <b>3</b>
2009 <b>2</b>	2009 <b>2</b>
2008 <b>1</b>	2008 <b>1</b>

A full list of articles with at least one author affiliated with Diaverum can be found in the appendix of this report.





## SPOTLIGHT

# Diaverum a key participant at the 49th EDTNA/ERCA conference



Clinical teams across Diaverum submitted a number of abstracts for participation in the 49th EDTNA/ ERCA conference, held from 4 to 7 September 2021.

In total, 20 abstracts have been submitted by Diaverum teams from across Europe and the Middle East, the highest number by far in recent years.

The conference theme, “Knowledge, Skills & Commitment – Core Elements to Manage Care”, focused on care management and learning implementation, and was explored through a series of educational sessions and workshops.

In total, 20 abstracts were submitted by Diaverum teams from across Europe and the Middle East, the highest number by far in recent years. Our organisation provided

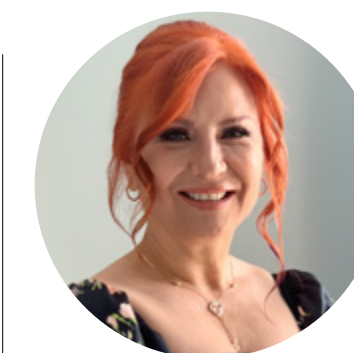
renal care benchmark and scientific insight into the following key areas:

- Risk and audits
- Innovation in dialysis
- Peritoneal dialysis



Commenting on Diaverum’s participation in the event, **Dr. Fernando Macário**, Chief Medical Officer, said: “Even in a year

of increasing difficulties due to pandemic management, our nursing teams exceeded all expectations, by carrying out high quality scientific research and submitting 20 abstracts to the EDTNA congress. Quality research is essential in contributing to continuous improvement and excellence in care.”




















**Filiz Akdeniz**, Clinical Nursing Director and lead for the scientific nursing work at Diaverum,

noted that the depth and breadth of the abstracts’ topics were testament to the value of the company’s nursing staff: “With the introduction of new technologies and an ageing patient population, nurses involved in high quality scientific research are now needed more than ever. Our nurses at Diaverum stay abreast of industry developments and the required knowledge, skills and competencies to ensure we develop and drive innovative standards & best in-class care”.



## Diaverum's submissions to the 49th EDTNA/ ERCA conference

Market	Content title
 Global	Analysis of potential severe incidents in a large multinational renal services provider network
 Global	Clinical effectiveness and audit outcomes: continually reviewing and improving the processes
 Global	Does a clinical integration plan lead to better quality outcomes? A nursing perspective
 Global	Mortality and hospitalisation data in a large peritoneal dialysis population during 2018
 Global	Patient safety in a large multinational renal services provider network
 Global	The impact of decision-making tools on the choice of renal replacement therapy
 Lithuania	Dialysis nurse assistance plays important role in increasing patient's physical activity: one centre primary experience
 Lithuania	Physical activity during haemodialysis is associated with better functional capacity and lower depression levels
 North Macedonia	Patient-reported quality of life and perception of care in dialysis units
 North Macedonia	The trend of HBV and HCV infections in haemodialysis patients in Diaverum North Macedonia
 Portugal	#ZeroRespiratoryInfections – a project to reduce respiratory infections in haemodialysis patients
 Portugal	Significant reductions in the access flow are associated with inferior arteriovenous fistula survival
 Romania	Product quality assurance, patient safety and cost effectiveness: why nurses have a crucial role
 Saudi Arabia	Improving clinical practice in haemodialysis: clinic experience on Grading Vascular Access Canulation
 Saudi Arabia	Is it time to change? Arterial rinseback
 Saudi Arabia	Patient satisfaction and attitude towards pharmacists' role in haemodialysis in Saudi Arabia Diaverum centres
 Saudi Arabia	Treatment Guidance System (TGS) in Saudi Arabia: an innovative tool for haemodialysis data documentation
 Saudi Arabia	Volkman's ischemic contracture: a rare complication of arteriovenous fistula
 Spain	Digital transformation – nursing perceptions before, during and after the implementation of the patient digital chart
 UK	Improving quality of life through nurse education; the frail patient





# Health literacy and care

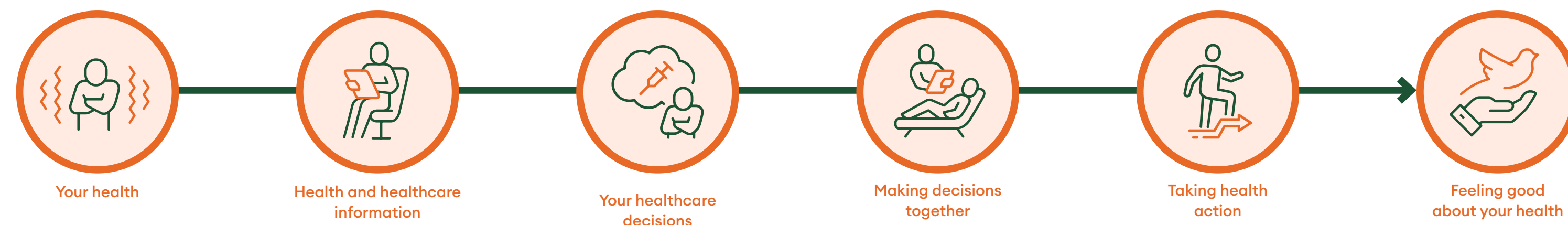
One of the fundamental challenges for both public and private healthcare providers in the 21st century has been to improve people’s health literacy, enabling and empowering them to read, understand and act upon health information and health promotion messages<sup>1</sup>.

Diaverum patients with Chronic Kidney Disease (CKD) make day-to-day decisions about self-management, but the decision-making skills needed to underpin this may be diminished in those with low health literacy, which is estimated to affect 25% of people with CKD worldwide<sup>2</sup>. By disproportionately affecting vulnerable people with low socio-economic status and of non-white ethnicity, limited health literacy also worsens health inequality. Evidence suggests associations between low health literacy and adverse clinical

events, increased healthcare use and mortality in CKD patients<sup>3</sup>. **We believe that this growing recognition of the role of health literacy in CKD outcomes should contribute to its inclusion in interventions to improve kidney disease education.** Diaverum’s efforts include education, promotion of patient-centred dialogue and shared decision-making in choosing dialysis method and in facilitating the navigation of the transplantation process.

In December 2020 we conducted the **Audience Insight Framework** research

to better understand patient needs at every stage of their journey, from the trigger event to living a new life on dialysis. We surveyed over 800 patients from 13 countries, true to our belief that a patient-centred company must hear directly from them, and put their voice front and centre of our service voices. To enable a comprehensive service transformation and create a new educational approach, we wanted to gain a deep understanding of the holistic patient journey and patient experience within and beyond the clinic.



<sup>1</sup>Terminology used in this document is consistent with the references below. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6659174/#bib1-0046958019865831>

<sup>2</sup>A Systematic Review of the Prevalence and Associations of Limited Health Literacy in CKD. Taylor DM, Fraser SDS, Bradley JA, Bradley C, Draper H, Metcalfe W, Oniscu GC, Tomson CRV, Ramanan R, Roderick PJ; ATTOM investigators. Clin J Am Soc Nephrol. 2017 Jul 7;12(7):1070-1084. doi: 10.2215/CJN.12921216. Epub 2017 May 9. PMID: 28487346; Nephrol Dial Transplant. 2018 Sep 1;33(9):1545-1558. doi: 10.1093/ndt/gfx293.

<sup>3</sup>Health literacy and patient outcomes in chronic kidney disease: a systematic review – PubMed (nih.gov) <https://pubmed.ncbi.nlm.nih.gov/29165627/>



# SPOTLIGHT

## Diaverum partners with WKD 2021

In 2021, Diaverum partnered with the World Kidney Day (WKD) organisers to amplify the conversation around kidney health and reduce the impact of the disease worldwide.

WKD is an annual, joint initiative of the International Society of Nephrology (ISN) and the International Federation of Kidney Foundations (IFKF), and is aimed at raising awareness of the importance of kidneys in relation to our overall health.

Under the 2021 WKD theme – ‘Living Well With Kidney Disease’ – Diaverum delivered a series of health literacy webinars open to renal patients, their families and communities. As vaccines

are key to ending the pandemic and renal patients are at greater risk of becoming seriously unwell from COVID-19, the first webinar focused on kidney disease and the COVID-19 vaccine; it took place on 11 March, to coincide with 2021 WKD day.



**Kirsty Bashforth**, Diaverum Chief Business Officer, said: “At Diaverum, we are strong believers of the 2021 theme of ‘Living Well With Kidney Disease’ and are

no strangers to this ambition. Our purpose as an organisation is to enhance the lives of renal patients and empower them to live well with their condition. To achieve that, we need to come together as an industry and tackle health literacy around the world.”

Kidneys are among the most important organs in the human body; chronic kidney disease is a global and escalating challenge, today affecting about 10% of the world’s adult population. It is estimated that 90% of people suffering

from CKD are not aware of their condition, which is primarily caused by lifestyle diseases such as diabetes. Its prevalence is increasing, particularly in developing countries.



**Dr Fernando Macário**, Diaverum’s Chief Medical Officer, said: “Physicians and nurses can help patients as long as they seek our help. If people

don’t know what CKD is, how it develops and how to make the right lifestyle choices to keep their kidneys healthy, the focus shifts from prevention to medical intervention. It is important to emphasise that prevention is always the best course of action, so investing in health literacy across society is part of the solution. It keeps people healthy while driving costs down to national health services and the patients themselves.”

A study published in the Journal of Medical Internet Research shows that when patients have information about their condition and communicate

effectively with their doctors, they are 32% less likely to be hospitalised and 14% less likely to visit the emergency room.<sup>1</sup>



**Filipe Almeida**, Diaverum’s patient since 2017, said: “I was diagnosed with CKD when I was only 12 years old. As

the disease was of a immunological aetiology and had a genetic origin, it was expected to progress into adulthood. A few years ago, my kidney disease reached stage 5 – a stage when haemodialysis, or another replacement treatment (such as peritoneal dialysis or renal transplant) becomes necessary to replace renal function and stay alive. Accepting this new condition was not easy for me, but I simply refused give up on my life plans. I think awareness of what the do’s and don’ts and education are, is key. I took my COVID-19 vaccine as soon as it was possible in Portugal. I would encourage anyone who is still hesitant to do the same.”

[1]Greene JC, et al. (2019). Reduced hospitalizations, emergency room visits, and costs associated with a web-based health literacy, aligned-incentive intervention: Mixed methods study. Journal of Medical Internet Research, 21(10): e14772.



# Employees and well-being

Diaverum ensures the health and safety of our employees and cares for their well-being through regular engagement and initiatives. We are acutely aware of the need to recruit and retain the best staff, which is why we offer all our healthcare professionals high-quality training and equal career opportunities.





# Global well-being strategy

At Diaverum, people are our greatest asset and it is through them that we care for our patients, and deliver on our business objectives.

The pandemic has had a particularly significant impact on all frontline healthcare professionals. With the aim of helping our people to manage their own well-being effectively, our Staff 4 Life programme evolved into a global well-being strategy. Our ability to support our employees in managing their well-being successfully is a precondition for us to become the renal care employer of choice and realise our full potential.

We want to be a company whose people have a sense of purpose, are healthy and resilient, feel safe and supported, and have the scope to develop both themselves and the business. Our well-being strategy delivers on that, by providing our people with the support, tools and strategies that enable them to be self-aware and take responsibility for their own well-being.

**Our well-being strategy provides our people with support, tools and strategies to enable them to be self-aware and take responsibility for their own well-being.**

To discuss, define and monitor how we care for the well-being of our employees, in 2021 we put in place a global well-being committee with representatives from all over the business that met regularly throughout the year. To complement the global initiatives, each country also designed their own plans, customised to their local specific needs. The global and local well-being committees have had a positive impact

on our ability to become the renal care employer of choice, increasing employee engagement and retention, and as a consequence, improving the overall patient experience.

**Looking ahead, our focus on well-being has come to stay, far beyond the pandemic, to be factored into everything we do, as an integral part of our True care culture.**





# Training and development

**At Diaverum, we believe in the power of continuous learning as a key way to stand out from our competitors.**

**Our employees – doctors, nurses, clinic managers – can find job-related educational programmes in the d.ACADEMY, our digital learning platform.**

The d.ACADEMY portfolio consists of courses for different target groups: medical courses for doctors and nurses; leadership courses for clinical and non-clinical managers and compliance and ‘soft-skills’ training for all employees. This portfolio aims to improve the level

of knowledge of all existing staff, while also providing unique educational opportunities for new individuals and teams as they join our group.

With nurses making up the single largest staff group among our employees, training for them is of paramount importance to ensure highly-skilled and caring nurses with high ethical standards and commitment to CKD patients. Our Nurse Educational Programme aims to

prepare nurses who can provide sensitive and competent care within a framework of scientific and professional accountability. The high quality of the Diaverum Nurse Educational Programme has been recognised by the European Dialysis and Transplant Nurses Association (EDTNA) since 2007, and was reaccredited as Highly Commended in 2020.

Receiving the highest possible accolade from the EDTNA for our nurses training programme reflects the dedicated and passionate work from all our nursing teams, across all functions in all countries.

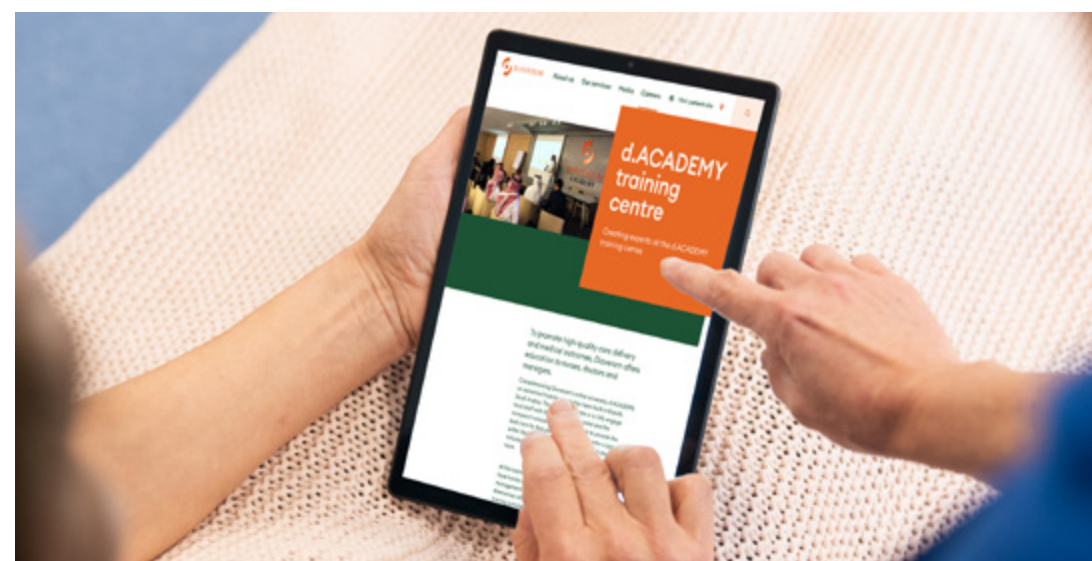
In 2021, a project was initiated to review the Nurse Educational Programme.

It aimed at updating the programme according to current scientific knowledge and best practices, ensuring the best possible learning experience for our nurses.

The review included revising the learning content and new tests to assess and track proficiency. The new eLearning structure and interactivity improved the learning experience, both for the learner and for the mentor. The first deliverables were completed in 2021, with the Orientation Programme fully revised. The project is ongoing and the Nurse Educational Programme is expected to be completed by end of 2022.

Also in 2021, the Diaverum Compliance and the Cyber Security Courses were updated into an enhanced eLearning format, which is also running on non-desktop computers/devices.

These courses are automatically assigned as a mandatory curricula on an annual basis, to all users in the target group with a required completion date.



**The d.ACADEMY portfolio consists of courses for different target groups: medical courses for doctors and nurses; leadership courses for clinical and non-clinical managers and compliance and ‘soft-skills’ training for all employees.**



## SPOTLIGHT

# Diaverum nurse elected to EDTNA/ERCA ExCo

In September 2021, Maria Arminda Silva Tavares, Head Nurse of our clinic in Aveiro, Portugal, was elected to the position of Executive Committee Member of the European Dialysis and Transplant Nurses Association/European Renal Care Association (EDTNA/ERCA).

The exciting new role was the result of Maria's long-standing collaboration with the association. For the past few years, she has worked with the EDTNA/ERCA as a Peritoneal Dialysis Consultant, actively participating in its international conferences.

The EDTNA/ERCA's core value of upholding high standards of education in renal care, by sharing knowledge

and experience amongst its members, is especially ambitious. Maria's appointment is testament to the wealth of experience that she has amassed since becoming a renal nurse in 2004.

Commenting on the prestigious appointment, Maria noted: "It is a privilege, a challenge and an enormous responsibility, but I know I will be supported by my colleagues on the Executive Committee. I appreciate the trust given to me by the members who voted for me".

"The opportunity to meet other renal care nurses and professional nurses has been very enriching, and has allowed me to evolve both personally and professionally. It has been a long journey, but a fulfilling one, nonetheless".





# My Opinion Counts

Since 2013, our annual employee survey, My Opinion Counts, has monitored levels of employee engagement, training and education.

**We believe that there is a strong correlation between engaged employees and our ability to deliver life-enhancing renal care for patients.**

Through the survey, we collect employees' opinions on their working life within Diaverum, asking them questions covering various topics – including for example their knowledge of the company's strategy, how to improve their working experience and their willingness to recommend Diaverum as an employer.

For Diaverum, our employees' opinions count. Our True care values and behaviours empower our people to express how they feel and speak their minds, but it is our employee survey My Opinion Counts (MOC) that provides them with a regular, secure and anonymous channel for such conversations.

With Diaverum channeling its efforts and resources into safeguarding the health and safety of patients and staff through the pandemic, we suspended the 2020 survey, to resume it in 2021.

Last year, approximately 85% of all Diaverum employees around the world

joined the conversation and took the MOC survey. This marked a record participation – an astounding 11,000 responses approximately from 21 countries, representing the highest number of participating employees and countries since the survey began in 2013.

## 2021 MOC results highlights

### Overall scores

**Global overall score of 3.94 vs. 3.82 in 2019.** This is the highest recorded score since 2013, the year the survey started

Highest individual scores ever recorded in each of the 12 performance indicators measured

### Highest scores

“In my daily work, I contribute to the achievement of the company goals”  
**(4.29 vs. 4.22 in 2019)**

“I know what is expected of me in my job”  
**(4.24 vs. 4.20 in 2019)**

### Lowest scores

“My ideas and my opinion are valued”  
**(3.63 vs. 3.41 in 2019)**

“I get constructive feedback from my manager”  
**(3.94 vs. 3.74 in 2019)**

## What to make of the results?

This combination of scores indicate that:

- We have an engaged, highly productive, True care-driven workforce
- Leadership quality and impact have been improving consistently over the years and there is a good foundation for openness and trust in the organisation
- There is great potential to further capture ideas and opinions among our employees
- There is more work to be done – both to truly listen to employees, but also to demonstrate tangible progress of how ideas and opinions are being taken into consideration





# Diversity and inclusion

Our mission at Diaverum is to improve quality of life for renal patients.

Delivering the highest quality of care requires a diverse and dedicated workforce and we strive to ensure that our employees are equipped to excel, wherever they work across the globe.

With 464 clinics in 24 countries across four continents, and around 12,000 staff

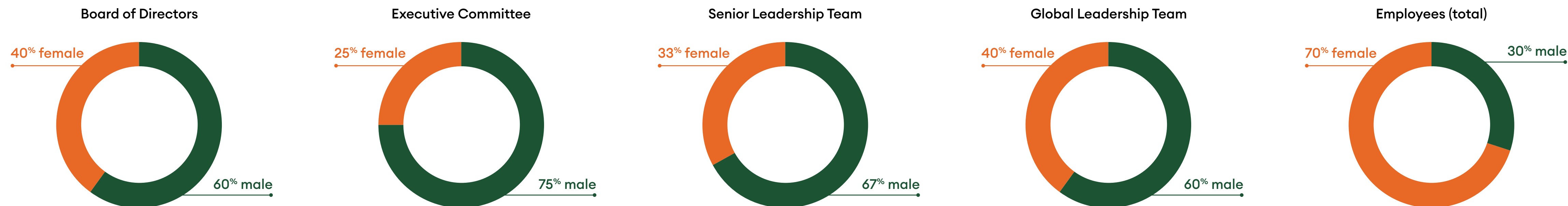
serving around 40,000 patients in 2021, we understand the significance of a diverse workforce. Diversity and inclusion create a well-integrated working environment and lay the foundation for personal and corporate success. We consider them as core strengths of our business and they are integral to our **Code of Conduct**.

Diversity at Diaverum is defined to include, but is not limited to: age; gender; nationality; cultural and ethnic origin; sexual orientation; disability; educational background and work experience.

The majority of our workforce is nursing staff, who are in turn, predominantly

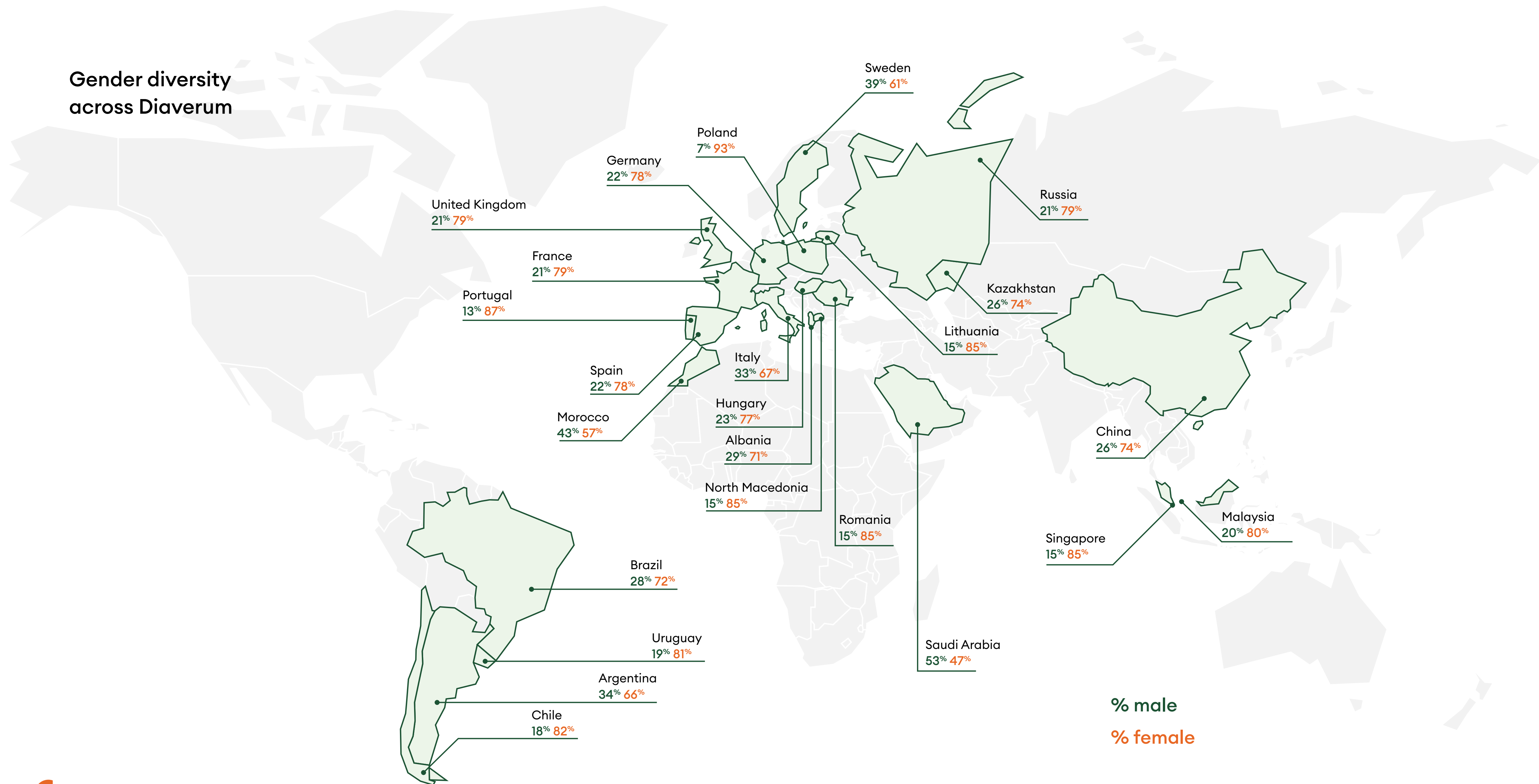
female; as an equal opportunity employer, we aim to even out gaps wherever possible.

Our data collection highlights gender ratios at Board and Senior Leadership levels as well as in all our countries. It helps us to identify where we must work harder to promote equal opportunities for men and women.





## Gender diversity across Diaverum





# Local recruitment

At Diaverum, the aim of our local and global sourcing strategy is to recruit and employ the right people at the right time so as to offer life-enhancing care to our patients and facilitate business growth of the business.

While recruiting, Diaverum is mindful that we:

- maintain our reputation as an employer of choice and ensure our branding reflects our overall communication strategy;
- explore and establish alternative sourcing and staffing solutions;
- optimise candidate experience by offering simple and digital recruitment processes;
- have a standardised onboarding process;
- drive the local recruitment of nursing staff in all Diaverum countries.

Diaverum is aware of the global shortage of renal nurses and medical staff. As a result, our sourcing strategies are defined for each country, keeping in mind local legislation as well as the availability of local applicants.

The country-specific sourcing strategies not only address international recruiting, but are also designed to drive the local recruitment of nursing staff in all countries. It is our aim to have self-sustaining national medical and nursing workforces.





# Access to care

Diaverum brings world-class renal care to patients across the globe, continuously adding new clinics and entering new markets. Our proven, rigorous market entry screening and assessment strategy ensures that we only enter and operate in a given country where we can be sure of upholding our True care values.





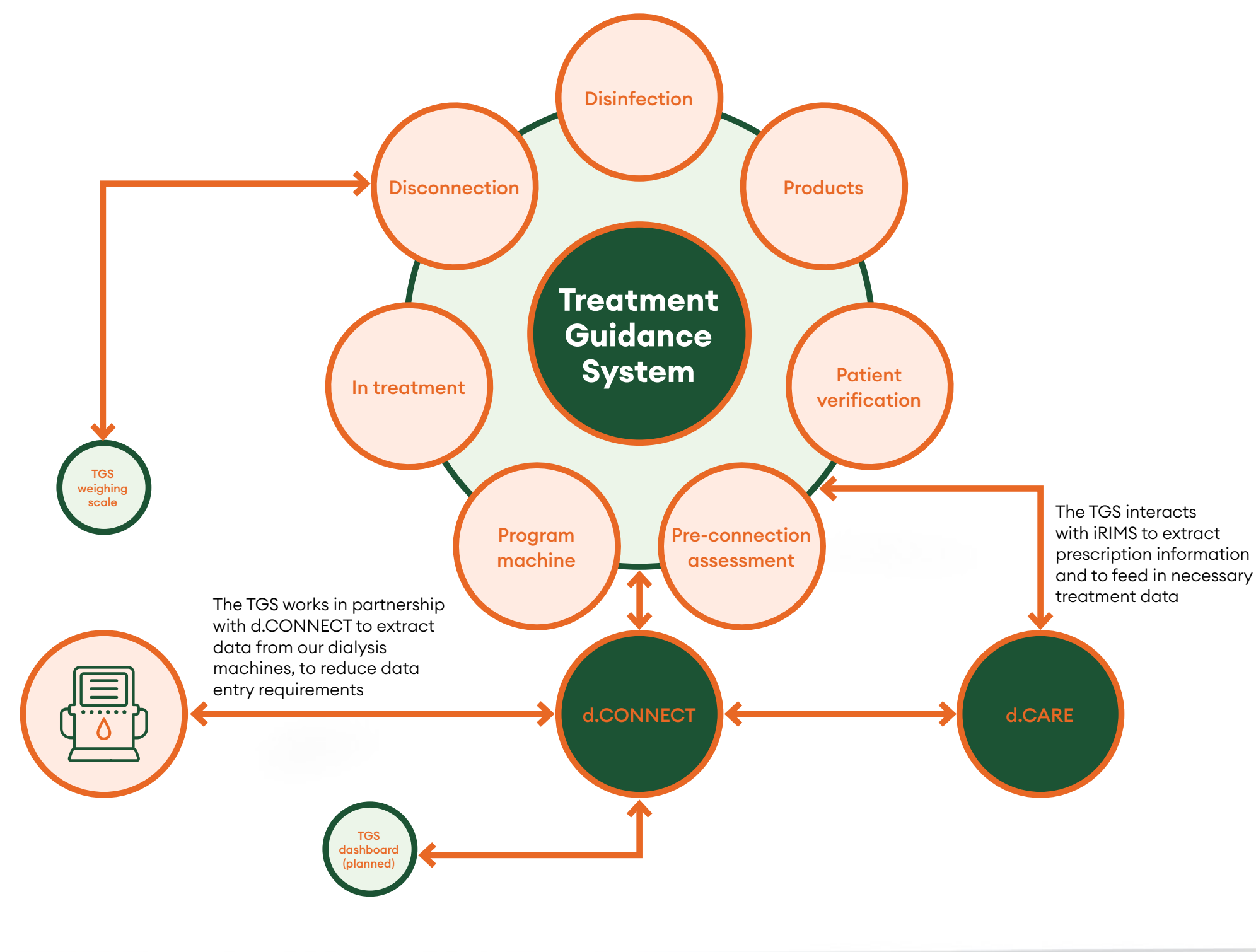
# The Diaverum Treatment Guidance System

The Diaverum Treatment Guidance System (TGS) is an internally-developed system used by our nurses and other caregivers to support our patients' dialysis care.

The system allows us to offer excellent treatment quality and efficient, individualised, care. The TGS works like an app, used at dialysis stations, via a tablet. Data is captured automatically from the dialysis machines, allowing a standardised approach to care and streamlining the treatment process. All data is collected under strict data protection regulations and access to this information is limited to authorised staff only.

While the TGS can be used as a stand-alone tool, we have customised it to work with d.CONNECT, our system for data interchange between dialysis machines and TGS tablets.

The data includes output from dialysis machines, machine disinfection data and patient prescriptions. d.CONNECT is also the bridge between the dialysis machines and our International Renal Information Management System (iRIMS), which manages data related to clinical management, medical outcomes and clinic processes and administration.





# Treatment Guidance System: 2021 implementation update

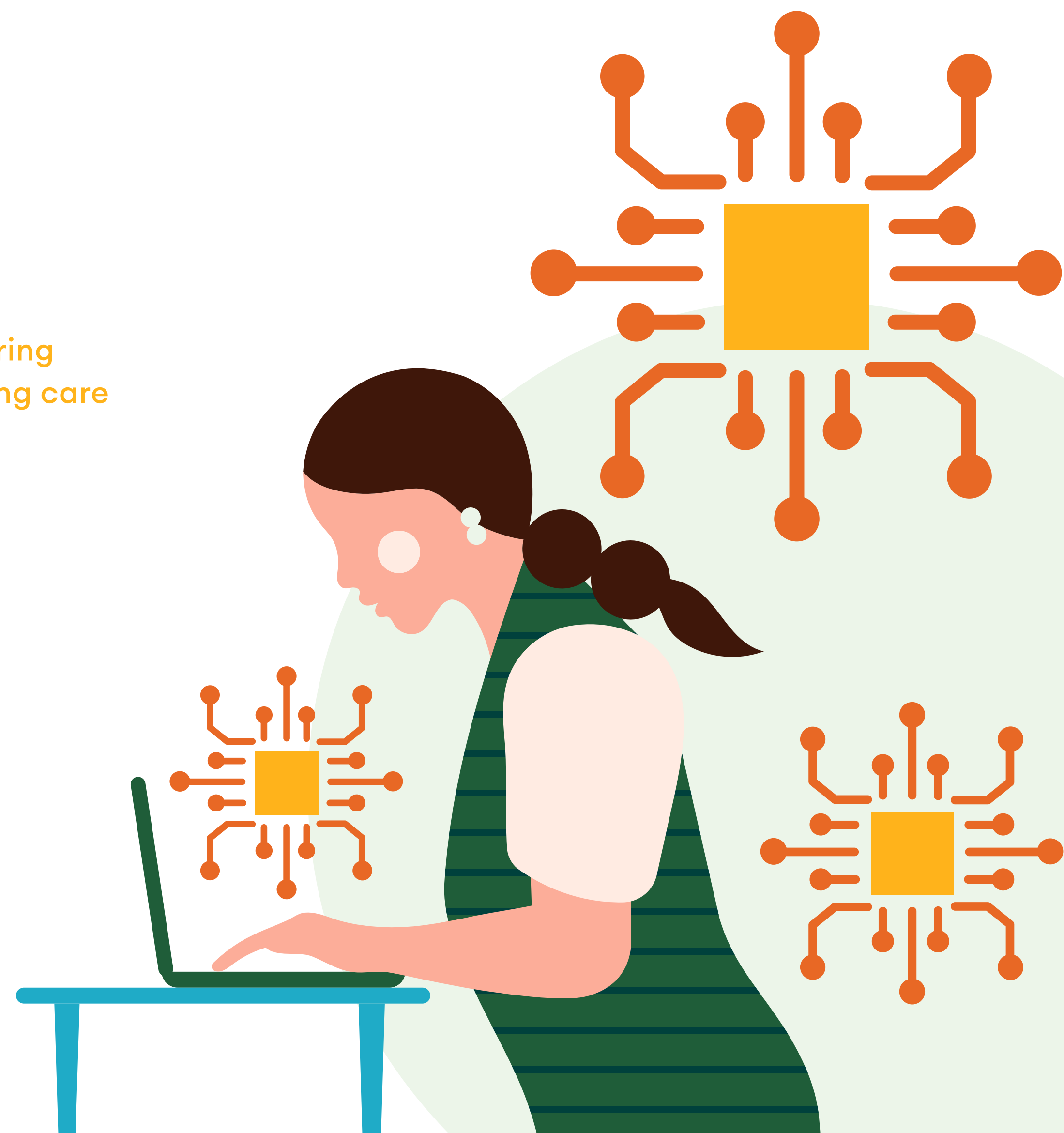
With our patients' needs at the core of everything we do, in 2021 Diaverum developed a series of digital solutions that intend to deliver efficient and personalised care.

Digital innovation is key to the way we are navigating treatment of CKD patients. It has the potential to unlock an unprecedented level of personalised, standardised, efficient and high-quality care.

The Treatment Guidance System (TGS), which has achieved remarkable success since its introduction, is an integral part of this journey. The TGS supports our nursing staff in adhering to standardised clinical workflows, minimising care variability and margin for errors. Accessed via a tablet adjacent to the patient's chair or bedside, the TGS collects and provides information throughout the dialysis treatment, in a paperless environment.

The TGS supports our nursing staff in adhering to standardised clinical workflows, minimising care variability and margin for errors.

Following its introduction in September 2018, TGS has been steadily rolled out across Diaverum's clinics. As of 2021, the TGS system and its supporting processes are in use in 200 clinics across 16 countries, worldwide; this is a significant increase from the same time period last year, when TGS was present in 116 clinics, across 10 countries. In 2021, it was introduced in Chile, North Macedonia, Romania, Albania, Brazil and Argentina.





# Operating responsibly

Diaverum operates within a rigorous governance framework and we conduct our business in a transparent and ethical way. Our policies and processes underpin our principles: we have a zero-tolerance policy for human rights abuses, compliance breaches and unethical behaviour. Our expected behaviours are outlined in our Code of Conduct and are embedded through regular employee training.





# The Diaverum CMS

Diaverum manages general legal compliance and ethics through the **Diaverum Compliance Management System (the 'Diaverum CMS')**. This in turn is governed by the Diaverum Compliance policy and is embedded across the organisation. The overall objective of the Diaverum CMS is to provide for structured management of compliance and compliance risks.

The overarching elements of the Diaverum CMS are:

- 1 **leadership**
- 2 **risk assessment**
- 3 **standards and controls**
- 4 **training and communication**
- 5 **monitoring, auditing and responding**

Based on these elements, Diaverum has developed a number of compliance controls (the '**CMS Controls Framework**') within the following overall compliance areas:

- 1 **general business compliance**
- 2 **anti-bribery and corruption**
- 3 **compliant patient referral and healthcare professionals management**
- 4 **partner and third party conduct**
- 5 **data privacy and protection**
- 6 **regulatory compliance**

All Diaverum countries are required to implement the controls in the CMS Controls Framework. On an annual basis, Diaverum measures the level of group-wide (country level and aggregated) implementation of these controls. We call this process the **CMS Update**.

We operate the Diaverum CMS using a risk-based approach. That is why the **CMS Assessment Framework** complements the CMS Controls Framework. This is a set of risk questions covering the above-mentioned overall compliance areas. All Diaverum

countries are required to answer these risk questions as part of the CMS Update. The answers provide relevant risk context when assessing the Diaverum CMS Controls Framework implementation level – at a country level as well as at an aggregated/global level.

Countries do their CMS Update reporting on a proprietary web-reporting tool, known as the **CMS Update Tool**. Based on this reporting, the tool calculates a number of important compliance and risk metrics. These metrics include, but are not limited to: country and group-wide CMS Controls Framework implementation level; Country and group-wide CMS Controls Framework implementation improvement rate; and country and group-wide compliance e-learning completion level.

In addition, Diaverum has an Internal Audit function that independently audits,

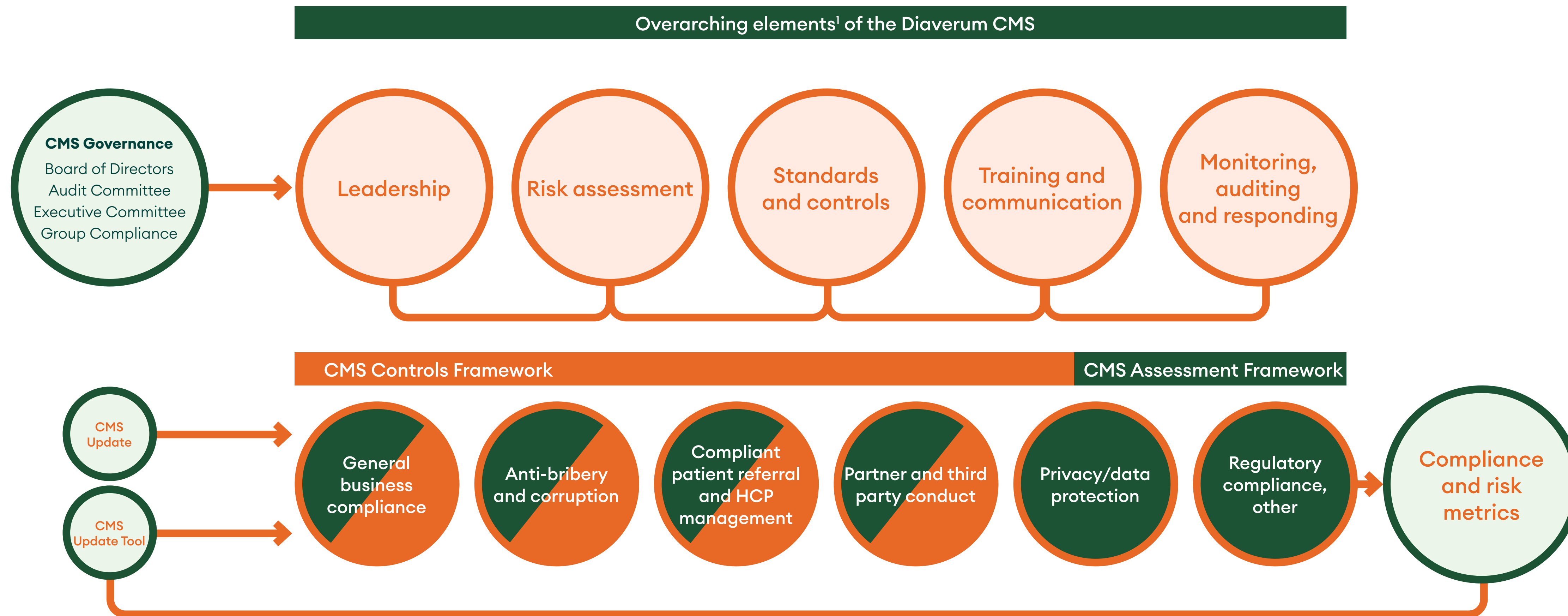
among other things, the Diaverum CMS and CMS Controls Framework implementation levels.

**Diaverum's Code of Conduct e-learning is mandatory for all employees (including consultants who perform work similar to that of a Diaverum employee).** This e-learning educates them about corporate values, ethics and general compliance topics. In addition to the Code of Conduct e-learning, Diaverum also offers courses on more specific compliance topics, currently within the following areas:

- general compliance (introductory module);
- compliant patient referral management;
- partner and third party integrity including export control and financial sanctions;
- conflicts of interests;
- whistleblowing;
- anti-tax evasion facilitation (ATEF);
- data protection.



## Diaverum Compliance Management System (Diaverum CMS)



<sup>1</sup>Based on internationally recognised standards; see for example the US Sentencing Guidelines, the UK Bribery Act Guidance on adequate procedures, the German IDW PS 980 and ISO 19600 standards



## SPOTLIGHT

# The Diaverum Code of Conduct

In 2021, we updated the Diaverum Code of Conduct, as well as its supporting e-Learning courses, to better reflect our corporate strategy and True Care culture.

The Code's updates started with an in-depth audit and revision of the existing content, to ensure that it was aligned with current Company policies. New topics, such as 'Compliant Patient Referral' and the 'Sustainability Framework', were also introduced, providing a broader, more even understanding of those for Diaverum employees, regardless of their position or location. Changes made to the Code of Conduct have also been carried over to its supporting e-Learning course.





# Human-centric, explainable and responsible AI

We are using artificial intelligence solutions to improve outcomes that really matter to our patients, like their vascular access survival.

**Vascular Access (VA) thrombosis is a major factor of suffering and increased mortality for chronic haemodialysis patients, with incidence ranging between 0.11 to 0.5 episodes per patient every year.**

It accounts for a significant increase of the total cost of care for these patients, contributing to the unsustainable trajectory of growing expenditure and disease burden impacting national healthcare systems around the world.

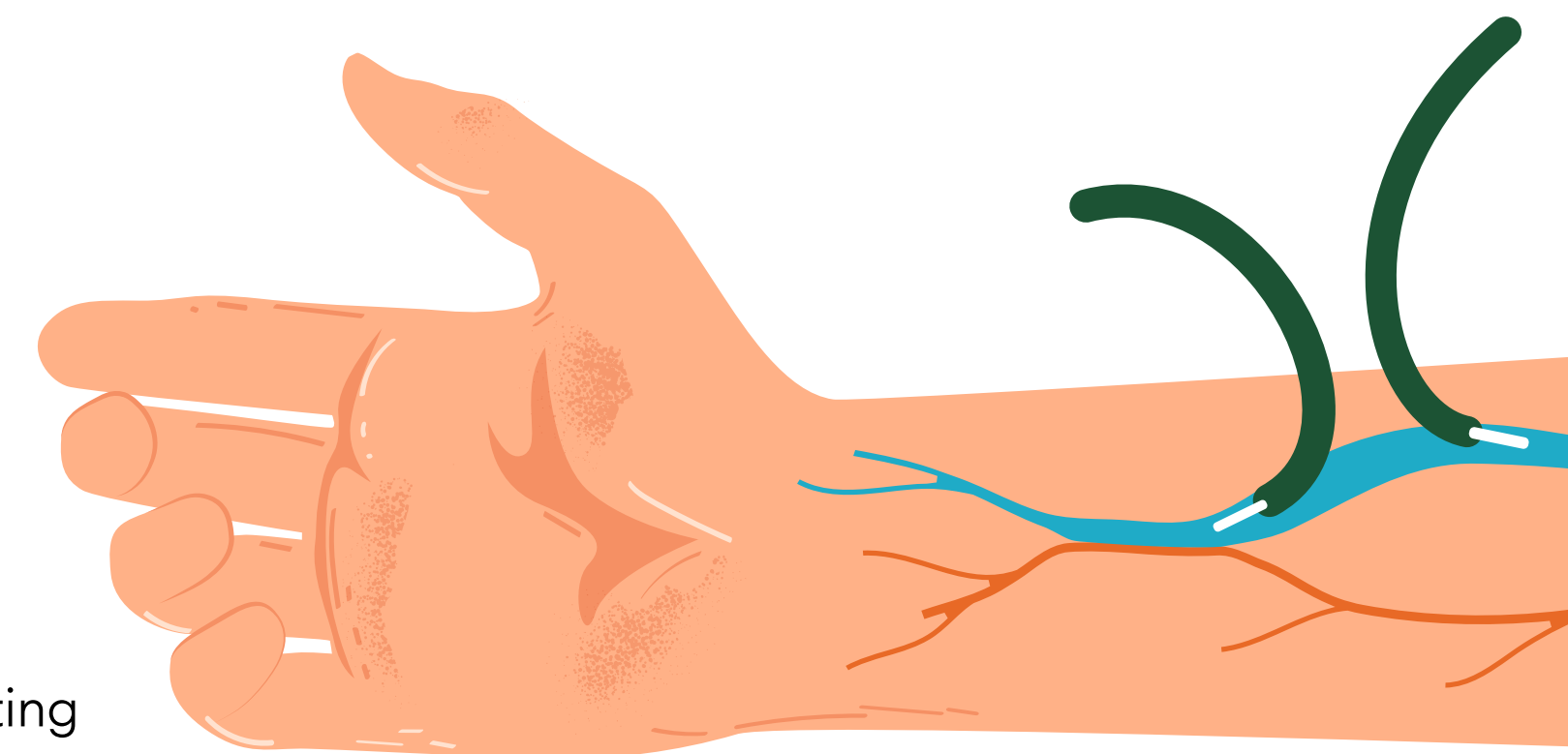
**The VA AI model uses patient-specific input variables that include, but are not limited to, dialysis treatment data, lab tests results, and demographics to predict whether the patient will suffer from a thrombotic event one week before the episode takes place.**

In 2021, we developed a breakthrough artificial intelligence (AI) model to support our medical staff in predicting episodes of vascular access thrombosis among haemodialysed patients. The VA AI model uses patient-specific input variables that include, but are not limited to, dialysis treatment data, lab tests results, and demographics to predict whether the patient will suffer from a thrombotic event one week before the episode takes place. Using Diaverum's historical patient data, our AI model

has proved to be accurate in predicting actual VA thrombosis cases that were not detected by best-in-class clinical assessments and monitoring systems.

Keeping our patients' needs at the centre of our innovation, the model is explainable, and a responsible AI solution. It is built around well-defined policies and procedures, standardised holistic interventions, and most importantly, strong clinical governance by our clinical teams.

**The VA AI model is integrated into our digitalised clinical workflows and interfaces with our proprietary renal information platform d.CARE, and our Treatment Guidance System (TGS).** At the end of each treatment, the data collected is run through the model and



returns a prediction for an AV access thrombosis, which is integrated seamlessly with our clinic workflows, where it allows our physicians and nurses to predict, with a high degree of accuracy, episodes of vascular access thrombosis among haemodialysed patients.

Starting with our operations in Saudi Arabia, Portugal and Spain, which in total care for approximately 12,000 renal patients, our objective is to roll out the model to our entire network of clinics in 24 countries, empowering our nephrologists to offer preventative as well as personalised care to maintain the patient's vascular access survival.



# Data privacy and protection

**At Diaverum, we are committed to safeguarding the privacy of our patients, their families and our employees. Every day, we collect, store and process high volumes of sensitive personal information in connection with the services we provide.**

Diaverum has implemented a group-wide data protection policy, with local addendums where necessary, as well as a policy that specifically addresses our access to, and processing of, patient data. Additionally, we have complementary policies and procedures for data retention, data breach management, data protection training, encryption, and audit & reporting. An enabled Active Directory account, plus specifically granted access rights, are required to access Diaverum's medical records as well as most of our other systems and applications, most of which also have built-in role-based and organisation-based access controls.

**Patients are informed about the processing of their personal data through a formal privacy notice and/**

**or giving their informed consent to Diaverum's processing of their personal data.** We have organisational and technical measures for the protection of personal data in place, including, but not limited to:

- a secured data centre, centrally managed network with a PC client platform;
- policies and procedures to support the use of protected information;
- a central organisation that provides advice and guidance on various initiatives;
- local data protection officers in each country;
- management of privacy risks and reporting privacy-related risks to Diaverum management;
- generic and specific training and awareness material to educate

employees about the importance of data protection and privacy;

- processes for managing incidents, breaches, and complaints;
- internal controls and auditing.

**In the event of a breach, Diaverum has documented processes to ensure that all required actions are taken and anyone affected, such as patients, regulatory agencies or other stakeholders is notified.**

There were no substantiated complaints about breaches of privacy or losses of personal data in 2021 or monetary losses

as a result of legal proceedings associated with data security and privacy.

In addition to the above measures, we also ensure that our data centres are prepared for any unforeseen circumstances that could potentially lead to data loss. These include, but are not limited, to:

- fire protection;
- perimeter protection (locks, steel doors, steel-reinforced walls);
- water damage protection;
- alarms and surveillance;
- power backups and dual power supplies.



**Patients are informed about the processing of their personal data through a formal privacy notice and/or giving their informed consent to Diaverum's processing of their personal data.**



## Sustainable suppliers

At Diaverum, we take it upon ourselves to actively engage with our key suppliers and stakeholders.

We do not do business with any entity or persons that may act in breach of our Code of Conduct, other company policies or external regulations. All of our major suppliers are therefore required to adhere to and asked to sign our **Code of Conduct for Suppliers**.

This code defines the standards that Diaverum expects its suppliers to uphold with regards to environmental performance and sustainable resource consumption, relevant aspects of human rights, sanctions and export controls, and anti-corruption. **We review our suppliers' compliance with the Code of Conduct for Suppliers on an annual basis.** We aim to regulate our key suppliers through both our Code of Conduct for Suppliers and active dialogue, keeping clearly in mind that we must not compromise on our standards of care.





# Diaverum Risk Framework

At Diaverum, we define key risks as those with the potential to have a substantial, adverse impact on our ability to deliver on our business objectives.

The purpose of the Diaverum Risk Framework is to allow us to identify such risks and develop strategies that bring their probability or impact to acceptable levels. By avoiding or mitigating risk in this way, we reduce the level of uncertainty that would otherwise threaten our ability to deliver on our objectives, thus ensuring seamless business continuity and protecting the reputational integrity of the company and, of course, the safety of our patients.

The Diaverum Risk Policy, as approved by the Board of Directors, sets out instructions across the organisation regarding how to identify, assess, manage, report and monitor risks. Diaverum Group Compliance maintains and develops the Risk Framework. This is an independent group framework, but also an integral element of the Diaverum Compliance Management System that runs on an annual cycle.

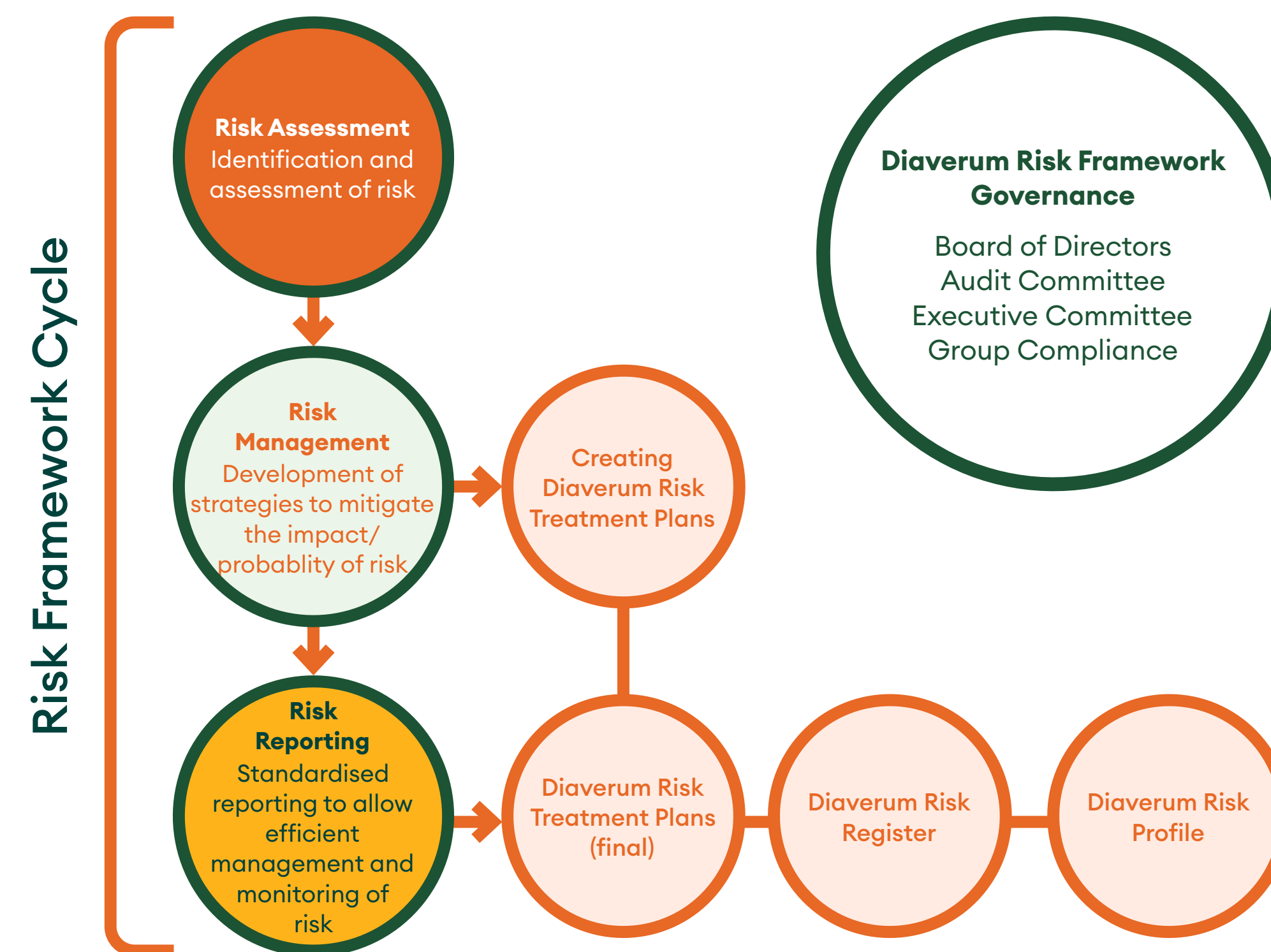
The scope of the Diaverum Risk Framework includes key parts of risk governance appropriate to Diaverum, based on the context of the organisation, including its risk appetite, and the current economic situation in all countries it operates in.

Diaverum assesses risks based on their possible impact and the effectiveness of controls in place to mitigate them. To assess Diaverum risks from both a group (corporate) perspective ('top down') and a country-level perspective ('bottom up'), we apply, execute and perform the Diaverum Risk Framework with all its elements, at all levels of the group.

Based on the risk register, we then create and maintain an updated profile of the top risks to the company.

An overview of selected Diaverum risks relating to the topics of this report are summarised in the table on the next page.

Diaverum Risk Framework





# Risk



The COVID-19 pandemic has disrupted and may continue to disrupt Diaverum's operations by adversely affecting: patient safety, patient treatment continuity, employee safety, financial stability, cyber security



Diaverum is dependent on hiring and retaining qualified medical staff on competitive terms



Diaverum operates in a heavily regulated industry and is subject to changes in laws or regulations



Any significant failure or interruption to Diaverum's IT systems could adversely affect its business



Diaverum may not be in compliance with applicable data protection laws and regulations



Failure to comply with anti-bribery and anti-corruption laws and regulations by Diaverum, its employees or third parties could subject Diaverum to penalties and other adverse consequences



Diaverum's growth strategy is partly based on its ability to find suitable acquisition or expansion opportunities and the successful integration of new businesses



Diaverum may be adversely affected by its suppliers facing financial or operational problems, increasing prices or being unable to make deliveries as agreed



The internal governing documents, procedures, processes and evaluation methods used by Diaverum to manage its operations and to assess and manage risk may be insufficient to cover risks, and Diaverum's internal governance and control may not be able to prevent fraud. Diaverum's facilities are exposed to outbreaks of communicable diseases and infections

# Risk area



**Epidemic/pandemic threat**



**Inadequate availability of skilled staff**



**Regulatory compliance**



**Cyber security threat**



**GDPR compliance**



**Bribery and corruption/Non-compliant patient referral management**



**Mergers and acquisitions**



**Supplier dependence**



**Clinical malpractice/  
Clinic operational risk**



# Our environment

As a dialysis service provider, Diaverum's biggest environmental impact concerns water and energy consumption. Our first priority is patient safety, and this requires that the water used for dialysis is pure and un-contaminated by chemicals or microbes, which could cause serious illness or death. However, we actively monitor our water and energy consumption to identify areas of improvement.





# Water, energy and waste

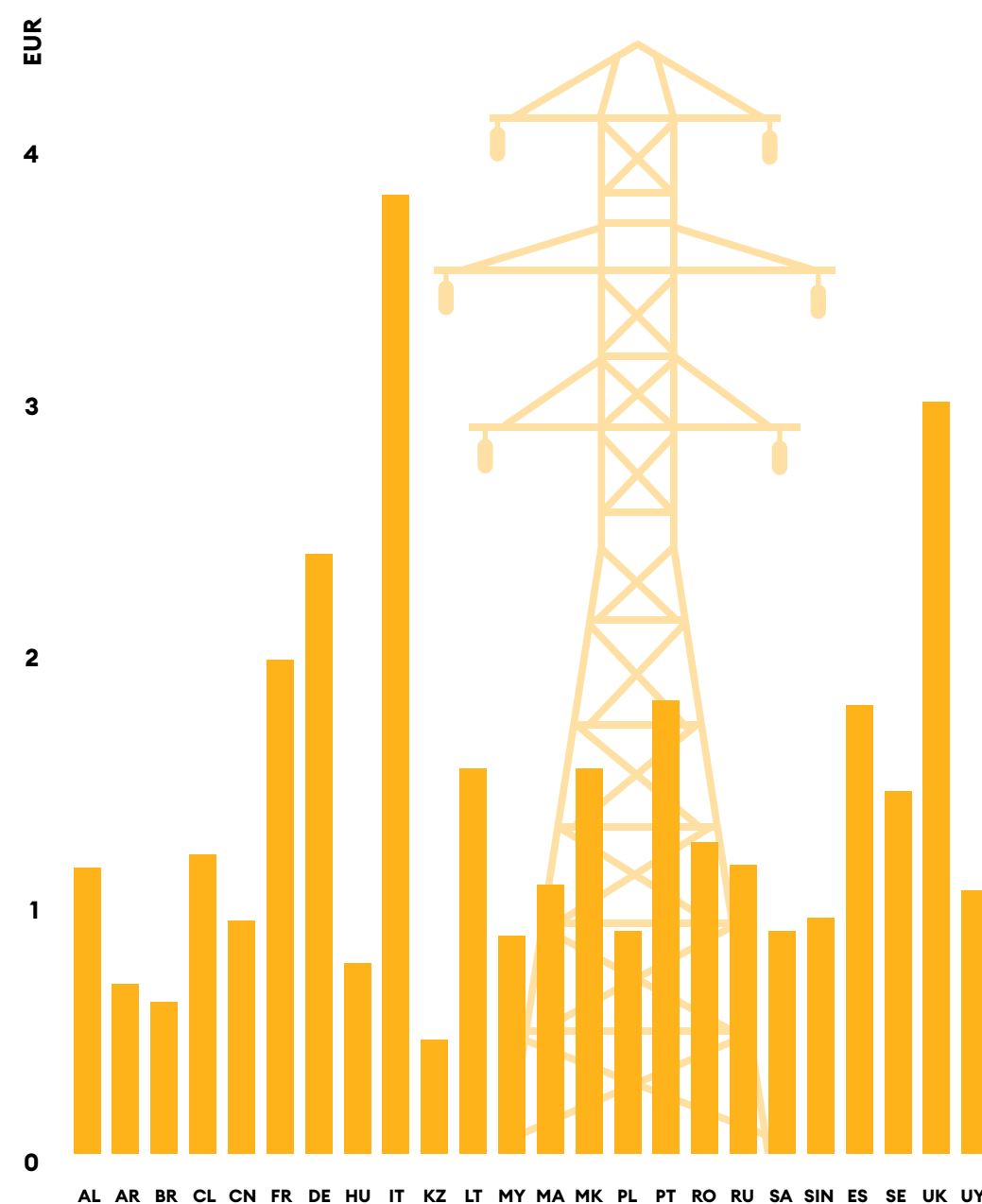
We continuously look into initiatives that reduce water and energy waste, as well as increase resource conservation without compromising on patient safety.

In the coming years, these initiatives will allow us to measure our environmental footprint across all our countries, in consumption units rather than Euros per treatment, and pinpoint areas of improvement.

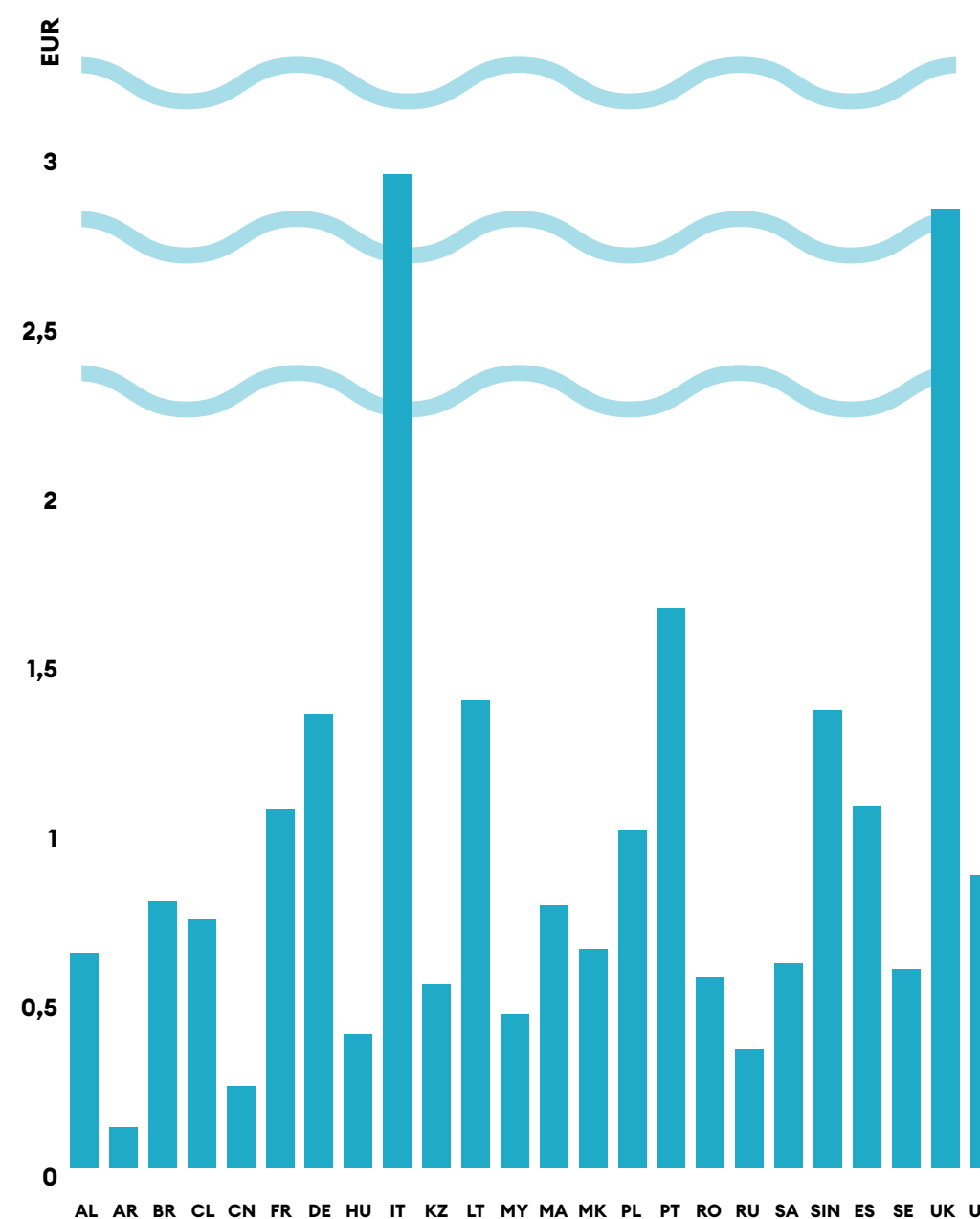
In 2021, we committed to finding ways to reduce our consumption of natural resources. To that end, we are in the process of standardising clinic design with the ambition of minimising their environmental impact. The project takes into account evidence-based design research that focuses on improving the physical environment and in turn, our patients' sense of security and quality of care, thus increasing their levels of satisfaction and that of our staff. The project also pays specific attention to the sustainability of our clinics with regard to resource consumption, use of locally-sourced and ecological materials, and zoning within the clinics.

**Global averages:**  
 Electricity consumption expressed in EUR spend: **1,37**  
 Water consumption expressed in EUR spend: **0,95**  
 Medical waste disposal expressed in EUR spend: **1,46**

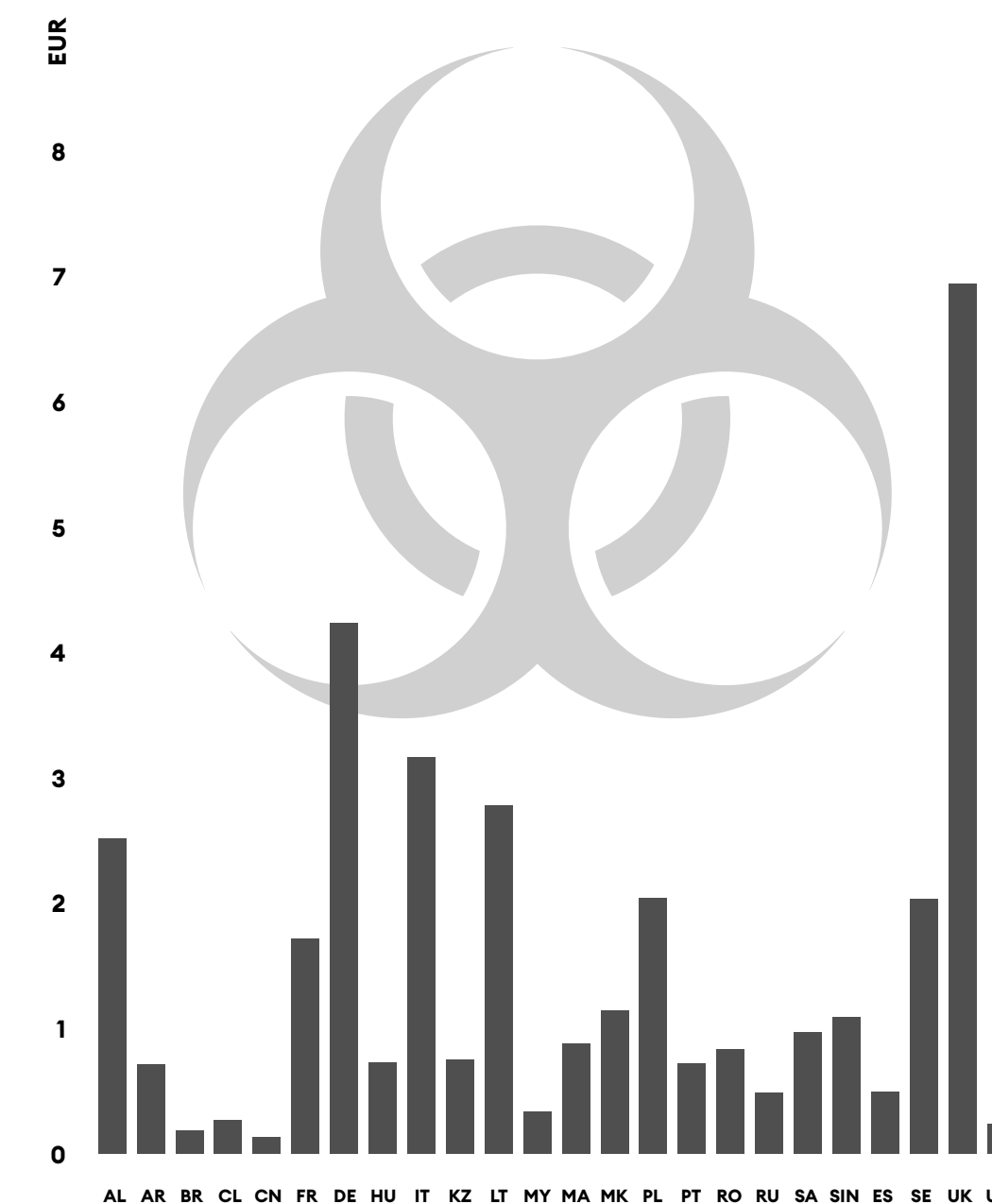
Electricity consumption expressed in EUR spend



Water consumption expressed in EUR spend



Medical waste disposal expressed in EUR spend



Albania - AL Argentina - AR Brazil - BR Chile - CL China - CN France - FR Germany - DE Hungary - HU Italy - IT Kazakhstan - KZ Lithuania - LT Malaysia - MY Morocco - MA North Macedonia - MK Poland - PL Portugal - PT Romania - RO Russia - RU Saudi Arabia - SA Singapore - SIN Spain - ES Sweden - SE United Kingdom - UK Uruguay - UY



# Disaster preparedness at clinic level

The potential impact of climate change and related natural disasters are all too clear.

Diaverum has thus asked all countries to prepare contingency plans for risks such as natural disasters, as well as utility failure and terrorism, which may disrupt operations, adversely affect patients and compromise business credibility.

These Diaverum Continuity Plans provide guidance about how to respond, manage and recover our renal facilities from any disruption, ensuring continuity of treatment for our patients. To ensure that our clinics are prepared at all times, compliance with the various continuity plans is measured as part of Diaverum's clinical audit process.





# Appendix

## Diaverum scientific articles on PubMed 2021

### Articles with at least one author affiliated with Diaverum:

- 1: Rodríguez-Espinosa D, Broseta JJ, Bedini JL, **Rodríguez N**, Maduell F. Antibody maintenance and breakthrough infections 6 months after complete COVID-19 vaccination with the mRNA-1273 and BNT162b2 vaccines in hemodialysis patients. *Clin Kidney J.* 2021 Dec 16;15(4):818-819. doi: 10.1093/ckj/sfab282. PMID: 35371449; PMCID: PMC8967668.
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**This Sustainability Report 2021** has been approved by the Diaverum Board of Directors and contains all essential information regarding the sustainability initiatives within Diaverum AB. This report covers Diaverum AB, and its subsidiaries.

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