Sustainability

Environmental initiatives and achievements

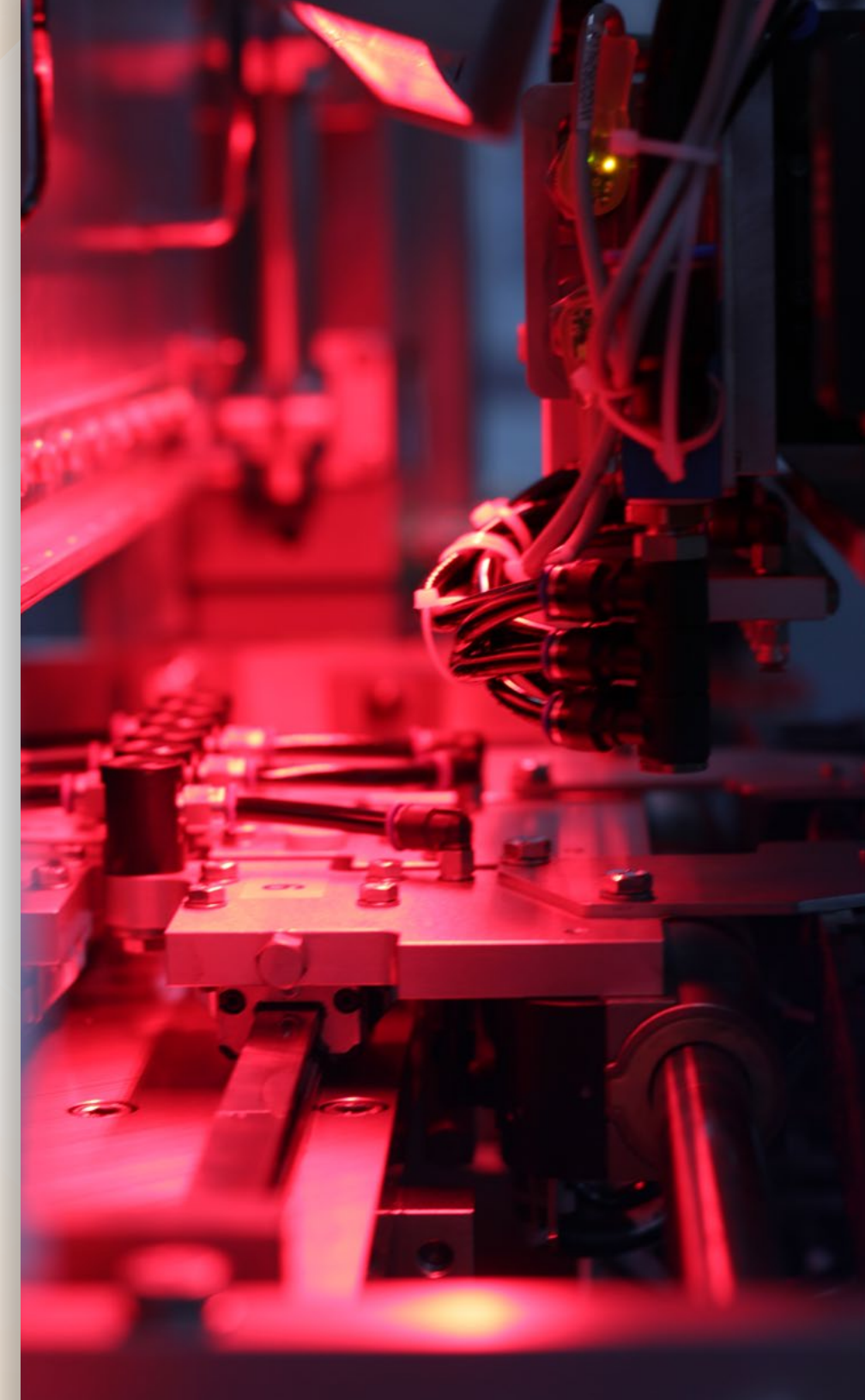
We strive to minimize our environmental impact with practices and policies that address climate change, energy, water use, and waste while continuing to explore additional ways to make a positive difference.

TERUMO BLOOD AND CELL TECHNOLOGIES

Our approach to **environmental sustainability**

Reducing our environmental impact is a core pillar of Terumo Blood and Cell Technologies' sustainability strategy. We strive to do our part by effectively using resources, reducing waste and energy consumption, and working toward our greenhouse gas (GHG) reduction goals, which have been validated by the Science Based Targets initiative (SBTi). Our sites are committed to continuous improvement as demonstrated by their certification to ISO 14001: Environmental management systems (India; Lakewood, Colorado, U.S.; Northern Ireland; Vietnam) and Occupational health and safety mnagement systems (India; Lakewood, Colorado, U.S.; Vietnam).

As we engage with our stakeholders, we will evolve our approach to ensure that we are leading the way in reducing our company's environmental impact.



Inside our Rika Plasma Donation System™ disposables factory in the U.S.

Climate change

Terumo Blood and Cell Technologies aligns with the environmental strategy and targets of our parent company, Terumo Corporation. We recognize that reducing GHG emissions from our business activities is an important part of being a responsible business. We approach it with a focus on improving energy efficiency and adopting renewable energy.

Solar panels on our Vietnam factory

In alignment with the SBTi, Terumo Corporation has set reduction targets for 2030 and 2040 to limit global temperature rise. These SBTi-validated decarbonization goals are aligned with a 1.5 °C scenario. These targets apply to our global operations. Additionally, Terumo Blood and Cell Technologies has committed to net zero for all our U.K. operations by 2050, with a baseline year of 2018.

Terumo Group's Greenhouse Gas (GHG) Emissions Reduction Targets

Scope 1 and 2*

- Reduce absolute GHG emissions by 50.4% by 2030 compared to 2018
- Increase the renewable electricity use ratio to 50% by 2030
- Achieve carbon neutrality by 2040

Scope 3

- Reduce GHG emissions 60% per unit of revenue by 2030 from a 2018 base year

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

*Scope: Reporting is based on the following GHG Protocol categories:

- Scope 1: Direct GHG emissions by the company (e.g., fuel combustion)
- Scope 2: Indirect GHG emissions from energy production such as purchased electricity (e.g., GHG emissions from electric companies)
- Scope 3: Other indirect GHG emissions (emissions from other companies in raw material production, transportation, disposal, and other activities related to the companies' business operations)

As part of our GHG reduction efforts, we monitor scope 1 and 2 emissions across all Terumo Blood and Cell Technologies manufacturing locations monthly. In recent years, the company has opened two new state-of-the-art manufacturing facilities in Cartago (Costa Rica) and Littleton (Colorado, U.S.), resulting in a 40% increase in scope 1 and 2 GHG emissions from FY18 to FY22.[1] Since then, we've been able to significantly reduce emissions through energy efficiency efforts and adoption of renewable electricity. Scope 1 and 2 emissions fell by 22% from FY22 to FY24.[1]

Another area of focus has been updating our scope 3 methodology and footprint. Scope 3 emissions made up 87% of our total global GHG emissions in FY24,[1] and we continue to work on approaches to reduce these emissions.

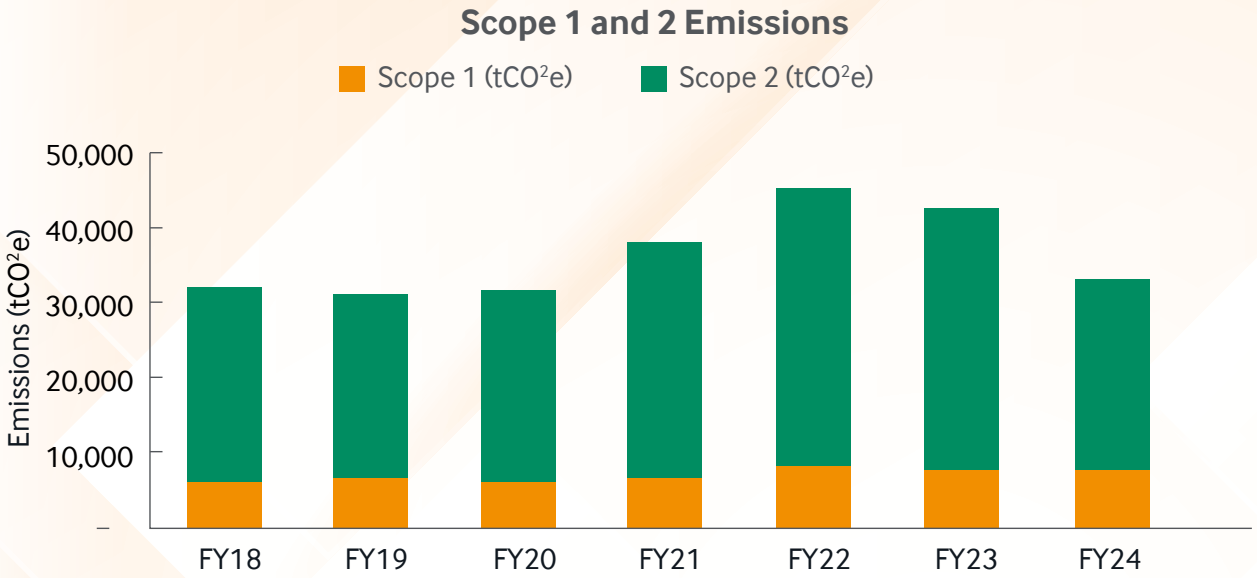


Figure 1. Scope 1 and 2 emissions of Terumo Blood and Cell Technologies manufacturing sites in the U.S., Costa Rica, Vietnam, Northern Ireland, and India.[1]

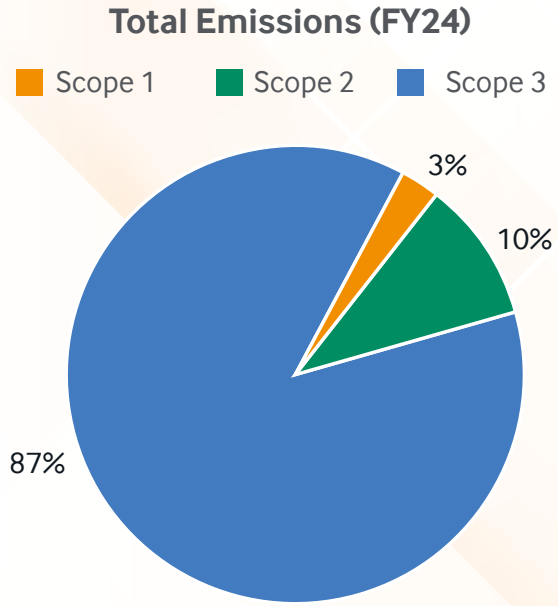


Figure 2. Terumo Blood and Cell Technologies scope 1, 2, and 3 emissions breakdown for FY24. Scope 1 and 2 emissions include manufacturing sites in the U.S., Costa Rica, Vietnam, Northern Ireland, and India.[1]

Energy **consumption**

Improving energy efficiency is critical to meeting our GHG emissions targets. Our sites around the world routinely undergo energy audits to identify opportunities for improvement. Each site undertakes localized initiatives to improve energy performance and drive progress toward our targets. Below are some examples.

Northern Ireland

This facility has replaced most of its lighting with LED, introduced several electric vehicle (EV) charging points, replaced motors, and optimized process running conditions. In 2023, the site underwent an energy audit, which identified several projects to consider for future implementation. These include an improved program for tracking energy management, installation of motion sensors for air conditioning, replacement of older HVAC units, additional motor replacements, solar energy installations, and green energy contracts. The site has also recently started sourcing renewable electricity through its utility provider.

United States

Our two U.S. sites are in the advanced stages of implementing ISO 50001: Energy management systems to enable continuous improvements in energy efficiency. Our Lakewood facility has installed LED lighting in its cleanrooms and, for more than a decade, has had an on-site rooftop solar system that provides clean energy to the local electricity grid. Additionally, the installation of 24 EV charging stations has been completed. In late FY24, our Littleton facility signed an agreement with its utility provider to source a portion of its electricity from renewable sources.

Costa Rica

This site installed energy meters to identify systems with the highest energy demand and enhanced its building management system to optimize HVAC usage. This project resulted in the site's winning one of our parent company's annual Environment, Health, and Safety (EHS) and Sustainability awards for FY24. In addition to benefiting from modern design and equipment, this facility's electricity grid is powered by nearly 100% renewable sources, reducing emissions associated with electricity consumption.

Vietnam

In 2024, this site conducted an energy audit and has since completed several energy-efficiency projects, including the installation of high-efficiency boilers, chiller optimization, and reduction of unnecessary heating, cooling, lighting, and sterilization cycles. The site also completed the installation of a rooftop solar system to meet over 10% of its own electricity demand.

India

Among other projects, this facility completed modifications to machine cooling systems, drying ovens, sterilization cycles, and exhaust systems. It also added automatic controls for cooling fans, upgraded to LED lighting, and optimized boiler operations. In FY24, the site also began assessing its options for sourcing renewable energy.[1]

Supply chain, transportation, and travel

In pursuit of our scope 3 emissions goals, we have continued to make significant progress in shifting our supply chains closer to our manufacturing facilities and key markets. This has supported business continuity and supply chain resiliency while also reducing associated transport and logistics emissions.

For example, we experienced a significant increase in air freight following COVID-19 disruptions and efforts to meet customer and patient needs. However, during FY23, we reduced our air freight to approximately 3% of total logistics (as a percentage of spend). This was a 92% reduction and resulted in significant emissions savings.[1] In FY24, we were able to keep air freight to a small percentage of total logistics.[1]

To reduce emissions related to employee commuting — and support a transition to electric vehicles — in FY24, we added to our existing EV charging infrastructure for a total of 24 EV charging stations at our headquarters in Lakewood, Colorado. Many of our other manufacturing sites and offices around the world also provide EV charging for staff, with plans to add more. Some of our offices also offer free or discounted public transport tickets for staff.

Our travel policy limits the use of business class travel, resulting in lower travel-related emissions. In addition, our travel booking system allows flights to be filtered by GHG emissions, enabling associates to make informed travel decisions.

EV charging station at Lakewood campus

Resource consumption and **operational excellence**

In 2022, Terumo Blood and Cell Technologies implemented an Operational Excellence (OpEx) program, which takes a unified approach to enhance operations, reduce cost, and improve quality across manufacturing sites. Areas of focus include standardizing methods globally, improving performance metrics, and leveraging the unique strengths of each manufacturing site.

In FY24, we began to integrate sustainability and environmental performance into the OpEx program, helping us identify and implement opportunities for efficiency across energy use, resource consumption, packaging, and other critical areas. By continuously refining operations and driving initiatives that create efficient processes, we are reducing waste, emissions, and water usage while also delivering cost savings that strengthen profitability.

Operational Excellence

Larne, Ireland factory: A 50,000-liter tank, used to store water for injection (WFI), which is highly purified, sterile water that is used for the preparation of pharmaceutical products that are administered through injection

Waste **reduction**

As part of its efforts to use resources more efficiently, Terumo Corporation sets targets for recycling and for reducing total waste generation. Terumo Blood and Cell Technologies aligns with the group targets to guide our efforts, and we are beginning to see progress. In FY24, our manufacturing sites achieved a recycling rate of 81% for postindustrial waste.[1]

Target: 90% or greater recycling rate

Terumo Corporation mid- to long-term (FY2030) target for waste recycling rate (business sites in Japan and manufacturing and research and development sites overseas).

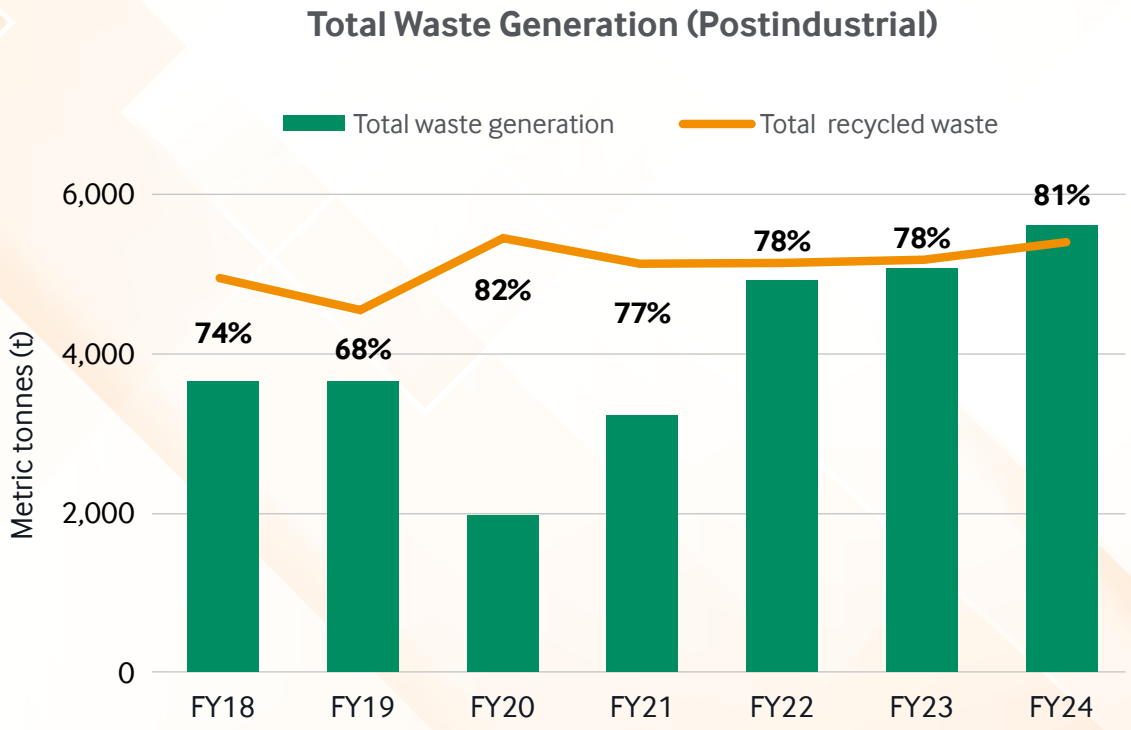


Figure 3. Total recycling rate and total waste generation at Terumo Blood and Cell Technologies manufacturing sites (U.S., Costa Rica, Vietnam, Northern Ireland, India) between FY18 and FY24.[1*]

*Total waste generation methodology was revised between the FY23 and FY24 reporting cycles.

Water **usage**

At Terumo Blood and Cell Technologies, we recognize that water is a critical resource for society, our patients, and the communities that we serve and operate in. Reducing water consumption across our operations is a vital element of our sustainability strategy.

While we are aligned with the Terumo Corporation target of a 20% reduction, we are pleased to have achieved a 55% reduction in water withdrawal per unit of revenue across our manufacturing sites.[1]

Target:

20%

or greater reduction in water use per unit of revenue

Terumo Corporation mid- to long-term target (FY2030) for overall water use (water withdrawal) per unit of revenue (business sites in Japan and manufacturing and research and development sites overseas) compared to FY18.

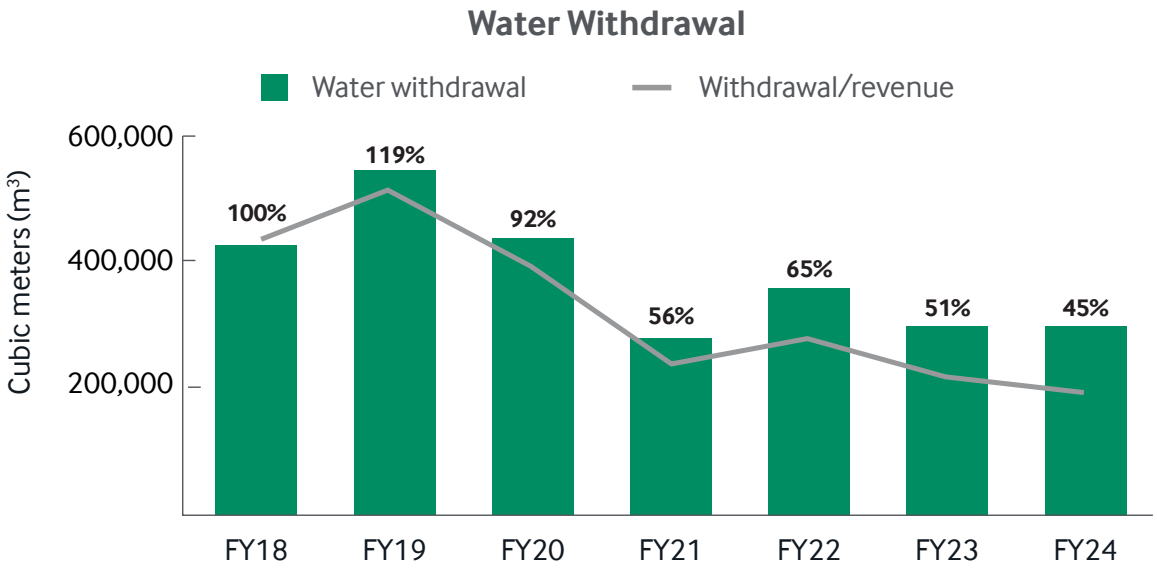


Figure 4. Water withdrawal at Terumo Blood and Cell Technologies manufacturing sites (U.S., Costa Rica, Vietnam, Northern Ireland, India) between FY18 and FY24.[1]

Several of our sites implemented water efficiency and reduction efforts that contributed to a decrease in usage, including the examples below.

- India. This site implemented several water recycling initiatives, including systems that recycle cooling water and use of reverse osmosis system water within the canteen, laundry, boiler, cooling towers, and toilets. The facility will continue exploring additional opportunities for increasing water efficiencies and water recycling.

- Vietnam. This facility initiated a collaborative water reduction project involving the Environment, Health, and Safety team as well as facility management, production, and engineering. The group implemented an advanced data collection system to track and analyze water use and to identify issues and efficiencies in real time, providing the opportunity to reduce energy and increase water efficiencies. They turned these insights into action, including mechanical modifications to the piping and water tank system, flow rate, and machinery on/off switches — leading to a 50% reduction in water use.[1] The team will continue to identify opportunities for further reduction of energy and water consumption.

Terumo Blood and Cell Technologies has also leveraged the World Resources Institute Aqueduct Tools to identify the water risk and water stress in regions where we manufacture. We learned that three of our facilities — one in India and two in the U.S. — are in high water-stress regions, further highlighting the importance of our ongoing water efficiency efforts.

Water tank system at our Vietnam factory

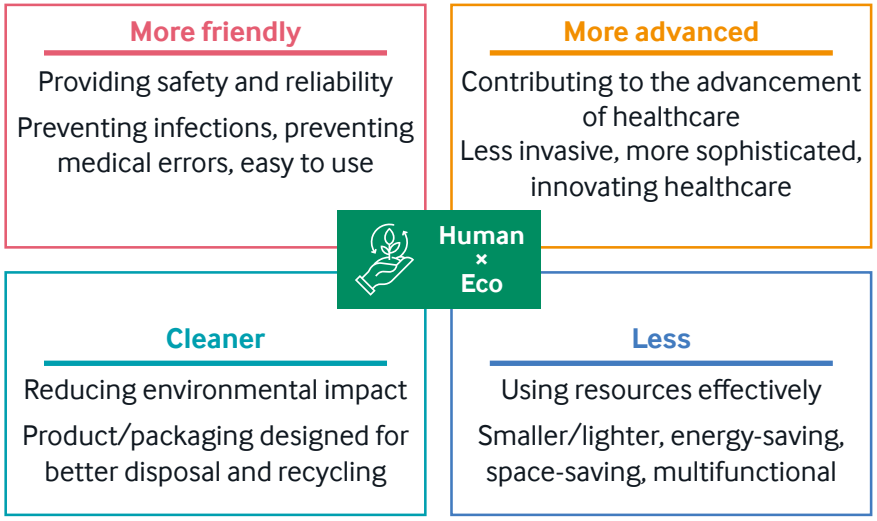
Product **stewardship**

Terumo Blood and Cell Technologies prioritizes mitigating the environmental impacts associated with our products.

Human × Eco™ Guidelines

The Terumo Corporation, our parent company, has developed the Human × Eco Guidelines to further integrate environmental, social, and human health considerations into product innovation. These guidelines are built around four core principles: **More friendly** (providing safety and reliability), **More advanced** (contributing to the advancement of healthcare), **Cleaner** (reducing environmental impact), and **Less** (using resources effectively). These principles are supported by directives that guide the design and development of products. At Terumo Blood and Cell Technologies, we are in the process of embedding these guidelines into our R&D and Quality processes.

"Human × Eco" Development Guidelines



Packaging

We consider best practices in package design as outlined by the Sustainable Packaging Coalition and the Healthcare Plastics Recycling Council (HPRC). We design packaging to:

- Minimize material use from initial design through final production
- Allow packaging to be easily dismantled for recycling and/or disposal
- Have the minimum amount of package volume

An example of this approach is our Rika Plasma Donation System, which uses one-third less packaging than originally designed.[1]

Non-DEHP alternatives

A program to transition our products to non-DEHP alternatives is active, and we are working diligently to adhere to the DEHP sunset date of July 1, 2030, identified in the European Union Registration, Evaluation, Authorisation and Restriction of Chemicals regulation. Our program includes the development, selection, testing, and release of non-DEHP plastics to replace DEHP-plasticized PVC in our existing CE-marked products. Learn more here.

Sterilization

We use ethylene oxide (EtO) to sterilize lifesaving medical devices in a tightly controlled process that complies with all applicable standards and regulations. The company uses advanced emissions controls that capture over 99% of the EtO we use. Learn more here.

Challenges and **opportunities ahead**

We recognize the challenges in front of us as we work to grow responsibly while achieving our environmental sustainability targets. We are energized by the progress our teams have made across the globe and the opportunities we have to continue minimizing any negative impact on the people we serve and the planet we share.

Click here to learn more about how Terumo Blood and Cell Technologies is addressing its sustainability priorities.

[1]Data on file with Terumo Corporation's Environment, Health, and Safety team.

TERUMO BLOOD AND CELL TECHNOLOGIES

Terumo BCT, Inc.
Lakewood, CO, USA
+1.303.231.4357

Terumo BCT Europe N.V.
Zaventem, Belgium
+32.2.715.0590

Terumo BCT Asia Pte. Ltd.
Singapore
+65.6715.3778

Terumo BCT Latin America S.A.
Buenos Aires, Argentina
+54.11.5530.5200

Terumo BCT Japan, Inc.
Tokyo, Japan
+81.3.6743.7890

 CO-NONP-00409