

# Sustainability Report 2022



# Table of contents

<b>CEO statement</b> .....	3	<b>Environmental responsibility</b> .....	35	<b>Appendix</b> .....	62
<b>Readers' guide</b> .....	4	Raw materials and sourcing .....	37	About the Sustainability Report .....	62
<b>Highlights 2022</b> .....	5	Sustainable product development and innovation .....	40	GRI content index.....	63
<b>Trioworld in brief</b> .....	6	Emissions and energy .....	43	Definitions.....	69
<b>This is Trioworld</b> .....	7	Recyclability and design for recycling .....	46	Sustainability risk analysis .....	72
<b>Re-thinking plastic</b> .....	15	<b>Social responsibility</b> .....	49	Trioworld stakeholder analysis .....	74
<b>Putting sustainability into action</b> .....	17	Responsible and attractive employer .....	51	UN SDGs alignment.....	76
<b>Managing sustainability</b> .....	21	Occupational health and safety.....	52	GRI appendix .....	78
Corporate sustainability.....	23	Diversity, equality, and non-discrimination..	56		
Trioworld's Code of Conduct.....	24	Employee development and satisfaction.....	58		
Systems for compliance .....	27	Societal engagement .....	60		
Standards and certifications.....	28				
External initiatives and memberships .....	32				



## CEO STATEMENT

# “Come rain or shine – circularity is our guiding principle”

**The year 2022 was a year of continued turbulence in our markets, propelled by war in Ukraine, electricity scarcity and price inflation along with continued constraints in our supply chain. It could be seen as a barrier for the forward-leaning ambitions of any company. Maybe so, but for Trioworld it proved to be a perfect year to quadruple our sustainability investments and continue providing leading circular solutions to our customers.**

Although the first half of 2022 echoed the last two years of trading, meaning strong growth and expanding volumes, the effect of the global economic slowdown started showing in the latter part of the year. A decline that motivated us to further strengthen our operational excellence and sharpen our offering in various markets, driven by our customers' elevated focus on the cost of running their operations.

Demand for circular solutions continued to be strong. Decarbonisation remained on top of the global agenda for most brand owners as well as for world leaders, resulting in several new developments in the sustainability area. One example is the reformed Packaging and Packaging Waste Regulation (PPWR) scheduled to be rolled out in the coming years. We also notice that many of our customers are beginning to strengthen their commitment to reducing greenhouse gas emissions.

During the year we continued to accelerate our journey into circularity despite the challenges in the marketplace. 2022 was defined by our continued, relentless pursuit of circular solutions with record high investments in our recycling capabilities.

A couple of examples: the ongoing investment project at Trioworld Reviva<sup>1</sup>, outside Vetlanda, Sweden, continues to be one of the largest investments in recycling of industrial

plastics in Northern Europe (in this case agricultural stretch film and other industrial films). Reconstruction of the existing site of 6 000 tonnes to a 24,000 tonnes high performance recycling site, started in autumn 2022, is planned to be finalized in Q1 2024. In Trioworld Ombree d'Anjou in Pouance, France, another investment project of additional 12,000 tonnes high performance recycling capacity is in the making in the addition to our existing recycling capacity, with a targeted commission date in Q2, 2024. In combination, these two investments amount to more than 50 MEUR and signal our ambition to be the leader of circular solutions in our industry.

Nevertheless, development of sustainable solutions is more than just the investment in hardware. It is building a team that actively pushes the boundaries of what is possible, changing the use of plastics for the better. These committed colleagues of Trioworld lead the industry with their expertise and thought leadership and have once again shown what is foremost in all our innovation work - the use of recycled plastics.

A number of ground-breaking, innovative and market leading circular products have seen the light of day in 2022, supporting our ambition to transform our portfolio into a circular one as fast as possible. Sometimes this means making circular solutions available before our customers even know they need them.

Following the acquisition of recycling company Reviva Plastics in 2021, the development of advanced agricultural products with a high content of Post-Consumer Recyclates (PCR) has been particularly successful. By integrating the recycling of ensilage film from the agricultural sector into our own value chain, we have created a local loop where we collect,

process, and produce new ensilage film from old ones – turning waste into reusable resources. In fact, from 2023 the agricultural silage film containing 30% PCR, produced in our site in Smålandsstenar, Sweden, is sold as the standard product to Nordic farmers.

Another noteworthy example is the launch of a high-performance stretch film with 30% PCR content in the beginning of 2023, the Katan-Ex Loop30. PCR use in stretch film has been a reality in Trioworld for more than three years, but 2022 was the first year where we succeeded to innovate a commercially viable PCR stretch film produced with so called 'cast' technology. For many years seen as an impossible task, our extensive work resulted in a market leading product combining the market's best and consistent performance with a lower carbon footprint.

The above examples – a few out of many - underline the ambition for every one of us working at Trioworld – the dedication to integrating sustainability in everything we do – from innovation to manufacturing, being the reliable partner for our customers and stakeholders.

Looking back at 2022, I'm proud of our dedication to circularity, and the recognition it gets from our customers, industry colleagues and other stakeholders. Our outspoken ambition to responsibly lead our industry into circularity has once again been proven true, and I'm looking forward to the next steps on the journey.



Andreas Malmberg,  
CEO, Trioworld Group



<sup>1</sup>This investment is co-funded by the Swedish Environmental Protection Agency through Klimatklivet and the European union – NextGenerationEU

# Readers' guide

The Trioworld Sustainability Report aims to deliver clear understanding of our sustainability commitments, ambitions, actions, and progress. Similar to previous years, we are publishing our Sustainability Report separately from our Group Annual Report. In the first section, we introduce Trioworld and provide an overview of some of the important sustainability initiatives and achievements from 2022. After describing Trioworld's sustainability strategy and ambition, we report our progress in three focus areas – Managing sustainability, Environmental responsibility, and Social responsibility. The final section presents an overview of our Key Performance Indicators (KPIs), according to the requirements of the Global Reporting Initiative Universal Standards (GRI US).

## Statement on report content and topic boundaries

This report refers to Trioworld Industrier AB and its subsidiaries, as well as the group parent company Trioworld Holding AB, owned by Altor Fund IV. More information on the legal structure of the Trioworld Group is described in the Group Annual Report of Trioworld Holding AB, accessible via [bolagsverket.se](https://www.bolagsverket.se).

During 2022, Trioworld acquired Eurofilms Extrusion Ltd and Quality Films Ltd in the United Kingdom, both of which are combined under Trioworld UK Ltd from 2023. In addition, Trioworld acquired Malpack Ltd in Canada during 2023. As these companies have not been part of Trioworld for a full reporting year of 2022, data and results presented in this report exclude these three companies, unless explicitly mentioned.

## Statement on statutory sustainability reporting

This Sustainability Report fulfils the mandatory requirements of the Swedish Law on Sustainability Reporting (ÅRL ch.6 §12). A separate short version of this report has been submitted to the Swedish authorities within the Group Annual Report, in accordance with the law.

## Statement on Communication on Progress (CoP)

Organisations that have endorsed the United Nations Global Compact (UNGC) are required to complete the online CoP questionnaire from 2023, instead of producing an annual CoP report. Trioworld will follow the UNGC requirement and answers will be situated on the [UNGC official website](https://www.unglobalcompact.org/) after the submission date (latest June 30th).

## Statement on GRI

Trioworld has reported in accordance with the GRI Standards for the period from 1 January 2022 to 31 December 2022. The reported information, including the organisation's material topics, in this Sustainability Report has been reviewed and approved by representatives of the Group Management Team (GMT).



# Highlights 2022



JANUARY

**Production sites in Sweden and the Netherlands switch to 100% renewable electricity,** supporting our reduction target for Scope 1&2 emissions of CO<sub>2</sub>-eq. per kg film produced.  
[Read more on page 44](#)



JUNE

**Launch of Trioworld Stretch Film Blown Loop30 with 30% PCR.** A top-notch high-performance stretch film now a valuable addition to our sustainable solutions portfolio.  
[Read more on our website](#)



**Trioworld kicks off plan to increase in-house PCR production capacity** from external waste through backward integration.  
[Read more on page 47](#)



SEPTEMBER

**Acquisition of Quality Films Ltd,** a strong player in high-performance stretch film solutions for load security in the United Kingdom.  
[Read more on page 14](#)



NOVEMBER

**Trioworld achieves EcoVadis Platinum sustainability rating** for the second consecutive year.  
[Read more on page 31](#)



MARCH

**Acquisition of Eurofilms Extrusion Ltd,** a leading innovative high-performance stretch film manufacturer in the United Kingdom.  
[Read more on page 14](#)



MAY

**Trioworld, together with Lidl Sweden, launch the first Post-Consumer Recyclates (PCR) plastic film approved for frozen food packaging,** Trioworld Food Loop30.  
[Read more on our website](#)



AUGUST

**Trioworld commits to set science-based emission reduction targets** aligned with the Science Based Targets initiative (SBTi).  
[Read more on page 45](#)



**Trioworld and major Nordic agricultural cooperatives take a unique step to reduce bale wrap climate impact,** by replacing products made of virgin material with products containing a percentage PCR.  
[Read more on our website](#)



OCTOBER

**Trioworld is awarded the Packnorth Award 2022** for "Recycled Flexible Food Packaging" with Trioworld Food Loop30 - the first PCR plastic film approved for frozen food packaging!  
[Read more on our website](#)



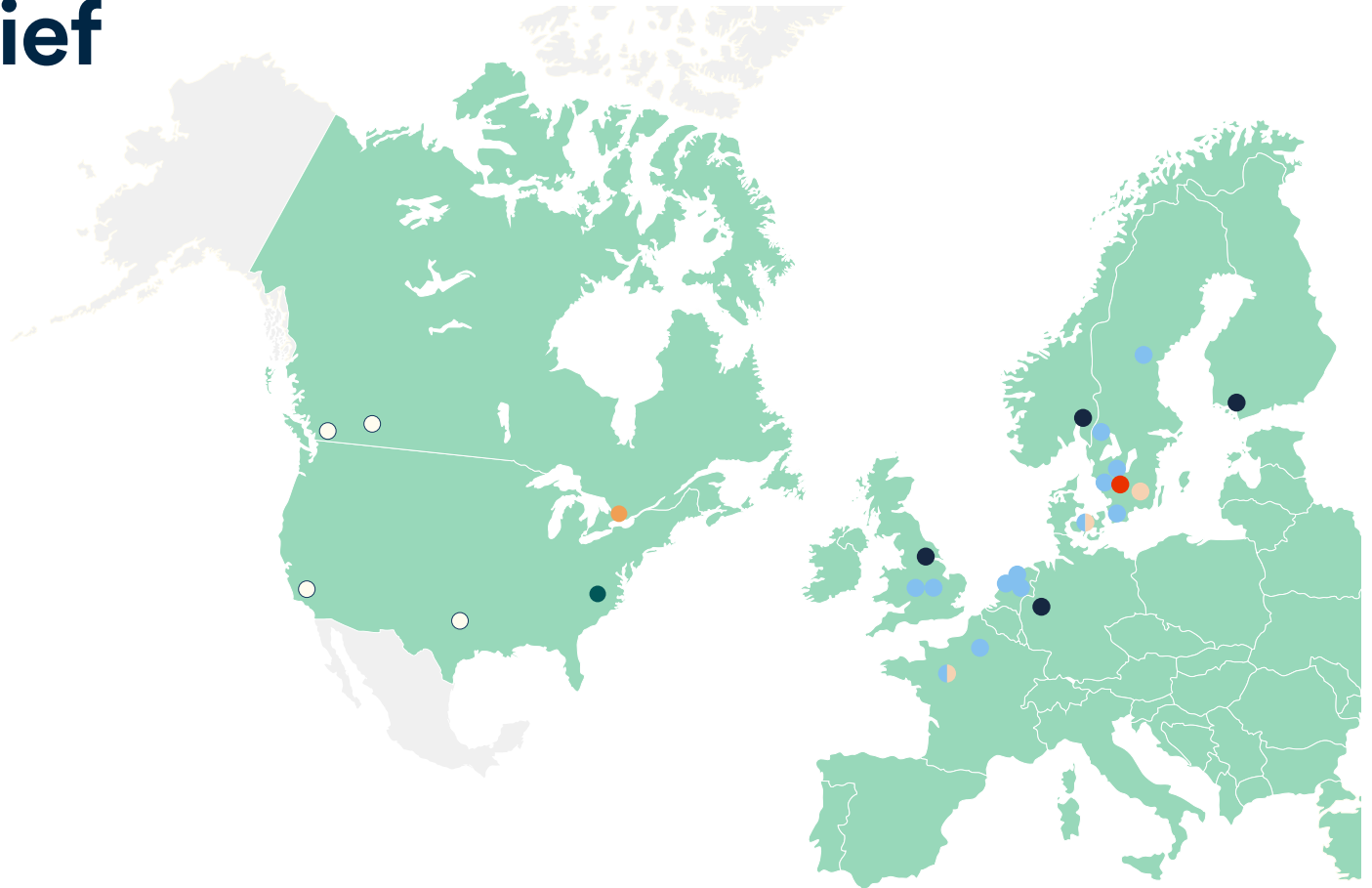
# Trioworld in brief

**Trioworld is a leading producer of packaging solutions based on polyethylene (PE) and polypropylene (PP) film, founded 1965 in Smålandsstenar (head office), Sweden. We offer various alternatives with a lower climate impact than traditional PE/PP solutions, such as products with recycled content, film that is thinner and thus contains less material, or film with bio-based content, without compromising the high-performance requirements of our products and solutions.**

Trioworld has production sites and sales offices in Sweden, Denmark, France, the Netherlands, the United Kingdom and, since 2023, also in Canada. In addition, we operate recycling sites for external waste in Sweden, Denmark, and France. We also have sales offices in Norway, Finland, Germany, and the United States.

In 2022, two new companies were acquired that now fall under one entity: Trioworld UK Ltd (previously Eurofilms Extrusion Ltd and Quality Films Ltd) in the United Kingdom. In the beginning of 2023, Trioworld continued its expansion by acquiring Malpack Ltd in Canada, establishing a North America division<sup>1</sup>.

Trioworld sold 258 000 tonnes of film to customers in 2022. Largest customer markets were Scandinavia with 32%, the Netherlands with 13%, and Germany with 13%. Our largest service locations are in Scandinavia with 52%, the Netherlands with 29%, and France with 11%.



- Group head office / Production site / Sales office
- Production site / Sales office
- North America Head office  
Production site / Distribution centre
- Training centre / Distribution centre
- Recycling site
- Sales office
- Distribution centre

<sup>1</sup>In 2023, a new division was established after the acquisition of Canadian-based Malpack Ltd forming the North America division.

<sup>2</sup>Turnover for Trioworld Group, including Trioworld UK Ltd, excluding Malpack Ltd.

<sup>3</sup>Number of employees (head count) for Trioworld Group, including Trioworld UK Ltd, excluding Malpack Ltd.



# This is Trioworld

**At Trioworld, we are convinced that responsibly made plastic products are part of a sustainable society. As a producer of polyethylene (PE) and polypropylene (PP) film, Trioworld acknowledges its responsibility and aims to be the most sustainable business possible. In fact, we want to redefine what it means to be a responsible and sustainable buyer, supplier, innovator, partner, and employer in our industry.**

Trioworld works in accordance with our tagline “Re-thinking plastic”. It signals a forward-looking commitment to sustainable and circular leadership, it describes our way of challenging the traditional way of producing plastic films, and at the same time it promotes and honours the innovative spirit on which the company is built. More details on how “Re-thinking plastic” supports Trioworld’s sustainable development, can be read in the chapter *Re-thinking plastic*. Trioworld is committed to leading change and being the number one in sustainability in our industry. This is also reflected in our culture and core values – Responsible, Leading, Together.

## **Our vision**

*Driven by our customers’ present and future needs, we constantly strive to be the first choice in sustainable polyethylene and polypropylene film solutions.*

## **Our mission**

*We focus on our selected core markets with our core products. We are a natural part of our customers’ competitiveness. We offer sustainable premium products and solutions with the highest possible service level. We lead our industry’s journey into circular plastics.*



# Our core values

The core values of Trioworld guide us in our daily operations and are the foundation of our business strategy. They describe the company culture and how we act and interact with colleagues, customers, and partners.



## Responsible

- We lead our industry's journey into circular plastics – for the good of our customers, the industry, and the planet.
- We live up to our promises and are dedicated to getting things done.
- We take pride in supplying total solutions – premium sustainable products with unrivalled service and support.



## Leading

- In close cooperation with our customers, we are constantly innovating the industry's best packaging solutions based on circular plastics.
- We aim to use our strong position as a leader to make the world safer and healthier by acting courageously and boldly.
- We proactively develop innovative sustainable solutions, ahead of the needs of our customers and in anticipation of the market.
- We actively communicate and want to be seen as the authority and leader in the development of circular and recycled plastics.
- We motivate and inspire others to join us.



## Together

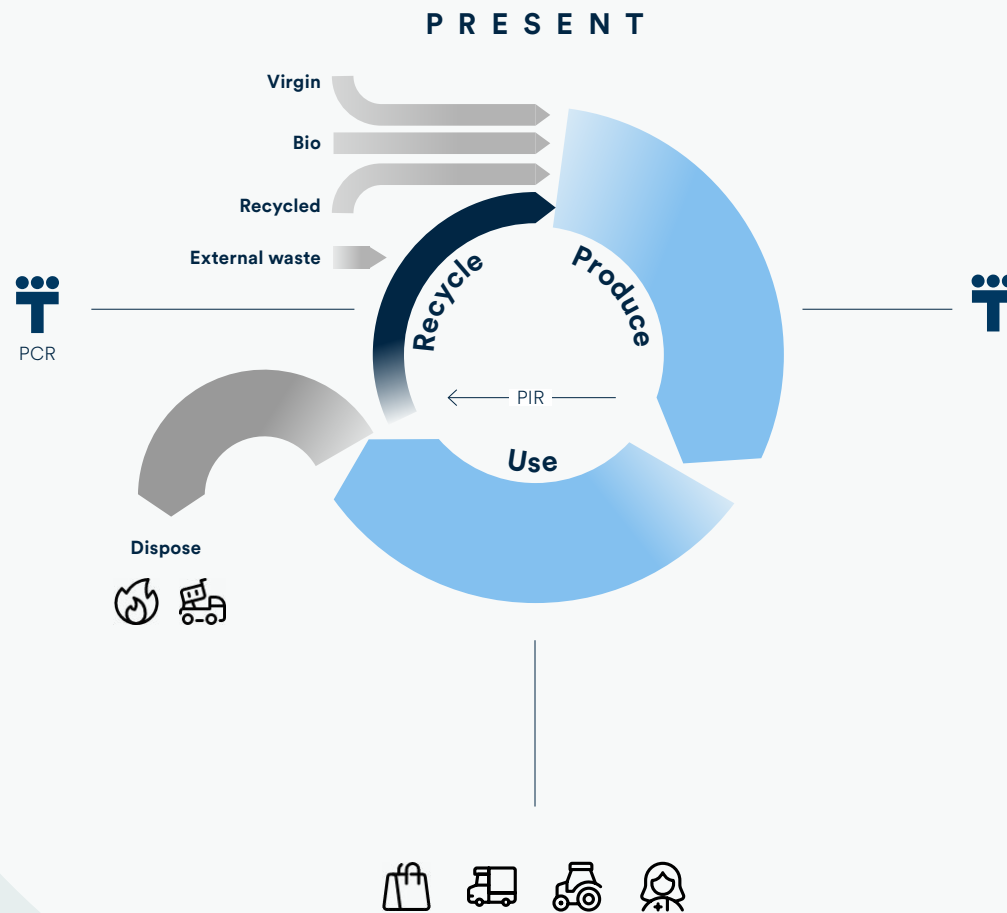
- We drive our customers' sustainable performance by working closely with them. Our innovation is always customer-driven.
- True circularity in plastics will only be achieved by working with all stakeholders in the value chain.
- We build sustainable and long-term relationships – preferably lifelong.
- We are an attractive employer that seeks to future proof our employees by maintaining and improving their skills.
- We connect with the world around us.





# Our value chain

Trioworld is one of the leading producers of PE and PP films in Europe. Below is a visual representation of Trioworld's value chain, from produce to customer use to recycle.



## Leading the way to sustainable solutions

Our purpose is clear - with a base in our superior products and exceptional service, we responsibly lead our industry into circularity together with our customers. We are committed to innovating and developing more sustainable solutions, by using recycled materials, reducing the thickness of our films, and enabling recycling of our products by investing in recycling capacity.

We offer innovative and sustainable high-performance polyethylene (PE) and polypropylene (PP) film solutions for consumer- and industrial packaging, transport packaging, agriculture, medical and hygiene, forestry, and the food industry. Together with our customers, we push the boundaries of what is possible by leading the development of circular plastics. All for the benefit of generations to come.

## Our products & solutions

### Consumer packaging

- Food packaging film
- Consumer goods packaging film

### Industrial packaging

- Industrial sacks and bags
- Heavy duty form-fill-seal
- Compression film
- Shrink film
- Timber cover film

### Pallet packaging

- Stretch film
- Stretch hoods
- Top & bottom sheets

### Bags & Sacks

- Bin bags
- Carrier bags
- Refuse sacks

### Agriculture and Horticulture film

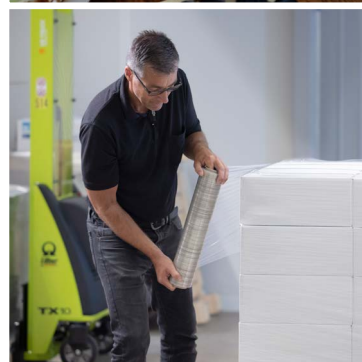
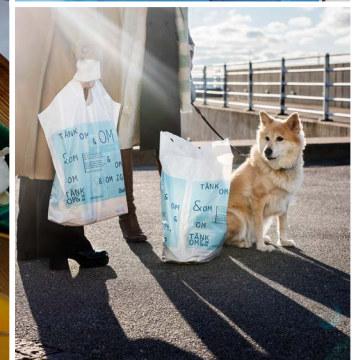
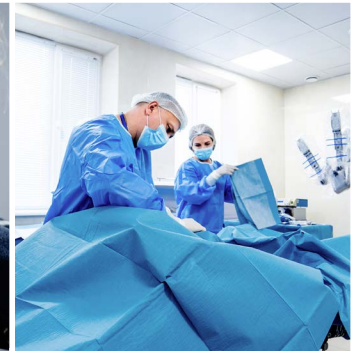
- Bale wrap
- Mantle film
- Silage sheet
- Horticulture film

### Medical & Hygiene Film

- Medical films
- Hygiene films
- Personal Protection Equipment

### Special application film

- Building and covering film
- Waste wrap film



# Our sustainable solutions

We continuously work to develop more sustainable alternatives for our portfolio. Our aim is to offer products and solutions with a lower carbon footprint.



Loop is our label for film that contains a minimum of 25% Post-Consumer Recyclates (PCR). By using PCR plastics, we reduce waste, lower the carbon footprint, close the material loop, and drive circularity in plastics.



Under the label Lean, Trioworld strives to reduce the amount of material used for an application, while still maintaining or even improving performance. Using less material contributes to a lower carbon footprint.



All of our products that contain a minimum of 25% bio-based polymer are labelled Bio and have a low carbon footprint. An alternative to biobased feedstock is mass-balanced ISCC PLUS compliant material, supporting sustainable feedstock.



## CASE STUDY

# Mobile testing to improve load stability

**Trioworld has taken the next step in helping customers improve pallet stability and safety by offering a new mobile load stability testing machine.**

“This solution helps us strike the right balance between reducing plastic around the pallet and ensuring load stability,” says Michael Ackermann, Trioworld’s Head of DACH Sales for Load Security Films.

“It will not only contribute to the safe transport of products; it can also help convince more customers to choose thinner films when appropriate and be more open to switching to stretch films with high PCR content.”

Securing a load with 17-micron rather than 20-micron film can reduce plastic use by more than ten percent.

The mobile load stability testing machine is used to show customers that a thinner film, or films with up to 30% PCR, still have an adequate holding force.

“It’s all about holding force - the force that plastic load security films produce when wrapped around a pallet,” says Michael Ackermann.

“Different qualities and thicknesses of films have different holding forces. And we need to make sure our customers have the right film for any given load.”

## A pilot project in Germany

That’s where Trioworld’s new mobile testing solution comes into play. The solution, currently being piloted at customer sites in central Germany, consists of a load stability testing machine mounted on a trailer that can easily be towed into a customer site.

“We like to say that we can come right into our customers’ living room where our capable sales engineers can then run a range of on-site load stability tests”, says Michael Ackermann.

Once inside, Trioworld sales engineers roll the testing machine off the trailer and right up alongside customers’ wrapping machines. A wrapped pallet is then placed on the machine which shakes back and forth and side to side to simulate the kinds of movements and forces that a pallet might experience under transport.

Using a high-speed camera and computer, it’s possible to record and analyse exactly how much a load moves and whether or not it complies with standards dictated by the European Safe Logistics Association (EUMOS).

“We can test different film thickness and wrapping techniques together with our customers,” he says.

“We can even give an official certificate that a pallet has been tested according to the EUMOS standards and fulfilled certain criteria for load security.”



While the mobile testing unit pilot project has only been underway for a few months, the initial response has been extremely positive, he adds. “The customers we’ve visited with the testing machine tell us they really appreciate it”, says Michael Ackermann.

## Added value

“It’s an added value for our customers on top of all we already do to ensure load stability. It also helps them make smarter choices to lower carbon footprint.”

Opting for thinner films or films with high amounts of recycled content means lower carbon emissions along the value chain while also ensuring pallets are secure and delivered safely at their destination.

Michael Ackermann hopes to test the new solution with more customers in the coming months. If all goes well, the mobile testing unit will be rolling into Trioworld customer sites across Europe by 2024.

“**It’s an added value for our customers on top of all we already do to ensure load stability. It also helps them make smarter choices to lower carbon footprint.**”

Michael Ackermann,  
Head of DACH Sales for Load Security Films at Trioworld



# Organisation

## Group Management Team

Trioworld’s Group Management Team (GMT) is responsible for the governance of the Trioworld group of companies. Division presidents are members of the GMT, together with the Chief Executive Officer (CEO), Chief Financial Officer (CFO), Human Resource Director, Vice President Business Development, and Chief Procurement Officer (CPO) & Vice President Sustainability. Trioworld’s Board of Directors serve as an advisory committee to GMT and oversee the execution of Trioworld’s overall business strategy and risk management, including sustainability strategies.

Trioworld is a decentralised organisation where each division has complete management functions with full Profit & Loss and balance sheet responsibility. Governance synergies identified across the divisions are captured and exploited through coordination work in councils, through which divisions are represented. Group functions coordinate activities for the Group and support the division with cross divisional processes, structures, and knowledge sharing.

The GMT is responsible for setting the Trioworld vision, mission, core values, strategy, targets, and any other common policies. Each division thereafter incorporates them in their operations and aligns them with other divisional and local policies.

## Our divisions

In 2022, Trioworld operated through the following divisions: Carrier bags division, Consumer packaging division, Health care division, Industrial film division, Stretch film division, and North America division. In 2023, a new division was established after the acquisition of Canadian-based Malpack Ltd forming the North America division.

### Carrier bags division

Carrier bags division, with its production site in Sweden, is a leading supplier of carrier bags and household bin bags to the Nordic market. The strong, sustainable, and climate-smart carrier bags and bin bags are primarily produced for retailers.

### Consumer packaging division

Consumer packaging division has production sites in Sweden and the Netherlands. The division delivers solutions to ensure that everyday products stay fresh and safe until unpacked; for example, frozen food, bread, and cheese packaging, as well as tissue packaging and bags for hygiene/packaging material.

### Health care film division

Health care film division has one production site in France. The division develops and produces films and laminates for baby diapers, incontinence diapers, surgical drapes, and packaging materials for hygienic purposes.

### Industrial film division

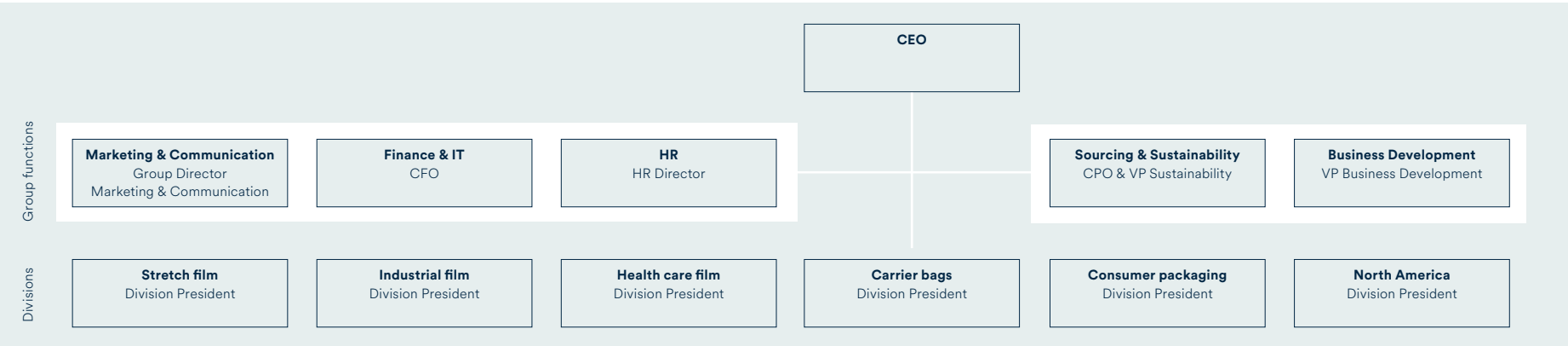
The Industrial film division, with production sites in Denmark and Sweden, supplies products, solutions, and support for applications in industrial manufacturing and processing, the forest industry, construction, and retailing of meat, fish, and other food products.

### Stretch film division

The Stretch film division supplies products, solutions, and support for applications in agriculture, transport packaging, construction, and refuse bags. Production sites are in Sweden, the Netherlands, the United Kingdom, and France.

### North America division

The North America division was established in Q1 2023, after the acquisition of the Canadian-based Malpack Ltd. Malpack Ltd is a leading supplier of solutions for high-performance stretch film in the transit packaging segment for the areas of distribution, beverage, food, consumer goods, e-commerce, and other industrial packaging. The division has its head office, production and conversion sites in Ajax, Ontario, Canada, supported by distribution centres across the US and Canada. The head office also hosts a load security and film optimisation lab that is complemented with a satellite training facility in Charlotte, North Carolina.





## CASE STUDY

# Taking our UK business to the next level

**During 2022, Trioworld acquired two UK-based stretch film manufacturers – Eurofilms Extrusion Ltd and Quality Films Ltd. Sonia Griffiths, who previously led Quality Films Ltd, was appointed Managing Director and on January 1<sup>st</sup> 2023, Trioworld UK Ltd was established with headquarters in Telford, UK manufacturing plants in Telford and Wolverhampton, and a workforce of 134 employees.**

“I am very excited to lead this next chapter of our journey and take our UK business to the next level,” says Sonia Griffiths.

“With the opportunity to build on the available expertise and best practice collaboration within the Group, plus Trioworld’s commitment to innovation, we are certain that this will create immense value for our customers and lead the way into high-quality circular packaging solutions for load security.”

### Supporting growth ambitions

With a focus on hand stretch film, Trioworld UK offers high-performance stretch film solutions for load security, distribution, beverage, food, and industrial packaging. The acquisition strengthens Trioworld’s UK position and supports further growth ambitions.

“We are committed to decarbonizing our industry, and the new organisation will play a vital role in delivering this aim. It develops and strengthens our position in leading our industry towards circularity. We see a great potential to further develop the offering of more sustainable, high-performance solutions for load stability in the UK,” says Andreas Malmberg, CEO of Trioworld Group.

“

**I am very excited to lead this next chapter of our journey and take our UK business to the next level.**

”

Sonia Griffiths,  
Managing Director at Trioworld UK Ltd



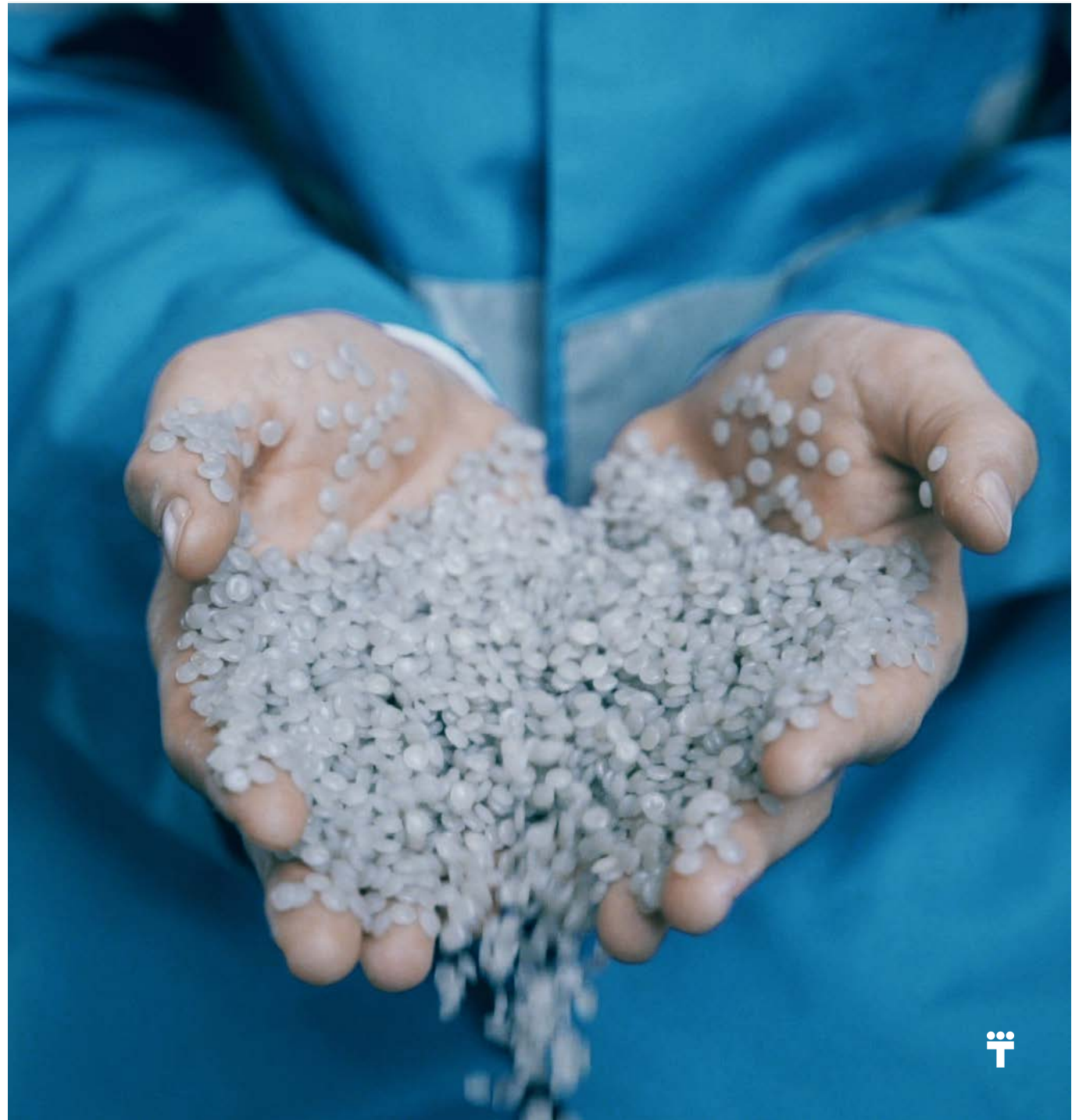
# Re-thinking plastic

Plastics is widely discussed in society, but a world without plastic is difficult to imagine. Its versatility makes it compatible with endless applications – from everyday utilities to technological innovations. At Trioworld, we are convinced that we are a part of a responsible production, use, and end-of-life solution for plastic films. Our tagline “Re-thinking plastic” describes our forward-looking commitment to leadership in sustainability and circularity. It describes our process of challenging the traditional way of producing plastic films, while supporting our customers in their sustainability transition, and at the same time taking into consideration on-going movement in the regulatory field.

## An EU Circular Economy Action Plan

It is estimated that as much as 86% of plastic waste in the European system is currently disposed of, exported, or mismanaged<sup>1</sup>. The European Union (EU) is working on a variety of significant initiatives and legislation to reduce the use of plastic and shift the union towards a circular economy. The European Green Deal, established in 2020, aims to make the EU climate neutral by 2050 and includes the “Circular Economy Action Plan”. It presents numerous actions and proposals regarding how the EU aims to change the way economic players, consumers, and civil society use, reuse, and recycle plastic.

<sup>1</sup>Source: [Systemiq - ReShaping Plastics](#)



## From linear to circular – the plastic industry in motion

Apart from legislative developments, the plastic industry itself is moving from linear to circular, developing new products and solutions that fit within a circular, sustainable plastics economy. Companies are innovating new, more sustainable products and solutions, introducing polymers from non-fossil sources and recycling plastic through reuse and recycling systems and sometimes changing their entire business model.

It all comes down to re-thinking plastics – how products are designed, used, collected, and recycled, again and again.

### Circular leadership

Being a leader means being at the forefront of development. It means being innovative and challenging the common way of doing things. It means looking at the world and its needs in a different way than others - re-thinking a product, solution, or an entire business model.

We aim to be number one in sustainability in our industry. We are committed to re-thinking plastic and to be a leader that actively drives our industry forward. We focus on the use of PCR with the target of using 30% PCR of total produced volume by 2025. We also aim to have a Loop alternative to offer our customers for 75% of our total volume of products and solutions by 2025 – meaning that the products contain 25% PCR or more.

To close the loop, we need the right systems, technology, legislation, and standards in place. Trioworld works actively in national and international fora and committees on technical standards. This is to ensure that the industry shift towards circularity happens as soon as possible and on the right terms where sustainable choices are rewarded.

Innovating and designing products and solutions to fit the circular economy is a top priority for Trioworld's product development team. Our innovation strategy is to have a Loop alternative in place before our customers request it, to lead and drive the change to more sustainable options. By delivering high-performing products with a lower

### Defining circularity

The core of a circular economy is to re-think the traditional, linear ways of production and consumption - "take-make-waste" - and aim to create a material loop where ultimately "waste" is eliminated altogether with a mindset to design, reduce, reuse, and recycle as much as possible.

The EU defines a circular economy as a system where "the value of products, materials and resources is maintained in the economy for as long as possible"<sup>1</sup>. This approach can lead to a drastic impact reduction on the environment and the climate. Many businesses within the plastic industry are on the move from a linear to a circular economy, utilising resources already circulating. By changing society's view on used plastic from "waste" to "valuable resource", new products, solutions and business models will appear, and new values will be created.



carbon footprint, we can lead our customers into circularity. Currently, we can offer a Loop alternative for 61% of our total product volume.

We work to continuously improve our entire portfolio by, for example, increasing the amount of PCR, or reducing the amount of material used for an application, while still maintaining and even improving the performance or the recyclability of a product. We also see an increasing demand for recycling, and in 2022 we kicked off plans to increase in-house PCR production capacity from external waste through backward integration, see also case study: *Taking the next steps in circularity for plastic*.

We share knowledge with players within the industry and other stakeholders as well as with customers, to educate them on issues in connection to design, use and recycling of plastic. Since 2021, we have also started to arrange open webinars

educating stakeholders in sustainability related issues connected to our products.

By improving the way plastic is utilised, we contribute to ensuring that waste is circulated repeatedly and becomes a valuable resource. We all need to work together to ensure that we can reduce, reuse, and recycle as much plastic as possible. Now is the time to re-think plastics.

<sup>1</sup> Source: [European Commission - A Circular Economy for Plastics](#)





# Putting sustainability into action

**By re-thinking plastics, Trioworld is leading the industry into circularity. It drives us to be at the forefront of development, conducting research and analysis that create the foundation for Trioworld's sustainability strategy.**

A central tool for our sustainability work is the materiality assessment, based on our stakeholder- and risk analyses. The materiality assessment helps us map and identify the most important focus areas within sustainability for our business.

## Stakeholder analysis

An initial stakeholder analysis was conducted in 2020. To gain understanding of which stakeholders are most relevant for Trioworld, we invited a selected group of participants, covering different aspects and interests of Trioworld, to a workshop to share their experience, knowledge and understanding about Trioworld's stakeholders.

To get a good overview of the ESG related expectations, needs and desires from our stakeholders, we performed interviews with owners, employees, trade unions, banks, customers, suppliers, research institutes, universities, business associations, standardisation bodies, authorities, and sustainability initiatives. The selected stakeholders represent a wide range of perspectives from the value chain. We have not deliberately made exclusions or limitations in our analysis. The significance of impacts has been assessed based on the perception of stakeholders' input. The result of the stakeholder analysis gave us an overview on what sustainability topics we must address.

Detailed information on our stakeholder analysis can be found in the appendix - *Trioworld stakeholder analysis*.



## Risk analysis

Trioworld's products have many positive impacts, when used and handled correctly; our stretch film and stretch hoods provide safety during transportation of goods, our agriculture film ensures the preservation of crops, our film for food application helps keep food fresh for a longer period, to mention a few. The negative impact of these materials is often debated in society, such as the type of fossil raw material used, what happens with the products after use (end-of-life), littering of material into nature. At Trioworld, we want to minimise these negative impacts by recycling our products and through the increased use of recycled material in our products.

Besides knowing the actual positive and negative impact of our products across the value chain, we conduct a sustainability risk analysis to understand potential negative impacts. The sustainability risk analysis evaluates potential

negative impacts according to significance, based on their possible impact and probability of occurrence across the value chain. The scope of the risk analysis includes both short-term and long-term impact.

In similar terms to 2021, the main sustainability risks to Trioworld's business and operations in 2022 were the health and safety of our employees, development in regulatory demands on environmental performance of our products, increase in prices and supply limitation of raw materials (virgin and recycled), as well as risks in connection to unethical business behaviour (internal and supply chain-related).

A full list of risks and our actions to manage these can be found in the appendix - *Trioworld sustainability risk analysis*.



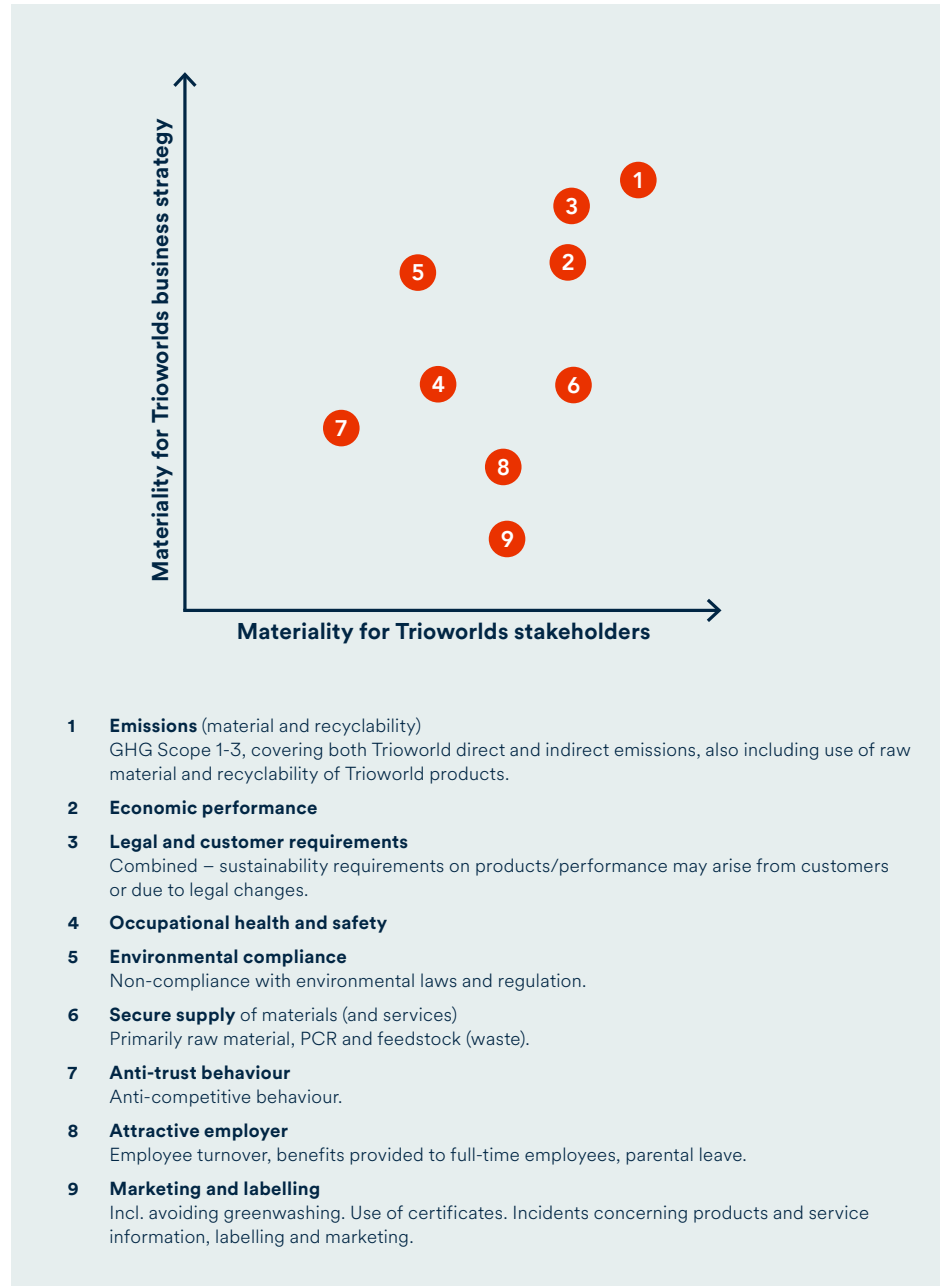
## Materiality assessment

The materiality assessment for Trioworld is performed by GMT, based on the stakeholder- and risk analyses, and divisional input. Trioworld's ambition has been to include all areas of our value chain when identifying impacts in our stakeholder- and risk analyses. Out of 41 identified relevant sustainability topics, nine were deemed material for our organisation and stakeholders. The materiality assessment forms the basis for our sustainability strategy from which we built our sustainability policies, see also *Corporate sustainability*. Within our policies, we outline the Group sustainability targets and their respective identified KPIs. Therefore, knowing what is most material for us and our stakeholders is what supports us in our sustainable strategy development.

These key material topics are reported in accordance with the GRI US requirements in this sustainability report. In the matrix on the right, our material topics are mapped out in accordance with the analysis performed by the GMT.

In 2021, a review of the three analyses, as conducted by representatives from GMT, led to an adjustment to the Trioworld sustainability strategy and targets. We saw an increased interest in circularity and focused our work towards use of PCR in our products: Group targets and KPIs were adapted accordingly. As raw material and product end-of-life are the main contributors to our scope 3 emissions, we will in addition to the target of increasing PCR content also focus even more on the recyclability of our products, and during 2023 we are planning to update Group targets and KPIs for this area too.

As we did not see major changes since 2021, the materiality, stakeholder, and risk analyses were not updated in 2022. Besides, in November 2022, the EU parliament approved a proposal for the Corporate Sustainability Reporting Directive (CSRD), with new requirements for these analyses. Trioworld has decided to perform a materiality, stakeholder, and risk analysis in accordance with the CSRD requirements from 2023 onwards. Therefore, no changes were made to the list of material topics, compared to the previous reporting period (2021).



# Trioworld's sustainability strategy

Sustainability is an integral part of everything we do at Trioworld. We strive to be our customers' first choice in sustainable film solutions and see sustainability as a major building block in maximising value for Trioworld, our stakeholders, people, and the planet. Trioworld aims to be number one in sustainability in our industry, and we work with three main strategic areas to make sure we get there.



Apart from being the industry leader, we will also ensure compliance with laws and regulations and deliver on the expectations set by stakeholders around us. This includes both Trioworld and its suppliers. Trioworld engages in several national and international sustainability and standardisation organisations supporting our journey. The frameworks and guidelines set by these organisations give guidance and add transparency to the sustainability work that Trioworld, and other companies, carry out. Additionally, these are essential platforms for gathering information and sharing knowledge, see also *External initiatives and memberships*.



Trioworld's sustainability strategy has been translated into four Group sustainability policies through which we manage our sustainability work, see also *Corporate sustainability*. In the policies, Trioworld sets clear KPIs and targets, cascades them down to all divisions and works with third party standardisations and certificates as part of reaching our goals. Since 2017, Trioworld has been committed to and aligned with the ten Principles of Sustainable Business set forth by the United Nations Global Compact (UNGC). Trioworld's ambition and efforts support the United Nations 2030 Agenda for Sustainable Development, see also *Appendix - Trioworld's UN SDG alignment*.

Trioworld strives to be clear and honest in its communications, not to make false claims about sustainability or of products and services. This will help us build a trusted brand with a platform to speak on sustainability in our industry.



## Group sustainability KPIs, targets and data-driven reporting

With the clear ambition to be number one in sustainability within our industry, the need to drive sustainable development is greater than ever. In our work, we have established eight main sustainability Key Performance Indicators (KPIs) that are ambitious but realistic.

Besides these eight main sustainability KPIs, we have several targets, indicators, and actions outlined in our sustainability policies that help drive our ambition. We follow-up on our KPIs and targets through monthly, quarterly, and annual reporting in our online, data-driven reporting system: Position Green. Progress towards our KPIs is communicated monthly to the Group Management Team (GMT).

The following chapters, Managing sustainability, Environmental responsibility, and Social responsibility describe the actions we take across the divisions that support our policies, and results achieved in 2022.

Targets were set in 2020. Results and progress on these targets are available via the 'At a glance' pages within the respective sustainability chapters: *Managing sustainability 'At a glance', Environmental responsibility 'At a glance', Social responsibility 'At a glance'*

			2021	2022	2023	2024	2025
			Target	Target	Target	Target	Target
<b>Sustainable product offering</b>	PCR content	Consumed PCR in relation to total production volume.	12 %	15 %	18 %	23 %	30 %
	Recyclability	Trioworld's definition of recyclable products <sup>1</sup> .	100 %	100 %	Target set until 2022, new definition and target setting in development		
	Loop alternative	Volume of Trioworld's product portfolio, where we can offer a product alternative within Trioworld's Loop label, meaning ≥25% PCR.	50 %	55 %	65 %	70 %	75 %
<b>We are sustainable</b>	EcoVadis medal	Trioworld's sustainability management system is annually rated by EcoVadis, provider of business sustainability ratings.	Silver	Gold	Gold	Gold	Gold
	LTAR	Lost Time Accident Rate (LTAR) is a measure of the rate for Lost Time Accident (LTA) <sup>2</sup> for the last 12 months using the formula $LTAR = (\text{number of LTA} \times 200\,000) / (\text{number of labour employee hours})$ .	0	0	0	0	0
	Scope 1+2 (CO <sub>2</sub> -eq./kg appr. prod.)	Target and follow-up are based on baseline 2020, for the ten production units that were part of the group in 2020. Based on market-based reporting.	- 20 %	- 40 %	- 60 %	- 80 %	N/A
	Non-compliances	Based on total number of confirmed whistleblowing incidents.	0	0	0	0	0
	Supplier Code of Conduct	Share of spend with suppliers, with a spend of >10k€ yearly, that accepted our Code of Conduct, or had their own equivalent approved by Trioworld.	75 %	80 %	85 %	90 %	100 %

<sup>1</sup>Products that Trioworld considers to be recyclable in PE- or PP-fraction upon delivery from Trioworld. Non-recyclable products according to Trioworld are, for example, products with PET/PE or PET/PP lamination. Products with the purpose of use that will make the product contaminated in such a way that mechanical recycling is not possible, i.e., medical applications and hygiene laminations are excluded from the definition and the target set.

<sup>2</sup>LTA is defined as an accident leading to lost time (time away from work) where the employee is not able to return to work the following working day/shift incurred in the period.



# Managing sustainability



# At a glance

## Group targets related to our sustainability management and our current progress.

We are sustainable		Target 2022	Result 2022	Result 2021	Comment
<b>EcoVadis medal</b>	Trioworld's sustainability management system is annually rated by EcoVadis, provider of business sustainability ratings.	<b>Gold</b>	<b>Platinum</b>	<b>Platinum</b>	For the second consecutive year, Trioworld is awarded the highest rating by EcoVadis for our sustainability work.
<b>Non-compliances</b>	Based on total number of confirmed whistleblowing incidents.	<b>0</b>	<b>0</b>	<b>0</b>	In 2022, no confirmed non-compliances were reported through our whistleblowing system WhistleB.
<b>Supplier Code of Conduct</b>	Share of spend with suppliers, with a spend of >10k€ yearly, that accepted our Code of Conduct, or had their own equivalent approved by Trioworld.	<b>80 %</b>	<b>81,7 %</b>	<b>77,0 %</b>	By the end of 2022, 81,7% of Trioworld suppliers with a spend of >10k€ yearly accepted our Code of Conduct or had their own equivalent approved by Trioworld. The work to increase this percentage will continue in the coming years to ensure suppliers' compliance with Trioworld's standards.

## Connection to Agenda 2030 and reporting standards

### Main connections to UN SDGs and targets

UN Goal	Target	UN Goal	Target
	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.		16.5 Substantially reduce corruption and bribery in all their forms.

### Referenced reporting standards

GRI 205 – Anti-corruption 2016.  
GRI 206 – Anti-competitive Behaviour 2016.  
GRI 417 – Marketing and Labelling 2016.



# Managing sustainability

**It is Trioworld's ambition to be the number one in sustainability in our industry. This demands a clear management approach to keep us focused on targeted achievement. Effective sustainability management is based on responsibility, transparency, ethical behaviour, respect for the requirements and expectations of stakeholders, and compliance with legislation.**

## Corporate sustainability

To make decisions that create business value for Trioworld without compromising the work on sustainable development, it is a requirement that the corporate culture encourages environmental responsibility, social responsibility, and sound business principles. This is to ensure that economic, natural, and human resources are used efficiently and sustainably, while new generations of products are created that contribute to sustainable development. Our management approach enables us to measure, follow-up, and evaluate our performance so we can further develop Trioworld into a leading sustainable business for the future.

Trioworld's long-term business strategy is balanced against the expectations and views of society and stakeholders. As an international company, Trioworld interacts with many stakeholders worldwide. We strive to ensure customers, investors, policy makers, and community residents are suitably informed of our activities. We aim to conduct open dialogue with stakeholders about sustainable development, listen to their views to achieve constructive action and create value-added solutions together. See also the chapter *Stakeholder analysis*, for a detailed overview of Trioworld's stakeholder analysis including how we conduct stakeholder engagement.

Trioworld's mission, vision, core values, sustainability targets and organisational policies – including our Code of Conduct – are the foundation for the daily sustainability work carried out at Trioworld. Trioworld's policy documents are based on our strategic management approach, as well as legal requirements, Agenda 2030, the UN Global Compact and its SDGs, and the OECD Guidelines for Multinational Enterprises with its sectoral guides. By including these perspectives in our policies, we adhere to international and acknowledged standards for sustainability as well as establish ways of working that all our stakeholders can recognise. In connection with annual strategy work, the organisational sustainability policies and targets are updated and approved by GMT. The Sustainability Development Director is responsible for running this process continuously, as well as for reporting the main sustainability KPIs to GMT monthly. The Division Presidents are responsible for the implementation of the sustainability policies, targets, and actions in their respective divisions. Trioworld's sustainability policies are:

- **Environment policy:** Concerns circularity and sustainable resource consumption, ecological footprint, water and local pollution, and material use/waste.
- **Ethics policy incl. Competition Compliance policy:** Relates to Trioworld's Code of Conduct, anti-corruption and bribery, fraud, conflict of interest, responsible marketing, and information security.
- **Labour and Human Rights policy:** Affects working conditions and employee dialogue, health and safety, performance and development in the workplace, diversity, equality and work against discrimination.
- **Sourcing policy:** Affects requirements, selection, and evaluation of suppliers in terms of quality, environment, and social practices.



## Trioworld's Code of Conduct

Trioworld's Code of Conduct 'We are responsible' is our most fundamental policy document and primary guide to running an ethically sound business. The purpose of the Code of Conduct is to show employees, suppliers, customers, and other interested parties how Trioworld contributes to sustainable development. It is a guide for how we work to fulfil our sustainability strategy and targets. The code states Trioworld's approach to the environment, anti-corruption, labour and human rights, rights to freedom of association and collective bargaining, elimination of forced, compulsory and child labour, as well as discrimination. It also emphasises the precautionary principle in the case of environmental and health risks. All employees receive Code of Conduct training (including topics of anti-corruption) as part of their onboarding, and the training is valid for three years.

At Trioworld we set the example and believe that our business ethics and sustainability engagement have to be taken beyond the boundaries of our own organisation. As such, Trioworld suppliers are asked to comply with the Code of Conduct, which outlines the minimum sustainability requirements with which suppliers should comply. We expect suppliers to be equally motivated in meeting our standards and are encouraged to go beyond these requirements to drive sustainable business practices, as we see it as our shared responsibility to do business in an ethical and sustainable manner. Moreover, we expect that our values and standards must be passed down the supplier's value chain.

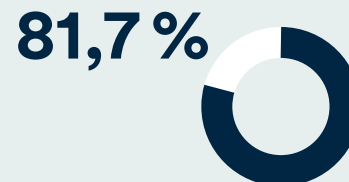
The texts of Human rights, Secure and sustainable supply, and Transparent communication are selected areas of the Code of Conduct which are described in more detail with reference to our sustainability work during 2022. Trioworld's Code of Conduct in its entirety can be accessed on our [website](#).

### Code of Conduct training



By the end of 2022, 96% of Trioworld's employees had conducted a Code of Conduct training. We have not achieved 100%, due to parental leave, and general turnover.

### Supplier's signing of Trioworld's Code of Conduct



By the end of 2022, 81,7% of Trioworld suppliers with a spend of >10k€ yearly accepted our Code of Conduct or had their own equivalent approved by Trioworld.

## Human rights

Trioworld is fully committed to the International Labour Organisation (ILO) Declaration on Fundamental Principles and Rights at Work. This is in regard to respecting the rights relating to freedom of association and collective bargaining, the elimination of forced or compulsory labour, the abolition of child labour, equal remuneration, and the elimination of discrimination regarding employment and occupation as detailed in eight conventions.<sup>1</sup>

Respect for human rights is reflected in Trioworld's policy to treat all employees fairly, with dignity and respect, including applicants during recruitment processes. We support and develop diversity. We do not discriminate, harass, or threaten anyone. We do not allow child labour, illegal labour, or forced labour. In addition, we respect the rights of all employees to organise themselves.

Apart from inclusion in the Code of Conduct, our Labour and Human Rights policy, as well as a policy for Equal Opportunities are in place to set out our commitment to respect human rights and these apply to all Trioworld divisions, entities, employees, and suppliers.

See also the case study *Trioworld's work with human rights due diligence*, to read more about our progress in 2022.

<sup>1</sup>Eight conventions; Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); Right to Organise and Collective Bargaining Convention, 1949 (No. 98); Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol); Abolition of Forced Labour Convention, 1957 (No. 105); Minimum Age Convention, 1973 (No. 138); Worst Forms of Child Labour Convention, 1999 (No. 182); Equal Remuneration Convention, 1951 (No. 100); Discrimination (Employment and Occupation) Convention, 1958 (No. 111).





## CASE STUDY

# Trioworld's work with human rights due diligence

**According to the UN Guiding Principles, companies are to avoid and address any adverse human rights impacts with which they are (potentially) involved. As it is an international norm of conduct, Trioworld follows the standards and committed in 2022 to more structured and impactful work regarding human rights due diligence.**

The regulatory field in this area is moving fast, for example the UK having the Modern Slavery Act. Additionally, more standards and regulations are in the process of being implemented, such as the EU's Corporate Sustainability Due Diligence Directive (CSDDD), which is expected to come into force in 2025. Besides legal movement, increased commitment from investors and from customers is sought. Therefore, it is Trioworld's aim and ambition to stay fully compliant with relevant local and international legislation and conventions on human rights, including zero tolerance of child and forced labour in our own operations and in the supply chain. We also aim to conduct active screening and awareness of upcoming relevant regulations and standards.

### Initial screening

Human rights due diligence is a process for identifying, preventing, mitigating, and accounting for actual and potential human rights impacts across the value chain. In 2022, Trioworld started the identification process in the upstream value chain, as it was felt that potential risks might be greater there. An initial screening of suppliers was conducted based on inherent risk, meaning risk based on country and industry.



This included the assessment of risks related to freedom of association and collective bargaining, and risks related to forced- compulsory- and child-labour. In 2022, we have assessed 102 selected suppliers based on high spend and/or high risk. Of those suppliers, two were identified with a high overall risk score caused by a potential elevated risk related to freedom of association, working hours, and environmental impact. Actions that will be taken to reduce significant potential impact are supplier specific risk analysis and requests for site specific supplier audits including corrective actions. Based on an internal query, no issues related to forced, compulsory, or child labour were reported in 2022. In addition, we started to rework our policies to comply with upcoming regulatory requirements.

### Collaboration is key

Trioworld's work with human rights due diligence will continue in 2023 and onwards, where we plan to roll out our policies, as well as obtain supplier specific information to improve our risk analyses and insights. Meaningful engagement and close collaboration with suppliers are and will be key components of successful human rights due diligence. While risks in Trioworld's upstream value chain are the current areas of focus, we remain alert to the potential for other human rights risks that may arise in the entire value chain.

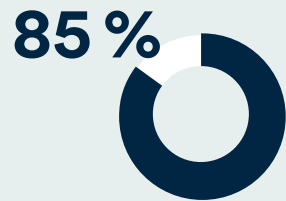


## Secure and sustainable supply

Trioworld's global sourcing organisation, together with a local operative purchasing department in the divisions, work to supply the production sites with raw material, products, and services. In total, Trioworld has around 3,900 suppliers of materials and services, including those supplying to Trioworld UK Ltd. The global sourcing organisation is responsible for direct raw material as well as category management of the larger indirect categories, such as energy, transport, additives, and machinery. Trioworld's suppliers for these categories are often multinational companies, competing on the global market and can be characterised as raw material producers, manufacturers, and contractors. Securing supplies for production sites is the main task of sourcing, including finding alternative suppliers, qualifying, evaluating, and auditing suppliers. We train our sourcing teams to increase sustainability awareness throughout the supply chain.

### Training in Trioworld Sourcing Guidelines

including concepts of sustainable supply



By the end of 2022, 85% of Trioworld's employees in sourcing teams completed Sourcing Guidelines training.

As Trioworld relies on a global network of suppliers, it could increase the risk for potential and actual negative environmental and social impacts in the value chain. By requiring suppliers to comply with Trioworld's Code of Conduct, we aim for them to implement measures that ensure their activities, products, and services do not adversely affect the environment, human health, and society. Performance of suppliers regarding sustainable development is monitored through evaluations as described in the Trioworld Sourcing



Guidelines. If suppliers do not meet the requirements, it may result in demands for improvement measures or termination of the partnership. No contracts with suppliers were terminated in 2022 due to non-compliance with Trioworld's sustainability requirements. We have seen the need in 2022 to conduct corrective action plans with certain suppliers. In some cases, we have terminated contracts with suppliers due to unacceptable quality performance.

## Transparent communication

By clearly communicating our efforts and progress within our social, environmental, and economic responsibilities, we build trust with stakeholders, including investors, customers, and employees.

If Trioworld were to be untruthful in our communications, it could seriously risk our credibility as a company on our path to becoming number one in sustainability in our industry. It could hamper future investments, risk customer relationships and our possibility to attract and retain competent employees. At Trioworld, we want to be transparent about the impact our business has on the world around us.

Trioworld aims to be clear and honest in our communication and wants to avoid false claims on the sustainability of our products and services. To ensure this, we for example use third-party certificates, and conduct carbon footprint assessments, to verify our claims and in turn help our customers support their claims. This will help us build a trusted brand.

### Incidents of non-compliance

0 (Zero)

In 2022, zero reported incidents concerning product information, labelling, or marketing communication.



## Systems for compliance

Trioworld stands for good ethical behaviour which is integrated across our corporate values. Legal compliance is a minimum requirement for Trioworld and our sites; but in many cases, Trioworld has an even higher ambition. Compliance covers many different areas and is guided by people of expertise across Trioworld. It covers topics such as anti-trust/competition laws, anti-corruption laws, emissions regulations, regulations on data privacy, and regulations on chemicals, waste, and products.

Trioworld's values and ethical practices are captured in our Code of Conduct and Ethics policy, and they state that we demand honesty and integrity in our business; we do not participate nor endorse in any corrupt practices. We expect that Trioworld employees, others acting on behalf of Trioworld, and our business partners, embody these principles.

As for any international company, our value chain has a wide reach with the potential for unethical, unfair, or even corrupt situations arising. This would harm the reputation of Trioworld and have major financial impact. To reduce these risks, we have implemented Trioworld's Ethics policy, training, risk assessments, and specific approval procedures for sensitive transactions. Suppliers have been made aware of Trioworld's policy on anti-corruption through the Code of Conduct. Moreover, employees who are susceptible to increased compliance risks due to interactions with certain businesses and people outside of Trioworld, receive additional guidelines as outlined in the Competition Compliance policy. Trioworld aims to have 100% of employees trained on business ethics issues, including anti-corruption, by 2025.



### Competition Compliance policy

# 100 %

of selected employees returned a signed copy in 2022.

### Whistleblowing

Despite having a well-established policy, management system, dedicated employees and partners, misconducts related to our agreed policies may occur. Therefore, we work to encourage an open culture where dialogue on improving our business is welcome. Sometimes, an irregularity may not feel entirely comfortable for an employee to share with colleagues, managers, or human resources. Through Trioworld's whistleblowing system, anyone who detects, or experiences serious irregularities can speak up anonymously. The system is operated by an external party to guarantee anonymity. Serious irregularities include unethical or illegal behaviour, fraud, and serious violations of the Code of Conduct, such as corruption, bribery, anti-competitive practices, environmental crime, discrimination, or harassment.

The following rules for whistleblowing apply at Trioworld:

- Whistleblowing must not be used for general dissatisfaction/grievance or anything that can be resolved through direct contact with the people concerned. False accusations are not accepted.
- Anyone who has observed or suspects a serious irregularity – and who believes that this cannot be reported to management or senior manager – can report this in our whistleblowing system. The same applies if there has been an irregularity complaint, but this has not elicited any response.
- Anonymity is guaranteed by the message not being linked to any sender. A designated group at Trioworld receives the message and initiates an investigation, when applicable. Normally, in addition to the recipient of the information, representatives from Trioworld's management will also participate.

In 2022, we received two reports through our whistleblowing system. After detailed investigation, neither case was confirmed as non-compliant. In addition, Trioworld had zero significant instances of non-compliance with laws and regulations in 2022. However, one minor violation occurred related to a permit of a septic tank installation in connection with on-site construction work, where a minor fine with a value of €400 was paid.



# Standards and certifications

By applying internationally recognised standards and having our sustainability work validated by external parties, we gain an additional guarantee for ourselves and our stakeholders that we are on track to becoming the number one company in sustainability in our industry. Trioworld is engaged in the development of standards, especially regarding the recycling of our products. Our aim is to create a shift in the industry, together with other like-minded companies, towards a more sustainable way of working with plastic. We are proud of our engagement in developing our industry standards for the better.

We select our certificates with care, and when applicable, get support from external parties to ensure we work with certifications that generate the most impact and set the highest bar for sustainability. Subsidiaries of Trioworld are, as applicable, certified in accordance with the following international and national standards and certifications. All valid certifications can be found at our [website](#).

## Standards

ISO is short for the International Organisation for Standardisation, an independent, non-governmental organisation with members from 167 national standards bodies. Through its members, it brings together experts to share knowledge and develop voluntary, consensus-based, market relevant international standards that support innovation and provide solutions to global challenges.

Trioworld's objective is to have all production sites ISO 14001 certified, other ISO certifications are chosen by each site as applicable.

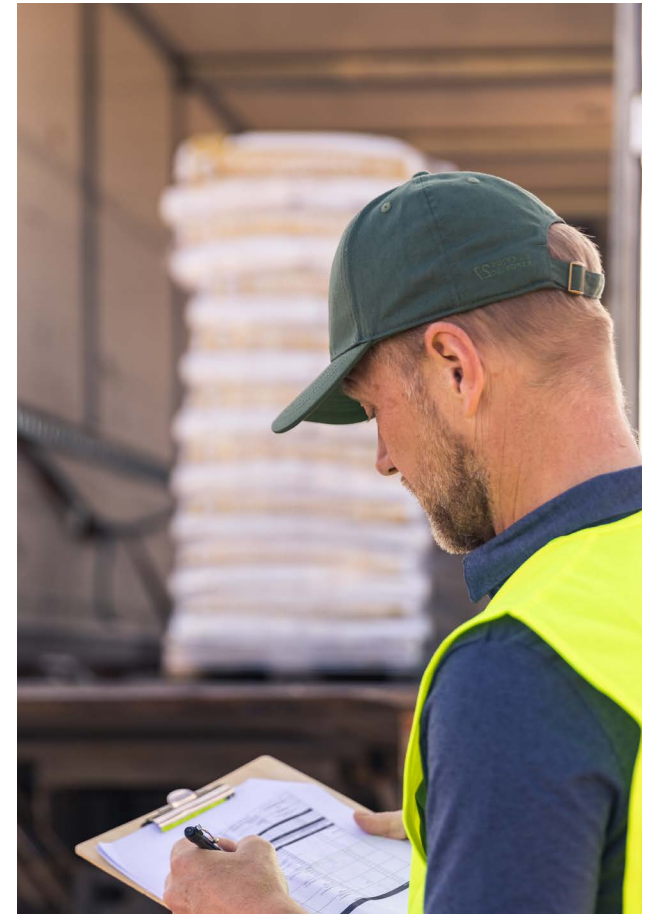
### Certified production sites

Standard	Description	no. of certified sites
ISO 9001	Quality Management	12*
ISO 14001	Environmental Management System	12*
ISO 45001	Occupational Health & Safety	2
ISO 50001	Energy Management System	1
ISO 22000	Management System for Food Safety	1
FSSC22000	Food Safety Management System (based on existing standards for certification; ISO 9001, ISO22000, ISO 220003 and technical specifications for sector Pre-Requisite Programmes).	1
BRC	Global Standard for Packaging Materials, BRC (British Retail Consortium).	3

\*100% of production sites belonging to Trioworld Group for full year 2022.

### ISO 14001 audits

Internal auditors trained	Audits performed	
39	51 internal	39 external



## Product certifications

### RecyClass

### RecyClass

Applying reliable, transparent design-for-recycling principles, assessing recycling compatibilities of novel technologies, and boosting the uptake of recycled material in a wide range of new articles, including high-end products, are vital for a circular plastic future. RecyClass is a comprehensive cross-industry initiative that advances plastic packaging recyclability while promoting the traceability of plastic waste and recycled

plastic content in Europe. RecyClass works on the development of scientific testing methods for innovative materials. The testing results are incorporated into the Design for Recycling Guidelines and the free RecyClass Online Tool. In parallel, RecyClass developed a system for reliable traceability of the origin of plastic waste, as well as for the calculation and verification of recycled content in plastic products. RecyClass created

Recyclability Certifications, Recycling Process Certifications, and Recycled Plastic Traceability Certification.

Trioworld initiated the Recycled Plastic Traceability Certification through RecyClass for our products in 2021, with continued implementation in the group during 2022 for selected sites and products.

### Sites with RecyClass Recycled Plastic Traceability Certification

7 

By the end of 2022, for selected products in their portfolio.

### EuCertPlast



The objective of EuCertPlast is to encourage an environmentally friendly plastics recycling process by standardising it. The scheme focuses on traceability of plastic materials throughout the entire recycling process and supply chain, and on the quality of recycled content in the end product. The scheme addresses issues of varying standards across EU countries and the lack of transparency and traceability of plastic materials. It was created with the aim of recognising recyclers operating according

to high standards and implementing best practices. Being EuCertPlast certified means that an entity is eligible to deliver plastic products containing recyclables compatible with the REACH health and safety requirements for items with food contact.

In addition, Trioworld requires EuCertPlast for PCR suppliers, qualification orders excluded, to increase transparency on traceability and ensure quality. Besides EuCertPlast, Trioworld also accepts the

RecyClass Recycling Process Certification of suppliers to demonstrate the quality of their processes and transparently communicate the origin of waste.

**% of supplier spend for PCR certified with EuCertPlast/ RecyClass Recycling Process**  
Measured by the end of 2022

91 % 

### EuCertPlast certified recycling sites

3 

Trioworld has three sites that are eligible for this certification, as they facilitate recycling of external waste: Trioworld Ombrée d'Anjou, Trioworld Nyborg, and Reviva Plastics.

### ISCC PLUS



International Sustainability and Carbon Certification (ISCC) is a solution provider for sustainable and deforestation free supply chains. It is a globally leading certification system covering the entire supply chain and all kinds of bio-based feedstocks and renewables. ISCC certification ensures compliance with high ecological and

social sustainability requirements, greenhouse gas emissions savings and traceability throughout the supply chain. ISCC certification ensures: biomass is not produced on land with high biodiversity and high carbon stock; good agricultural practices protecting soil, water and air are applied; human rights, labour and land rights are

respected; sustainable material is traceable throughout international supply chains; and greenhouse gas reduction targets are met.

Trioworld has chosen ISCC PLUS certification for conversion of biomass with the scope of mass balance with bio-based materials.

### ISCC PLUS certified sites

4 

By the end of 2022.

### Blue Angel



Blue Angel has been the ecolabel of the German Federal Government for more than 40 years. It is an independent and credible label that sets stringent standards for environmentally friendly products

and services. The requirement for Blue Angel varies for different applications. For plastic films for example, it needs to contain at least 80% PCR.

### Blue Angel certification

2 

For selected products at two sites.



## CASE STUDY

# Using the RecyClass certification scheme to support our claims on recycled content.

### **Trioworld has decided to use RecyClass Recycled Plastic Traceability Certification to prove the share of Post-Consumer Recyclates (PCR) in our products.**

IVL Swedish Environmental Research Institute was contracted to perform an objective evaluation of the different certification schemes available, to validate the PCR content in our products.

For Trioworld it is important that the certification scheme we use is product specific, as we want to be able to show our customers the PCR content in the product they use. In addition, we want a certification that clearly separates PCR from Post-Industrial Recyclates (PIR). The RecyClass Recycled Plastic Traceability Certification also ensures the traceability of PCR in the supply chain, since the used recyclates must have an EuCertPlast or RecyClass Recycling Process Certificate. Another objective is that the chosen certification scheme should be easily available and understandable to all customers. After a careful review it was decided to use RecyClass Recycled Plastic Traceability Certification as most suitable certification scheme that meets all our requirements.

At Trioworld we recommend our production sites to select the RecyClass Recycled Plastic Traceability as the product certification for PCR, and now various Trioworld production sites hold the certificate for applicable products.

“We want to be able to prove to our customers that what we claim is true. By using RecyClass certification for recycled plastics we have a third-party assurance of the PCR content in the products that we certify.” - Oskar Karlsson, Chief Procurement Officer & VP Sustainability at Trioworld.

“With Trioworld, we have a reliable supplier at our side. With their recycled film that holds the RecyClass Recycled Plastic Traceability Certification, we meet the requirements in the area of sustainability.” – Christoph Rodewohl, Strategic Junior Purchaser at Jackson Insulation

“The RecyClass certification offers security, especially for critical farmers who conserve their valuable feed stock with the PCR-based films.” - Herbert Pollerspöck, private agricultural trader

“As a farmer, I focus on established certifications. The RecyClass certification gives me indications of tested quality without greenwashing”. - Wolfgang Lohr, dairy farmer in Polling, Bavaria

### **About RecyClass**

RecyClass<sup>1</sup> is a non-profit cross-industry initiative, facilitating the transition toward a circular plastic future. The organisation is driven by the interest of brands, retailers, converters, raw material producers and recyclers, who work towards filling the existing gap between different industry actors and bringing the knowledge of recyclers right down to the product designers. Based on a scientifically grounded approach and the collaboration of the actors from the entire plastic value chain, RecyClass drives the change towards a true circular economy for plastics.

### **Trioworld's contribution**

Trioworld aims to contribute to creating a circular plastic economy and remaining at the forefront of the circular plastics economy transition. By being a RecyClass member at Platinum level, Trioworld contributes towards the harmonisation of recyclability and recycled content practices across Europe. Also, we are a member of the RecyClass Advisory Board where the possible developments of RecyClass are discussed. Moreover, Trioworld is chairman of the RecyClass Recycled Plastics Taskforce, supporting the development of Recycling Process and Recycled Plastics Traceability Certification Schemes.

“RecyClass can only be successful with the support of the industry and industry partners. Being among the first companies to get certified and providing valuable expertise, Trioworld has shown tremendous support for the development of the RecyClass Recycling Process and Recycled Plastic Traceability Certifications. We look forward to furthering the work within the Recycled Plastic Taskforce with the help of Trioworld and all our members.” – Mireia Boada, Project Manager Plastics Recyclers Europe.

<sup>1</sup> Source: [RecyClass](#)

The RecyClass logo is displayed in a white rectangular box. The text "RecyClass" is written in a blue, sans-serif font, with the 'y' having a unique shape.

## CASE STUDY

# Trioworld achieves EcoVadis Platinum sustainability rating for the second consecutive year

Trioworld has an ambitious sustainability agenda, aiming to prove and justify our achievements annually. We want to ensure external recognition and approval of our sustainability strategy and practices by high-ranked institutions and have chosen EcoVadis for this. Trioworld is proud to receive the EcoVadis Platinum rating, the highest level of recognition, for the second consecutive year. Only 1% of the 100,000+ assessed companies are awarded the Platinum rating.

The EcoVadis rating supports the alignment of Trioworld sites with the group strategy in a structured way and ensures that the deployment of this strategy is measurable. The thresholds for the ratings change periodically, therefore encouraging us to continuously improve our processes and performance. The rating also provides a point of entry for discussions with our customers and suppliers. These can potentially result in joint opportunities to secure a sustainable value chain, creating value for our customers. It helps us to provide our stakeholders with a deeper understanding of our sustainable practices by demonstrating our sustainability performance through a scorecard.

“

*I am truly honoured by this second consecutive EcoVadis Platinum rating. It is a great acknowledgement of our strong commitment to embed sustainability in the way we run our business and the continuous progress we have made. This rating is recognition of the hard work and dedication of our employees who are contributing every day to deliver on our sustainability targets.*

”

Andreas Malmberg,  
CEO of Trioworld Group



### EcoVadis



EcoVadis was founded with the belief that businesses can contribute to improving the current state of our environment. Since its foundation in 2007, the organisation has grown to become one of the world's largest and most trusted providers of business sustainability ratings with a global network of more than 100,000+ rated companies.

The EcoVadis sustainability assessment is an evaluation of how well a company has integrated the principles of sustainability/CSR into their business and management system through policies, actions, and results across four areas: environment, ethics, labour and human rights, and sustainable procurement. Companies are rated on these

sustainability areas and attributed an overall score, which can result in a bronze, silver, gold, or platinum rating. The assessment methodology is built on international sustainability standards, such as International Labour Organization (ILO) conventions, GRI, UNGC, and ISO 26000.

### SEDEX



SEDEX is one of the world's leading ethical trade service providers, aiming to improve working conditions in global supply chains. SEDEX enables businesses to work together to better manage their social and environmental performance and improve working conditions throughout the supply chain.

Over 60,000 member organisations from over 180 countries use the SEDEX platform to exchange data, manage business risk, meet compliance, and generate a positive impact on people.

Trioworld has been using SEDEX since 2013 and five Trioworld sites submit site-specific information on this platform. In 2022, we deepened our cooperation with SEDEX to also start working with supplier Human Rights Due Diligence, see case study *Trioworld's work with human rights due diligence*.



# External initiatives and memberships

**Trioworld wants to lead our industry's journey into circular plastics, for the good of our customers, the industry, and the planet. To be able to achieve this, it is important to work with all stakeholders in the value chain and to have a constructive dialogue with various decision makers. Therefore, we take an active role in several membership organisations within our industry.**

The following are some organisations within which Trioworld Group is an active member. In addition to this, production sites and sales offices are also members of European and global sectoral organisations and national associations in the countries in which they operate.



## EuPC

The European Plastic Converters (EuPC) is a trade association representing 28 national associations and 18 sectoral organisations. EuPC's aim is to contribute to an open and fair-trading environment for plastics converters in Europe, focusing on market development, regulation, issue management and trade. The EuPC develops tools for the industry to collect data and adapt to potential new requirements and demands.

Trioworld is engaged with the EuPC in the Packaging Division and the Raw Material Committee. We are also a member of the Senior Executive Forum, providing strategic guidance on the plastics converting industry's most important developments. Trioworld is supported in its regulatory work by EuPC and receives regular updates on relevant areas of interests, such as market statistics and national legislations.



## PRE

Plastic Recyclers Europe (PRE) is an organisation representing European plastic recyclers that process plastic waste into high-quality material designated for the manufacture of new articles. Plastic recycling in Europe is a rapidly growing sector, representing over €7.7 billion turnover, with a recycling capacity of 9.6 million tonnes by 650 companies and over 20,000 employees. PRE is gathering more than 165 companies from across the entire plastic value chain. The aim of PRE is to look for solutions that can help advance recycling and promote best practices while ultimately seeking to expand quality collection, sorting, recycling, and increased use of recycled plastic in Europe. Therefore, it is important for Trioworld to be a member of PRE. PRE is also among the key stakeholders involved in the process of formulating, monitoring, and evaluating EU policies that impact plastics recyclers. PRE is arranging conferences and thematic webinars that are important to our improved practices in this area. Trioworld is engaged in several groups within PRE, such as the working group for polyolefin films, the food contact group, and the taskforce for regulatory compliance.

## RecyClass

### RecyClass

RecyClass is a non-profit, cross-industry initiative facilitating the transition toward a circular plastic future. It is a flagship initiative by PRE to advance plastic packaging recyclability while promoting the traceability of plastic waste and recycled plastic content in Europe, see also *Product certifications*.

The work that RecyClass is doing is important for Trioworld, and we are therefore engaged in RecyClass Advisory Board, the Recycled Plastics task force, and the technical committee for polyolefin films.



## CPA

The Circular Plastics Alliance (CPA) was launched by the European Commission in December 2018. The aim is to boost the EU market for recycled plastics, covering the entire plastics value chain. The CPA includes 300+ organisations representing the industry, member states, environmental groups, academia, and public authorities.

Trioworld joined the CPA in November 2019 and has actively participated in areas of discussion relevant to Trioworld, such as agriculture, packaging, and monitoring, with a focus on design for recycling and improving recycled content. All the key deliverables announced in the declaration of the Circular Plastics Alliance are published on the website of the European Commission. As a result, there is reduced publication activity within the CPA, but it will produce its first monitoring report of the path to 10 million tonnes in 2023.







### FPP4EU Collaboration Platform

The FluoroProducts and PFAS for Europe Sector Group (FPP4EU) was formed by Cefic (European Chemical Industry Council) to work together with all stakeholders on PFAS regulations. The aim is to jointly come to a final regulatory measure which is science-informed, implementable, and enforceable, whilst still enabling the EU to meet its Green Deal objectives.

Trioworld joined the 'Collaboration Platform' of FPP4EU at the end of 2022 to gain insights about forthcoming regulations and to provide knowledge for manufacturers and authorities regarding our use of fluorinated polymers, which is an obligation that downstream users have under REACH.

#### Some examples of sectoral organisations Trioworld engages with:



#### Some examples of national organisations Trioworld engages with:



## CASE STUDY

# Leading industry efforts to spread facts about plastic

**Trioworld has played a leading role in establishing a new industry-wide initiative to help with fact based information about plastic in Sweden and illustrate how people can use plastic sustainably in their everyday lives.**

The initiative, dubbed Svensk Plast (“Swedish Plastic”), emerged in 2020 during a time when the industry found itself caught up in an intense – but not always informed – debate about plastic’s role in society.

“There was a lot of frustration that companies working hard to develop more sustainable products were portrayed as part of the problem,” explains Henrik Oxfall, Head of Plastics with IKEM, one of Sweden’s two major plastics industry associations.

“We felt the debate had become too one-sided and wanted to find a way for the industry in Sweden to come together and speak with a united voice.”

### Reaching a broader audience

Henrik Oxfall, together with counterparts from SPIF, Svensk plastindustriförening, another leading plastics industry association, concluded the industry needed to reach beyond its traditional constituencies of suppliers, customers, and employees to connect the broader Swedish population with “facts about plastic”.

For its first campaign, Svensk Plast produced a series of humorous films to send a serious message about a “world without plastic”. Laughable concepts like a **concrete bike helmet** and **papier-mâché car** helped viewers understand that “sometimes plastic is a smarter choice”.

The films have already been viewed more than 11 million times, something Henrik Oxfall considers a strong result for two trade associations’ first attempt at reaching a broader audience. The success of Svensk Plast’s first campaign, coupled with early and continued support from big name companies like Trioworld, Volvo, and Borealis, have added to the initiative’s momentum.

“It sends a clear message that the industry believes in what we’re doing,” he says.

Svensk Plast now counts nearly 50 companies on its roster of sponsors and partners, and Trioworld continues to provide valuable leadership and annual funding as the initiative moves ahead with its important work of educating Swedes about plastic.

### Making facts more accessible

“The debate surrounding plastic can easily be distorted. There is a huge lack of knowledge and it’s a difficult material to understand, even if it’s all around us,” he says.



Image from the Svensk Plast campaign. Translation: “Sometimes plastic is a smarter choice”

“

*This isn’t something that will happen in ten years. It’s happening now.*

”

Henrik Oxfall,  
Head of Plastics with IKEM



Fotograf: Bengt Säll

“We understand that we’re not going to change views overnight. This is a long-term investment.”

By making facts more accessible, Henrik Oxfall hopes Svensk Plast can help increase people’s understanding of the important role plastic plays in their lives.

“Plastic is a fantastic material, but we need to acknowledge that it can be problematic and that we need to learn to use it in the right way,” he says.

The Svensk Plast [website](#) is transparent about industry challenges such as littering and microplastics, as well as the need for more and better recycling.

By bringing together humour, facts, and ongoing projects, Henrik Oxfall hopes Svensk Plast will demonstrate that plastic has a vital role to play in society’s green transition and that the industry is doing its part to cut emissions.

“We show concrete examples that emphasize what we are currently doing,” he says.

“This isn’t something that will happen in ten years. It’s happening now.”



# Environmental responsibility







# At a glance

## Group targets related to our environmental responsibility and results 2022

Sustainable product offering		Target 2022	Result 2022	Result 2021	Comment
<b>PCR content</b>	Consumed PCR in relation to total production volume.	<b>15 %</b>	<b>14 %</b>	<b>13,1 %</b>	Progress compared to 2021, but the target for 2022 was not reached mainly due to a change in product mix. We have improved and will continue to expand our circular offering.
<b>Recyclability</b>	Trioworld's definition of recyclable products: products that Trioworld considers to be recyclable in PE- or PP-fraction upon delivery from Trioworld. Non-recyclable products according to Trioworld are, for example, products with PET/PE or PET/PP lamination. Products with the purpose of use that will make the product contaminated in such a way that mechanical recycling is not possible, i.e., medical applications and hygiene laminations are excluded from the definition and the target set.	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	Target 2022 reached, however around 930 tonnes (0,4%*) are still not recyclable according to Trioworld's definition. Furthermore, approximately 2040 tonnes (0,8%*) are excluded from follow-up, as per the definition for the KPI**.  *% of total approved production. **Target and definition were set until 2022, new definition and target setting in line with the Packaging and Packaging Waste Regulation (PPWR) in development under 2022 and 2023.
<b>Loop alternative</b>	Volume of Trioworld's product portfolio, where we can offer a product alternative within Trioworld's Loop label, meaning ≥25% PCR.	<b>55 %</b>	<b>61 %</b>	<b>56 %</b>	The target for 2022 was exceeded and we are continuously strengthening our product portfolio with more Loop products.
<b>We are sustainable</b>					
<b>Scope 1+2</b> (CO <sub>2</sub> -eq./kg approved production)	Target and follow-up are based on 2020 baseline, for the ten production sites that were part of the Trioworld Group in 2020. Based on market-based reporting.	<b>-40 %</b>	<b>-53 %</b>	<b>-27 %</b>	The 2022 target was achieved by a wide margin. The reduction is a result of switching to renewable electricity with Guarantees of Origin (GoO) in production sites in Sweden and the Netherlands.

## Connection to Agenda 2030 and reporting standards

### Main connections to UN SDGs and targets

UN Goal	Target	UN Goal	Target
	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.		13.2 Integrate climate change measures into national policies, strategies, and planning.
	12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.		14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

### Referenced reporting standards

GRI 301 – Materials 2016  
GRI 305 – Emissions 2016



# Environmental responsibility

**At Trioworld, working on our climate impact is a top priority: both in our operations and in supporting our customers through our products and solutions.**

Trioworld's carbon footprint spans across our value chain, mainly stemming from the use of virgin polymer, and our products' end-of-life. Therefore, the topics of emissions, raw materials, and environmental compliance are most material to Trioworld, as described in the chapters: *Raw materials and sourcing*, *Sustainable product development and innovation*, *Emissions and energy*, *Recyclability and design for recycling*.

## Raw materials and sourcing

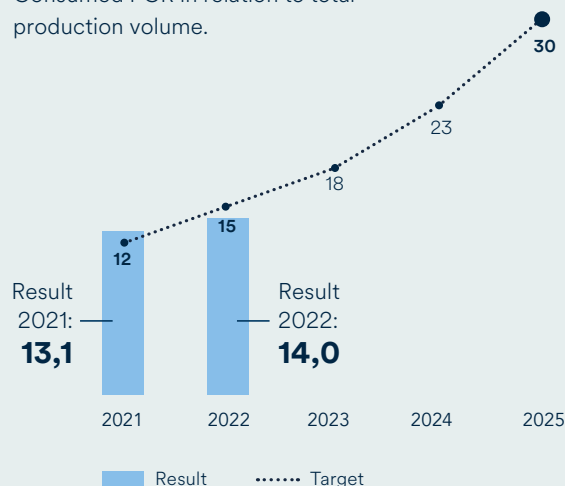
**Trioworld's use of raw materials contains virgin (fossil), recycled, and bio-based/bio-attributed<sup>1</sup>. Our main raw material is polyethylene (PE), but polypropylene (PP) is also used in some applications. Additives, compounds and masterbatches (mainly consisting of polymers) are used to enhance properties of the film.**

Trioworld purchases raw material directly from producers world-wide, whereas PCR is only sourced from within Europe. To further secure feedstock of recyclates, we use external waste as feedstock in our recycling plants in Trioworld Nyborg, Trioworld Ombree d'Anjou, and Reviva Plastics. This external waste is sourced domestically or in neighbouring countries. In addition to external waste being recycled in three of our sites, all sites recycle internal plastic waste either in-line or via a separate on-site regranulation process. Besides virgin (fossil) and recycled raw material, Trioworld uses a small share of bio-based polymers, or bio-attributed<sup>1</sup> polymers, under Trioworld's product brand Bio.

<sup>1</sup>Bio-attributed meaning mass balanced ISCC PLUS compliant bio- or bio-circular material sold with an ISCC PLUS sustainability declaration as proof of bio-based feedstock in the beginning of the supply chain.

### PCR content

Consumed PCR in relation to total production volume.



One way in which Trioworld aims to lead the transition into a circular use of plastic, and into lowering our carbon footprint, is by increasing the usage of recycled material in our products. In 2021, we raised ambitions for our target on the utilisation of recycled material to concentrate on PCR. By modifying our former goal, which included both PCR and Post-Industrial Recycled (PIR) plastic, we prioritise the use and recycling of plastic that has reached its end-of-life. This is our perception of how true circularity is created. In addition, we foresee that potentially, the European Union's (EU) legislation and regulation will centre PCR at the heart of a circular plastics economy. PIR is still used as a resource at Trioworld, but is

### Post-Consumer Recyclate (PCR)

Recycled plastic from post-consumer plastic waste (waste material generated by the end-users of products, that has fulfilled its intended purpose or can no longer be used - including material returned from within the distribution chain).

### Post-Industrial Recyclate (PIR)

Recycled plastic from post-industrial plastic waste (waste material diverted during a manufacturing process - excluded is reutilization of materials such as rework, regrind or scrap generated in a given process and capable of being reclaimed within the same process).

no longer a key component for our target follow-up process. By the end of 2022, the consumed PCR in relation to total production volume reached 14,0%. Progress compared to 2021, but the target for 2022 was not reached mainly due to a change in product mix. We have improved and will continue to expand our circular offering.

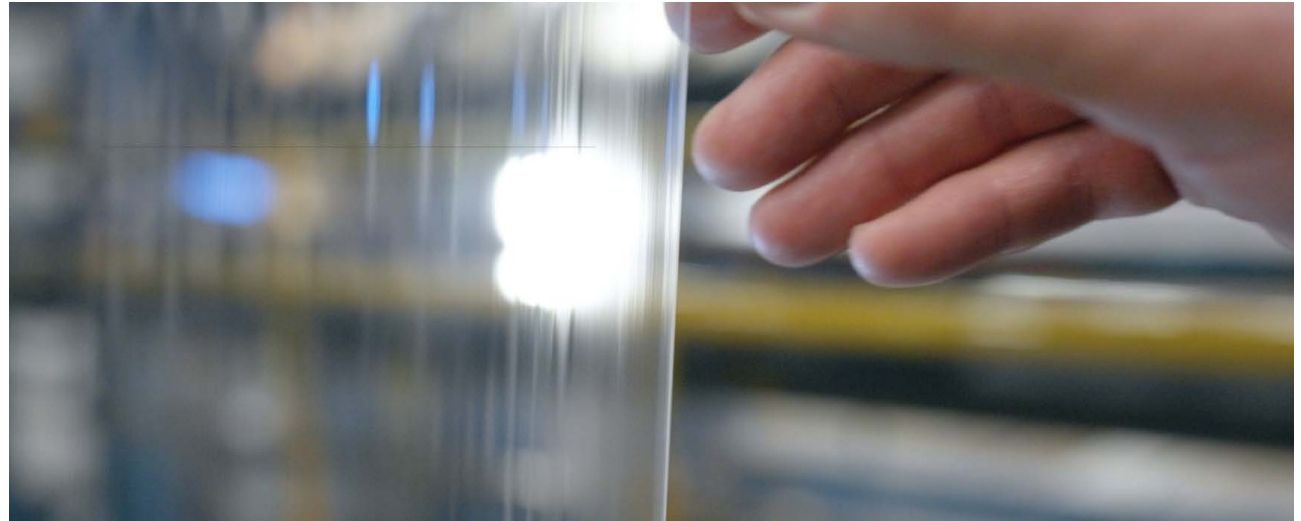


## Managing risks related to raw material and sourcing

With an increasing demand for PCR expected in the industry, there is a risk of limited availability of PCR with the quality required. Trioworld's sites that recycle external waste play therefore an important role in ensuring a consistent supply of high-quality PCR. Processing post-consumer waste at our sites enables us to innovate and secure high-quality PCR, in addition to externally sourced PCR from our suppliers. We strengthened our position by acquiring Reviva Plastics AB in 2021. In 2022, we decided to strengthen our position even further by investing in additional recycling capacity of post consumer waste in Trioworld Ombrée d'Anjou and Reviva Plastics through our programme "Backward integration", see case study: *Taking the next steps in circularity for plastic*.

Moreover, to ensure a consistent supply of externally sourced PCR from our suppliers, we strive to create long-term relationships. PCR suppliers, qualification orders excluded, should have an EuCertPlast and/or RecyClass for Recycling Process Certificate, ensuring traceability of plastic materials and PCR content in the recyclates.

The European Commission outlines: "Today it is difficult for consumers to make sense of the many labels on the environmental performance of products (both goods and services) and companies. Some environmental claims are not reliable. Consumers can be misled, and companies can give a false impression of their environmental impacts or benefits – a practice known as greenwashing."<sup>1</sup> At Trioworld, we aim to be clear and honest in our communication and want to avoid false claims about the sustainability of our products and services. To verify our claims and prove PCR content in Trioworld products, we engaged IVL Swedish Environmental Research Institute in 2021 to perform an assessment of certification schemes for PCR and recycled content in plastic products. Following their recommendations based on Trioworld's requirements, we have chosen the RecyClass Recycled Plastic Traceability Certificate to strengthen our claims on PCR content in our products. Our sites implement this for the selected products of their choice and upon customer demand.



Also see the case study: *Using the RecyClass certification scheme to support our claims on recycled content*. In addition, to increase stakeholders' and customers' understanding on this topic, we co-hosted a webinar with RecyClass in 2022, called "Recycled content – how can you trust it", showing why and how Trioworld uses RecyClass certification for recycled plastics to support PCR content claims in selected Trioworld products.

Some of Trioworld's raw materials are characterized as chemical substances, therefore we have a responsibility to correctly handle risks concerning these materials. As a result, Trioworld ensures compliance with REACH<sup>2</sup> on a regular basis, and legislation on food contact materials where applicable. We only use substances which are registered or pre-registered in accordance with REACH. Moreover, we are in close dialogue with our raw material suppliers to make sure that they comply with REACH. Our REACH statement is accessible via our [website](#).

With the use of plastic pellets as raw material, avoiding pellet litter in the environment is essential. At Trioworld, we are committed to securing the correct handling of pellets. As

such, Trioworld has signed up to the Operation Clean Sweep<sup>3</sup> (OCS) pledge in Europe and is implementing zero pellet loss measures. Pellet loss should always be avoided. Examples of actions taken to avoid pellet loss at some of our sites are installation of filters in storm water drainage, emergency systems for incidents with pellets, cleaning with vacuums and installing equipment, specific recycling processes for dirty granules, weekly action plans, and staff training. At the end of 2022, eight of our sites already complied with the OCS, and we have the ambition that by 2023, all Trioworld production sites shall do so. Sites' ability to fulfil OCS obligations is monitored by internal audits.

<sup>1</sup>Source: [European Commission - Green Claims](#)

<sup>2</sup>Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) is a regulation of the European Union, adopted to improve the protection of human health and the environment from risks that can be posed by chemicals.

<sup>3</sup>Operation Clean Sweep is an international programme designed to prevent the loss of plastic granules (pellets, flakes, and powders) during handling by the various entities in the plastics' value chain and their release into the environment.



## CASE STUDY

# “I like the challenge of doing the impossible”

**Incorporating Post-Consumer Recyclates (PCR) material, into high-quality stretch film while also maintaining high performance has long been considered a “mission impossible”.**

Yet Trioworld has done just that: developed several high-quality, high-performance stretch films with 30% PCR material for pallet packaging.

How?

According to Jolien Stevels, Research and Development Director in Trioworld’s Stretch Film Division, it comes down to dedicated teamwork and close cooperation with customers.

“Innovation and product development aren’t limited to our department; it’s an integrated part of our business. All of us – production, sales, marketing, sourcing, R&D, etc. – work together with our customers and partners to drive change and move towards a circular economy,” she explains.

### **Innovation in action**

“Everyone at Trioworld is very innovative. It’s part of our culture to make things happen. We see a need for a new solution, we implement it, and we put it on the market.”

And Trioworld’s success in adding PCR to high-quality stretch film is just one example of innovation in action.

Stretch film plays a key role in maintaining pallet packaging and load stability during transport. Keeping goods safe and secure is essential for safety, cost, efficiency and sustainability.

A pallet that’s fallen over or is damaged during transport can result in lost goods that need to be replaced or re-packaged with new film. This costs not only time and money, but also has a negative climate impact due to spoiled goods and the need for additional packaging materials.

To avoid these problems, stretch film needs to perform at the highest level to protect the goods on the pallet and maintain stability. But adding PCR and still achieving the necessary quality and durability has proven to be a challenge for many in the industry.

### **The secret to success**

Trioworld’s R&D success in adding recycled material to high-quality stretch film comes not only from a culture of innovation and customer collaboration, says Jolien Stevels, but is also thanks to another “secret ingredient”.

“Working successfully in R&D means that you need to be stubborn,” she says with a smile.

“To be able to succeed in our goals we need to believe that anything is possible, and we do not give up.”

And it’s that sort of resolve that’s needed to help make the entire plastic packaging industry more sustainable.

“We can only do this by pushing the boundaries and doing the impossible,” says Jolien Stevels.

“We need to look at the most efficient packaging. And we need to re-think plastic. We at Trioworld have the opportunity to change the industry. And for me personally, I like to be able to contribute to a more circular world as well as the challenge of solving the impossible.”



“

**To be able to succeed in our goals we need to believe that anything is possible, and we do not give up.**

”

Jolien Stevels,  
Research and Development Director at Trioworld, Stretch Film Division.

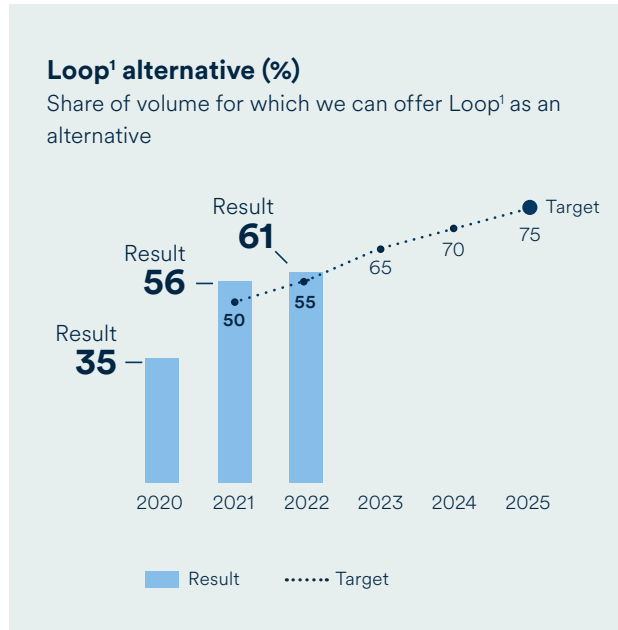


## Sustainable product development and innovation

**Trioworld supports customers on their sustainability journey, through innovation and development of products and solutions with a lower climate impact. We enable our customers to advance their sustainability goals while maintaining functionality and branding requirements. We deliver premium products and solutions with lower climate impact and the highest possible level of service. Plus, we offer innovative solutions based on carefully selected materials; we understand our customer’s business and profitability.**

Together with our customers, we find the most suitable option for their needs. For instance, we offer carbon footprint calculations for Trioworld’s products (cradle to Trioworld gate), which help customers gain a deeper understanding of their impact and how they can reduce this. Moreover, to increase awareness and share knowledge, we hosted the webinar “Fundamentals of Life Cycle Assessments (LCA)” in April 2022.

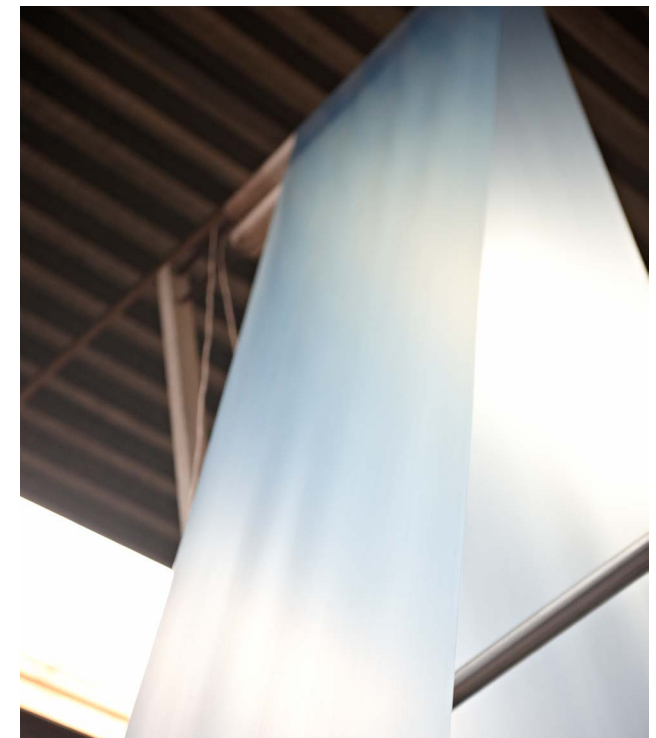
To support customers with products and solutions with a lower climate impact, it is important to continuously develop our sustainable product portfolio, consisting of Trioworld’s product labels Loop, Lean, and Bio, as described in *Our sustainable solutions*. Aligned with our strategy for increased use of PCR in our products, Trioworld focuses its product development of lower climate impact solutions on the Loop brand. At the end of 2022, 61% of our portfolio volume had a Loop<sup>1</sup> alternative that could be offered to our customers. This exceeded our target for 2022 (55%) and our product development keeps evolving.



## Risk management through innovation and compliance

In recent years, public awareness of the risk of climate change and global warming has increased. Hence, we see an increasing demand to find and use products and solutions with reduced climate impact. Additionally, regulatory requirements for plastics will likely increase in the future. If Trioworld does not act on legislation and customer requirements, declining sales volumes must be expected. To tackle this, we closely monitor changes in legislation at an early stage and respond accordingly. In addition, we have increased capacity on regulatory knowledge over the years, to stay well informed about upcoming changes and to participate in selected associations.

Through this work, Trioworld proactively adapts our production sites, our products, and our solutions. Being close to our markets and having long-term relationships with our customers is a competitive advantage. The R&D team within each division work with product development, new adaptations for recycled material, and process development. This also applies to our recycling sites, where we work, for example, with innovative process development to create high-quality PCR. Our innovation strategy is to have sustainable solutions in place that comply to regulatory expectations, even before our customers request them.



<sup>1</sup>Trioworld label for a product with ≥ 25 %PCR





## CASE STUDY

# Lowering climate impact thanks to customer-driven innovation



“  
**Lidl is very innovative. They're bold and have a very strong sustainability agenda.**  
”

Charlotte Fröhberg,  
Development Engineer Trioworld

**Reducing the plastic climate impact is a team effort. That's why Trioworld works closely with customers to increase plastic recycling as well as find new applications for plastics made from post-consumer recycled (PCR) material.**

“We know that our expertise in plastic recycling can make a difference for how customers approach their own sustainability efforts,” says Trioworld Development Engineer Charlotte Fröhberg.

“Working together with customers we can push the boundaries within areas where change may have seemed impossible and help reduce climate impact along the whole value chain.”

Charlotte Fröhberg played a leading role in Trioworld's partnership with grocery chain Lidl that resulted in the first PCR plastic film approved for frozen food packaging. The new packaging solution consists of 30% recycled PCR and is 100% recyclable.

“Lidl is very innovative. They're bold and have a very strong sustainability agenda,” she explains. “They wanted to challenge accepted norms and work with us to really make a difference.”

### Taking action together

While Fröhberg highlights how collaboration with customers can promote sustainable product innovation, Trioworld Product Manager Anders Larsson believes the company's “long-standing, constructive relationships” can help drive the shift toward a circular value chain for plastics.

Anders Larsson worked closely to forge a partnership with agriculture cooperatives in the Nordics to accelerate a transformation in the market for agricultural films toward recycled content-based solutions.

The new PCR-based product's carbon footprint is 30% lower compared to film made entirely from fossil raw material.

“If we want to have productive, sustainable farming, then the plastic we use must have as low a climate impact as possible,” says Anders Larsson.

“To do that, we need to go beyond a traditional supplier-customer relationship and see ourselves as long-term partners working together with customers to find the best way forward.”

Both Anders Larsson and Charlotte Fröhberg agree that customer-led innovation is critical to closing the loop in the plastic value chain.

“We aren't just talking, we're taking action together,” says Anders Larsson.

“Hopefully that leadership can inspire others to also make the shift toward more sustainable plastics.”



“  
**We aren't just talking, we're taking action together.**  
”

Anders Larsson,  
Product Manager Agri Trioworld



## CUSTOMER STORY

# Moelven switches to a Trioworld Loop packaging with 50% PCR

“

**Today plastic is the best alternative, and now we can use a plastic packaging that is based on 50% recycled plastic. The absolute best alternative that we can use today.**

Rune F. Andersen,  
Director Group Finance & Sustainability at Moelven

”



**The fundamental idea for Moelven has been the same for 120 years: to use natural resources to the fullest. Now they have achieved yet another milestone by making the switch to a Trioworld Loop packaging with 50% post-consumer recycled material.**

Packaging is never more sustainable than its ability to do its primary purpose. If the timber is not protected or transport safety is compromised, the offset of sustainable packaging will be equalized. That is why the Loop solution is developed specifically for the forest and timber industry, securing the protection of the products from outdoor exposure, and keeping people and cargo safe during handling and transport. To be more explicit, we are very aware that the film protecting the wood must meet very high standards, which can sometimes be a challenge when recycled plastic is being added to the mix. Nevertheless, the quality of our Loop50 solution - which contains 50% PCR - matches the demands.

### Close collaboration

“Trioworld is very ambitious in terms of sustainable innovation – but more importantly, our products are developed for, and together with, the forest and sawmill industry. This is the only way we can achieve the highest level of safety and product protection whilst pushing the amount of PCR material into the product. We are always developing our products with the environment in mind,” says Daniel Majgren, Commercial Director Forest Industry at Trioworld.

Rune F. Andersen, Director Group Finance & Sustainability at Moelven clarifies: “If we at Moelven should maintain the responsibility that we have to drive forth a sustainable production, then sustainability plays a significant role when we choose packaging for our production.”

Rune F. Andersen adds: “Today plastic is the best alternative, and now we can use a plastic packaging that is based on 50% recycled plastic. The absolute best alternative that we can use today.”



## Emissions and energy

**As a producer of polyethylene (PE) and polypropylene (PP) film, Trioworld directly and indirectly contributes to the release of greenhouse gases (GHG). Trioworld aims to limit emissions and adapt to climate change, as detailed in our Environment policy. In 2022, Trioworld strengthened its aim to reduce climate impact by having committed to set company-wide emissions reduction targets for the reduction of GHG emissions in line with the Science Based Targets initiative (SBTi). Trioworld will develop a roadmap to ensure the roll-out of actions and activities needed to reach the targets for SBTi. See also the SBTi case study.**

To be able to improve our climate impact, it is crucial to understand where across the value chain emissions are created. Trioworld assesses its Scope 1, 2, and 3 GHG emissions in accordance with the GHG Protocol, with 2020 as the baseline year. An assessment of Scope 1 and 2 revealed that around 95% of Trioworld production sites' energy consumption is purchased electricity. Some sites also use district heating and other fuels to generate energy, such as fuel oil, gas oil, diesel, and natural gas. Therefore, Trioworld's target is to reduce emissions<sup>1</sup> from Scope 1 and 2<sup>2</sup> with 80% per kg produced film by 2024 for the ten sites being a part of the group in 2020<sup>3</sup>. In 2022, Trioworld reduced Scope 1 and 2 emissions per kg produced film by 53% compared to 2020, exceeding our 2022 target of 40% reduction. This was mainly a result of the transition to renewable electricity using Guarantee of Origin<sup>4</sup> (GoO) at our production sites in Sweden and the Netherlands.

Besides transitioning to renewable electricity, Trioworld conducts continuous improvements in energy efficiency. This should be optimised at each site and taken into consideration during investments and sourcing of new equipment.

<sup>1</sup>Results are presented in carbon dioxide equivalents (CO<sub>2</sub>-eq.) including all greenhouse gases, e.g., CO<sub>2</sub> (carbon dioxide), CH<sub>4</sub> (methane), N<sub>2</sub>O (nitrous oxide) which are multiplied with their CO<sub>2</sub>-eq. potential factor.

<sup>2</sup>Based on market-based reporting.

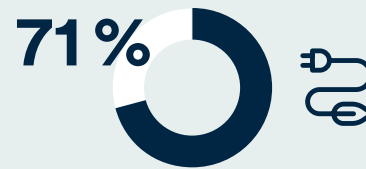
<sup>3</sup>Reporting is done annually for all Trioworld sites. In the *Appendix* the data for both target follow-up and all Trioworld sites is reported.

<sup>4</sup>GoO is used to prove that electricity was produced using renewable sources.

Trioworld's energy consumption is reviewed according to the European Energy Directive as applicable. For example, in Trioworld Smålandsstenar a project was initiated to use excess heat from operations to heat up water, sending it into the district heating system to heat up other buildings and homes in Smålandsstenar. At the same time, it is energy efficient as it allows a slower running rate for cooling machines.

### % purchased renewable electricity with GoO

for ten sites being a part of the group in 2020.

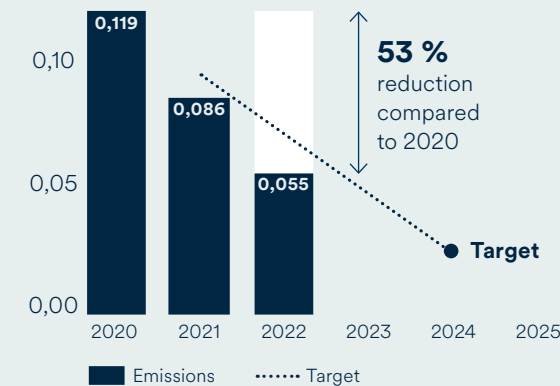


Trioworld plans for the transitioning to renewable electricity for more sites in the coming years.

### Scope 1 + 2 emissions (CO<sub>2</sub>-eq.)

CO<sub>2</sub>-eq. per kg. film produced

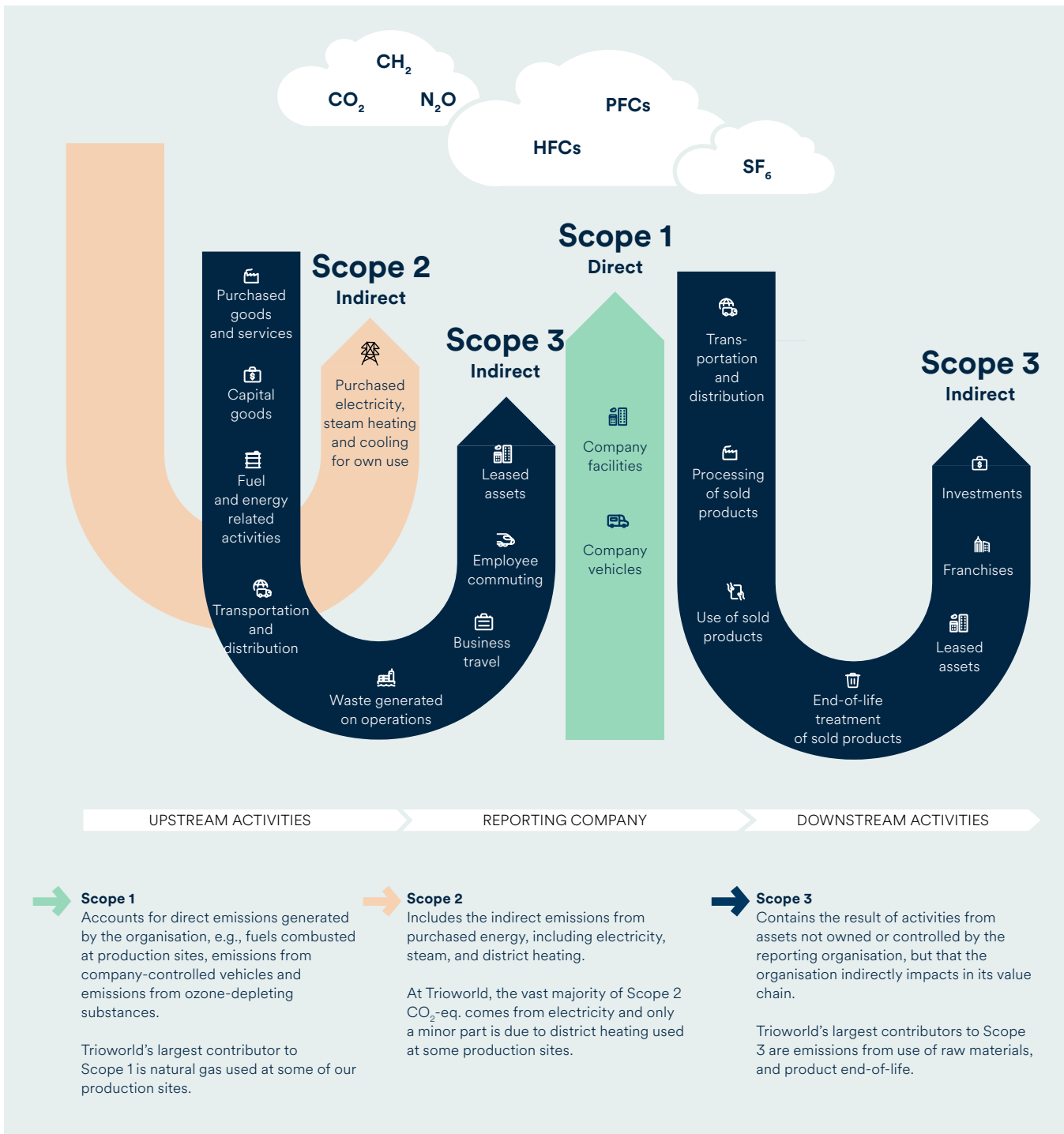
Baseline 2020, results for 2021 and 2022 for the ten sites being part of the group in 2020.



For Scope 3 emissions, it is essential to define appropriate reporting categories to understand where to focus reduction strategies. In 2021, Trioworld conducted its first assessment of Scope 3 GHG emissions based on 2020 data. The model created for making this assessment was developed in collaboration with IVL Swedish Environmental Research Institute. In 2022, we have switched from the model built with IVL to CEMAsys platform to assess the 2021 and 2022 Scope 3 emission data. This resulted in a higher degree of automation, and more reporting options, facilitating our work with SBTi and support follow-up of new targets to be established. Overall, emission factors were comparable to the IVL model. The assessment results show that Trioworld's emissions from Scope 3 are much greater than Scope 1 and 2 (see *Appendix*), and mainly originate from the use of raw materials and product end-of-life. Hence, Trioworld's focus for minimising climate impact from Scope 3 GHG emissions is using less materials, using raw materials with lower carbon footprints, making sure our products are recyclable, supporting recycling schemes and material recyclability as far as possible.

Trioworld's reporting on GHG emissions is improving year-on-year. We started in 2020 with reduction targets for our Scope 1 and 2 emissions and have followed the same model. In line with our commitment to the SBTi, we will set long-term reduction targets for Scope 1 and 2, and set targets to reduce our Scope 3 emissions.





## Managing risks related to emissions and energy

If society is to meet the goals of the Paris Agreement<sup>1</sup>, major changes are required. The EU is an ambitious contributor to the global efforts in fighting climate change and is committed to being climate neutral by 2050, as by the European Green Deal, described in more detail in *Re-thinking plastic*. If the plastics industry does not comply with the EU Green Deal and legislation, we risk losing licenses to operate. Trioworld has identified emissions as one of our main material topics; due to its importance, it is an integral part of Trioworld's strategy and business decision making. To manage the accompanied risks and reduce our climate impact, we work strategically toward the reduction of our GHG emissions from our value chain, and from our own operations.

<sup>1</sup>The Paris Agreement sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. Source: [European Commission - Paris Agreement](#)





## CASE STUDY

# Trioworld has committed to set near-and long-term company-wide emission reductions in line with science-based net-zero with the Science Based Targets initiative (SBTi)

**Over the past few years, Trioworld’s stakeholders have pushed for increasingly ambitious greenhouse gas (GHG) emissions reduction targets. Moreover, the legal landscape regarding climate impact and emissions is changing fast. These external drivers, together with Trioworld’s aim to be number one in sustainability in our industry has led us to commit to the Science Based Target initiative (SBTi), an initiative which aims to drive ambitious climate action across the private sector globally.**

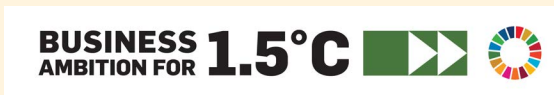
### Trioworld’s progress

In August 2022 Trioworld took an important step by sending the commitment letter to the SBTi and started preparing for target submission. Calculations of Scope 1, 2, and 3 emissions, according to the GHG Protocol, for the base year 2021 were established in 2022. Continuous work is being done to gather data and conduct necessary calculations for 2022.

In 2023 we will develop our most ambitious GHG reduction targets to date, i.e., achieve net-zero by 2050 and with this contribute to keeping global warming to 1.5°C. The targets to reduce our Scope 1, 2, and 3 emissions will be submitted for validation to SBTi in 2023, and we hope for official validation in the same year. Moreover, Trioworld will work continuously on developing and rolling-out a low carbon transition and

time-bound action plan that will support achieving the targets. Trioworld is actively working to achieve our emissions reduction targets and limit our emissions impact, however, we cannot do this journey on our own. Therefore, we are engaged with various upstream and downstream stakeholders that contribute to the reduction of emissions across our value chain.

Working according to the SBTi to reduce GHG emissions is a natural step in Trioworld’s sustainable business strategy to lead the industry change towards circularity in plastic packaging. As we embark on this ambitious challenge to further reduce our GHG emissions and achieve net zero emissions by 2050, we will continue exploring new, innovative, and more impactful steps to cut emissions across our value chain.



“An industry shift does not come easy, but we are in a rush to take the leaps required to meet the goals of the Paris Agreement on Climate Change. From my perspective, we need to stop discussing and start acting right now, before it is too late”, says Andreas Malmberg, CEO of Trioworld Group.

### About the SBTi

“The SBTi is a global body enabling businesses to set ambitious emissions reductions targets in line with the latest climate science. It is focused on accelerating companies across the world to halve emissions before 2030 and achieve net-zero emissions before 2050.

The initiative is a collaboration between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF) and one of the We Mean Business Coalition commitments. The SBTi defines and promotes best practice in science-based target setting, offers resources and guidance to reduce barriers to adoption, and independently assesses and approves companies’ targets.”<sup>1</sup>

<sup>1</sup> Source: [Science Based Targets](#)



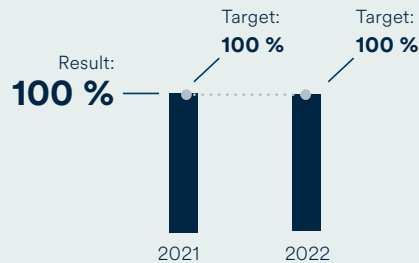
## Recyclability and design for recycling

Emissions from product end-of-life are together with emissions from raw material the main contributors to Trioworld's Scope 3 GHG emissions, as described in the chapter *Emissions and energy*. Ensuring recyclability is an enabler in lowering a product's carbon footprint.

Trioworld aims to improve the recyclability of our products after use, diverting them away from disposal methods, such as landfill or incineration. This will keep them in the material loop, supporting circularity. Over the last 20 years, Trioworld has been driving the development of recyclable plastic film. Efforts include process development and design of plastic products that improve recyclability. Our target of 100% recyclable products by 2022 has been a measure of this progress. Today, the majority of Trioworld's products are technically recyclable, according to our definition for recyclability<sup>1</sup>.

### Recyclability (%)

Trioworld definition<sup>1</sup>



2040 tonnes excluded, and 930 tons not recyclable according to the definition.

<sup>1</sup>Trioworld's definition of recyclable products are products that Trioworld considers to be recyclable in PE- or PP-fraction upon delivery from Trioworld. Non-recyclable products according to Trioworld are for example-products with PET/PE or PET/PP lamination. Products with the purpose of use that will make the product contaminated in such way that mechanical recycling is not possible, i.e., medical applications and hygiene laminations are excluded from the definition and the target set.

During 2022, work has started to improve how we ensure recyclability of our products. A new target will be set during 2023 in line with the Packaging and Packaging Waste Regulation (PPWR).

### Risk management in relation to recycling

As of today, Trioworld's influence on our product end-of-life is limited as the actual recycling depends on the use of the product, as well as waste collection and handling after use. Procedures for waste collection are mainly set by national and local authorities; consequently, the harmonisation of recycling regulation is limited. To increase the recycling rate, there is a need for efficient conditions to increase the uptake of used plastics and to create a predictable framework conducive to investments in circular plastics. In its Plastic Strategy, the EU Commission defined standardisation as one of the most important ways to achieve a circular economy.

Trioworld takes an active role to achieve a circular plastics economy. Trioworld's focus has been on revising standards and guidelines for the procedures of plastics recycling and quality, and traceability of recycled plastics. Moreover, to support the uptake of used plastics we participate in several waste collection schemes across the regions and markets where we operate. For example, Trioworld collaborates within collection schemes for agriculture waste in Germany, Sweden, and France; is engaged in the national producers' responsibility for plastic consumer packaging in Sweden; works with selected customers to close the material loop by taking back used material, to be recycled again. In addition, we increase our recycling capacity of external waste via our programme Backward Integration - enabling even more plastic waste to be recycled.



## CASE STUDY

# Taking the next steps in circularity for plastic



**Trioworld has for many years been an industry leader when it comes to using recycled materials in its products and continues to look for ways to increase circularity.**

“When we investigated our Scope 1, 2, and 3 greenhouse gas (GHG) emissions, we concluded that the main drivers were at each end of the product life cycle: the raw materials and end-of-life,” explains Trioworld’s Sustainability Development Director Eva Hultén.

“By using recycled material and supporting recyclability of our products we can make a significant impact on our overall carbon dioxide emissions, and thus lowering our customers’ scope 3 emissions. So, we’re changing from the traditional linear “produce-use-dispose” model to the circular model of “produce-use-recycle.”

Trioworld’s 2021 acquisition and integration of Swedish agricultural plastic waste recycling company Reviva Plastics AB was a step forward in the company’s plan in achieving the circular model.

In addition to the Reviva site in Korsberga in southern Sweden, Trioworld also operates recycling facilities for external waste in Ombrée d’Anjou in northwest France, and in Nyborg in central Denmark. While the site in Sweden is a stand-alone plastic recycling site, the recycling operations in Denmark and France are integrated in the plastic film production site.

*Continued on next page*



## Big plans for the recycling operations

Three new recycling lines are being built at the Reviva site, which will boost capacity from 6,000 to 24,000 tonnes per year<sup>1</sup>.

In France, work is underway to add two additional recycling lines and upgrade one of the two existing lines, investments that will double the site's recycling capacity from 12,000 to roughly 24,000 tonnes annually.

Trioworld's ambition is to increase in-house PCR production even more, potentially in new or at existing sites.

"All of these efforts fall under a programme that we call 'Backward Integration' as they involve moving back up in the value chain to increase our in-house high-quality PCR production," says Eva Hultén.

She points out that Trioworld has been taking steps toward circularity for some time, but that efforts are ramping up both in terms of product development and targeted investments, to meet the anticipated increase in demand.

"If you look across Europe, there isn't enough recycling capacity to meet the increased demand for high-quality PCR that we anticipate. Backward Integration will allow us to add additional capacity of the required quality to the growing plastic recycling industry, while at the same time continuing to work with existing recyclers across the continent," explains Eva Hultén.

"We hope our efforts to integrate recycling and film production will complement what's already available in the market. We can't do everything by ourselves - but we believe that combining our competencies in recycling and plastic film production will allow us to achieve the quality and scale we need to better support circularity of our products."

## Bringing people in the organisation together

To ensure the transfer of local learnings and best practices to other parts of the company, Trioworld established an organisation to support its Backward Integration programme.

Each investment project is owned and run by the site

themselves, but reports to the project steering group, chaired by Eva Hultén. Other sites and divisions also bring knowledge to the programme and learnings are shared across the group as applicable rather than staying "trapped" at a single site.

"Even if our divisions are different, PCR plays an important role for all of them," she says.

"Simply bringing people together, using the different experiences and talking from different points of view has already led to quite a bit of knowledge exchange."

As Trioworld is looking forward to increasing its in-house recycling capacity for external waste and further integrating it with film production, Eva Hultén highlights three key elements that have paved the way for success.

## Commitment as success factor

"Management support has been critical, for sure. Everyone agrees that this is where the industry is heading, and we want to lead the way," she says.

"Their commitment is the foundation for the teamwork we need across the company, where we all work together to make this a success."

Local responsibility and ownership for each project is another important success factor.

"Local project managers know best which contractors to work with, how permits and regulations work, and how the project is perceived by the local community," she says.

Finally, Eva Hultén points to all the partnerships Trioworld has with different suppliers and customers, all of whom are committed to helping move the industry toward a more sustainable, circular model.

"We couldn't do any of this without our customers, the equipment and waste suppliers, and other partners who contribute their products and expertise," she says.

"Having solid partnerships and doing this together with the different stakeholders are certainly a key to success."

<sup>1</sup>The investment in Sweden is co-funded by the Swedish Environmental Protection Agency through Klimatklivet and the European Union – NextGenerationEU.



**Funded by  
the European Union**  
NextGenerationEU





# Social responsibility



# At a glance

## Group targets related to our social responsibility and results 2022

We are sustainable		Target 2022	Result 2022	Result 2021	Comment
<b>LTAR (Lost Time Accident Rate)</b>	Lost Time Accident Rate is a measure of the rate for Lost Time Accident (LTA) for the last 12 months using the formula $LTAR = (\text{number of LTA} \times 200\,000) / (\text{number of labour employee hours})$ . LTA is defined as an accident leading to lost time (time away from work) where the employee is not able to return to work the following working day/shift incurred in the period.	0	6,3 %	4,3 %	The follow-up shows that despite high ambitions and implemented activities, we have not improved the LTAR from previous years.  Note: Target follow-up for LTAR includes the companies that were acquired during the year, i.e., Eurofilms Extrusion Ltd and Quality Films Ltd.

## Connection to Agenda 2030 and reporting standards

### Main connections to UN SDGs and targets

UN Goal	Target	UN Goal	Target
	5.1 End all forms of discrimination against women and girls everywhere.		10.2 By 2030, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.		

### Referenced reporting standards

GRI 401 – Employment 2016  
 GRI 403 – Occupational Health & Safety 2018  
 GRI 405 – Diversity and Equal Opportunity 2016  
 GRI 406 – Non-discrimination 2016



# Social responsibility

Trioworld is a responsible employer and a proactive partner in the communities where we operate. We stand for creating a safe and motivating work environment centred on taking care of employees. We are committed to a work environment where employees thrive, develop, and feel good both physically and mentally. We invest in people, encourage learning, and create a culture where everyone's contribution is appreciated. Following applicable laws and legislation is a minimum requirement at all our sites, but in many cases Trioworld is committed to a higher level of social responsibility.

## Responsible and attractive employer

Trioworld operates in several European countries and is known for taking responsibility, being a good employer and creating job opportunities in the communities where we are present. Working at Trioworld means working for a responsible and attractive employer that invests in employees by maintaining and improving skills while also providing appropriate working conditions. Our colleagues' satisfaction, loyalty and engagement are crucial to Trioworld's development and success, as these lead to improved performance and an enhanced utilization of our employees' skillset.

Our corporate culture is characterised by curiosity, openness, and tolerance. To be a responsible employer and to work with sustainability in terms of the environment, social impact and good governance is key in retaining and attracting employees. Employment as a material topic is reflected in our ambition to continue as a responsible and attractive employer. The Code of Conduct and Labour & Human Rights policy outline Trioworld's social and people commitment, including social responsibility targets. Besides Trioworld's commitment in this policy and code, employees at the production sites in Sweden,



France, and the Netherlands are covered by collective agreements. In Denmark, collective agreements apply to both blue collar and white collar employees at assistant level. All other employees in Denmark have similar benefits and protection covered by Danish laws. Collective agreements are valid for full-time employees and all temporary or part-time employees. Employees in sales offices and executive management have similar benefits and protection in their employment contract.

By the end of 2022, Trioworld employed 1,536<sup>1</sup> people. This is an increase of around 8% compared to 2021, which was mainly due to the acquisitions made in the UK during that year. In addition, the employee turnover in 2022 for Trioworld was 14,3%. Overall, around 75% of our employees are working in production. Trioworld works in dialogue with employee representatives to help maintain the strength and competence required for employees, and works to reduce negative social consequences according to national legislation, if applicable. This includes examples such as upskilling, internal mobility, and financial compensation.

### Collective bargaining

# 100 %

of employees covered by collective bargaining agreements (or similar).

<sup>1</sup>Number of employees (headcount) for Trioworld Group end of 2022, including Eurofilms Extrusion Ltd and Quality Films Ltd, excluding Malpack Ltd.



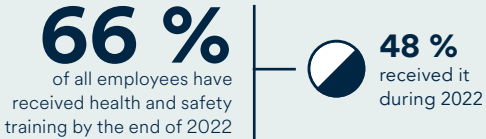
## Occupational health and safety

**A safe and secure work environment is a prerequisite for creating motivation and commitment. The core values of Trioworld, responsible – leading - together, guide us in our daily operations and are the foundation of our business strategy. They describe the company culture, how we act and interact with colleagues, customers, and partners. The health, safety and wellbeing of our employees are key priorities for Trioworld and are crucial to maintaining the stance of a responsible employer.**

Health and safety are material issues in aspects of our direct operations as well as in activities along the value chain. The Trioworld Code of Conduct, Labour & Human Rights policy, and policy for Equal Opportunities give direction on how occupational health and safety are handled within the group. Individual entities are encouraged to follow more progressive policies on health, safety and wellbeing as applicable, in addition to Trioworld's Group policies and codes. As an example, Trioworld Ombree d'Anjou and Trioworld Saint-Ouen certify their parts of the management systems according to ISO45001 (certification for Occupational Health & Safety). Other sites have their own management systems, ensuring written procedures, internal controls, and audits to be able to prevent unsafe scenarios and act on workplace safety. Throughout 2022, the group has emphasized how health and safety is a main priority and has communicated this commitment widely by senior leaders across the group. In turn, each site has health and safety at the top of their agenda for all meetings.

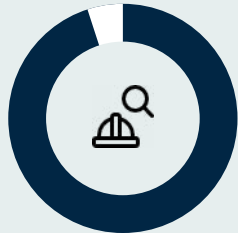


### Health and safety training in 2022



Training is valid for three years after completion.

### Health and safety risk assessments



Share of sites where risk assessments are conducted.

**92 %**

### Formal safety committee representation



Share of employees represented in a formal joint management- worker health and safety committee.

### Managing risks related to occupational health and safety

Working with plastic conversion can be a risk for Trioworld's employees, as there are dangers connected to the production process if instructions and procedures are not followed. Trioworld works hard to avoid accidents and incidents, and the ambition is always to have zero accidents. Trioworld's GMT has a monthly follow-up on the KPI Lost Time Accident Rate (LTAR) and tracks effectiveness of actions taken.

Unfortunately, progress towards our LTAR target moved in the opposite direction during 2022. Immediate actions from sites were taken, such as reviews of risk assessments and standard working routines, increased focus on risk analysis and operator training in case of changes to operations, thorough follow-up on compliance to standards, and increased communication and awareness of safety and safety risks. Additionally, Trioworld incorporated a reduction target on LTAR in the Labour & Human Rights policy. Trioworld continues to invest and take measured actions to ensure a beneficial and safe work environment. Besides LTAR, other health and safety indicators are monitored regularly, see *GRI Content Index 403-9*.

With any employment, there is a risk that employees' overall health and well-being can be impacted by their work. If employees experience stress or physical strains due to their employment at Trioworld, due actions will be taken to improve their situation. Trioworld works with preventive measures and training to keep its employees healthy and safe. All employees are provided with health and safety training, as well as Code of Conduct training as part of their onboarding. More specific training and procedures are provided depending on job responsibilities, such as working with potentially hazardous substances.

Steps to improve the work environment are continuously ongoing at production sites. All sites have a system in place to report health and safety risks, regular inspection or audits of the equipment are conducted, and mandatory health and safety checks for employees are provided. In case of changes to operations, risk assessments are carried out on production

sites, preferably jointly with the employees. Additionally, Trioworld aims to organise annual health and safety weeks to raise awareness for all employees. In 2022, around 60% of our sites have hosted health and safety weeks. At the time of the scheduled period, there were organisational changes and redundancies at certain sites. Therefore, the timing for a health and safety week was sometimes inappropriate and it was postponed to spring 2023. All our operations have access to an external healthcare service and healthcare benefits are provided by most of the companies and sites.

In all but one production site, there is a formal safety committee with site leadership and employee representation. The one site which does not have this is a small production site, where a safety officer is appointed to represent the employees. The main objective of the committees is to bring together worker and management representatives, define actions and agree on measures needed to improve health and safety performance. The committees meet on a regular basis. Reports on incidents and accidents are discussed in our World Class Manufacturing team, a cross-functional group for knowledge sharing and for taking precautionary measures where applicable. This information is then shared with employees at respective sites.

In 2022, Trioworld continued to deal with the effects of the covid-19 pandemic. Continuous efforts were in place to protect our employees.





## CASE STUDY

# Low LTA in Trioworld Nyborg

**The health, safety, and wellbeing of employees is a main priority at all Trioworld sites. A good example of a site being successful in having a beneficial culture and structure for a safe working environment is Trioworld Nyborg, who reported 0 LTAs from January to November 2022.**

Since 2021, this site has implemented Sherlock Web, an occupational health and safety management system that supports structured follow-up from the moment an incident occurs, through assessing and observing the risks, and setting up action plans to prevent those incidents from happening again.

Trioworld Nyborg has focused on involving employees in daily safety work in combination with implementing the Sherlock system to support easy reporting of incidents and observations. Reporting is done directly on the shopfloor with tablets, to make it convenient to improve safety. Employees are encouraged to increase the number of reported safety observations, when more observations are reported, more accidents will be avoided. Besides having this system in place, they work with regular Safety Gemba Walks including managers focusing on observations, protective equipment, and dangerous situations. There is a working environment group in individual departments where the results of these incidents and observations are discussed and processed.

However, accidents are not always straight forward to follow-up or prevent, even if there is a comprehensive safety culture and system in place. For example, during the Christmas holidays, a false fire alarm went off at the Nyborg site. As no one was on-site, the call went to the team leader who, while trying to get into his car to drive to the site, fell and hurt his knee. It was difficult to find corrective actions with such an incident which is considered an accidental injury, leading to 1 LTA in December. This shows that even if there is an effective system in place, we need to keep reminding ourselves to always put our health and safety first as accidental events can happen to all of us. We must always act in the safest way possible - for ourselves and for our colleagues.

“

**“We have a culture here at Nyborg where all employees take care of themselves and their colleagues.”**

”

Benno Arnsfeldt,  
LEAN coordinator at Trioworld Nyborg



## CASE STUDY

# Safety weeks at Trioworld

**Trioworld organizes annual health and safety weeks to increase awareness about safety risks, health and well-being and the importance of a sound work environment. The following are examples of how two of our production sites have conducted their safety weeks.**

### Trioworld Landskrona

Trioworld Landskrona has, during the annual organised safety weeks, taken actions to increase safety risk awareness and focused on the importance of safety culture within Trioworld. Every team gathered in workshops and worked with the theme ‘How can I influence my work environment and make it safer?’ This brought forward discussions amongst employees on behaviour, responsibility, participation, communication, and the power of habits. Based on those discussions, several risk observations were made and actions were taken to improve the work environment. Besides these workshops, a new risk assessment/safety reporting system, IA-Systemet, was implemented in Trioworld Landskrona. The new system supports the consistent work of reporting, following-up, and remedying events. This supports a more efficient identification of

major safety risks and allows for systematic improvement of the work environment.

### Trioworld Harlingen

Trioworld Harlingen considers the health, safety, and wellbeing of colleagues highly important. During the safety weeks, extra focus was put on certain areas which they believed were most relevant. Therefore, the safety weeks started with a campaign on hand injuries. As part of the campaign, signs were distributed at the site to increase awareness. As an example, the picture on the right shows the sign “avoid hand injuries” (“voorkom handletsel”) greeting the employees coming to work. In addition, an Awareness To Execution (ATEX) training was conducted to refresh employees’ knowledge and awareness of the risks of a solvent explosion.





## Diversity, equality, and non-discrimination

**To be a responsible actor in society and to make our employees feel safe in their workplace, Trioworld aims to secure a diverse and equal workplace without discrimination. Trioworld strongly believes in and supports diversity, equality, and non-discrimination. It applies to gender, age, religion, ethnicity/culture, sexual orientation, disability, cross-border identity or expression and background, or any kind of discrimination.**

Trioworld is an employer that is characterized by respect for the individual, thereby enabling development for all employees. Equal treatment is a natural and integral part of all operations within Trioworld, and it also applies during the recruitment phase. This is described in Trioworld's policy for Equal Opportunities, available on our [website](#).

Our ambition is to attract a wide range of people, to grow and attain the skills and competencies needed for today, as well as for the future. There is variation in female representation at our different production sites. The ambition to increase female representation has been prevalent in production sites during recent years, e.g., by actively seeking female candidates for

vacancies and signing equality agreements. Trioworld also aims for consistent age distribution among its employees to support a beneficial mix of experienced personnel with younger talents.





## Risk management in relation to diversity, equality, and non-discrimination

Trioworld actively works with diversity, equality, and non-discrimination to ensure that current and future employees feel welcome and respected. We believe different personalities with different backgrounds and experiences will bring different perspectives and knowledge to the company, leading to a more creative and stimulating work environment and building a more solid foundation with long-term profitability for Trioworld.

Respecting such differences creates a more inclusive company culture where people can grow to their full potential. Trioworld's continued development and success is dependent on making all employees feel welcome, respected, and engaged.

Trioworld works together with employees to keep the workplace safe and pleasant. The work includes a wide range of aspects, such as actions to prevent discrimination during the recruitment phase and during professional development and promotion processes, remediation

procedures implemented across all sites, and provision of discrimination and harassment training. Trioworld also promotes gender inclusion in the workplace by monitoring pay differences between seniority, educational, and management responsibility. It is our ambition that all employees will have participated in diversity, discrimination, and harassment training by 2025. By the end of 2022, half of all employees had undergone training.

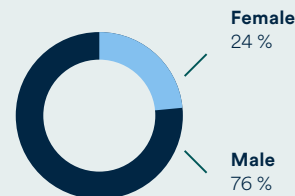
### Age diversity of employees over time, % based on headcount

	2022			2021			2020		
	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Sweden	11	49	40	12	43	45	Not available		
Denmark	8	42	50	12	45	43	Not available		
Netherlands	12	30	58	5	31	64	Not available		
France	14	69	17	18	64	18	Not available		
Trioworld group average	10	47	43	11	44	45	13	42	45

### Gender diversity over time, share of women % based on headcount, including acquisitions during the year

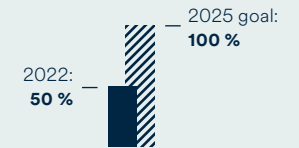
	2022	2021	2020
All employees	19,5%	19%	18%
Manager (all levels)	25%	20%	20%
Manager in site management teams	29%	29%	26%
GMT	10%	10%	10%
Board of directors; Trioworld Industrier AB	14%	14%	14%

### Gender diversity of new hires %, based on headcount



### Diversity, discrimination, and harassment training

Workforce participation and goal, %



As for any international company, our value chain has a wide reach, meaning that there is a risk of inequality and discrimination. To reduce this risk, Trioworld predominantly works together with suppliers who share and comply to the values of diversity, equality, and non-discrimination of Trioworld as outlined in our Code of Conduct. In addition, Trioworld has a whistleblowing system where anyone who detects or experiences serious irregularities in any of the above areas can speak up anonymously. We aim to have zero confirmed reports of misconduct reported in the whistleblowing system. No non-compliance related to discrimination was reported in the whistleblowing system in 2022. However, one case of discrimination was handled by a Trioworld site during 2022. Remediation plans have been implemented regarding the incident, with results reviewed through routine internal management review processes.



## Employee development and satisfaction

**We believe in development and satisfaction through participation. Trioworld is a decentralised organisation where each division is responsible for their own core business and for the performance and development of employees, supported by GMT and coordinating councils. Each division works with improvements based on results, efficiency, individual interviews, and different surveys.**

An individual performance review should be performed annually with all employees. This includes planning for future years, such as training or education required and personal development targets. In 2022, only 64% of employees had a performance review, due to management changes in certain production units and employee turnover during the end of 2022.

Amongst other things, the individual performance plans support those employees who wish to take on inhouse positions within Trioworld. To further facilitate employee development and support inhouse careers, we have inhouse leadership training: Trioworld Academy. Besides the Trioworld Academy, we introduced an e-learning system for all employees in 2022. This system is still under development and will include onboarding introductions, as well as training in health and safety, our Code of Conduct, sustainability, and discrimination and harassment. The purpose is to increase competence, to further strengthen the Trioworld culture and increase the understanding of our overall strategy.

### Employee satisfaction survey

To improve employee satisfaction among Trioworld employees and identify areas of improvement in the work environment, we conduct an annual employee satisfaction survey. Every year, it measures engagement and employer branding. In alternate years, it also measures leadership and team efficiency. The results are presented to the respective teams, who plan activities on how to improve everyday life at Trioworld.



In 2022, the survey was conducted at all production sites and 79% of the employees responded. In general, the results were positive. The Engagement Index increased from 74 in 2021 to 76 in 2022. We see this increase partly because of a clearer focus on company objectives and what Trioworld wants to achieve, and how employees contribute to these.





## EMPLOYEE TESTIMONIAL

# A culture marked by camaraderie and competence

**Angie Schellekens stands confidently amid the whirring machines inside Trioworld's production site in Apeldoorn.**

"I'm really proud to be part of a company leading developments in PCR," she says as her watchful eye scans the equipment she's responsible for operating.

It's been five years since the Assistant Operator left her job at a bakery to join the Trioworld team of roughly 200 employees in Apeldoorn, 80 percent of whom live in the local community.

Angie Schellekens was attracted in part by the opportunity to operate the site's impressive machines, but also by being able to move from a four- to a five-shift system.

"The five-shift system offers more flexibility and helps me achieve a better work-life balance," she explains.

Angie Schellekens admits that it took some time to adjust to life at Trioworld. Most of her colleagues were male and learning how to operate the extrusion machine required both patience and persistence.

### Continuous development

But those early growing pains are now a distant memory. Today, she feels a "strong bond" with her colleagues and appreciates a culture marked by camaraderie and competence.

"We work really well together," says Angie Schellekens.

"Everybody knows what to do and we have a lot of fun together. But everyone is also very serious about the job they do."

She feels a sense of pride and ownership when it comes to Trioworld's success and her role in making it happen. And soon hopefully she will have an even larger role to play in the Apeldoorn site.

"I'm almost trained now to be an Operator B, which is a goal I've had since shortly after I joined," she says.

"It's great to be at a company where I can continue to develop, and I can't wait to see what comes next."

“

**Everybody knows what to do and we have a lot of fun together. But everyone is also very serious about the job they do.**

”

Angie Schellekens  
Assistant Operator at Trioworld Apeldoorn



## Societal engagement

**Trioworld's engagement with local communities reflects our corporate values and is highlighted in our Code of Conduct, "We are responsible". This statement applies to our own operations, but also signals our role in society. Trioworld is aware that our impact on society reaches beyond our own operations, from how we supply our resources to how our products are utilised by our customers and their stakeholders.**

Our Code of Conduct establishes how Trioworld conducts societal engagement; however, decisions on types of engagement and supporting local community initiatives are taken at each production site. Where possible, we engage in the communities where we have operations, and aim to always have a positive impact. We strive to hire and develop local employees and managers. We prioritise support and sponsor partnerships with organisations that share our values and benefit communities. We actively participate in partnerships and projects with schools, universities, research

institutes and industrial networks. In addition, we take a neutral stance on political issues. The Trioworld company name or Trioworld's financial resources may not be used for political purposes.

As each site decides their own type of engagement, projects selected reflect local context rather than a one-size-fits-all approach. The following are examples of certain sites and their societal engagement actions within the region.

### CASE STUDY

## Events that strengthen the ties between Trioworld Ombree d'Anjou and its local community



**For Trioworld Ombree d'Anjou, located in the Maine-et-Loire area in France, societal engagement is of great importance. Several activities have been initiated throughout the year, from hosting open days to supporting local sport associations.**

These events strengthen ties between the company and local communities. They also engage with organisations who are related to relevant sustainability issues. In 2022, Trioworld Ombree d'Anjou has worked in collaboration with the organisation CARSAT, a governmental organisation that deals with health, safety, and working conditions and who organise training courses for high-school teachers to evaluate work-related risks. A group of trainee teachers were invited to the production site, and as part of their assignment were asked to analyse the workstations of the new refuse sacks lines in the extrusion workshop, and the sorting line in the recycling workshop.

Moreover, donations were made to '**La Fondation Arc**', a French foundation for cancer research. The aim is to raise awareness and support cancer research through our campaign of coloured bales. Trioworld Ombree d'Anjou has been part of this campaign since 2016 and it is a real success!



## CASE STUDY

# Local charity donations by Trioworld Harlingen

The Works Council of Trioworld Harlingen annually nominates a local charity for a donation. This year they have donated to 'Stichting SOOS Harlingen', a foundation that organises activities for people with a mental disability.

Volunteers at SOOS put their heart and soul into providing a fun and educational day or evening for relevant groups. We also donated to 'Stichting Taart voor Kids'. They are affiliated with the Food Bank West-Friesland and give a birthday cake to children between the ages of 1 to 16 from families that are not affluent, to make their birthdays more memorable. These are just two examples of great foundations that they like to support.



Additionally, Trioworld Harlingen started a project in cooperation with [National Test Centre Circular Plastics](#) in Heerenveen, a not-for-profit organisation, contributing to closing the loop of the plastics value chain. Research is conducted on how to de-ink waste in such a way that it upgrades the quality of the waste stream into recycled material that is food safe, with the ability to be reused as input material for Trioworld Harlingen's own food films.

## CASE STUDY

# Trioworld Apeldoorn, a recognised training company



**Societal engagement at Trioworld Apeldoorn is predominantly focused on knowledge sharing and education. They are part of several initiatives that support a wide range of students in their education.**

As such, Trioworld Apeldoorn is a recognised training company. They are happy to help with internships and graduates, to support the completion of relevant professional work experiences in a modern production environment or related departments. For example, in cooperation with schools and other companies in the neighbourhood, students come to the site one day a week to be trained, one day at a respective site of a neighbouring company, and the other days at school. Moreover, they annually host a 'technical week', where students and the local community are invited for a guided tour at the site with the aim to increase awareness of the company, as well as to create enthusiasm around the potential work on offer at Trioworld. Knowledge sharing is not only limited to students and the local community, as quite regularly relevant Trioworld Apeldoorn employees are invited to speak about our products and view on sustainability at a variety of industry related events, and they are proud to be part of this process.

## CASE STUDY

# Societal engagement, a key success factor for Reviva Plastics

Reviva is located in Korsberga, Sweden, with about 750 inhabitants. Cooperation and maintaining a good relationship with neighbours and society is a success factor for them. They sponsor, for example, the local sports club Österkorsberga Idrottsförening.



Reviva is committed to support local engagement where they simultaneously can share their story of plastic use, recycling, and products with recycled content. Therefore, they arranged an Open House event in November with about 150 visitors. They showed their production, site, expansion plans, products and final products produced by Trioworld using Reviva's PCR – reflecting the importance, influence, and effect of Reviva and Korsberga in the plastic material loop. Also, they support local schools and authorities with internships and introduction programmes as they want to give young adults the chance to get their first working experience, to grow self-confidence and capabilities, because they see them as potential employees and partners in the future.



# About the Sustainability Report

**This is Trioworld's seventh Sustainability Report, and the fourth which has been prepared in accordance with the GRI Standards. Trioworld's Sustainability Reports are issued on an annual basis. This report covers our operations and sustainability work for the period from 1 January 2022 to 31 December 2022, and has been published in May 2023.**

The Sustainability Report fulfils the mandatory requirements of the Swedish Law on Sustainability Reporting (ÅRL ch.6 §12). A separate short version of this report has been submitted to the Swedish authorities within the Annual Report of Trioworld Holding AB in accordance with the law in March 2023. The Sustainability Report and the Annual Report of the Holding AB have the same reporting period. The information in the Sustainability Report 2022 represents Trioworld Industrier AB and its subsidiaries, as well as the group parent company Trioworld Holding AB. During 2022, Trioworld acquired Eurofilms Extrusion Ltd and Quality Films Ltd in the United Kingdom, both of which are now combined under Trioworld UK Ltd. In addition, Trioworld acquired Malpack Ltd in Canada during 2023. As these companies have not been part of Trioworld for a full reporting year of 2022, data and results presented in the Sustainability Report 2022 exclude these three companies, unless explicitly mentioned.

There is no external third-party assurance for the Sustainability Report 2022.

## Reporting principles

All Trioworld subsidiaries report monthly in Trioworld's financial reporting system, from which some information for this Sustainability Report is retrieved such as total number of employees, LTAR, working hours and total approved production. Most of the information in this Sustainability Report is collected via a data-driven reporting system, Position Green, on a monthly, quarterly, and yearly basis, depending on the information requested. Trioworld's Greenhouse Gas (GHG) emissions are reported in accordance with the GHG Protocol.

The approach used for consolidating information is in line with the GRI Standards. The report focuses on performance 2022, but some historical data may be included for the purpose of comparison and monitoring progress. Historical data may have been updated in line with changes in internal or external reporting methodology.

## Restatements of information

In this report, a restatement of the KPI "LTAR, result 2021" has been made due to error(s) made in a previous reporting period. Errors, due to human factors, were found in LTA reporting for the year 2021. After thorough investigations in 2022, the LTAR for 2021 has been updated from the previously reported 2,3 to 4,3.

A restatement of the Scope 3 emissions data for 2021, and the related GHG emissions intensity ratio have been made. We have updated the emission factor for plastic incineration from a generic plastic incineration factor to a PE specific incineration factor. The PE factor represents Trioworld's operations better, and the factor is slightly higher than the generic factor. Updated from 985796,1 tCO<sub>2</sub>-eq. to 1098287,8 tCO<sub>2</sub>-eq; from 4,04 kg CO<sub>2</sub>-eq./approved production to 4,46 kg CO<sub>2</sub>-eq./approved production.

## Report contact

If you have any questions, comments, or feedback regarding the report, please contact:

Margot de Lorijn, Sustainability Controller at Trioworld,  
[margot.delorijn@trioworld.com](mailto:margot.delorijn@trioworld.com)



# GRI content index table

**Statement of use** Trioworld Industrier AB has reported in accordance with the GRI Standards for the period 1 January 2022 to 31 December 2022.  
**GRI 1 used** GRI 1: Foundation 2021  
**Applicable GRI Sector Standard(s)** From the Sector Standards available, none apply.

Gri standard/ other source	Disclosure	Location	Omission		
			Requirement(s) omitted	Reason	Explanation
<b>General disclosures</b>					
GRI 2: General Disclosures 2021	2-1 Organisational details	a-b. Readers' guide (p. 4) c-d. Trioworld in brief (p. 6)			
	2-2 Entities included in the organisation's sustainability reporting	a. GRI Appendix - Trioworld subsidiaries (p. 78) b. Readers guide (p. 4); About the Sustainability Report (p. 62) c. About the Sustainability Report (p. 62) ci. The approach does not involve adjustments to information for minority interests, as this is n/a for Trioworld cii. Readers guide (p. 4) ciii. Readers guide (p. 4)			
	2-3 Reporting period, frequency and contact point	a-d. About the Sustainability Report (p. 62)			
	2-4 Restatements of information	a-aii. About the Sustainability Report (p. 62)			
	2-5 External assurance	a. Readers guide (p. 4) b. About the Sustainability Report (p. 62)			
	2-6 Activities, value chain and other business relationships	a. Trioworld in brief (p. 6) b. Our value chain (p. 9) bi. Trioworld in brief (p. 6); Our value chain (p. 9); Leading the way to sustainable solutions (p. 10) bii. Secure and sustainable supply (p. 26) biii. Our products and solutions (p. 10) c. External initiatives and memberships (pp. 33-34)	d.	Not applicable	No significant changes in 2-6-a, 2-6-b, and 2-6-c compared to the previous reporting period.
	2-7 Employees	a-d. GRI Appendix - Trioworld subsidiaries (p. 78) e. Responsible and attractive employer (p. 51)	biii-bv.	Information unavailable/incomplete	Information not available, not yet reported by the subsidiaries in such a way.
	2-8 Workers who are not employees	a-bii. GRI Appendix - Trioworld subsidiaries (p. 78)	c.	Information unavailable/incomplete	Information not available, not yet reported by the subsidiaries in such a way.

Continued on next page



Gri standard/ other source	Disclosure	Location	Omission		
			Requirement(s) omitted	Reason	Explanation
GRI 2: General Disclosures 2021	2-9 Governance structure and composition	a-b. Organisation (p. 13) ci. GMT are all executive members. cv. Diversity, equality and non-discrimination (pp. 56-57)	cii-civ, cvi, cviii.	Not applicable	Highest governance body is Group Management Team, therefore these requirements are not applicable.
			cvii.	Confidentiality constraints	Trioworld considers the requirement confidential information and cannot report on it publicly.
	2-10 Nomination and selection of the highest governance body	biv. GMT members are selected based on their competencies relevant to the impacts of the organisation commonly associated with sector, location, role, etc.	a-biii.	Confidentiality constraints	Trioworld considers the requirements confidential information and cannot report on it publicly.
	2-11 Chair of the highest governance body	a. Chair of the highest governance body is also senior executive in the organisation. b. CEO			
	2-12 Role of the highest governance body in overseeing the management of impacts	a. Corporate sustainability (p. 23) bi-c. Putting sustainability into action - stakeholder analysis, materiality assessment (pp. 17-18); Appendix - Trioworld Stakeholder Analysis (pp. 74-75)			
	2-13 Delegation of responsibility for managing impacts	ai-b. Group Annual Report of Trioworld Holding AB, accessible via bolagsverket.se			
	2-14 Role of the highest governance body in sustainability reporting	a. Readers guide (p. 4)			
	2-15 Conflicts of interest	-	a-biv.	Confidentiality constraints	Trioworld considers the requirements confidential information and cannot report on it publicly.
	2-16 Communication of critical concerns	a-b. Whistleblowing (p. 27)			
	2-17 Collective knowledge of the highest governance body	-	a.	Confidentiality constraints	Trioworld considers the requirement confidential and cannot report on it publicly.
	2-18 Evaluation of the performance of the highest governance body		a-c.	Confidentiality constraints	Trioworld considers the requirements confidential information and cannot report on it publicly.
	2-19 Remuneration policies		a-b.	Confidentiality constraints	Trioworld considers the requirements confidential information and cannot report on it publicly.
	2-20 Process to determine remuneration		a-b.	Confidentiality constraints	Trioworld considers the requirements confidential information and cannot report on it publicly.
	2-21 Annual total compensation ratio		a-c.	Confidentiality constraints	Trioworld considers the requirements confidential information and cannot report on it publicly.
2-22 Statement on sustainable development strategy	a. CEO Statement (p. 3)				
2-23 Policy commitments	ai, bi-bii. Human rights (p. 24); Corporate sustainability (p. 23) aii, aiv. Human rights (p. 24); Trioworld's work with human rights due diligence (p. 25) aiii. Trioworld's Code of Conduct (p. 24) c. Group sustainability policy commitments are not publicly available. Available via Trioworld website are: Code of Conduct, Policy for equal opportunities, Modern Slavery Act, Tax policy d-f. Corporate sustainability (p. 23)				

Continued on next page





GRI standard/ other source	Disclosure	Location	Omission		
			Requirement(s) omitted	Reason	Explanation
GRI 2: General Disclosures 2021	2-24 Embedding policy commitments	ai-aiii. Corporate sustainability (p. 23); Group Annual Report of Trioworld Holding AB, accessible via bolagsverket.se	aiv.	Information unavailable/incomplete	Information unavailable, no such training provided yet for the Group
	2-25 Processes to remediate negative impacts	a. Risk management in relation to diversity, equality, and non-discrimination (p. 57); Responsible and attractive employer (p. 51) b. Systems for compliance (p. 27) c. Risk management in relation to diversity, equality, and non-discrimination (p. 57)	d-e.	Information unavailable/incomplete	Information unavailable, due to decentralised organisation these processes are run differently in each country compliant to local and national laws, therefore unable to describe a Group approach.
	2-26 Mechanisms for seeking advice and raising concerns	a. Whistleblowing (p. 27)			
	2-27 Compliance with laws and regulations	ai-bi. Systems for compliance (p. 27)	bii-d.	Not applicable	Not applicable as no significant instances occurred in current and previous reporting periods.
	2-28 Membership associations	a. External initiatives and memberships (pp. 33-35)			
	2-29 Approach to stakeholder engagement	ai. Putting sustainability into action - Stakeholder analysis (p. 17); Appendix - Trioworld Stakeholder Analysis (pp. 74-75) aii-aiii. Corporate sustainability (p. 23)			
	2-30 Collective bargaining agreements	a-b. Responsible and attractive employer (p. 51)			

#### Material topics

GRI 3: Material Topics 2021	3-1 Process to determine material topics	ai-b. Putting sustainability into action - Stakeholder analysis, Risk analysis, Materiality assessment (pp. 17-18)			
	3-2 List of material topics	ai-b. Putting sustainability into action, Materiality assessment (p. 18)			

#### Economic performance

GRI 3: Material Topics 2021	3-3 Management of material topics	Group Annual Report of Trioworld Holding AB, accessible via bolagsverket.se			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	ai-aiii. GRI Appendix - Total capitalization broken down in terms of debt and equity, 201-1 Direct economic value generated and distributed (p. 79)	b.	Not applicable	Trioworld consolidates on Group level.

#### Anti-corruption

GRI 3: Material Topics 2021	3-3 Management of material topics	Trioworld Code of Conduct (p. 24); Systems for compliance (p. 27)			
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	a. Trioworld's Code of Conduct (included under all employees) (p. 24) c. Trioworld's Code of Conduct, % of suppliers signed CoC (p. 24); Systems for compliance (p. 27) d. Trioworld's Code of Conduct, % (included under all employees, not reported separately) (p. 24) e. Trioworld's Code of Conduct (p. 24); Systems for compliance (p. 27)	b.	Information unavailable/incomplete	Information unavailable, we report on % of training instead
	205-3 Confirmed incidents of corruption and actions taken	a-d. Systems for compliance (p. 27) 0 confirmed incidents of corruption occurred in 2022.			

Continued on next page



Gri standard/ other source	Disclosure	Location	Omission		
			Requirement(s) omitted	Reason	Explanation
<b>Anti-competitive behaviour</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Trioworld Code of Conduct (p. 24); Systems for compliance (p. 27)			
GRI 206: Anti-competitive Behaviour 2016	206-1 Legal actions for anti- competitive behaviour, anti- trust, and monopoly practices	a-b. Systems for compliance (p. 27) 0 legal actions for anti-competitive behaviour, anti-trust, monopoly practices occured in 2022.			
<b>Materials</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	a-f. Raw materials and sourcing (p. 37); managing risks related to raw materials and sourcing (p. 38)	eiv.	Information unavailable/ incomplete	Requirement not yet reported upon.
GRI 301: Materials 2016	301-1 Materials used by weight or volume	GRI Appendix - table 301-1 Materials used by weight or volume; 301-2 Recycled input material used (p. 80)			
	301-2 Recycled input materials used	GRI Appendix - table 301-1 Materials used by weight or volume; 301-2 Recycled input material used (p. 80)			
<b>Emissions</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	a. Emissions and energy (p. 43) b. Managing risks related to emissions and energy (p. 44) c. Emissions and energy (p. 43); Trioworld has committed to set near-and long- term company-wide emission reductions in line with science-based net-zero with the Science Based Targets initiative (SBTi) (p. 45) d. Environmental responsibility (pp. 36-48) e. Sustainable product development and innovation (p. 40) f. Emissions and energy (p. 43)	eiv.	Information unavailable/ incomplete	Requirement not yet reported upon.
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	a-b, dii. GRI Appendix - table 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity (p. 80) di. GRI Appendix, table 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity (p. 80); Emissions and energy (p. 43) e. <a href="https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting">https://www.gov.uk/government/collections/government-conversion-factors- for-company-reporting</a> f. Average-data method for calculating GHG emissions. Mix between spend- based and activity-based g. In accordance with GHG protocol; calculation tool as developed in collaboration with IVL Svenska Miljöinstitutet AB	c, diii.	Not applicable	c. Not applicable for Trioworld's operations to report diii. No recalculations of the base year conducted
	305-2 Energy indirect (Scope 2) GHG emissions	a-c, dii, e-f. GRI Appendix, table 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity (p. 80) di. GRI Appendix, table GRI Appendix, table 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity (p. 80); Emissions and energy (p. 43) g. In accordance with GHG protocol; calculation tool as developed in collaboration with IVL Svenska Miljöinstitutet AB	diii	Not applicable	No recalculations of the base year conducted
	05-4 GHG emissions intensity	a. GRI Appendix, table GRI Appendix, table 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity (p. 80): CO2-eq./total approved production b. GRI Appendix, table GRI Appendix, table 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity (p. 80): total approved production c-d. GRI Appendix, table GRI Appendix, table 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity (p. 80)			

Continued on next page



GRI standard/ other source	Disclosure	Location	Omission		
			Requirement(s) omitted	Reason	Explanation
<b>Supplier environmental assessment</b>					
GRI 308: Supplier Environmental Assessment 2016 <b>Employment</b>	308-2 Negative environmental impacts in the supply chain and actions taken	a-c. Trioworld's work with human rights due diligence (p. 25) d-e. Secure and sustainable supply (p. 26)			
GRI 3: Material Topics 2021	3-3 Management of material topics	Social responsibility chapter (pp. 50-61)			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	a-b. Responsible and attractive employer (p. 51); Diversity, equality and non- discrimination (pp. 56-57); GRI Appendix, table 401-1 New employee hires and employee turnover (p. 81)			
<b>Occupational health and safety</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	a-f. Occupational health and safety (p. 52); Risk management on occupational health and safety (p. 53)			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system 403-4 Worker participation, consultation, and communication on occupational health and safety 403-5 Worker training on occupational health and safety 403-9 Work-related injuries	aii-b. Occupational health and safety (p. 52); Risk management on occupational health and safety (p. 53) b. Risk management on occupational health and safety (p. 53) a. Risk management on occupational health and safety (p. 53) ai-f. GRI appendix table 403-9 work-related injuries (p. 82)	ai.	Not applicable	Not applicable for Trioworld
			bv.	Information unavailable/ incomplete	Information unavailable, not yet reported/monitored
<b>Training and education</b>					
GRI 404: Training and Education 2016	404-3 Percentage of employees receiving regular performance and career development reviews	a. Employee development and satisfaction (p. 58)			
<b>Diversity and equal opportunity</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	a-f. Diversity, equality, and non-discrimination (p. 56); Risk management in relation to diversity, equality, and non-discrimination (p. 57)			
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	ai-bii. Diversity, equality and non-discrimination (p. 56)	aiii, biii	Not applicable	Not applicable, as Trioworld reports the other indicators

Continued on next page



GRI standard/ other source	Disclosure	Location	Omission		
			Requirement(s) omitted	Reason	Explanation
<b>Non-discrimination</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	a-f. Diversity, equality, and non-discrimination (p. 56); Risk management in relation to diversity, equality, and non-discrimination (p. 57)			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	a-b. Diversity, equality and non-discrimination (p. 56); Risk management in relation to diversity, equality, and non-discrimination (p. 57)			
<b>Supplier social assessment</b>					
GRI 414: Supplier Social Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken	a-c. Trioworld's work with human rights due diligence (p. 25) d-e. Secure and sustainable supply (p. 26)			
<b>Marketing and labeling</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	a-f. Transparent communication (p. 26)			
GRI 417: Marketing and Labeling 2016	417-2 Incidents of non- compliance concerning product and service information and labeling	b. Transparent communication (p. 26)			
	417-3 Incidents of non- compliance concerning marketing communications	b. Transparent communication (p. 26)			
<b>Environmental compliance</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Re-thinking plastic (pp. 15-16); Managing Sustainability - Corporate sustainability (p. 23); Systems for compliance (p. 27); Managing risks related to raw materials and sourcing (p. 38); Recyclability and design for recycling (p. 46)			



# Definitions

Title	Description	Source
<b>Agenda 2030</b>	The Agenda 2030 is a plan of action for people, planet, and prosperity. It also seeks to strengthen universal peace in larger freedom. All countries and all stakeholders acting in collaborative partnership will implement the plan. The 17 Sustainable Development Goals and 169 targets demonstrate the scale and ambition of the Agenda. The goals and targets stimulate action over the next 15 years in areas of critical importance for humanity and the planet.	<a href="#"><u>United Nations – Transforming Our World: The 2030 Agenda for Sustainable Development</u></a>
<b>Bio-based/bio-attributed</b>	<i>Bio-based</i> plastics are fully or partially made from biological resources, rather than fossil raw materials. They are not necessarily biodegradable or compostable.	<a href="#"><u>European Commission – Biobased, Biodegradable and Compostable Plastics</u></a>
	<i>Bio-attributed</i> plastics are plastics to which the use of biological feedstock has been attributed through a fully transparent and third-party auditable mass-balance approach.	<a href="#"><u>Plastics Europe – Renewable Resources (bioplastics)</u></a>
<b>Carbon footprint</b>	A carbon footprint is a certain amount of gaseous emissions that are relevant to climate change and associated with human production or consumption activities. In some cases, the carbon footprint is expressed as the carbon dioxide equivalent (CO <sub>2</sub> -eq.) which is meant to sum up the total greenhouse gas (GHG) emissions caused by an individual, event, organisation, service, place, or product.	
<b>Circular economy</b>	Moving away from the linear “produce-use-dispose” model and transitioning to a regenerative growth model is essential to keep resource consumption within planetary boundaries. In a circular economy, the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste is minimized. The current linear economy continually increases its demands of scarce natural resources. By using and consuming in a more circular way, we can substantially reduce the impacts of human economic activities on the environment, including on biodiversity.	<a href="#"><u>European Commission – A Circular Economy For Plastics</u></a>
<b>Circularity</b>	The practice of encouraging reuse and recycling to ensure that products and services contribute to a circular economy.	
<b>Corporate Sustainability Reporting Directive (CSRD)</b>	EU law requires all large companies and all listed companies (except listed micro-enterprises) to disclose information on what they see as the risks and opportunities arising from social and environmental issues, and on the impact of their activities on people and the environment. This helps investors, civil society organisations, consumers, and other stakeholders to evaluate the sustainability performance of companies, as part of the European Green Deal.	<a href="#"><u>European Commission – Corporate Sustainability Reporting</u></a>
<b>Corporate Sustainability Due Diligence Directive (CSDDD)</b>	On 23 February 2022, the European Commission adopted a proposal for a Directive on corporate sustainability due diligence. The aim of this Directive is to foster sustainable and responsible corporate behaviour and to anchor human rights and environmental considerations in companies’ operations and corporate governance. The new rules will ensure that businesses address adverse impacts of their actions, including in their value chains inside and outside Europe.	<a href="#"><u>European Commission – Corporate Sustainability Due Diligence</u></a>
<b>CO<sub>2</sub></b>	Carbon dioxide, a gas formed during all carbon combustion processes, such as fossil fuel combustion.	
<b>CO<sub>2</sub>-eq.</b>	Carbon dioxide equivalent, a measure used to compare the emissions from various greenhouse gases on the basis of their global warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.	



Title	Description	Source
<b>Design for recycling (DfR)</b>	Every product placed on the market should be designed by considering its intended functionalities, as well as the compatibility of its different components with state-of-art recycling processes in mind.	<a href="#">Plastics Recyclers Europe – Design for Recycling</a>
<b>(Employee) Engagement Index</b>	An (Employee) Engagement Index is a measure of engagement levels relative to employees and their day-to-day jobs.	
<b>Environmental, Social, Governance (ESG)</b>	These are called pillars in ESG frameworks and represent the three main topic areas that companies are expected to report on in their sustainability report. The goal of ESG is to capture all the non-financial risks and opportunities inherent to a company's day-to-day activities.	<a href="#">Deloitte – ESG Explained</a>
<b>European Green Deal</b>	Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, the European Green Deal will transform the EU into a modern, resource-efficient, and competitive economy, ensuring: no net emissions of greenhouse gases by 2050; economic growth decoupled from resource use; no person and no place left behind.	<a href="#">European Commission – A European Green Deal</a>
<b>Global Reporting Initiative Universal Standards (GRI US)</b>	The GRI Standards enable any organization – large or small, private, or public – to understand and report on their impacts on the economy, environment, and people in a comparable and credible way, thereby increasing transparency on their contribution to sustainable development.	<a href="#">GRI – The Global Standards for Sustainability Impacts</a>
<b>Greenhouse gas emissions (scope 1, 2 and 3)</b>	Greenhouse gas (GHG) emissions are all those emissions from human or natural activities that affect the greenhouse effect of the Earth's atmosphere. High levels of GHG present in our atmosphere is causing global warming. GHG emissions from companies is divided into three scopes. Scope 1 accounts for direct emissions generated by the organisation, e.g., fuels combusted at production sites, emissions from company-controlled vehicles and emissions from ozone-depleting substances. Scope 2 includes the indirect emissions from purchased energy, including electricity, steam, and district heating. Scope 3 contains the results of activities from assets not owned or controlled by the reporting organisation, but that the organisation indirectly impacts in its value chain.	
<b>GHG Protocol</b>	GHG Protocol establishes comprehensive global standardized frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions.	<a href="#">GHG Protocol</a>
<b>Guarantees of Origin (GoO)</b>	A Guarantee of Origin (GoO) is an energy certificate defined in article 15 of the European Directive 2009/28/EC. A GoO labels electricity from renewable sources to provide information to electricity customers on the source of their energy. GoO are the only precisely defined instruments evidencing the origin of electricity generated from renewable energy sources.	
<b>Key Performance Indicator (KPI)</b>	Key Performance Indicators (KPIs) are the critical (key) quantifiable indicators of progress towards an intended result. KPIs provide a focus for strategic and operational improvement, create an analytical basis for decision making and help focus attention on what matters most.	
<b>Life Cycle Assessment (LCA)</b>	Standardized method to assess the potential environmental impact of a product from its cradle to its grave.	
<b>Lean</b>	Under the label Lean, Trioworld strives to reduce the amount of material used for an application, while still maintaining or even improving performance. Using less material contributes to a lower carbon footprint.	
<b>Loop</b>	Loop is our label for film that contains a minimum of 25% PCR. By using PCR plastics, we reduce waste, lower the carbon footprint, close the material loop, and drive circularity in plastics.	
<b>Lost Time Accident (LTA)</b>	Accident leading to lost time (time away from work) where the employee is not able to return to work the following working day/shift incurred in the period.	
<b>LTAR</b>	Lost Time Accident Rate is a measure of the rate for Lost Time Accident (LTA) for the last 12 months using the formula $LTAR = \frac{\text{number of LTA} \times 200\,000}{\text{number of labour employee hours}}$ .	




Title	Description	Source
<b>Mass-balance</b>	<p>The mass-balance approach is designed to trace the flow of materials through a complex value chain. Since chemically recycled or bio-based feedstocks are typically blended in the manufacturing complex, physical segregation of recycled content is often practically and economically infeasible.</p> <p>The mass-balance approach makes it possible to track the amount and sustainability characteristics of circular and/or bio-based material in the value chain and attribute it based on verifiable bookkeeping.</p>	<a href="#"><u>ISCC – The Mass Balance Approach</u></a>
<b>Non-Lost Time Accident (N-LTA)</b>	Accident leading to lost time (time away from work) but where the employee is able to return to work the following working day/shift incurred in the period.	
<b>Operation Clean Sweep (OCS)</b>	Operation Clean Sweep is an international programme designed to prevent the loss of plastic granules (pellets, flakes, and powders) during handling by the various entities in the plastics' value chain and their release into the environment.	<a href="#"><u>Operation Clean Sweep EU</u></a>
<b>Packaging and Packaging Waste Regulation (PPWR)</b>	EU rules on packaging and packaging waste cover both packaging design and packaging waste management. They aim to deal with the increasing quantities of packaging waste, which cause environmental problems. They also aim to remove barriers in the internal market – caused by EU countries adopting different rules on packaging design.	<a href="#"><u>European Commission – Packaging Waste</u></a>
<b>Paris Agreement</b>	The Paris Agreement sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C.	<a href="#"><u>European Commission – Paris Agreement</u></a>
<b>Post-Consumer Recyclate (PCR)</b>	Recycled plastic from post-consumer plastic waste (waste material generated by the end-users of products, that has fulfilled its intended purpose or can no longer be used - including material returned from within the distribution chain).	
<b>Polyethylene (PE)</b>	Polyethylene, a polymer primarily used in packaging such as, plastic bags, plastic films, and containers including bottles.	
<b>Post-Industrial Recyclate (PIR)</b>	Recycled plastic from post-industrial plastic waste (waste material diverted during a manufacturing process - excluded is reutilization of materials such as rework, regrind or scrap generated in a given process and capable of being reclaimed within the same process).	
<b>Polypropylene (PP)</b>	Polypropylene, a polymer used in for example packaging for consumer products.	
<b>REACH</b>	Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) is a regulation of the EU, adopted to improve the protection of human health and the environment from risks that can be posed by chemicals.	
<b>Science Based Targets initiative (SBTi)</b>	The Science Based Targets initiative is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF). The SBTi defines and promotes best practice in emissions reductions and net-zero targets in line with climate science. Setting science-based targets supports an ambitious decarbonization roadmap, clarifying the alignment with the Paris Agreement, and promotes a global net-zero energy system.	<a href="#"><u>Science Based Targets</u></a>
<b>Sustainable Development Goals (SDG)</b>	The Sustainable Development Goals are a call for action by all countries – poor, rich, and middle-income – to promote prosperity while protecting the planet. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.	<a href="#"><u>UN SDGs</u></a>



# Sustainability risk analysis

Trioworld sustainability risk analysis, conducted in 2020 and reviewed in 2021. The materiality, stakeholder, and risk analyses were not updated in 2022. On the one hand, because we did not see major changes since 2021. On the other hand, because the EU parliament approved a proposal for the Corporate Sustainability Reporting Directive (CSRD) in November 2022. Trioworld has decided to perform a materiality, stakeholder, and risk analysis in accordance with the CSRD requirements from 2023 onwards.

Risk	Risk management
<p><b>Extreme weather conditions</b></p> <p>None of Trioworld’s operations have been identified to be in the risk of extreme weather conditions, e.g., flooding. There is however a risk that suppliers operate in areas with risk of extreme weather conditions, or that such conditions will affect the transportation of goods and materials to a Trioworld production site or delivery of Trioworld products to a customer.</p> <p>Another risk for Trioworld regarding extreme weather conditions is the change of need and use of Trioworld products. In case of extreme drought for example, the need for agricultural film will decrease.</p>	<p>To limit the effect of risk for weather conditions for suppliers, Trioworld is working on dual sourcing as far as possible, limiting the dependency on a single supplier. Dual sourcing is a KPI for Group sourcing.</p> <p>The risk of extreme weather conditions affecting the need and use of Trioworld’s products can to some extent be prevented by broadening the customers in geographic areas.</p>
<p><b>Competing materials</b></p> <p>In society there is sometimes a public opinion against plastics, the so-called “war on plastics”, where plastics is seen as more negatively impacting the environment compared to other competing materials, such as glass and cardboard. In some cases, such opinions are not based on facts, but on emotions. In worst case scenarios this can affect authorities to make decisions that are unfavourable to plastics, compared to other competing materials.</p>	<p>Trioworld works with facts, to create better understanding on the impact of plastics as well as on competing materials. Communicating openly and frequently about plastics must be prioritized by Trioworld, examples of this are webinars provided by Trioworld, or by Trioworld conducted carbon footprint assessments on products. Trioworld also participates in several associations and cooperations, to align within the industry and support decision makers with facts.</p>
<p><b>Greenwashing</b></p> <p>In the field of sustainability there is a risk of greenwashing (exaggerating sustainability results or impact) to convince stakeholders of better performance and results. This can be hard to see through for customers and partners.</p> <p>As Trioworld is working hard to be honest and communicate facts, there is a risk of losing business to competitors with lower ethical standards in the field of sustainability.</p>	<p>Trioworld works hard to use and communicate facts regarding sustainability impact, and to prove the information given. Therefore, Trioworld often uses certificates to prove raw material origin, or uses third party reviews of carbon footprint assessment models of Trioworld products.</p> <p>Trioworld supports training of customers/partners in the field of sustainability, so they will be able to compare Trioworld’s sustainability performance in the correct manner.</p>
<p><b>Injured/sick employees</b></p> <p>The production process can be dangerous for our personnel if routines, instructions, and procedures are not followed.</p> <p>There are also other work-related risks, which include for example travel, well-being, and other work-related negative impacts.</p>	<p>Health and safety are top priority for Trioworld. Each legal entity is responsible for identifying risks, and planning mitigating actions to improve the working environment. The Trioworld World Class Manufacturing (WCM) group shares knowledge so that the Group can benefit from best practice. “Safety Weeks” run on an annual basis to increase employee awareness of health and safety issues.</p>
<p><b>Increasing environmental/regulatory demands</b></p> <p>Due to the on-going discussions in society about plastics and chemicals, there is a risk that regulatory requirements will increase in the future. Changes in regulatory and/or legal demands in different countries may cause an unfavourable market situation for Trioworld compared with competitors and/or competing products.</p>	<p>Trioworld closely monitors changes and updates in legislation at an early stage and responds accordingly. In addition, Trioworld has increased capacity on regulatory knowledge over the years, to stay well informed about upcoming changes and to participate in selected associations. Furthermore, Trioworld proactively adapts its production and products to new and future requirements, for example, through increasing the use of PCR in the products.</p>

Continued on next page 



Risk	Risk management
<p><b>Limitations in production</b></p> <p>Limitations in production may occur for many reasons, such as:</p> <ul style="list-style-type: none"> <li>• Lack of resources, due to illness of employees</li> <li>• Lack of resources, raw material</li> <li>• Lack of knowledge (employees)</li> <li>• Inefficient operations of machines, due to for example increased maintenance need</li> <li>• Accidents, namely fires, explosions etc. causing machinery breakdown</li> </ul>	<ul style="list-style-type: none"> <li>• To ensure employees' health, Trioworld follows sick absence to see potential trends in the production sites. Trioworld supports employees' health and safety and works hard to secure a safe working environment for the employees, see risk "Injured/sick employees". Under the pandemic, Trioworld took special measures to avoid virus spreading amongst its employees.</li> <li>• To avoid lack of resources of raw material, Trioworld avoids dependency on one supplier and works as far as possible with dual sourcing for critical components.</li> <li>• Operations run best with well-trained employees, and Trioworld strives to avoid high employee turnover. An employee satisfaction survey is carried out annually to find improvements in working environments.</li> <li>• Trioworld strives to have high OEE (Overall Equipment Efficiency), by avoiding unexpected failures of the machines. This is coordinated by Trioworld's WCM-group that also collaborates over the divisions on safety, delivery accuracy, scrap, and claims. Total Productive Maintenance is a tool that is currently being implemented across Trioworld, with the purpose of minimising disruptions in the production machines. WCM also performs investigations to eliminate production bottlenecks.</li> <li>• To minimise risk for accidents, Trioworld has initiated risk audits to be carried out at each production site. This work has started in 2022.</li> </ul>
<p><b>Pandemic</b></p> <p>A world-wide pandemic will influence a company in many ways; employee health, delivery of (raw) materials, lack of transportation, meetings, and close cooperation with the customers to mention a few.</p>	<p>Lesson learned from 2019-2021 (COVID-19) is that the organisation was not very well prepared for a world-wide pandemic, but that the flexibility and the will of the organisation overcame the challenges arising. Human Resources organised regular information to employees as needed, and updated instructions depending on location.</p>
<p><b>Price increase – electricity, transport, and commodity materials</b></p> <p>Trioworld uses and is dependent on electricity, transport, and commodity materials. An increase of price in these categories will directly influence the profitability of the products produced by Trioworld.</p>	<p>Trioworld's Group sourcing is responsible for sourcing of these categories. Sourcing strategies are created for each category, which is anchored with a business responsible to ensure wide understanding, risk taking, and alignment.</p> <p>The sourcing strategies include a risk assessment for price increases, balancing the price vs. risk of for example long-term fixed prices or spot prices.</p>
<p><b>Price increase – raw material</b></p> <p>Increasing prices of the raw material has a huge impact on Trioworld's profitability. The price of the raw material depends on world market prices, which can vary greatly.</p>	<p>Trioworld has created a sourcing and business model that is neutral to raw material market price variations.</p>
<p><b>Price increase PCR</b></p> <p>Trioworld strives to use more PCR in the future and will hence be more sensitive to the effect of an increased price of PCR. This directly affects the profitability of PCR containing products.</p>	<p>Trioworld strives to have long-term relationships with selected PCR suppliers. With the increased focus on PCR and plastic waste, a global category manager has the responsibility to further develop relationships with these suppliers.</p>
<p><b>Raw material supply</b></p> <p>Trioworld depends on timely and correct delivery of raw material. Delays in delivery of material, or lack of material, cause production limitations.</p>	<p>Group sourcing has a Group-wide strategy for raw material sourcing and close cooperation with the supplier has kept the supply chain stable. Material planners at the production sites continuously monitor the supply chain to avoid and/or limit any effect of delayed (and/or missing) material in time.</p> <p>Trioworld works with dual sourcing, limiting the dependency of a single supplier.</p>
<p><b>Unethical business behaviour</b></p> <p>In business, there is a risk of unethical, unfair, or even corrupt situations arising. This would harm the reputation of Trioworld and have a major financial impact.</p>	<p>The core values, Code of Conduct, and the Ethics policy (incl. the Competition Compliance policy) all work to avoid any unethical behaviour in Trioworld's business. A whistleblowing function was implemented in 2020 to enable anonymous reporting of unethical behaviour.</p>



# Trioworld stakeholder analysis

The stakeholder analysis was conducted in 2020. A review of the stakeholder analysis was done in 2021 and showed an increased interest from investors and financial institutions regarding sustainability, often linked to companies' environmental impact through greenhouse gas emissions and circularity. The materiality, stakeholder, and risk analyses were not updated in 2022. On the one hand, because we did not see major changes since 2021. On the other hand, because the EU parliament approved a proposal for the Corporate Sustainability Reporting Directive (CSRD) in November 2022. Trioworld has decided to perform a materiality, stakeholder, and risk analysis in accordance with the CSRD requirements from 2023 onwards.

Stakeholders	Expectation and requirements	Value created by Trioworld
<b>Authorities</b>	Compliance with applicable legislation. Expert input for new legislation and related questions.	Compliance with applicable legislation is a basic requirement for Trioworld. Supporting applicable authorities by giving expert input and knowledge in questions related to Trioworld broadens the authorities' understanding. It will also give Trioworld better understanding of the authorities' priorities and how to work with, for example, new legislation.
<b>Customers, agents, and distributors</b>	High-quality products and on-time delivery, in addition to proactivity and innovation of Trioworld's products. Support in questions arising when using Trioworld's products. Increasing interest in sustainability, asking Trioworld to provide support in this.	For customer satisfaction (as well as agents and distributors), Trioworld has an active and supportive sales organisation in each division, to ensure timely and correct delivery to customers as well as any support needed. To meet the increasing interest in sustainability, Trioworld has launched the sustainable product portfolio, and continuously develops new sustainable products.
<b>Employees and trade unions</b>	Employee satisfaction, including health and safety, well-being, financial compensation for work, personal development. Fair treatment and possibility to influence.	Trioworld value creation for employees is described under <i>Social Responsibility</i> . Group HR conducts employee satisfaction surveys. Health and safety are always in focus. Trioworld is committed to ensuring that the work environment is healthy and safe, because the employees and their competence are vital to the company's production and future. Close cooperation with trade unions at the production sites is maintained.
<b>Financial institutions and banks</b>	Earn interest and security of the investment. Long-term sustainable business model, especially for companies they consider to be high risk companies. Targets anchored in the UN SDGs and with focus on CO <sub>2</sub> -eq. emissions.	Frequent reports and meetings as needed to show status and progress of the company. Financial stable performance in 2022 with a well anchored sustainable strategy and business model.
<b>Owner</b>	Maximise enterprise value by execution of the agreed strategy. Having basics in sustainability in place. Excel in sustainability areas, making a difference and doing so better and faster than competitors.	Strong focus on long-term sustainable growth, profitability, and cash-flow, achieved by: <ul style="list-style-type: none"> <li>- Continuous follow-up and sustainability KPIs.</li> <li>- Business conducted in an ethical and fair manner.</li> <li>- Knowledge in applicable and coming legislation.</li> <li>- Sustainability basics in place.</li> <li>- Sustainable product development, to meet future demands of customers.</li> </ul>
<b>Partners, industry/standardisation organisations</b>	Experience, expertise, and knowledge	Trioworld supports, participates and in some cases leads several associations where Trioworld's knowledge, expertise, and experience has been requested and is needed. A list of such associations can be found in <i>Managing Sustainability - Standards and Certifications, and External Initiatives and Memberships</i> .
<b>Society</b>	Contribute to national and global sustainable goals and to supporting initiatives, such as charity. Long-term employment possibilities.	Examples of Trioworld's society engagement are described in <i>Social Responsibility – Societal Engagement</i> .
<b>Suppliers</b>	Business conducted in an ethical and fair manner. Profitable growth to maintain/increase long-term business partnerships. Input on future sustainable raw material development.	Suppliers are treated fairly and ethically, in accordance with Trioworld's Code of Conduct. Trioworld is a reliable and sustainable business partner. Trioworld supports development of suppliers' products by sharing knowledge as applicable.

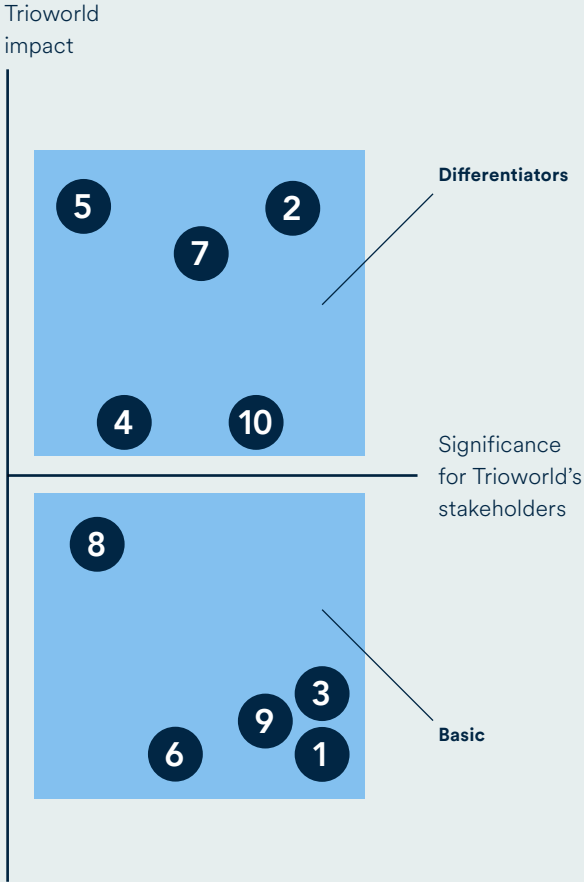
Continued on next page



**Trioworld stakeholder chart**

Interviews with different stakeholders performed during the sustainability strategy review in 2020 confirmed the stakeholder analysis performed and added valuable additional expectations and requirements. Results of the analysis are portrayed in the Trioworld stakeholder chart, and can be divided into two groups:

- Basic: Several sustainability areas where failure to deliver may cause risk for Trioworld in the long run, e.g., compliance with Code of Conduct, KPI & follow-up, educate society & position plastics and ensure there is no greenwashing.
- Differentiators: Several sustainability areas where Trioworld can differentiate from its competitors, e.g., positioning/branding, sustainable product offering, making a mark, etc.





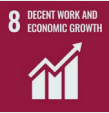
1. Fundamentals in place and compliance to Code of Conduct
2. Positioning/branding
3. KPI & follow-up
4. Aftermarket/feedstock
5. Make a mark
6. No greenwashing
7. Sustainable product offering
8. Supply chain control/supplier
9. Compliance to Code of Conduct
10. Educate society/position plastics certifications & standards









# UN SDGs alignment

The Member States of the United Nations adopted the Sustainable Development Goals (SDGs) by General Assembly resolution A/RES/70/1 of 25 September 2015. The aim of this resolution is to achieve these 17 goals by 2030 with a view towards ending all forms of poverty, fighting inequalities, and tackling climate change while ensuring that no one is left behind.

At Trioworld, we have aligned with and are committed to contribute to the UN SDGs and selected eight SDGs most relevant to our business and stakeholders. These eight goals have been selected by GMT and are incorporated in our Code of Conduct.

UN SDG	SDG sub-targets related to Trioworld's operations	Trioworld's linked objective and alignment
 <p><b>5 Gender equality</b></p>	<p><b>5.1</b> End all forms of discrimination against all women and girls everywhere.</p>	<p><b>Objective:</b> Continue to establish equality in the workplace, regardless of gender, age, political options, background, ethnicity, etc.</p> <p><b>Target(s):</b></p> <ul style="list-style-type: none"> <li>• Increase the percentage of women at Trioworld from 18% to 25% by 2025.</li> <li>• Increase the percentage of women in the GMT from 10% to 20% by 2025.</li> <li>• Conduct diversity, discrimination, and harassment training to 100% of our employees by 2025.</li> </ul> <p><b>Actions:</b> Zero tolerance towards discrimination, of any kind, as stated in the Code of Conduct; Policy for equal opportunities; WhistleB (Trioworld whistleblowing system), etc.</p>
 <p><b>7 Affordable and clean energy</b></p>	<p><b>7.2</b> By 2030, increase substantially the share of renewable energy in the global energy mix.</p>	<p><b>Objective:</b> Continuously work to optimise energy consumption, and transition to electricity from renewable sources.</p> <p><b>Target(s):</b> Scope 1+2 CO<sub>2</sub>-eq. emission (market-based reporting) shall reduce by 80% until 2024 (baseline 2020, for 10 production sites); 80% of the electricity purchased shall be from a renewable source by 2024.</p> <p><b>Actions:</b> Conducting energy reviews according to the European Energy Directive; transition to renewable purchased electricity; reporting on Scope 1, 2, and 3 GHG emissions according to GHG Protocol; local car policies should include options for hybrid and/or electric vehicles, etc.</p>
 <p><b>8 Decent work and economic growth</b></p>	<p><b>8.5</b> By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.</p> <p><b>8.8</b> Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p>	<p><b>Objective:</b> Ensure that Trioworld is a responsible employer through close collaboration with trade unions and active work to promote health and safety at work.</p> <p><b>Target(s):</b> Trioworld ambition is that there are no accidents or occupational diseases, “a vision of zero” on an annual basis. To measure improvement, the rate of high-consequence work-related injuries* shall decrease by 10% by 2024 compared to base line 2022.</p> <p>*rate of high-consequence work-related injuries = number of LTA and NLTA in the last 12 months/total worked hours*200 000</p> <p><b>Actions:</b> Annually reviewing the Labour &amp; Human Rights policy; established Code of Conduct; employees are covered by collective agreements or have similar conditions covered by national legislation or have similar conditions in employment contract or stated in employee handbook (and those conditions are same or better than national legislation); cooperation with trade unions/work councils; conducting annual satisfaction survey, etc.</p>

Continued on next page 

UN SDG	SDG sub-targets related to Trioworld's operations	Trioworld's linked objective and alignment
<b>10 Reduced inequalities</b> 	<b>10.2</b> By 2030, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	See SDG 5.
<b>12 Responsible consumption and production</b> 	<b>12.4</b> By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment.  <b>12.5</b> By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.	<b>Objective:</b> Work to reduce raw material consumption, increase use of recycled material and bio-based/bio-attributed polymer, and increase design for recycling. <b>Target:</b> 30% PCR content in our products (group average) by 2025, and ambition of 50% PCR content by 2030; 75% of product portfolio volume to have a Loop alternative by 2025; 100% recyclability <sup>1</sup> of our products by 2022. <b>Actions:</b> Product and process development to enable increasing PCR content in our products, increasing in-house capacity of production of high-quality PCR through our programme 'Backward integration' with major investments in our recycling operations; using certificates for supporting sustainability claim of material used; supporting customers with product carbon footprint calculations (cradle to Trioworld gate), etc
<b>13 Climate action</b> 	<b>13.2</b> Integrate climate change measures into national policies, strategies, and planning.	<b>Objective:</b> Improve the climate impact of our products by offering customers product alternatives with lower carbon footprint. <b>Target:</b> see targets SDG 7 & 12 <b>Actions:</b> Annually reviewing the Environment policy, helping customers to select feedstock and product alternatives with lower carbon footprint; supporting customers with carbon footprint assessments; reporting Scope 1, 2, 3 GHG emissions, etc.
<b>14 Life below water</b> 	<b>14.1</b> By 2025, prevent and significantly reduce marine pollution of all kinds, from land-based activities, including marine debris and nutrient pollution.	<b>Objective:</b> Work to eliminate the loss of pellets during production and operation of the plastic industry. <b>Target(s):</b> 100% of Trioworld production sites should comply with Operation Clean Sweep (OCS) zero pellets loss to prevent soil and water contamination) by 2023. <b>Actions:</b> Since 2017, Trioworld decided to participate in OCS. The purpose of OCS is to prevent the loss of plastic granules (pellets, flakes, and powders) during handling by the various entities in the plastics' value chain and their release into the environment, i.e., making sure it's not in the wastewater of the production sites and hence do not reach the oceans.
<b>16 Peace, justice, and strong institutions</b> 	<b>16.5</b> Substantially reduce corruption and bribery in all their forms.	<b>Objective:</b> Have zero tolerance on corruption, bribery, or any kind of business-related misconduct. <b>Target:</b> Zero confirmed non-compliances through whistleblowing system annually; train 100% of employees on ethical behaviour by 2025. <b>Actions:</b> Annually reviewing the Ethics policy (incl. Competition Compliance policy); ensuring all employees act according to our Code of Conduct; Code of Conduct training; conducting due diligence; audits, etc.

<sup>1</sup>Trioworld's definition.

Note: Included but not limited to are the Trioworld targets and actions described to commit to the related SDG target(s) and goal.



# GRI appendix

## Trioworld subsidiaries

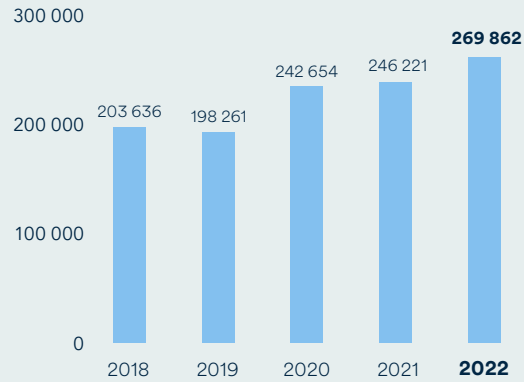
	Division	Region	Employee (headcount)	Male / female representation (% based on headcount)	Permanent / temporary (% based on headcount)	Represented in the information in this Sustainability Report
<b>Trioworld Apeldoorn B.V including:</b> – Trioworld Apeldoorn B.V. Food & Other – Trioworld Holding B.V.	Consumer packaging division, Stretch film division, office	The Netherlands	207	86% / 14%	95% / 5%	Yes
<b>Trioworld Bottnaryd AB</b>	Industrial film division	Sweden	29	77% / 23%	97% / 3%	Yes
<b>Trioworld Harlingen B.V.</b>	Consumer packaging division	The Netherlands	212	89% / 11%	91% / 9%	Yes
<b>Trioworld Industrier AB</b>	Parent company, Head office	Sweden	4	75% / 25%	100% / 0%	Yes
<b>Trioworld Landskrona AB</b>	Consumer packaging division	Sweden	134	78% / 22%	91% / 9%	Yes
<b>Trioworld Lundin AB including</b> – Trioworld Lundin AS	Carrier bags division	Sweden	80	66% / 34%	100% / 0%	Yes
<b>Malpack Ltd</b>	North America division	Canada	-	-	-	No, acquired in 2023 (not part of reporting period)
<b>Trioworld Nyborg A/S including</b> – Trioworld AS	Industrial film division	Denmark	155	79% / 21%	98% / 2%	Yes
<b>Trioworld Ombree d'Anjou SAS</b>	Stretch film division	France	100	82% / 18%	96% / 4%	Yes
<b>Reviva Plastics AB</b>	Stretch film division	Sweden	19	89% / 11%	100% / 0%	Yes
<b>Trioworld Saint-Ouen SAS</b>	Health care film division	France	86	84% / 16%	98% / 2%	Yes
<b>Trioworld Smålandsstenar AB Including:</b>	Stretch film division	Sweden	297	79% / 21%	99% / 1%	Yes
– Trioworld Ltd	Sales office	UK	2	-	-	-
– Trioworld Oy	Sales office	Finland	3	-	-	-
– Trioworld GmbH	Sales office	Germany	11	-	-	-
<b>Trioworld Sundsvall AB</b>	Industrial film division	Sweden	42	88% / 12%	100% / 0%	Yes
<b>Trioworld UK Ltd</b> (former Eurofilms Extrusion Ltd and Quality Films Ltd)	Stretch film division	United Kingdom	130	88% / 12%	91% / 9%	No, acquired in 2022 (not part of full reporting period)
<b>Trioworld Varberg AB</b>	Industrial film division	Sweden	25	84% / 16%	100% / 0%	Yes
<b>Trioworld Group</b>			1 536	80,5% / 19,5%	95% / 5%	

Note: Compilation of data occurred at the end of the reporting period. Most of the work performed at Trioworld is performed by permanent employed employees. During holidays and/or when vacancies arise, it is employees that normally stand in for the missing employee. In addition, production adjustments may be planned and executed. Temporary employees are mostly considered contractors, hired to perform work that is normally conducted by a permanent employee. Employee related data for temporary employees/workers who are not employees are included in the information represented in the table, Trioworld does not separately report male/female distribution for temporary employees.



## Approved production

Volume of products produced in tonnes kg, approved for delivery to customers



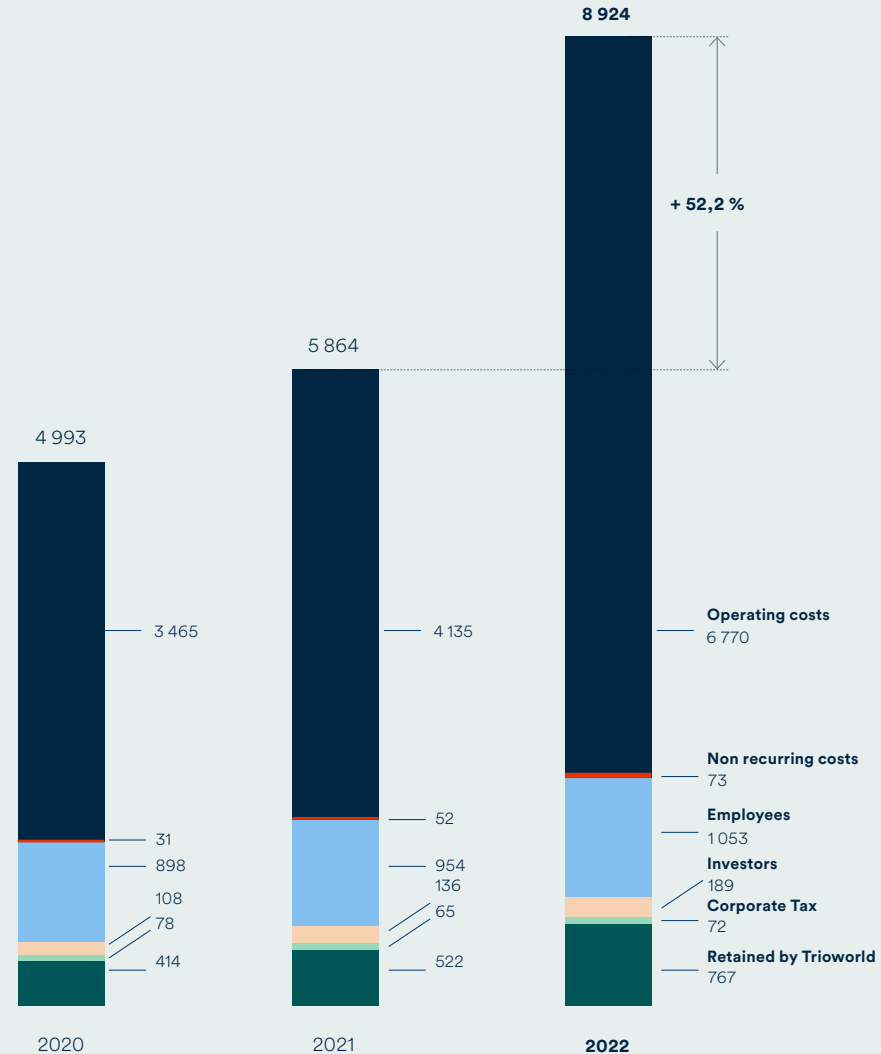
Results 2021, and 2022 excludes approved production from companies acquired during the respective year

## Total capitalization broken down in terms of debt and equity

Debt & Equity MSEK	Year-to-date 2112	Year-to-date 2022
<b>Balance Sheet</b>		
Debt <1 yr	2,505,324	387,038
Debt >1 yr	554,715	2,681,411
Cash	-616,681	-368,234
	<b>2,443,358</b>	<b>2,700,215</b>
Share Capital	50	49
Equity	855,394	704,184
Minority interest	41,414	38,272
	<b>896,858</b>	<b>742,505</b>

## 201-1 Direct economic value generated and distributed

Economic Value Added (in MSEK), excluding in-year acquisitions



### 301-1 Materials used by weight or volume, 301-2 Recycled input material used

	2022 <sup>3</sup>	2021 <sup>2</sup>	2020 <sup>1</sup>	2019
PCR (% of approved production)	14,0%	13,1%	Not available	Not available
PIR (% of approved production)	10,7%	11,4%	Not available	Not available
Total Recycled Content (% of approved production)	24,7%	24,5%	25,2%	26,1%
Total recycled content <sup>4</sup> (kg)	61 820 692	58 332 623	Not available	Not available
Total virgin non-renewable (kg)	233 792 536	Not available	Not available	Not available
% of recycled input materials used (% of total input material used) <sup>5</sup>	20,9%	Not available	Not available	Not available

<sup>1</sup>Excluding Trioworld Apeldoorn

<sup>2</sup>Excluding companies acquired during 2021

<sup>3</sup>Excluding companies acquired during 2022

<sup>4</sup>Total recycled content = total renewable materials used (GRI301-2 methodology)

<sup>5</sup>According to GRI301-2 methodology, % of recycled material input is calculated: total recycled input materials used / total input materials used

### 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, 305-4 GHG emissions intensity

#### Emissions data Trioworld

	2022 <sup>11</sup>		2021 <sup>10</sup>		2020 <sup>9</sup>	
	CO <sub>2</sub> -eq. <sup>6</sup> (tonnes)	GHG emissions intensity (kg CO <sub>2</sub> -eq./approved production)	CO <sub>2</sub> -eq. <sup>6</sup> (tonnes)	GHG emissions intensity (kg CO <sub>2</sub> -eq./approved production)	CO <sub>2</sub> -eq. <sup>6</sup> (tonnes)	GHG emissions intensity (kg CO <sub>2</sub> -eq./approved production)
Scope 1	2 834	0,011	2 140	0,009	1 603	0,007
Scope 2 – market based <sup>7</sup>	10 927,1	0,040	19 027	0,077	27 251	0,112
Scope 2 – location based <sup>8</sup>	23 848,8	0,088	20 483	0,083	23 469	0,097
Scope 3	1 152 603	4,27	1 098 287,8	4,46	1 130 874	4,66

<sup>6</sup>GHG emissions calculated using carbon dioxide equivalents (CO<sub>2</sub>-eq.) as a metric, including all greenhouse gases, e.g., CO<sub>2</sub> (carbon dioxide), CH<sub>4</sub> (methane), N<sub>2</sub>O (nitrous oxide).

<sup>7</sup>Market based calculations are calculations based on information provided by Trioworld's suppliers on actual delivery.

<sup>8</sup>Location based calculations are calculations based on average grid mix in the respective country of operation.

<sup>9</sup>Sites included in the calculations: Trioworld Smålandsstenar AB (including Trioworld Industrier AB); Trioworld Apeldoorn B.V.; Trioworld Bottnaryd AB; Trioworld Landskrona;

Trioworld Lundin AB; Trioworld Nyborg A/S; Trioworld Ombree d'Anjou SAS; Trioworld Saint-Ouen SAS; Trioworld Varberg AB

<sup>10</sup>Excluding acquisitions during 2021 (i.e., Trioworld Harlingen B.V.; Reviva Plastics AB)

<sup>11</sup>Excluding acquisitions during 2022 (i.e., Eurofilms Extrusion Ltd; Quality Films Ltd)

#### Emissions data Trioworld – for target follow-up Scope 1+2 reduction target

	2022		2021		2020	
	CO <sub>2</sub> -eq. <sup>12</sup> (tonnes)	GHG emissions intensity (kg CO <sub>2</sub> -eq./approved production)	CO <sub>2</sub> -eq. <sup>12</sup> (tonnes)	GHG emissions intensity (kg CO <sub>2</sub> -eq./approved production)	CO <sub>2</sub> -eq. <sup>12</sup> (tonnes)	GHG emissions intensity (kg CO <sub>2</sub> -eq./approved production)
Scope 1	2 096	0,009	2 140	0,009	1 603	0,007
Scope 2 – market based <sup>13</sup>	10 927	0,047	19 027	0,077	27 251	0,112
Scope 2 – location based <sup>14</sup>	19 547	0,083	20 483	0,083	23 469	0,097
Scope 3	1 018 232,3	4,33	1 098 287,8	4,46	1 130 874	4,66

<sup>12</sup>GHG emissions calculated using carbon dioxide equivalents (CO<sub>2</sub>-eq.) as a metric, including all greenhouse gases, e.g., CO<sub>2</sub> (carbon dioxide), CH<sub>4</sub> (methane), N<sub>2</sub>O (nitrous oxide).

<sup>13</sup>Market based calculations are calculations based on information provided by Trioworld's suppliers on actual delivery.

<sup>14</sup>Location based calculations are calculations based on average grid mix in the respective country of operation.





## 401-1 New employee hires and employee turnover

	2022		2021		2020	
<b>Employees hires by age</b>	<b>Headcount</b>	<b>% of total</b>	<b>Headcount</b>	<b>% of total</b>	<b>Headcount</b>	<b>% of total</b>
<30y	83	38%	59	38%	59	40%
30-50y	112	51%	70	46%	76	52%
>50y	24	11%	25	16%	11	8%
total	219	100%	154	100%	146	100%
<b>Employees hires by region</b>	<b>Headcount</b>	<b>% of total</b>	<b>Headcount</b>	<b>% of total</b>	<b>Headcount</b>	<b>% of total</b>
Sweden	81	37%	80	52%	85	58%
Denmark	26	12%	31	20%	18	12%
France	31	14%	31	20%	13	9%
The Netherlands	51	23%	12	8%	30	21%
United Kingdom	30	14%	n/a	n/a	n/a	n/a
Total	219	100%	154	100%	146	100%
<b>Employee turnover by region</b>	<b>Headcount</b>	<b>Turnover rate %</b>	<b>Headcount</b>	<b>Turnover rate %</b>	<b>Headcount</b>	<b>Turnover rate %</b>
Sweden	71	11%	63	10%	Not available	Not available
Denmark	63	38%	27	16%	Not available	Not available
France	30	16%	28	15%	Not available	Not available
The Netherlands	40	9%	20	9%	Not available	Not available
Total	204 <sup>2</sup>	14,3 <sup>2</sup>	138 <sup>1</sup>	11% <sup>1</sup>	Not available	Not available

<sup>1</sup>Excluding acquisitions during 2021, Total turnover rate 2021 is 10%

<sup>2</sup>Excluding acquisitions during 2022, Total turnover rate 2022 is 17,8%

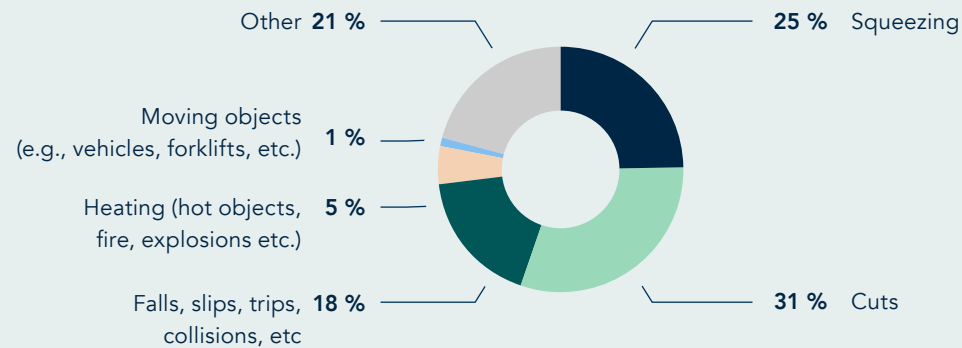


## 403-9 Work-related injuries

	2022	2021	2020	2019	2018
<b>Number of worked hours (employees<sup>1</sup>)</b>	2 275 884	2 345 857	2 045 705	1 636 707	1 661 306
<b>LTA<sup>2</sup></b>	73	50 <sup>4</sup>	51	43	45
<b>LTAR<sup>3</sup></b>	6,4	4,3 <sup>4</sup>	5,0	5,3	5,4
<b>Recordable work-related injuries<sup>5</sup></b>	127	70	57	50	61
<b>High-consequence work related injuries<sup>6</sup> – own employees</b>	3 <sup>7</sup>	1	Not available	Not available	Not available
<b>High-consequence work related injuries<sup>6</sup> – contractors</b>	0	0	Not available	Not available	Not available
<b>Fatalities – own employees</b>	0	0	0	Not available	Not available
<b>Fatalities - contractors</b>	0	0	0	Not available	Not available
<b>First aid injuries<sup>2</sup></b>	150	147	151	85	55
<b>Near Miss incidents<sup>2</sup></b>	548	643	733	732	539

Data includes acquisitions acquired during 2022.

## Main types of work-related injuries



<sup>1</sup>Information unavailable on number of worked hours for contractors.

<sup>2</sup>Includes both employees and contractors.

<sup>3</sup>Calculation based on 200 000 hours worked.

<sup>4</sup>Errors, due to human factors, were found in LTA reporting relating to 2021. After thorough investigations, the LTAR for 2021 has been updated from the previously reported 2,3 to 4,3.

<sup>5</sup>Recordable work-related injuries = LTA+NLTA

<sup>6</sup>High-consequence work related injuries (excl. fatalities = Work-related injury that results in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within six months).

<sup>7</sup>1 caused by squeezing as the employee did not follow our safety routines/instructions. To avoid such incident in the future we established a risk assessment with the union, discussed our safety routines and instructions with our operators, and installed an emergency stop line that is easily reached; 1 caused by a trip/fall. To avoid future incidents we have installed railings to more clearly mark certain areas of risk; 1 caused by an unexpected swing of an object while lifting a shaft. To avoid future incidents we have extended equipment to minimise manual involvement.

Trioworld regards all incidents and accidents (LTA, NLTA, First Aid, Near Miss) as potential work-related hazards that pose a risk of high-consequence injury, if occurring under the worst conditions. These are monitored and reported separately, and the actions taken vary depending on the event, need, severity, and occurrence. This approach reduces the risk of conducting an incorrect risk assessment.





© 2023 Trioworld | [trioworld.com](https://www.trioworld.com)