

# 2024

Tricel Group  
**SUSTAINABILITY  
REVIEW**



**TRICEL**  
GENERATIONS OF INNOVATION







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# EXECUTIVE SUMMARY.



## IRELAND'S LARGEST COMBINED SOLAR & HEAT PUMP SYSTEM INSTALLED

In 2023, Tricel Killarney completed Ireland's largest integrated solar PV and heat pump system for a business site, setting a new benchmark for industrial sustainability. In 2024 we achieved the following:

### Solar PV System:

- 1,744 panels, 776 kWp capacity
- 449,431 kWh generated in 2024
- CO<sub>2</sub> reduction: 114,155 kg

### Heat Pump System:

- 3 large heat pumps
- 684,000 kWh heat energy delivered
- CO<sub>2</sub> reduction: 173,736 kg

### Total Annual Carbon Reduction:

- 287,900 kg CO<sub>2</sub> (equivalent to the annual emissions of 120 Irish homes)

**287,900** kg CO<sub>2</sub> p.a.

THE TOTAL REDUCTION  
IN EMISSIONS FROM  
THE COMBINED SYSTEM

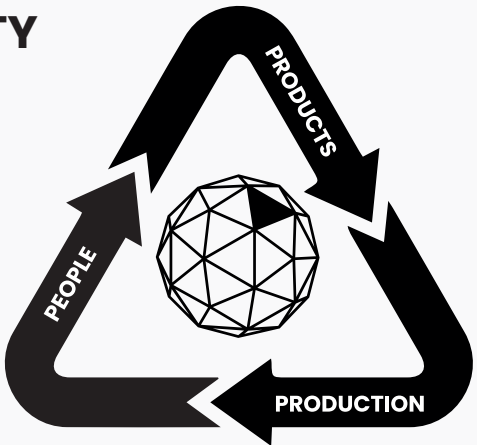
This project demonstrates Tricel's commitment to reducing operational emissions, improving energy efficiency, and investing in renewable technologies.

It supports our sustainability mission by delivering measurable environmental benefits and inspiring further innovation across our group.

## OUR SUSTAINABILITY TARGET & VISION.

Empowering Progress: Sustainable Products, Responsible Production, Inspired People."

Our vision is to be a leader in sustainable manufacturing—delivering products that make a difference, operating with integrity and efficiency, and nurturing a workplace where people are motivated to shape a better world for future generations.



## OUR SUSTAINABILITY TARGETS LONG TERM.



NET ZERO EMISSIONS



ISO APPROVED ENVIRONMENTAL  
MANAGEMENT



ISO APPROVED H&S

## OUR CURRENT SUSTAINABILITY FOCUS.



**449**

Kilowatt Hours to process  
every tonne of SMC\*



THE EQUIVALENT TO THE  
EMISSIONS SAVED FROM  
POWERING 120 HOMES  
PER ANNUM



**19**

Hours per person/  
per annum\*



19 HOURS OF TRAINING  
PER EMPLOYEE IN 2024.  
17 HOURS IN 2023. 15 HOURS IN  
2022 AND 2021.



**10**

Tonne CO<sub>2</sub> Reduction  
per Forklift



REDUCING THE TOTAL  
AMOUNT OF CO<sub>2</sub> BY 60T  
PER ANNUM ACROSS OUR  
KILLARNEY FORKLIFT FLEET



# TRICEL AT A GLANCE.

Dear all,

At Tricel, sustainability is not just a goal—it’s a core part of who we are and how we operate. We are proud to say that our commitment to sustainability is deeply woven into our company’s culture and will remain a guiding principle for years to come.

Over the past year, we have continued to uphold our values of innovation, quality, and heritage, while making sustainability a central focus in every aspect of our business. Our dedicated ESG team has worked tirelessly to implement new strategies that have successfully reduced our energy consumption and carbon emissions. These efforts are a clear demonstration of our determination to minimize our ecological footprint and contribute positively to the environment.

We have also invested in upgrading our production facilities, which has led to real, measurable environmental benefits. These improvements not only help the planet but also ensure that we are operating efficiently and responsibly. Looking ahead, we are excited to continue our development in sustainable, eco-friendly products. These offerings are designed to meet

## A MESSAGE FROM OUR CEO – MIKE STACK

the needs of today’s conscientious consumers, and they reflect our belief that sustainability and business success go hand in hand. By aligning our products with sustainability principles, we are driving positive change and strengthening our position in the market.

Transparency is at the heart of our sustainability journey. We are committed to sharing our progress openly and honestly, and we look forward to keeping you updated on our achievements throughout the coming year.

Finally, I want to express my sincere gratitude for the ongoing support from our employees, customers, and partners. It is through our collective efforts that we are building a more sustainable future for everyone.

Together, we can make a difference.

Best Regards,  
Mike Stack – CEO, Tricel



“At Tricel, sustainability is not just a goal—it’s a core part of who we are and how we operate. We are proud to say that our commitment to sustainability is deeply woven into our company’s culture and will remain a guiding principle for years to come.”

## TRICEL LOCATIONS.

IE

Killarney (HQ)  
Dublin  
Baldonnell  
Cavan

UK

Newry  
Lanark  
Leeds  
Weston-Super-Mare  
Gloucester  
Hemel Hempstead  
Croydon  
Portsmouth  
Dartford

FR

Poitiers  
Avignon

DK

Tappernøje



**7 MANUFACTURING SITES**

**16 LOCATIONS**

*Ship to* **50 COUNTRIES**  
**WORLDWIDE**

**T TEAM**  
Working together to deliver the best outcomes through relationships, respect and sharing

**R RESOURCEFUL**  
Adopt lean thinking in every way we work

**I INTEGRITY**  
Demonstrate sound moral, ethical judgement by doing the right thing

**C CUSTOMER CENTRIC**  
Understand and deliver to the needs of our customers

**E EMBRACE CHANGE**  
Be creative, open-minded and resilient in the face of change

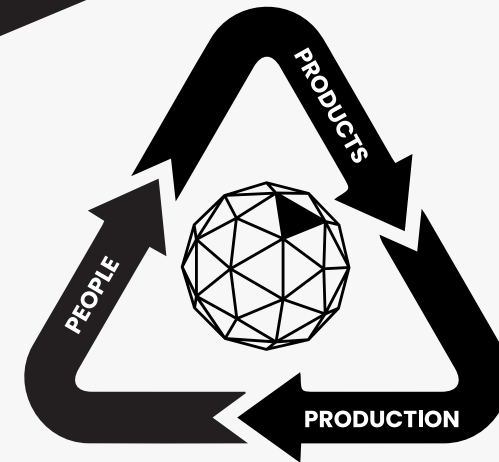
**L LEADER**  
Have the courage, personal integrity and vision that inspires and motivates others

...Continually Grow through Innovation and Change

# OUR SUSTAINABILITY MISSION & VISION.

The Tricel Group is committed to achieving the UN's Sustainable Development Goals (SDGs).

The areas we feel that we would have the most impact right now are broken down into our Priority and Contribution Goals.



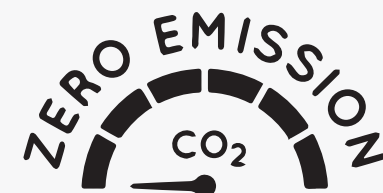
Sustainability is at the heart of our business strategy, guiding every decision we make across the Tricel Group. We are committed to doing what is right, protecting our environment and building a better future for generations to come. Our approach is anchored in three core pillars: Environment, Social, and Governance.

With these pillars as our foundation, we continually invest in our production facilities, our innovative products, and our talented people. By integrating sustainability into our operations, we strive not only to meet today's challenges but to lead positive change for tomorrow.

## LONG TERM SUSTAINABILITY TARGETS.



ISO APPROVED  
ENVIRONMENTAL  
MANAGEMENT

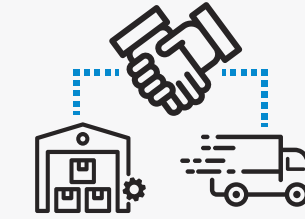


NET ZERO  
EMISSIONS



ISO APPROVED  
H&S

## PRODUCTION / ESG & THE SUPPLY CHAIN.



**Tricel's Supply Chain, commitment to ESG through supply chain monitoring, continuous improvement and review.**

Tricel regularly monitor and review our suppliers to ensure good open working relationships are maintained and aligned to the business. Tricel expects our suppliers to understand how their activities impact their local area and wider community.

In 2024, Tricel further developed its supply chain monitoring by developing & introducing our 'Supplier Code of Conduct' requirements. The document sets out expectations for all our suppliers and their subcontractors when providing goods or services. It aligns supplier practices with Tricel's values and legal obligations, ensuring integrity, transparency, and accountability across the supply chain.

Suppliers must adhere to all applicable laws, regulations, and licences. Tricel operate zero tolerance for bribery, corruption, fraud, discrimination, harassment, or any unethical behaviour. Suppliers are expected to challenge and report unethical practices promptly. Equal opportunities and respect for diversity are required throughout the supply chain.

Our Suppliers must operate in ways that minimise environmental impact, including safe waste disposal, energy efficiency, and compliance with environmental legislation & provide safe working environment free from harm, intimidation, or harassment. We expect our suppliers to demonstrate proactive measures to improve sustainability performance and share best practices.

Suppliers are partners in achieving ethical, sustainable, and responsible business practices. Compliance with this Code is a condition of doing business with Tricel. Tricel are working to ensure our top suppliers are working towards full compliance to the Tricel Supplier Code of Conduct.

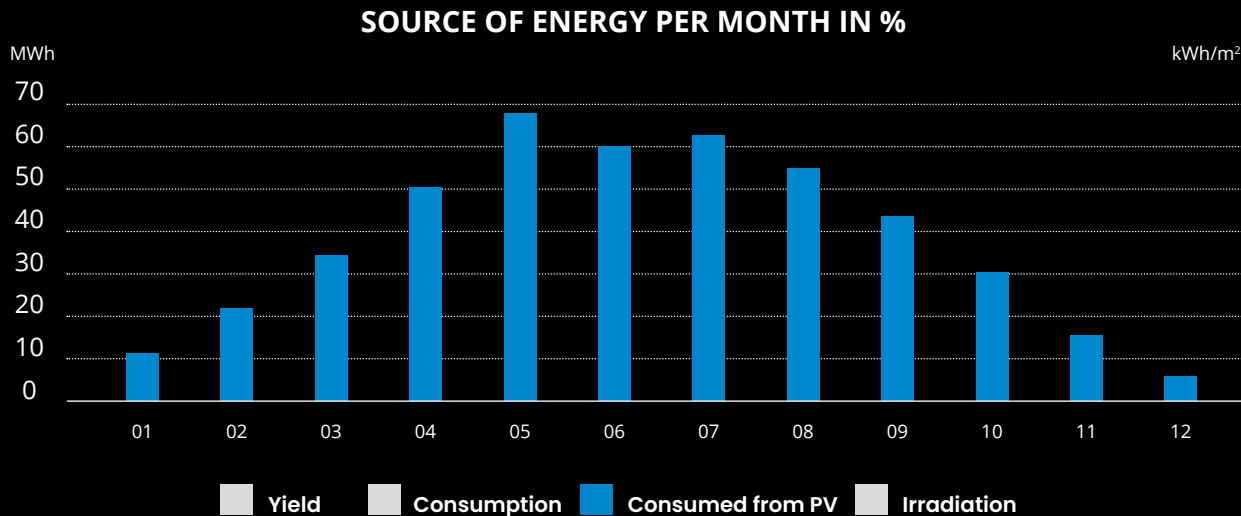


# PRODUCTION.

In 2024, solar energy generation continued to contribute a significant portion to Tricel Killarney’s overall energy needs, again reaffirming the company’s commitment to sustainability. In total, 449,431 kWh was generated from solar energy in 2024, which equates to 18.52% of Tricel Killarney’s overall energy consumption. The solar PV system supplied nearly a fifth of Tricel Killarney’s annual energy needs, directly reducing reliance on grid electricity and fossil fuels. The graph below highlights the seasonal nature of solar energy generation, with the months of May – August accounting for 53% of solar generation. Integrating solar power into daily operations demonstrated Tricel’s commitment to sustainable production, aligning with customer and stakeholder expectations for greener manufacturing.

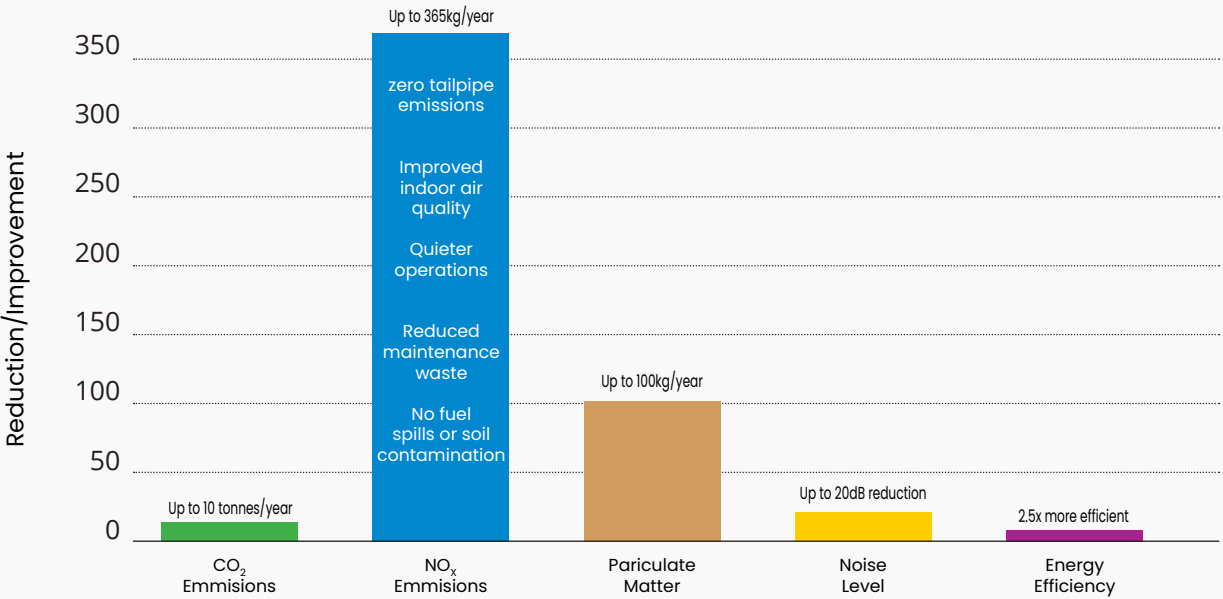
The success of the solar initiative provides a foundation for further investments in renewable energy and efficiency, with the goal of increasing the share of clean energy in production year on year.

As part of Tricel commitment to environmental sustainability with production and day to day operations. We have transitioned our Forklift fleet from diesel powered units to electric models, This strategic move has resulted in substantial environmental benefits and reductions in emissions and pollution.



# CASE STUDY.

## ENVIRONMENTAL BENEFITS OF SWITCHING FROM DIESEL TO ELECTRIC FORKLIFTS AT TRICEL



### Quantified Environmental Impact

- Carbon Dioxide (CO<sub>2</sub>): Reduction of up to 10 tonnes per forklift annually
- Nitrogen Oxides (NO<sub>x</sub>): Reduction of up to 365 kg per forklift annually
- Particulate Matter (PM2.5): Reduction of up to 100 kg per forklift annually
- Noise Pollution: Reduction of up to 20 dB per forklift
- Energy Efficiency: Electric forklifts are over 2.5× more efficient than diesel models

### Environmental and Operational Benefits

- Zero tailpipe emissions improve indoor air quality
- Quieter operations enhance workplace comfort and safety
- Reduced maintenance waste due to fewer moving parts
- Elimination of fuel spills and soil contamination risks
- Supports Tricel’s long-term carbon reduction and sustainability goals
- Cost saving – to power cheaper than diesel or LPF



# PRODUCTS.

Tricel has made significant strides towards enhancing its environmental, social, and governance (ESG) profile by addressing the sustainability challenges associated with its wastewater treatment solutions.

In 2024 Tricel introduced the FILTRO range to replace our existing SETA Simplex range. The FILTRO range features reduced material usage, improved manufacturing efficiency, a lower carbon footprint, customer-driven innovation, safer installations, supports workforce development whilst providing less disruption to ground during installation due to its reduced size.

## ESG Impact Summary

- **Reduced Material Usage:** Compact design lowering raw material consumption by approx. 30%.
- **Improved Manufacturing Efficiency:** Standardized components streamlining production and reducing waste by 20%.
- **Lower Carbon Footprint:** Optimised sizing enhances transport efficiency, reducing emissions per unit shipped.
- **Safer Installations:** Simplified sizing reduces complexity and potential for installation errors.
- **Workforce Development:** New product line supports training across departments.
- **Regulatory Alignment:** Standardized sizing supports compliance with industry norms and reduces risk.



# ADVANCING SUSTAINABILITY THROUGH SMARTER TREATMENT.

**How Tricel's 2024 system upgrades reduced material use, improved manufacturing efficiency, and lowered environmental impact.**

In 2024, Tricel also implemented a transformative upgrade to its tertiary treatment systems, demonstrating a strong commitment to sustainability, operational excellence, and environmental stewardship.

**Reduced Material Usage:** By replacing two Puraflo modules with a single TERO unit, we have successfully reduced component usage by 50% for tertiary systems. This streamlined approach not only conserves raw materials but also supports our broader goal of minimising resource consumption across our product lines.

**Improved Manufacturing Efficiency:** The new module design now serves a 6PE system, eliminating the need for separate left-hand and right-hand configurations. This innovation simplifies both production and logistics, reducing the product range from eight-part codes to a single, scalable unit. The result is a more agile manufacturing process, decreased inventory complexity, and enhanced supply chain efficiency.

**Lower Carbon Footprint:** The reduced footprint of the new system means less disruption to the ground during installation, directly contributing to lower carbon emissions and a gentler impact on the environment. This initiative aligns with our ongoing efforts to optimise transport efficiency and reduce emissions per unit shipped.

Collectively, these advancements reinforce Tricel's dedication to continuous improvement, resource conservation, and sustainable manufacturing practices, focusing on & minimizing our environmental impact.





# PEOPLE.

At Tricel, we believe that meaningful engagement goes beyond clear communication—it's about fostering a culture of openness, dialogue, and inclusion. We encourage conversations where all employees feel empowered to share their ideas, voice their opinions, and influence decisions. To maintain this engagement, we prioritise frequent, transparent communication through various channels, including town hall meetings, digital noticeboards, canteen screens, emails, and the HR portal. Feedback from our colleagues is highly valued and directly informs our strategies. We conduct comprehensive employee engagement surveys that measure five key drivers of engagement: purpose, culture, leadership, personal growth, and belonging. Results are shared with Senior Management and communicated across the Group to ensure transparency and accountability.

**Tricel Country of Origin:** Brazil • Caribbean • Croatia • France • Ghana • Greece • Hungary India • Ireland • Lithuania • Morocco • Nigeria • Poland • Portugal • Romania • Slovakia Somalia • Spain • Tunisia • UK • Zimbabwe.

# WORKPLACE FLEXIBILITY.

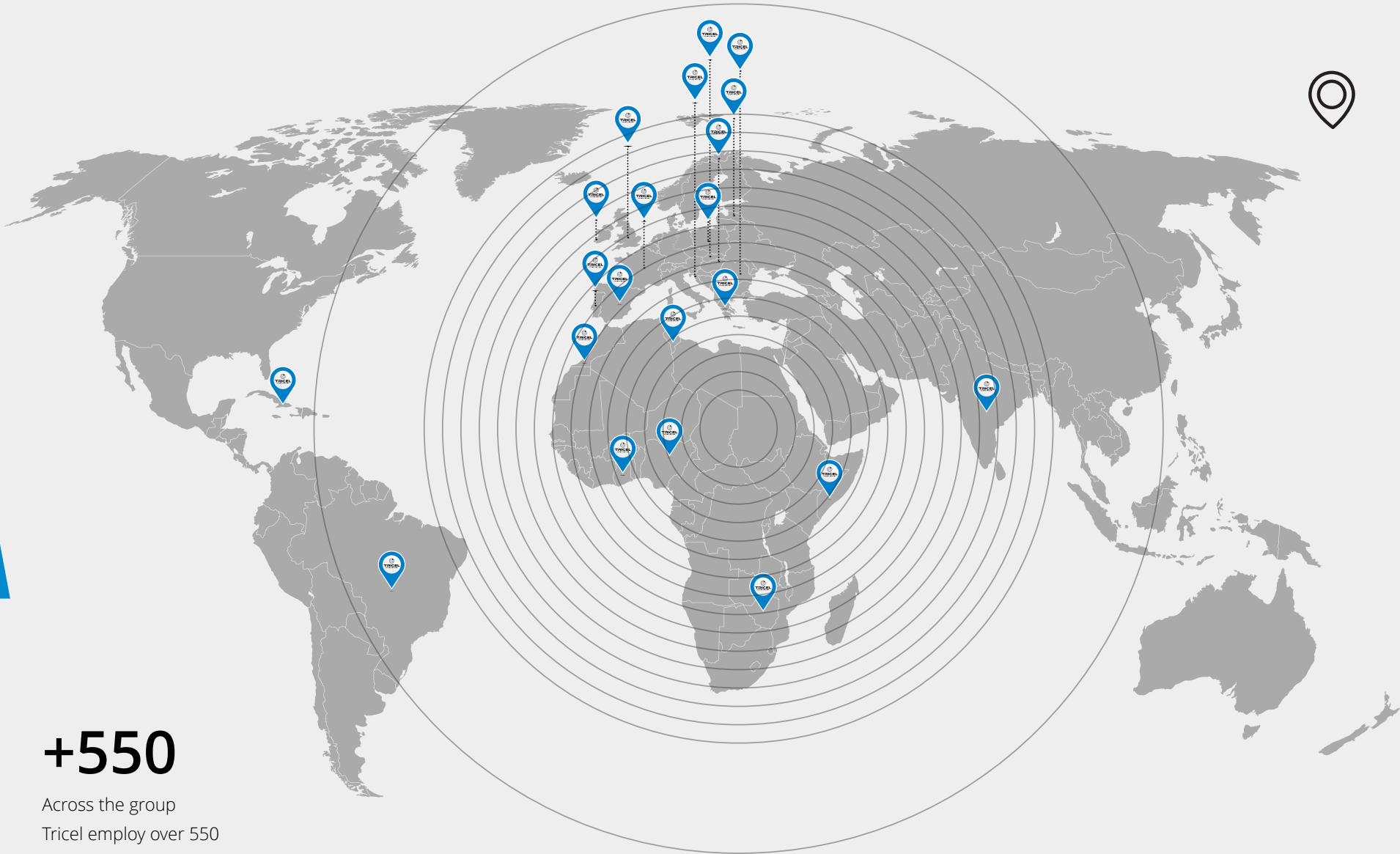
We recognise the value of flexibility in promoting productivity, engagement, and overall wellbeing. Tricel has implemented a hybrid working model for office-based employees. This approach ensures flexibility while maintaining the benefits of in-person collaboration.



EMPLOYEES

+550

Across the group  
Tricel employ over 550  
employees



# CULTURE.



Our people are the foundation of Tricel's success. We are proud of our diverse workforce and strive to reflect the communities in which we operate. Our HR strategy places strong emphasis on professional development, wellbeing, equality, diversity, and inclusion. We are committed to attracting top talent, supporting employee retention, and providing meaningful career development opportunities.

Our talent management approach focuses on hiring, compensating, and promoting individuals based on their qualifications, experience, and skills. We promote equal opportunities for all candidates and employees, and ensure fair access to growth and advancement.

We also prioritise continuous performance development through regular check-ins between employees and managers. These conversations help build a culture of accountability, engagement, and connection.

In 2024, 26 employees across the Tricel Group were promoted—underscoring our belief that nurturing internal talent not only strengthens individual careers but also fuels the success of our business.



## WELLBEING.

We are committed to promoting wellness through dedicated wellbeing initiatives and awareness days, such as World Mental Health Day. These initiatives offer practical resources for employees to support their mental, physical, and emotional health.

Key highlights include:

- 14 accredited Mental Health First Aiders
- 32 Mental Health Champions across our UK, Irish, and French sites.

Access to a confidential Employee Assistance Programme offering support for mental health, financial, and legal matters.



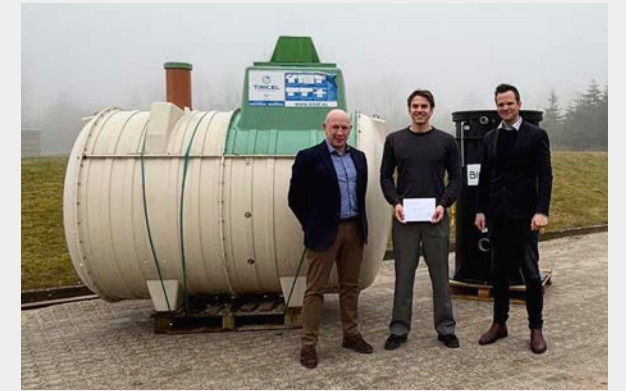
## EMPLOYEE RECOGNITION.

Our Employee Recognition Scheme celebrates colleagues who consistently demonstrate Tricel's core values and go above and beyond in their roles. Employees can nominate peers across any site, with examples including outstanding teamwork, innovative cost-saving ideas, or exceptional customer service. Recognition is awarded quarterly or bi-annually at each site, with one overall annual winner selected across the Group.



## BURSARY PROGRAMME.

Launched in 2022 by CEO Mike Stack, the Tricel Bursary Award supports employees' children. Seven students have benefited so far. In 2024, Michael Hansen, son of Laila Hansen (BioKube), received €500 per study year and a summer placement at Tricel. We wish him continued success at Copenhagen Business School.



## COMMUNITY LINKS TRANSITION YEARS STUDENTS.

Transition Year work experience programme gives students hands-on exposure to key business functions. Feedback from schools and students has been overwhelmingly positive, providing valuable insights into career paths and our operations.

## ERASMUS STUDENT PLACEMENT.



In 2024, Tricel welcomed an Erasmus student from Pleinfeld, Bavaria. The Placement provided practical manufacturing experience, reinforcing classroom learning with real-world application.

## TRICEL EXPLORE PROGRAMME.



This initiative introduces secondary students to the engineering and manufacturing sectors. Activities include factory tours and employee career presentations, designed to spark interest in future career paths in Tricel.



# EARLY CAREERS.

## APPRENTICESHIPS AND GRADUATES.

Tricel continues to support career progression through apprenticeships and graduate placements. Many of our current employees began their careers through these routes. In September 2025, we look forward to welcoming six new graduates from various disciplines



# SUMMER STUDENTS.

In collaboration with employees, we created summer work placements for nine students in 2024.

These students worked across departments such as Manufacturing, Marketing, QHSE, and ESG, gaining valuable real-world experience.



## CO-OPERATIVE EDUCATION STUDENTS.

Our partnership with Munster Technological University (MTU) enables students to complete placements in Engineering and Finance. In 2024, several students benefited from this collaboration, enhancing both their academic learning and our internal innovation.

# REEdI PROGRAMME.



We are proud to partner with the MTU REEdI (Rethinking Engineering Education in Ireland) programme—a reimagined approach to engineering education. In 2024, we welcomed our first REEdI student, with a second due to join in 2025.

These students gain hands-on experience as Junior Engineers during years 3 and 4 of their studies.

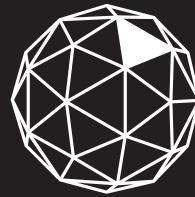


Matthew Blennerhassett – Engineering Student

## FUNDRAISING EFFORTS.

As part of our commitment to community involvement, we organised a bake sale to support the development of a Sensory Garden at St. Oliver's Primary School in Ballycasheen, Killarney. The event raised €1,000, including a company donation. The funds will contribute to creating an inclusive outdoor space with features like a climbing wall, water play area, sand pit, and music centre—enhancing learning experiences for 635 students, including those in eight special classes.





**TRICEL**

GENERATIONS OF INNOVATION