# CREATING HEALTHIER, MORE BEAUTIFUL COMMUNITIES ESG UPDATE

# TENCATE

# TABLE OF CONTENTS

TenCate	3
Message from the CEO	3
Introduction from the Group ESG Director	4
TenCate	5
Our circular approach	7
Our sustainability strategy	8
Ambitions and results	12

People & Communities	16
Management approach	17
Case study	19

### Circular Innovation

Management approach	21
Case study	25

20

Responsible Manufacturing	26
Management approach	27
Case study	29



# **MESSAGE FROM THE CEO**

It is with great pride and pleasure that I present our ESG Update 2022. A year that was characterized by the increasing urgency to address important societal challenges such as climate change, water scarcity, pollution, and waste.

Just as the COVID-19 pandemic began to ease, supply chain disruptions worsened, inflation increased, and raw materials and energy prices soared. At TenCate, we were able to deal with these challenges through the dedication and drive of our employees, and by accelerating our sustainability initiatives through our circularity driven business model.

### **TenCate**

With a rich heritage spanning more than 300 years, TenCate has been a pioneer in the synthetic turf industry. Our legacy is deeply rooted in the mastery of yarns and a steadfast commitment to innovation and circularity. Today, we proudly stand as the largest, fully integrated synthetic turf company, encompassing a portfolio of more than 20 companies active in both the Sports and Outdoor Living segments. Headquartered in Nijverdal, the Netherlands, we are located in 12 countries, selling our products to more than 60 countries.

### **Our contribution**

Together, we envision a world where innovation and environmental awareness lead the way to creating healthier, more beautiful communities. We contribute by embracing circularity in every step of our value chain and by ensuring that our products and materials are never wasted after use, but instead are continuously reused, repurposed, and recycled ensuring unlimited play for generations to come.

Our vertical integration is key to achieving this objective. By positioning ourselves close to our end markets, we have a clear picture of what the users of our products value. These insights are the basis for our Research & Development to develop products that exactly meet these expectations. Again, always keeping in mind that our products should be designed to be recycled. In addition, our manufacturing base is geographically dispersed so that our products are manufactured as close to their end markets as possible. This minimizes shipping emissions and contributes to local economies.

### Our passion for sports, play and recreation

All our efforts are based upon our shared passion for sports, play and recreation, whether elite sports, children playing on mini fields or families enjoying their outdoor living surfaces at home. We are committed to continuing to tackle challenges in order to increase our contribution to society, while decreasing our impact on the environment.

In this report, we further elaborate on our sustainability strategy, ambitions, and results so far. Based on our sustainability pillars, we describe our activities in 2022 with a look forward into 2023. I look forward to continuing to collaborate with all our employees, customers, partners, and other stakeholders in 2023 to accelerate our impact and contribute to creating healthier, more beautiful communities.

CEO,

Michael Vogel



## 66

Together, we envision a world where innovation and environmental awareness lead the way to creating healthier, more beautiful communities.

# INTRODUCTION FROM THE GROUP ESG DIRECTOR

As a leading innovator in the synthetic turf industry, we recognize the importance of being a responsible, transparent and accountable partner in shaping a sustainable future for industry, people and the planet alike. Within these pages, we share our journey in fulfilling these ambitions.

### Our dynamic regulatory landscape

With a deeper integration of ESG principles in our business operations, the fast-evolving regulatory context emerges as a multifaceted challenge requiring diligent attention and compliance:

- First, navigating the dynamic landscape becomes more complex. With the introduction of the European Sustainability Reporting Standards (ESRSs), the synthetic turf industry becomes subject to stringent external reporting standards and guidelines. This includes business model innovation, emphasis on circular products and processes, waste management, sustainable sourcing and carbon emissions reduction.
- Second, we have to address the expanding complexities of social responsibility regulations in every country we operate in, ensuring occupational health and safety, fair labor practices, diversity and inclusion, as well as community engagement across our global operations.
- Last, governance excellence demands adherence to strict corporate governance laws, transparency in reporting, efficient risk management and maintaining ethical business practices.

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Navigating the ever-evolving regulatory landscape has been a priority for us and we are actively working towards complying with upcoming legislation, embracing transparency and accountability as we strive to meet and exceed industry standards.

### Stakeholder engagement is key

Our approach is to proactively monitor and adapt to evolving requirements, working diligently with our stakeholders. Our dedication to sustainable practices permeates every facet of our organization, reflecting our commitment to a more environmentally conscious and responsible tomorrow.

We express our gratitude to our dedicated employees, whose efforts and commitment have been instrumental in driving our ESG initiatives across the entire company. This ESG Update is our cordial invitation to you to explore the comprehensive insights we share. Your feedback and constructive insights are highly appreciated as we work together towards harmonizing environmentally



conscious practices, inclusive actions and a culture of utmost responsibility.

Together with our customers, suppliers, partners and investors, we can pave the way for a purposeful impact and cultivate a sustainable world for the prosperity of future generations.

Group ESG Director,

Nikoleta Konstantinidou





# TENCATE

Established in the Netherlands in 1704, TenCate is a global group of 20 companies that lead the way in creating innovative, high-quality, sustainable synthetic grass surfaces for sports and outdoor living. With almost 3000 passionate employees in the United States, Europe, the Middle East, and Asia Pacific, we serve customers in more than 60 countries.

# A wide range of circular products and services

We offer solutions for elite sports, like football, rugby, soccer, and field hockey, and for local communities, municipalities, schools, universities, sports clubs, kindergartens and private individuals. We are moving towards a fully circular value chain, recycling all end-of-life products into new, high-value end-of-life products. And it is not just our own products we want to recycle: our ultimate goal is to recycle and reuse all legacy end-of-life artificial turf in the countries we serve.

### **Annual growth**

With Hellas, Evergreens and PST joining TenCate in 2022, the company grew from approximately 1,500 to ,almost 3000 employees in one year, becoming the largest global player in the industry. With revenue of well over €1.1 billion.

### **Our mission**

Everything we do contributes to our mission: creating healthier, more beautiful communities for future generations. With easy-to-maintain surfaces that reduce water consumption, do not require fertilizers and pesticides, and perform and look the same game after game, year after year. All while keeping materials in play through our new recycling infrastructure.

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### Our circular approach

TenCate is a vertically integrated company, which means that we manage the entire value chain, from design and manufacturing through distribution and installation all the way to recycling of end-of-life solutions. This allows us to introduce innovations and implement changes quickly and efficiently.



# **OUR VALUES**

1	We push boundaries	with a lead t and s
2	We win	as a t partr
3	We own it	by br taking as on
4	We care	for th the c envir
5	We play fair	by alv listen comr

h a relentless focus on innovation, developing products that d the industry in performance, appearance, durability, safety, d sustainability.

a team, together with all TenCate companies and our tners, to become better every day.

bringing our customers the benefits of a global leader. By ing responsibility and by fully relying on each other's expertise, one team of problem solvers with a 'can do' mentality.

the health, safety and well-being of our employees, communities we operate in, our customers and the *v*ironment.

always being true to our commitments and by ening to our employees, customers, suppliers, and the nmunity in general.

# OUR CIRCULAR APPROACH

RECYCLING



With insights from every step of our vertically integrated business, we develop circular solutions in our Center for Turf Innovation.

### MAINTENANCE & LIFETIME EXTENSION

### Innovation

We design according to our circular design philosophy, by creating solutions that meet specific user needs and are designed to be recycled.

### Manufacturing yarns, primary backing and grass for sports and outdoor living

We produce in a responsible way, minimizing our waste and our environmental footprint. We work together with our suppliers to jointly achieve circularity.

### **Design & installation**

We design our products to achieve the longest possible lifespan and by installing while consuming.

### Use

We stay in close contact with our customers during the entire lifecycle of our products to ensure unlimited play.

USE

### INNOVATION



MANUFACTURING YARNS, PRIMARY BACKING AND GRASS FOR SPORTS AND OUTDOOR LIVING

### DESIGN & INSTALLATION

## Maintenance & lifetime extension

We diligently maintain our turf solutions to ensure their quality and longevity.

### Recycling

We recycle when the product has reached its end -of-life, using the recycled raw materials to create new products and close the loop.

# OUR SUSTAINABILITY STRATEGY

At TenCate, we envision a world where the challenges we face today are transformed into opportunities to build healthier, more beautiful communities. In the face of climate change, widespread droughts, increasing urbanization, and the pollution caused by plastic waste, we are committed to integrating circularity into every step of our value chain, minimizing our environmental footprint and ensuring unlimited play for generations to come.

### Our vision on sustainability

As the global leader in sports and outdoor living solutions, we redefine the lifecycle of our products and materials, ensuring they are never wasted or landfilled but instead continuously reused, repurposed, or recycled. Circularity is woven into every facet of our business, from designing single polymer recyclable turf systems to producing turf products that are high-quality, durable, easy to maintain and recyclable at end-of-life. As an integral part of our commitment, we are dedicated to integrating responsible manufacturing practices into our production processes, ensuring that we minimize resource consumption, waste generation, and emissions. Not only our turf solutions are circular, we have also integrated circularity into our operations.

We believe that sustainability is a collaborative effort that requires the active participation and engagement of all our business partners.







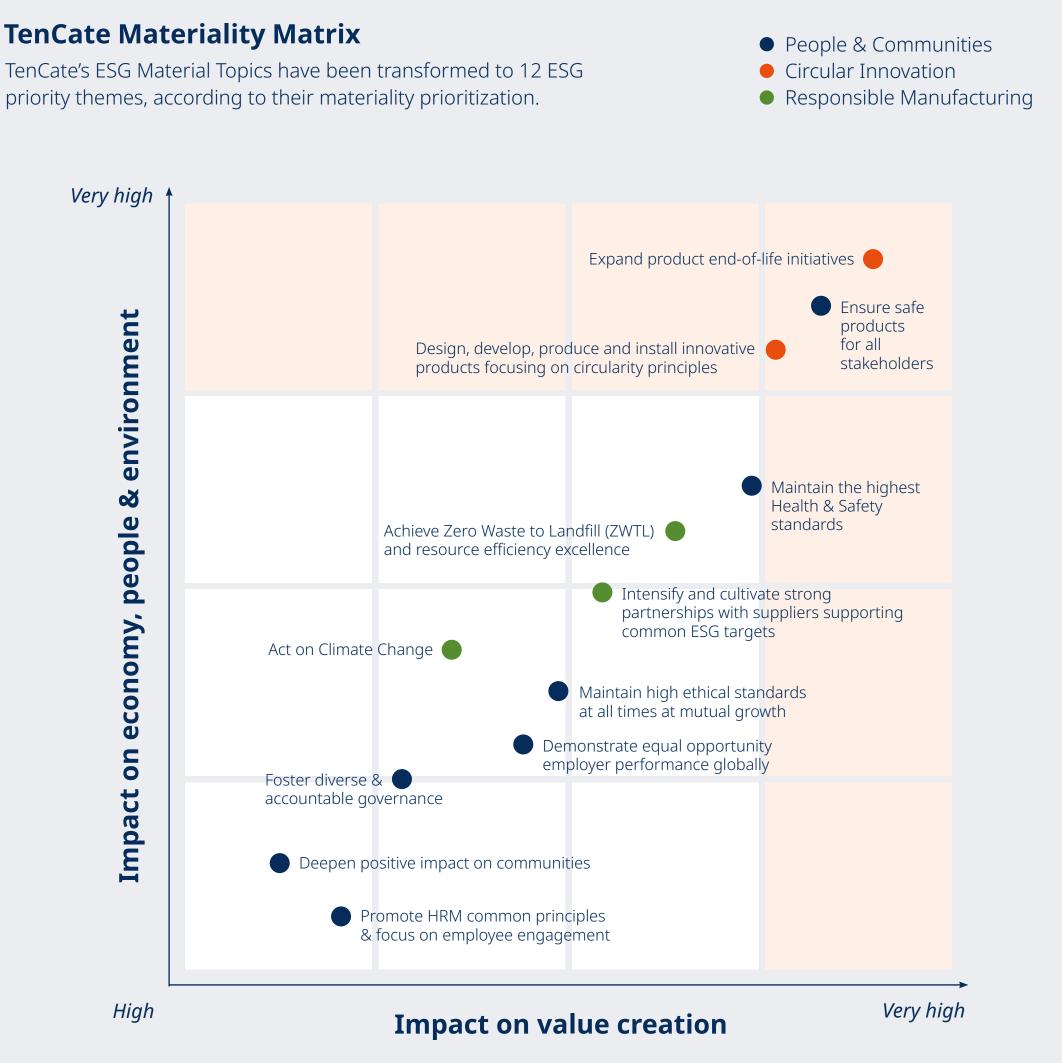
### Materiality analysis as a starting point

In 2022, we conducted a materiality analysis to determine the most material topics for TenCate and to provide focus for our sustainability policy. Leveraging the framework established by the Sustainability Accounting Standards Board (SASB), we utilized the sector-specific Materiality Finder to pinpoint potentially significant financial topics. Subsequently, we gleaned insights from the Global Reporting Initiative (GRI) standards, focusing on material topics linked to the impact of our activities. This phase encompassed internal consultations with key departments including Sales, Innovation, Procurement, HR, and Operations to identify entityspecific material topics.

These steps resulted in a list of 27 material topics. Subsequently, this list was assessed by our management teams in the US, Europe, the Middle East, and Asia, employing the 5-factor test prescribed by SASB. In total, the participation rate of this internal assessment was 96%. Following this, we initiated an external stakeholder survey primarily focused in the US, engaging industry experts whose insights were integrated into our existing longlist of material topics.

Lastly, our ESG Committee and Senior Management evaluated the results, categorizing all material topics within the framework of the five dimensions outlined by SASB. Our priority themes are mapped in the matrix on the right. The table below visualizes the categorization of the twelve priorities, as classified by SASB and TenCate pillars.

Our ESG strategy includes a dynamic reassessment of the material topics. That's why in 2023, we intend to conduct a double materiality assessment, recognizing its significance in preparing for the Corporate Sustainability Reporting Directive (CSRD).



# SASB CATEGORIES δ TENCATE PILLARS

<b>People &amp; Communities</b>	<b>Circular Innovation</b>
<ul> <li>Ensure safe products for all stakeholders</li> <li>Deepen positive impact on communities</li> </ul>	
<ul> <li>Maintain the highest Health &amp; Safety standards</li> <li>Demonstrate equal opportunity employer performance globally</li> <li>Promote HRM common principles &amp; focus on employee engagement</li> </ul>	
	<ul> <li>Expand product end-of-life initiatives</li> <li>Design, develop, produce &amp; install innovative products focusing on circularity principl</li> </ul>
<ul> <li>Maintain high ethical standards at all times for mutual growth</li> <li>Foster a diverse &amp; accountable Governance</li> </ul>	
	<ul> <li>Ensure safe products for all stakeholders</li> <li>Deepen positive impact on communities</li> <li>Maintain the highest Health &amp; Safety standards</li> <li>Demonstrate equal opportunity employer performance globally</li> <li>Promote HRM common principles &amp; focus on employee engagement</li> <li>Maintain high ethical standards at all times for mutual growth</li> <li>Foster a diverse &amp; accountable</li> </ul>

### Responsible Manufacturing

- Achieve ZWTL & resource efficiency excellence
- Act on Climate Change

 Intensify & cultivate strong partnerships with suppliers supporting common ESG targets

### ples

### **Our sustainability strategy**

Building on the results of our materiality analysis, we developed a sustainability strategy to guide our activities. Our sustainability strategy is based on three pillars:

### 1. People & Communities

How we inspire and empower the people and communities around us.

### 2. Circular Innovation

How we continuously innovate and implement circularity principles within our organization.

In this report, we elaborate further on our activities in 2022 that illustrate our efforts on these topics in carrying out our vision: Ensure unlimited play for generations to come.

### **ESG governance structure**

Integrating sustainability into our organization reflects a comprehensive approach by emphasizing that sustainability is a collective effort. Our ESG Governance structure guides our decision-making processes and ensures that environmental, social, and governance considerations are embedded throughout our operations where everyone performs an identifiable role. Our ESG Committee consists of key representatives from various departments, is led by the Group ESG Director and supports the CEO in overseeing key ESG matters throughout the Group. It organizes materiality assessments, reviews and validates implementation plans, establishes Working Groups, proposes ESG strategic initiatives and policies, assesses and monitors risks associated with ESG factors, verifies all relative information and supervises the publication of the ESG Update.



### 3. Responsible Manufacturing

How we minimize our environmental footprint and preserve our planet for future generations.

# AMBITIONS AND RESULTS

### People & Communities

ΤΟΡΙϹ	AMBITION	RESULTS SO FAR	PAGE
Engagement	Conduct an employee engagement survey amongst our almost 3000 employees in 2023.	The employee engagement survey has been prepared and is ready to be sent out in 2023.	17
Diversity & inclusion	Promote multiculturalism, social inclusion, and gender equality in the workplace in 2023.	The grounds have been prepared for a Global HR Recruitment Policy in 2023, with diversity & inclusion as one of the focus themes.	17
Health & safety	Prioritize health and safety, strengthen the systems for managing occupational health and safety to reduce the number of injuries and occupational hazards.	In 2022, we followed up and registered lost time incidents globally.	17
Communities	<ul> <li>Expand on our partnerships with NGOs in 2023.</li> <li>Resume our partnership with the Johan Cruyff Foundation and install another 70 Cruyff Courts between 2023 and 2026.</li> </ul>	During our 20 years of partnership with the Johan Cruyff Foundation we contributed to 200 Cruyff Courts, more than 20 countries, providing 1,000,000 playing sessions per year.	18

# AMBITIONS **AND RESULTS**

ТОРІС	AMBITION	RESULTS SO FAR	PAGE
Expand our Circular Product Portfolio	<ul> <li>Expand our ONE-DNA<sup>™</sup> portfolio from outdoor living to sports in 2023.</li> </ul>	<ul> <li>Introduced products that include a proportion of recycled content in 2021.</li> </ul>	21
	<ul> <li>Expand our outdoor living ONE-DNA™ offerings globally.</li> </ul>	<ul> <li>Launched a range of high-quality non-infill turf solutions for elite sport in 2022.</li> </ul>	
	<ul> <li>Increase the recycled content in our products.</li> </ul>	<ul> <li>Launch of our first ONE-DNA<sup>™</sup> products for outdoor living with our partner LimeGreen<sup>®</sup> in 2022.</li> </ul>	
Turf Solutions with Sustainability Benefits	<ul> <li>Expand our portfolio of solutions that bring sustainability benefits for societal challenges in 2023.</li> </ul>	<ul> <li>Launch of GeoCool and Elia natural infills to replace plastic infills and reduce surface temperatures in 2022.</li> </ul>	21
	<ul> <li>Increase the product portfolio with systems that contain no intentionally added microplastics (infills).</li> </ul>	<ul> <li>Prepared launch of our zero-water technology for field hockey in 2023.</li> </ul>	
Turf Recycling	<ul> <li>Develop partnerships with recycling companies to provide an end-of-life solution for all legacy and other artificial</li> </ul>	<ul> <li>Established partnership with GBN in 2019 for all end-of-life turf systems in the Netherlands.</li> </ul>	24
	turf in Europe by 2027.	<ul> <li>Launch of advanced recycling partnerships with ExxonMobil and Cyclyx in the US.</li> </ul>	
	<ul> <li>Expand our advanced recycling initiatives to turn turf back into virgin quality raw materials in 2023 in the US.</li> </ul>	<ul> <li>Developed product range from end-of-life turf and process waste, including Ecocept and EcoNailer<sup>1</sup>.</li> </ul>	

<sup>1</sup> EcoNailer™ is an ecologically friendly nailer board used in the turf installation process to secure the synthetic turf in place.

# AMBITIONS AND RESULTS

### **Responsible Manufacturing**

ТОРІС	AMBITION	RESULTS SO FAR	PAGE
Waste	Aim to have all of our manufacturing facilities certified for Zero Waste to Landfill (ZWTL) by 2024, with a diversion rate of more than 90%.	<ul> <li>Across all our manufacturing facilities, we successfully implemented operational waste reduction initiatives and initiated the ZWTL certification process in 2022.</li> </ul>	27
		<ul> <li>In Dubai, we recently achieved the Gold Recognition level for the Zero Waste to Landfill certification.</li> </ul>	
pre	Reassess our GHG emissions baseline to prepare for the target setting process in 2024.	<ul> <li>In 2022, we determined our GHG emissions baseline. Due to significant growth of our company, this needs to be reassessed.</li> </ul>	27
		<ul> <li>In all our manufacturing facilities, we measured our energy consumption and intensified energy reduction initiatives in 2022.</li> </ul>	
Suppliers' Engagement	Conduct an ESG screening with 100% of our key suppliers by 2024.	Together with our partner Assent, we started the ESG screening of our key suppliers. 26% have been completed, 25% have responded, 45% have not yet responded and 6% is in progress.	28



CIRCULAR INNOVATION





# **PEOPLE & COMMUNITIES**

To be able to provide unlimited play, we contribute to an inclusive and just treatment of our people and the communities around us. We are proud of the hard work that our almost 3000 employees deliver daily. In 2022 alone, more than 1,200 people joined our company, creating the need to step up our HR activities. This chapter highlights our activities in 2022 to maintain a thriving workforce and community.



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In prioritizing our people and communities, we aim to build a future where social responsibility and business success go hand in hand.

- Kirsten Laurentzen-Kupper Group HR Director





### Engagement

Employee engagement is a key priority for TenCate: it is a way for us to support our employees. In 2022, we prepared the ground to identify these needs. We identified priorities and prepared an employee engagement survey. Our employee engagement survey will lay the basis for our global HR policy. Topics that we have identified to feature in our survey are health and safety, engagement, leadership, diversity and inclusion, and feedback. In addition, we updated our which guides the behavior of all employees, creating a cornerstone for our global HR policy.

### **Diversity & Inclusion**

To achieve a workplace where creativity and engagement are high, we seek to build a diverse and inclusive workforce. As we are a global company that is active on three continents and serves customers in more than 60 countries, diversity is a major strength for our organization. Our team consists of people with a wide variety of educational, cultural, and religious backgrounds. We strongly believe this enriches the experience of working at TenCate. In 2022, we identified the need to integrate this into our Global HR Recruitment Policy, which is what we aim to do in 2023.

### Health & Safety

Our products are manufactured and installed by our own people and by our partners. Although we do everything to prevent them, accidents can happen and it is our duty to make sure all safety measures are in place to prevent harm. In 2022, we significantly reduced the number of injuries amongst our direct employees as a result of work-related activities. We focus on providing continuous training on health and safety issues for our employees, conducting regular workplace inspections and carefully selecting the subcontractors we work with. In 2022, our people were trained in safety (refresher), 5S (refresher on a productive work environment: Sort, Set in order, Shine, Standardize, Sustain), fire safety, chemical handling, first aid CPR and AED, height safety, BT lifter training, and VCA safety certificate. In 2023, we continue to prioritize health and safety for our people, strengthen the systems for managing occupational health and safety to reduce the number of injuries and occupational diseases, and further strengthen a culture of prevention.

### Communities

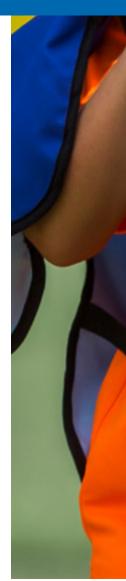
It is well established that physical activity is crucial for promoting good health, both physically and mentally. The consequences of increased physical inactivity are evident, as more than a quarter of the world's adult population are insufficiently active, and global levels have shown no improvement since 2001. With synthetic turf pitches offering ample opportunities for physical activity, we aim to provide sports and play for people of all ages and abilities. Sports not only boost self-confidence and foster friendships but also contribute to the wellbeing, inclusiveness, and accessibility of communities. Partnering with the Cruyff Foundation for nearly two decades, TenCate is dedicated to making sports accessible to all, especially those who require additional support. Through the installation of fields worldwide, including

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Johan Cruijff believed in the endless power of sport and its influence on all children. The majority of children and young people worldwide do not have the opportunity to play sports, and unfortunately that number is increasing. Sports and games make you fitter, give self-confidence, teach how to interact with each other and help with personal development. This has been the basis of the Cruyff Foundation for 25 years. We are proud of our partnership with TenCate and remain committed to Johan Cruijff's vision by sharing about the influence of sports on health and friendship and providing sports and play for everyone.

- Niels Meijer, Director of Cruyff Foundation

goals, fencing, and lighting, the Cruyff Foundation has provided spaces for over 200,000 children to participate in sports activities weekly, benefitting more than 7,000 children who actively use the Cruyff Courts daily. In the face of global inactivity challenges, our collaboration with the Cruyff Foundation has a meaningful impact on promoting physical activity, supporting community well-being, and enhancing the quality of life for countless children worldwide.





# **AWARD-WINNING MANAGEMENT APPROACH OF OUR MANUFACTURING FACILITY IN DUBAI**

Our manufacturing facility in Dubai has a very diverse labor force with more than 350 employees from multiple countries, cultures, and religions. A unique aspect is that all manufacturing employees live at the dedicated TenCate accommodation. How does TenCate management deal with this responsibility?

### **Basic needs and beyond**

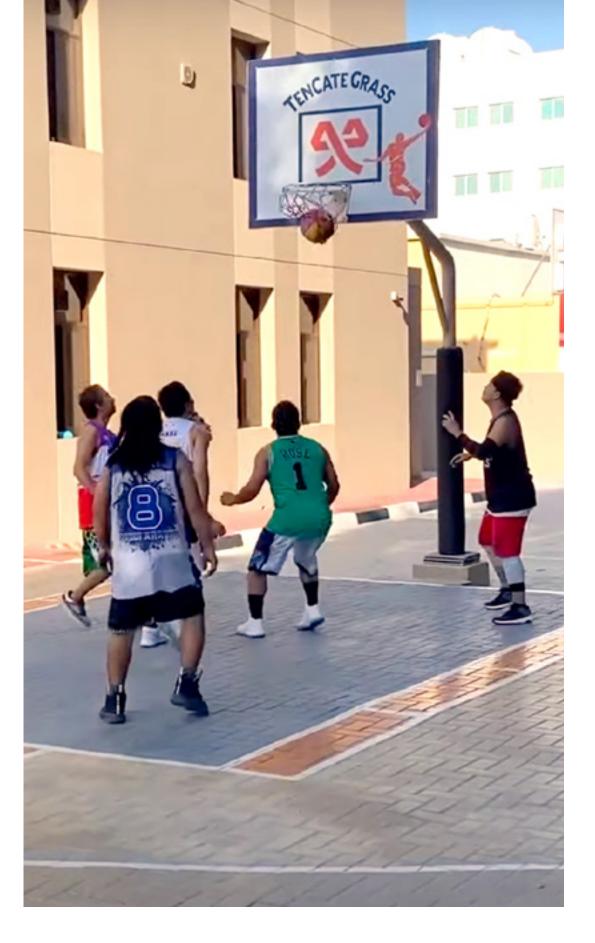
Jim McFarlane, managing director of our manufacturing facility in Dubai: "My employees are not going home to their families after their shift: they live in the TenCate accommodation for the largest part of the year. Beside housing, meals, health care and exercise, we are also responsible for education and development, helping each individual to become the best version of themselves." All our employees in the Middle East are migrant employees who leave their families to come and work for us. As a company, we respect this sacrifice and support them by providing living accommodations that are safe, clean, private and with enough opportunities and facilities to stay healthy and enjoy their free time.

### **External recognition**

In December 2022, the team in Dubai received the 4-star Tagdeer Award for their clear vision on managing the People aspect of our organization. The award is a recognition for the exceptional labor welfare programs, working environments and employees who have made significant contributions in worker welfare and productivity.

More specifically, this program gives employees more support services and ensures they have a voice. Our manufacturing facility in Dubai is one of very few workplaces that have opened a medical facility that is licensed and professionally staffed at location. The employees have also been given more opportunities to participate in factory management. Every employee has access to the TenCate app that provides additional services and the possibility to communicate issues and concerns.

The Taqdeer Award plays a major role in raising awareness among employers and employees about labor market legislation, instilling high standards of worker well-being in the Emirates. Over 3,000 companies are now registered for the Taqdeer Award. This year, the ceremony honored 36 companies and 94 workers. Thanks to a full team effort, our manufacturing facility in Dubai was amongst these.





# CIRCULAR NNOVATION



# CIRCULAR INNOVATION

Our commitment to sustainability fuels our innovation. This commitment is embodied in our circular design philosophy, which underscores all our innovation endeavors. We develop sustainable, fully circular solutions and processes that encompass every stage, from raw material sourcing, design, and installation to the product's end-of-life. In pursuing this, our goal is to address societal issues, provide boundless entertainment and wellness benefits, and assist in the transformation of sports enthusiasts into champions.

### A circular portfolio with sustainable solutions

We are continuously improving synthetic turf systems in terms of playability, durability, and sustainability. Every day, our Center for Turf Innovation supports and inspires our local companies around the world and partners in designing future-proof synthetic surfaces. Our approach to innovation is unique in the market: we are vertically structured. Because of this, we have a wide range of expertise in all aspects of our value chain, making it possible to rapidly respond to, and innovate on, the trends and challenges we see in the market and in the world around us. Our circular solutions should never compromise on quality, safety of players or environmental credentials.





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*With our unique vertical integration, we interact* with people in every phase of the value chain, providing us with insights that help us design recyclable solutions.

- Colin Young, Group R&D Director



### **One-DNA versus traditional artificial grass**

All our innovations are driven by our circular design philosophy. One-DNA artificial grass consists of only one single polymer material. That allows it to be repeatedly recycled into new high-quality products, such as new artificial grass, without sacrificing on quality or performance.

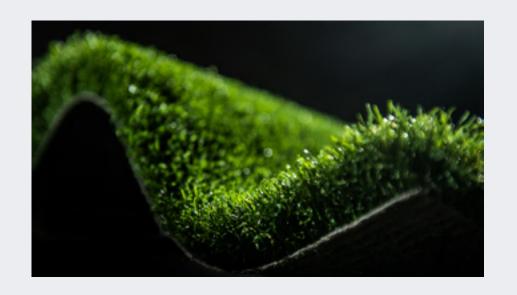


Significantly less energy required in production.

2 materials. Difficult to recycle. Often downcycling.

Less raw materials. Recycling difficult due to multiple materials.

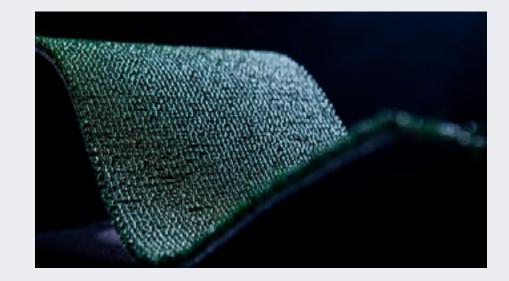
Several raw materials, high carbon footprint, only downcycling possible.



# Non-infill product for football and soccer

Providing a solution for football and soccer without the need for infill while retaining the required performance characteristics has been a big challenge. Recent restrictions and impending bans on the use of polymeric infill materials have accelerated the need for alternative solutions. Our recent breakthroughs have enabled the development of true non-filled solutions meeting players' highest expectations. With these new solutions, we are getting closer to the perfect grass field. The new non-filled products have been extensively tested with elite players and designed to replicate the best quality natural grass. Feedback from players has been exceptional with many stating the turf feels like real grass.

Removing polymeric infill is critical to reduce the impacts of the turf on the environment especially from a microplastic pollution perspective. Testing also indicates that the surface will have extended lifespan, further improving the environmental credits of these products.



# Field hockey on artificial turf without water

Currently, elite field hockey is played on turf fields that are irrigated before use with large quantities of water. The use of water on turf is considered excessive, but the playability and functionality is unrivalled and loved by players.

After many years of research focusing on player-led insights, including biomechanical measurements and extensive feedback on preferences and opinions, TenCate managed to develop dry (non-irrigated) artificial turf technology. The first in the world! The new systems design and fiber composition retains many of the advantages of irrigated fields without the need for water and is already approved by the sports federation FIH for its new Non-irrigated Innovation Standards. In 2023, the new system will be launched into a full-sized hockey field under the GreenField brand Pure EP.

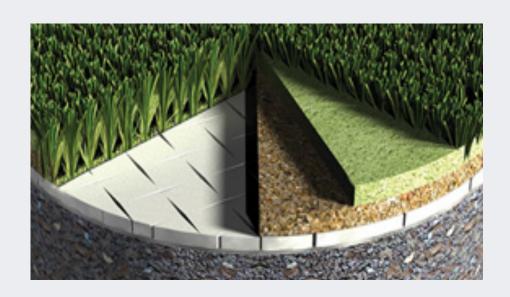


# Our first fully circular product with ONE-DNA<sup>™</sup>: LimeGreen®

Generally, artificial grass systems are made from various raw materials, PE (yarns), PP (backing) and PU (coating). The result? High energy impact in production and difficulties in recycling. Our partner LimeGreen® has launched a new product with our ONE-DNA<sup>™</sup> formula: a circular artificial grass solution that consists of only one single polymer. LimeGreen® generates a lower CO<sub>2</sub> footprint during production and maximizes end-of-life recyclability.

This circular process has been audited and validated by SGS laboratories. Extensive research over many years has been undertaken to ensure the quality and longevity of this new development.

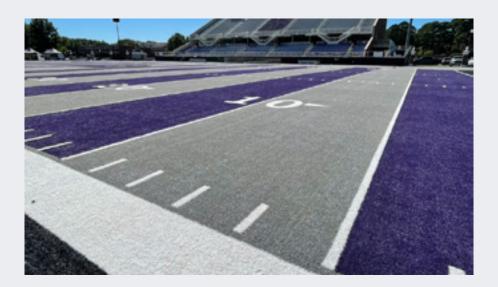
Read more at the



## A base layer made from recycled artificial grass and rubber: Ecocept®

TenCate Ecocept® Performance Sports Base is an innovative new type elastic pad layer for a range of different sporting applications, such as field hockey, football, soccer, and rugby. It combines the stability of a rigid engineered layer and shock attenuating layer into a single product.

The base acts as a combined structural layer and shock pad to ensure a stable surface whilst also reducing the loads experienced by players. In addition, it requires less construction efforts, resulting in costs savings and less CO<sub>2</sub> emissions. It is made from 90% recycled materials, including recycled synthetic pitches. Between 6 to 10 fullsized old turf fields are used to create an Ecocept® performance sports base, significantly reducing the end-of-life waste issue. After a life span of 10 years, the synthetic turf can now be recycled into a base for a new artificial grass pitch.

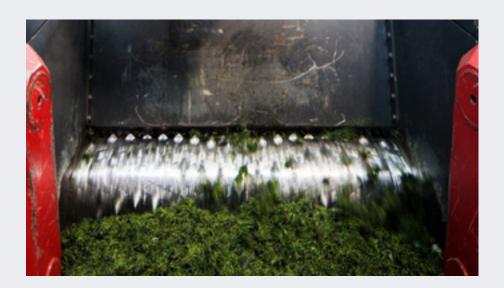


## Keeping surface temperatures cool with superior quality: GeoCool™

GeoCool<sup>™</sup> as an innovative infill alternative that actively addresses surface temperatures through slow evaporative cooling while enhancing athletic performance. This effect is commonly observed in urban areas that experience significantly higher temperatures than their surrounding rural regions due to human activities and land surface modifications. GeoCool<sup>™</sup> can replace SBR rubber granules and silica sand infills, while eliminating problems associated with other organic alternatives—decay, flotation, dust, migration (due to wind, rainfall, and foot traffic) and the need for constant watering of the turf to maintain efficacy. After two hours of exposure to a heat source, turf infilled with GeoCool was measured to be 50°F (30°C) cooler than turf infilled with SBR granules.

In a partnership with TenCate, we started a recycling partnership to break down end-of-life turf into raw materials that can be used for other circular solutions. This enables us to create high-quality, high-performance products once again, showcasing the true potential of circularity in the turf market.

- Eric van Roekel, Managing Director GBN Group



### Recycling partnership with ExxonMobil and GBN

In September 2022, we announced a recycling partnership with ExxonMobil and Cyclyx in the US. This partnership makes us the first to offer a truly circular solution for end-of-life turf in the United States. With ExxonMobil's proprietary Exxtend technology, the end-of-life turf will be recycled into raw materials that have the same performance and quality as virgin raw materials. This means that using our end-of-life turf, new high-quality and high-performance products can be produced a second time.

In 2020, we set up a similar partnership in the Netherlands with GBN. In this partnership, endof-life turf is recycled and processed into new products, such as Ecocept®. To date, we have recycled almost 25 million square feet of turf in The Netherlands.

# FULLY CIRCULAR SHOCK PAD THAT ENHANCES ATHLETE SAFETY: THE WAVE PAD

In 2022, Hellas became part of TenCate. Hellas is the largest full-service sports facilities provider in the US, specializing in the installation of sports surfaces, sports lighting, and facility amenities. Together, we are committed to advancing innovation and adopting environmentally responsible manufacturing processes. With the launch of the Wave Pad in 2022, Hellas set a new standard for circular innovation. The Wave Pad is an innovative prefabricated pad that has been specially designed to enhance athlete safety.

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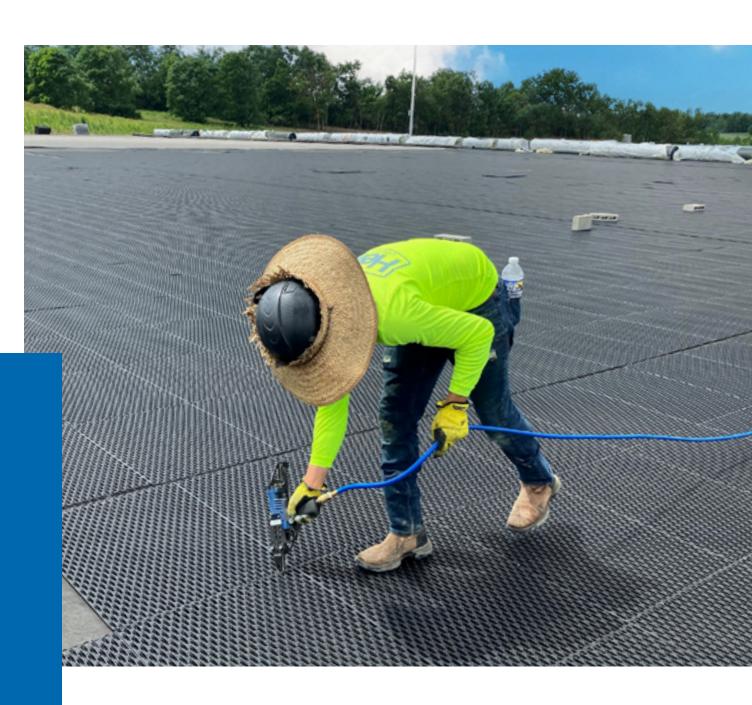
As the Head Coach of Waskom ISD, we found the Wave Pad to be an ideal match for our requirements. Designed intentionally with sustainability in mind, it has an impressive lifespan of 20 years. This durability enables us to reuse the Wave Pad when it's time to renew our artificial turf, leading to substantial cost savings and aligning perfectly with our commitment to sustainability.

- Greg Pearson, Head Coach of Waskom ISD

## Circularity and quality for athletes go hand in hand

Made from recycled polypropylene, the Wave Pad is a fully circular innovation that minimizes our impact on the environment. It has a 20-year lifespan, making it a durable and long-lasting solution for field owners. Moreover, the Wave Pad is designed to enhance athlete safety. With shock absorption and excellent drainage capabilities, the Wave Pad is ideal for use in highimpact sports. Once a Wave Pad has reached the end of its operational lifecycle, the product can be recycled into a new one. This cycle of production and regeneration is a conscious practice of the cradle-to-cradle concept. It showcases a commitment to responsible manufacturing and the wise stewardship of resources, wherein every end marks the beginning of a new lifecycle, thus creating a closed-loop system of production and usage. This approach ensures that the Wave Pads, while providing their intended function, also play a part in minimizing environmental impact and waste.

Safety • Temperature: reduces the heat island effect • Water savings • Logistics Wave Pad's sustainability benefits



### Practical case: the Wave Pad in action

The Wave Pad has been successfully installed at the Waskom Independent School District, introducing to them a solution for better drainage, a method to reduce injuries and protect athletes, and a sustainable option that is aligned with their eco-conscious values.

Edgar V. Cruz, Director of ESG at Hellas, explains how the Wave Pad successfully addressed all these needs. "Firstly, it was designed to be part of an integrated system that improves drainage, thereby helping to ensure a safe and playable field even under adverse weather conditions. Secondly, the Wave Pad was designed with a particular focus on reducing injuries and protecting athletes. Its innovative design helps to absorb the impact, reducing the risk of injuries related to falls or heavy impacts, making it an ideal choice for fields where various sports activities are conducted."

# RESPONSIBLE MANUFACTURING



# **RESPONSIBLE MANUFACTURING**

In our manufacturing process, we can mitigate our negative impacts and try to set an example for the industry. We are dedicated to regional manufacturing and maintaining a short supply chain, ensuring that our operations have minimal impact on the environment.

### Waste

Waste is a broadly based industrial problem, which may lead to a significant environmental impact if not dealt with appropriately. Decreasing our operational waste will increase our resource efficiency and therefore save costs. Our focus on yield improvement in our yarn manufacturing resulted in 17% less process waste generated. Our aim is to be Zero Waste to Landfill certified for our own manufacturing operations by the end of 2024. To get a Zero Waste to Landfill thirdparty certification, a waste diversion rate of 90% is required, through methods other than waste to energy by incineration.

To achieve this, we avoid single use components as much as possible. In 2022, our yarn manufacturing facilities have invested in plastic recycling capabilities, so that yarn waste can be transformed into raw materials to be used as feedstock for our manufacturing processes. We initiated efforts in waste reduction, and we are on track to reach our goals. As a significant milestone, we achieved official validation by Waste Management and UL Environment, a business unit of UL (Underwriters Laboratories), at our manufacturing facility in Dubai in 2023.

### Climate

We are determined to minimize our impact on the environment by taking concrete steps to reduce our GHG emissions. With our recent acquisitions, the scope of our environmental impact has changed significantly enough to require a new baseline measurement. Before we set reduction ambitions, we will reassess our baseline measurement using 2023 data and reset our emissions reduction targets in 2024.

Reducing the impact of carbon emissions also means improving our energy efficiency. That is why all TenCate companies are setting up initiatives to improve energy efficiency in their manufacturing facilities, such as investing in solar energy, more energy efficient equipment, relighting and switching to a 100% renewable energy supplier. In 2022, we achieved an energy reduction per kilogram of yarn produced of more than 3% in comparison to 2021. These achievements serve as added motivation to raise the bar again in the next year.

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Climate change poses significant risks to our planet and business. As the Group Finance and Risk Director at TenCate, I am committed to driving our responsible manufacturing practices to go beyond compliance; it's about actively taking steps that are cost effective and contribute to mitigating climate impacts. By optimizing resource usage, reducing waste, and embracing renewable energy sources, we can reduce our carbon footprint and play our part in preserving the environment for future generations.



- Johan Veenstra, Group Finance and Risk Director

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Supplier engagement stands at the core of our ESG commitments, fostering sustainable partnerships that drive positive impact across our operations.

- Xavier Amposta Llop Group Procurement Director

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The Zero Waste to Landfill certification from UL Solutions ensures that our manufacturing facilities adhere to the highest standards of waste management. With this certification, we validate our efforts in minimizing our environmental impact at TenCate Dubai.

- Nikoleta Konstantinidou, Group ESG Director

TENCATE THIOLON MIDDLE EAST LLC FACILITY HAS ACHIEVED ZERO WASTE TO LANDFILL GOLD, 96% DIVERSION ULCOM/ECV UL 2799A

VALIDATED

GOLD

### Supplier engagement

We see our suppliers as essential long-term partners. In 2022, we started engaging our key suppliers in collecting ESG data across our entire supply chain. With these data, we can optimize our supplier screening. On the topics of Environment, Social and Governance, we identified how we can further improve our sustainability and product compliance. Furthermore, we want to make sure we only engage with suppliers that, next to meeting our demands in terms of quality, also adhere to our company's values. Recently, we published our Suppliers Code of Conduct and updated our Terms & Conditions, which can be found on

### **Certifications for sustainability management and continuous improvement**

Across our manufacturing facilities, we believe that the documentation of correct procedures is key for continuous improvement. With the certification of management system standards by the International Organization for Standardization (ISO), our facilities will improve their operational performance, environmental management, and workplace safety. In addition, the International Sustainability and Carbon Certification (ISCC) Plus certification ensures our facilities align with the latest environmental sustainability requirements on recycled content of only polyethylene. Our manufacturing facilities in the Netherlands and Dubai have both been certified for ISCC Plus. In addition, the Zero Waste to Landfill certification from UL Solutions safeguards that our facilities handle waste in an environmentally responsible manner. We are proud to share that our manufacturing facility in Dubai has achieved the Gold Recognition level for the Zero Waste to Landfill certification in 2023, by achieving at least a 96% waste diversion rate. With these certifications, we can validate our approach for responsible manufacturing:

- ISO 9001:2015 Quality management system
- ISO 14001:2015 Environmental management system
- ISO 45001:2018 Occupational health and safety management system
- ISCC Plus
- Zero Waste to Landfill

# WASTE MANAGEMENT: TENCATE **DUBAI IS GOING FOR PLATINUM**

"Waste is inherent in every production process," says Johan Vercruyssen, HSE (Health, Safety and Environment) and Industrial Standards Manager at the Dubai manufacturing facility. "But we need to do everything in our power to make our environmental footprint as small as possible." The facility in Dubai scores high in terms of waste reduction in this area and recently got certified for Zero Waste to Landfill by UL Solutions. Below, we describe a few of our activities that highlight our efforts in this area.

### **Certification to showcase our efforts**

A Zero Waste to Landfill certification means exactly that: no waste ends up on landfill. It is a standard we have adhered to for quite some time. Our manufacturing facility in Dubai recently achieved the Gold Recognition level for the Zero Waste to Landfill certification.

### Waste management

"We currently re-use 96% of our waste," Johan continues. "The real art is to further minimize that last 4% through indepth analysis of the residual waste. Anything that then remains should, in principle, go to energy recovery. That is to say, to the incinerator." Waste processing in Dubai starts at the entrance to the facility, or even before that. "Take, for example, the delivery of raw materials," says Johan. "In Dubai, we get the raw material delivered on wooden pallets, sealed in plastic sacks. So, we have pallets and packaging plastic

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We currently re-use 96% of our waste. Through an online *learning management system, we engage our staff in learning* about all types and locations of waste that can be separated, making our staff crucial to our success in these results.

- Johan Vercruyssen, HSE & Industrial Standars Manager

as waste material. The pallets account for 500 tons of woo annually. We recycle 100% of them into new pallets on whi we deliver our end products to our customers." Most wast naturally comes from manufacturing and we partly proces that waste in our in-house recycling machine. We call any waste we can re-use ourselves 'premium waste'. If the quality does not adhere to our standards, but is still usable, we work with external partners who turn it into new products.

### **Employee engagement**

Besides the policy, recycling requires the right mindset and the right behavior. Staff is crucial to the process, and we have more than 350 employees. Based on the Keep It Simple (KIS) principle, we made a waste map. It is a ground plan with points showing staff the types and locations of the waste that can be separated. Another tool is our online learning management system. All our operators can participate in approximately one hundred modules, through an app. Anyone who completes a module receives a certificate or an incentive - a ticket to a movie theater, for example. "We also keep our staff up to date with what happens with our waste," Johan says. "We share photos and videos of the treatment process and of the new products ultimately made from the waste. That's crucial for the understanding and engagement from our people."



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### Zero Waste to Landfill Environmental Claim Validation

UL 2799A, the Standard for Environmental Claim Validation Procedure (ECVP) for Zero Waste Classification requires each facility of an organization to prove at least 90% diversion through methods other than waste to energy to achieve Zero Waste to Landfill (ZWTL) designations (Silver, Gold, Platinum).

- **Platinum:** The highest designation; this claim is validated by UL Solutions when a facility can prove that it consistently achieves a landfill waste diversion rate of 100%.
- **Gold:** This designation is reserved for facilities that have achieved a landfill diversion rate of 95% to 99% or greater.
- **Silver:** This claim is validated if a facility achieves a landfill diversion rate of 90% to 94%.

Read more at the

# COLOPHON

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