



Scaling up for impact

Sustainability Report 2021

Scaling up for impact

Peter ter Horst,
CEO & President Teijin Aramid

In 1972, we invented Twaron®. In 2021, we made Twaron® circular. Fully recycling our flagship fiber – at no cost to its performance – is a major milestone en route to a fully sustainable aramid chain. Not only does it represent a great technical achievement, it also highlights how partnerships hold the key to success in sustainability. In this report, you will read about this and other highlights of the past year. Looking to the future, our focus is to scale up our own sustainable processes and mobilize more parts of the value chain. Scaling up for impact is key to our collective long-term success.

“We scale up to speed up. Once collecting used aramids from the market and respinning them reaches commercial scale, that’s when things start to move faster and faster.”

Above all, people are at the heart of our organization, and we want to be a safe and great place to work. We intensified our efforts and campaigns to create the soundest working environment rooted in our company values, where diversity is cherished and people can unlock their leadership potential.

We are very vocal about our circularity ambitions and know that for the transformation from a linear to a circular economy we need partnerships in the entire value chain. That is why we are actively seeking likeminded partners to speed up the collection and recycling of used aramids back into production and create new and renewable feedstocks. In our own production facilities as well as in our way of doing business, we are closing as many loops as possible. By pooling our knowledge and expertise, we can accelerate sustainable technologies and adopt new ways of working. We invite new partners to join us.



Highlights

- > The creation of circular Twaron®, patent pending for the recycling technology
- > Successful research and development project with two customers FibreMax and Hampidjan creating pilot applications for Twaron® yarn with recycled content
- > ‘Kagayaki’ production capacity expansion in Emmen and Delfzijl with lower footprint
- > Committed and on track on the Energy Efficiency Directive (EED) in the Netherlands
- > Bought Guarantees of Origin (EU wind) to cover total electricity consumption in the Netherlands
- > Various Customer Benefit Models to prove value and CO₂-reductions in the use-phase
- > Entered into innovative technology partnerships with Purfi/Concordia and General Recycled (Canada) for recycling Teijinconex® products
- > Awarded for the 6th consecutive year ‘EcoVadis Gold Status’, in the top 6% of sustainable manufacturers

Impact 2021 in key figures


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100% 

Electricity consumption based on renewable wind GO's for all our manufacturing sites, research facility and Head Office in the Netherlands.

1912 

People on Teijin Aramid's total global payroll in 2021.

28% 

Improved carbon footprint compared to 2014.

50% 

Increase in retrieved pre- and post-consumer waste compared to 2020.

4.7 

Total Recordable Rate (TRR) of incidents (number of incidents per 1 million working hours) in 2021. Unfortunately, we registered 6 Lost-Time Injury incidents in 2021.

243,090 tons CO₂ 

Avoided emissions in the chain.*



Video version of this report
 Scan the QR code and watch our **Sustainability Report 2021** 'Scaling up for impact'-video.

* The use of aramids in applications such as tires and conveyor belts makes these applications considerably lighter, consequently saving energy and other resources. This has resulted in avoided emission of 243,090 tons of CO₂ equivalent in 2021.



Raising the bar 'to be the best high-performance fiber company for the world'

1 - Our Sustainability Roadmap

At Teijin Aramid, we recognize the critical challenges our planet is facing. We feel responsible for both our own impact – the environmental effects of our production facilities – and how our aramid-based products influence the wider value chain.

When it comes to sustainability, we are in a unique position to impact the entire value chain and we do this in three ways:

1. by reducing the CO₂-footprint of our front-end processes
2. by avoiding emissions in the use phase of our products
3. by working hard to close the aramid chain and find end-of-life solutions that reintroduce aramids into production as a raw material

We created this roadmap to show how we combine – purpose, product, partners and customers – to reach our sustainability goals for Twaron®.

[▶ Watch video](#)
Sustainability Roadmap explained by Jan Roos

Our goals: On our way to 'close to zero' well before 2050

- All our plants run on 100% renewable and clean energy
- All our plants run as energy efficient as possible
- We produce aramids based on 100% renewable carbon only
- Our internal and external loops are fully closed
- We are a high-performance material & solution provider in the clean hydrogen economy

Sustainability targets Twaron®

	2021	2025	2030
Renewable Electricity	100 %	100 %	100 %
Renewable Heat	-	40%	50%
Renewable Carbon	-	10%	25%
Eco Footprint kg CO ₂ eq/kg	8,7	7	6
Avoided CO ₂ emissions / Total emissions	-	50%	100%



Our ambitions are clear and so are the challenges.

At Teijin Aramid, we care about our impact on the planet and how this affects future generations. Sustainability is in the core of our strategy and linked to the philosophy of the Teijin Group; enhancing the quality of life, in harmony with society, empowering our people.

We believe that in the economy of the future, circularity, carbon neutrality and product performance will no longer be different concepts. They will become one. High-performance products will be the result of sustainable and circular production processes. Materials like ours play a crucial role in adapting different industries to this coming reality. We call this reality 'the sustainable circular performance economy' and it is our goal -as the best high-performance fiber company for the world- to materialize it.

Within Teijin Aramid we pulled resources and formed an Energy Transition & Circular Economy (ET&CE) team and laid the groundwork for our Sustainability Roadmap, the route to 'close to zero' and circularity well before 2050. Not only are we making sure that we produce our products in the most efficient and sustainable way, we are supporting initiatives to enable that renewable feedstocks will become available in the near future. We take responsibility for the material flows by recycling aramids and giving end-of-life products a new life .

Given the complexity of aramid circularity, we can't achieve it overnight and we can't achieve it alone. Partnerships in the value chain will be crucial to achieve a sustainable and circular aramid chain. That is one of the reasons that, next to Teijin Aramid's Research and Innovation Center, Teijin Group has established the European Sustainable Technology Innovation Center (ESTIC) in Arnhem, the Netherlands as a research and development facility tasked with developing technologies for a more sustainable world. With ESTIC, Teijin Aramid is heavily involved in exploring partnerships in hydrogen, circular economy and bio-based materials. We have created a place where projects and people come together. To work on specific tasks, and to bring different perspectives together to create new ideas and business.

Grounded in the latest cutting-edge science, the Centers will further develop solutions that are safe for humans and the environment, offer an improved environmental footprint, and deliver the expected performance and value to stakeholders throughout the value chain.

Jan Roos, Director Sustainability heading the Energy Transition & Circular Economy Team

“The latest IPCC report confirms the urgency of mitigating global warming. Climate impact in the next 10 to 15 years will be greater than what we are experiencing today”

Our aramids are intrinsically sustainable, recyclable and endlessly reusable

2 - Circularity

The case for sustainable aramid production is clear. Society needs the performance that our aramids deliver. At the same time, it needs those aramids to be produced in a way that minimizes their impact on the environment. At Teijin Aramid, we are crystal clear about what that means for us. Our aramid production needs to produce zero waste and be CO₂ neutral. In other words, we need to become a net zero company. We know that net zero can only be achieved by making our processes and our products fully circular.

We are showing leadership to set the circularity turnaround in motion. Having mechanically recycled end-of-life para-aramid products to pulp for over 20 years (Route 1), we are now exploring multiple alternative recycling routes.

[▶ Watch video](#)
Recycling methods explained by Stan Maarssen

The Research and Innovation Center in Arnhem (the Netherlands) has been successfully running yarn to yarn recycling trials, adding end-of-life aramid yarn into the yarn spinning process again in order to avoid as much virgin raw material as possible. On this particular physical recycling technology (Route 2), commonly referred to as re-spinning, we have a patent pending.

Making circularity happen: investing in recycling technologies



Route 3, chemical recycling also known as depolymerization, means breaking down the aramid polymer molecules into small chemical building blocks. We can then reintroduce these into our facility in Delfzijl and produce new polymers. An alternative is to introduce renewable carbon based raw materials produced by our suppliers. The ultimate goal is to replace all fossil-based resources with sustainable ones.

Keeping all options open

Currently, among these three recycling technologies, there's no single standout route to follow. The best solution depends on various factors, such as the quality of the used material and market demand.



Together with FibreMax and Hampidjan we have demonstrated the potential of circular high-performance fibers

Our greatest sustainability breakthrough has been the creation of circular Twaron®. Technically a gamechanger but also how we partnered with two pilot customers. Traditionally we would test and scale up a new invention well under the radar, but as there is no time to waste to realize the circular economy we started to partner in the earliest stage to speed up these circular developments.

The market is asking for more sustainable solutions

FibreMax and Hampidjan produced a number of slings and pendants with the pilot material so that tests could be performed to explore if the product properties of circular Twaron® would be the same as traditional Twaron®. Overall a very positive outlook for circular products, the market has shown great interest and the tests so far proved our scientists right.

The advantage of this approach is that we shorten the time to market by cooperating intensively with our customers. The big challenge is to get enough end-of-life material back from the market, simply as there will be no circular products without aramid take back material.

This is **Physical Recycling Route 2** (see page 6).

[▶ Watch video](#)
Circular Twaron® pilot project with FiberMax and Hampidjan



Duco Handgraaf | FibreMax

“We proved it to be at least as strong as standard material. This shows me that we can confidently sell our cables with recycled material.”



David Waage | Hampidjan

“The cooperation with Teijin has gone really well, we get extremely good technical back up and the knowledge level is amazing.”



What began as a partnership between a few frontrunners is now helping to improve sustainability and recyclability across multiple industries, cutting a path toward a fully circular aramid chain.



Highlights

- > Several hundred kilograms of Twaron® yarn produced from materials of various recycling statuses
- > Excellent properties of this circular Twaron® fiber, equal performance
- > Real-life tests performed with FibreMax and Hampidjan (ropes & cables) applications
- > Teijin Aramid to scale up production of its fully circular high-performance fiber
- > Goal is to have circular Twaron® commercially available by 2025
- > Calculations show that every kg of used aramid saves 4 kg of potential CO₂ emissions

勿体無い (Mottainai)

This Japanese term is used by environmentalists to encourage people to reduce, reuse and recycle.

It is also the slogan used by UN to promote environmental protection. The exact description in the Japanese dictionary is: an expression of regret at the full value of something not being put to good use. In contemporary Japanese it is used to indicate that something is being discarded needlessly, and to express regret of it.

 **Watch video**

The Circularity Turnaround

Partners in recycling solutions

- > For over twenty years, Teijin Aramid has been recycling Twaron® fibres in its own recycling facilities.
- > Teijinconex®-based products will get a new life through our partnerships with Purfi/Concordia Textiles and General Recycled (Canada) with whom we collaborate on innovative technologies that regenerate pre- and post-consumer aramid-based materials used in protective textiles to a fiber level with extremely high standards.

Partnering for circularity means building alliances in product redesign, take back logistics and prepping the materials for recycling



Let's make end-of-life products assets instead of liabilities together

Aramid is too good to waste. With our recycling technologies and your willingness to invest in a circular future we can seize valuable feedstock.

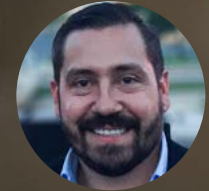
Building Sustainable Value Chain Alliances

We cannot do this on our own. To successfully take back process leftovers at our customers and converters and end-of-life material of 'end users' we need to build Sustainable Value Chain Alliances (SVCA's). These alliances connect all our business partners, from customer through end user and recycling hubs, in order to jointly close the loop. In turn, we will be able to offer our business partners recycled yarn.

Recycling Hubs

An important link in these SVCA's are recycling hubs, companies that are capable to source, sort, clean, cut and blend materials that come back from the market. We want to enter into long term contracts with these hubs to create stability for all parties of the SVCA including ourselves: stability in quality, in prices and in supply.

Our internal aramid waste material loop has been successfully closed so our focus is now on reducing waste in the value chain. Together with our partners we managed to increase the intake of end-of-life aramid material by 50% compared to 2020. The win will be both lowering the footprint and reducing waste at the same time.



William Lange | CEO of Fiber Brokers International

"Fiber Brokers is dedicated to developing new environmentally friendly reclaiming methods for technical materials as well as deconstructing sensitive ballistic materials. Together with Teijin Aramid we take our responsibility and embark on this journey in reclaiming and repurposing as much valuable aramids as possible."

Open for business

We are looking for partners that are able to handle materials so that the cleaned aramid content can be shipped to our facilities in the Netherlands, ready to start their new life.

The win will be lowering the CO₂ footprint and reducing waste in the value chain and that can only be done together.

 **Watch video**

Call to action for take-back



How partnerships are essential in our raw material transition

3 - Raw materials transition

Our suppliers are an integral part of our sustainability ambitions and strategy. They deliver essential raw materials that, in turn, provide the chemical building blocks for our aramids. Finite, fossil-based resources are still the primary feedstocks for our products. However, we are pursuing partnerships and collaborations that can help guide our transition to renewable alternatives such as biomass, used plastics, and used aramid.

▶ **Watch video**
Sustainable feedstocks by Bert Gebben

Combining renewable raw material with our own recycling capabilities means we no longer have to rely on virgin fossil feedstocks. That's how we envisage building a fully sustainable future.



Highlights

- > The first breakthrough has been, already back in 2019, that with development partner BioBTX we proved that aramid fibers can be made from bio-based feedstock. Using used vegetable oil, we succeeded in producing 92% bio-based Twaron® on a lab scale, without compromising physical or chemical properties.
- > Next to biomass as renewable feedstock, plastic waste is getting more and more attention as a source of renewable carbon based raw material. There are even some additional advantages to the use plastic waste. It is widely available, it does not compete with resources for food applications and more-over it helps to solve the environmental threat of plastic soup when this kind of waste is re-used as feedstock. Within the plastic waste category, PET (known from the PET bottles and from textiles) is an exceptionally interesting plastic because it already contains the aromatic building blocks that are also used for aramides. In the 'InReP'-project we are exploring with multiple partners in the industry the optimal way to obtain the aromatic molecules from plastic waste, to get the same high quality aramid.
- > Furthermore we participate in a variety of alliances and have contacts with our current and possible new suppliers that are motivated in creating new sustainable feedstocks. With all these initiatives, we believe we will be able to secure the necessary amount of renewable raw materials to achieve our goal to manufacture our aramid fibers within the next 5 to 10 years.



Unlocking energy savings through new technologies

4 - Energy transition

To meet growing market demands we expanded our production locations in Emmen and Delfzijl. We unlocked new energy savings by implementing a more efficient dissolving process and introduced new technology in a crystallizer. We used the downtime, during the production stop to connect the installations of the 'Kagayaki' production expansion and were able to implement some state-of-the-art technologies at the same time.

▶ **Watch video**
Energy reduction & Energy transition

Continuous energy consumption reductions

In the period 2017-2020 we managed to reduce our energy consumption by 8%. In 2021 we made a new energy saving plan for 2021-2024 committing to the EED Energy Audit of the European Energy Efficiency Directive (EED). We were able to reduce 1,4% energy consumption through several energy saving projects in the plants and with savings in the chain. This is quite an accomplishment as we have been running energy reduction programs for so many years and are well past 'the low-hanging-fruit-phase'.

To make an energy transition plan to realize our vision, we worked closely together with the manufacturing plants, research, the sustainability team and external experts. In this energy transition plan our focus is on renewable electricity, renewable heat, the internal re-use of 'waste' heat, circularity and the possibilities to change to other, more renewable energy sources, like electrification. In our manufacturing plants in Japan and Thailand there are also measures in preparation to reduce the CO₂ impact and improve the energy efficiency of the processes.

Circularity

Another point is that we committed to closing as many loops as possible in our operation and thus we optimized the re-use of raw materials such as sulfuric acid, our solvent NMP and water as much as possible. This is also resulting in the reduction of our footprint.

Renewable heat

We are not confining our energy transition efforts solely to electricity, we are exploring the possibilities to produce or acquire sustainable heat too. We need a green source to provide this heat and this could be hydrogen, biomass, green gas or even geothermal heat. As the target of 40% renewable heat by 2025 is nearing we are reviewing our options to procure renewable heat and we are ready to take action.

Running on wind

We continued to purchase Guarantees of Origin (GO) certificates of European renewable electricity from wind for the total electricity consumption of all our manufacturing sites, research facility and Head Office in the Netherlands. This has a big impact on our carbon footprint, we reduced to 8,7 kg CO₂/kg yarn.

Our progress is rooted in and enabled by innovation and knowledge exchange





4 - Energy transition

Key role for Hydrogen

The solutions we invent and the products we make will be crucial to the world's success in tackling climate change through the reduction in greenhouse gas emissions.

A topic at the heart of Teijin as a whole revolves around hydrogen. Hydrogen has the capacity for dynamic useful and positive transformation built in. Hydrogen can be produced from water and returns to water again after use and is therefore considered to be a clean energy carrier. Nevertheless Hydrogen is demanding and therefore has an intrinsic fit with sustainable high performance materials to handle hydrogen in a safe, economic and sustainable way.

Green hydrogen has a key role to play in the global energy transition. Hydrogen extracted from water by electro-chemical processes powered entirely by renewable resources will be the corner stone of our future energy system and a necessity to sufficiently reduce greenhouse gas emissions to limit global warming. We contribute by deploying high performing aramid solutions with the lowest ecological footprint possible.

Watch video
Hydrogen explained

By an economic and ecological comparison over the full life-cycle we demonstrate that the 'aramid reinforced thermoplastic pipeline' concept (RTPs) has much more to offer for pipeline infrastructure applications.

Hydrogen's role in our future energy system requires dedicated global and regional supply chains. Hydrogen pipeline infrastructure, seen as the most safe and cost effective concept to distribute large amounts of hydrogen, must be extremely gas tight and corrosion resistant over a long period of time.

Twaron® Reinforced Thermoplastic Pipelines (RTP) offers the more robust and sustainable solution. They contain a special layer to prevent leakages and weigh considerably less than steel pipelines. They are flexible, spoolable in long lengths reducing the amount of pipeline connections required, are easier to transport, and need less on-site efforts and plot-size reducing the ecological impact significantly at installation.

One of the challenges in the hydrogen development is the production of green hydrogen by water electrolysis. Specifically the material performance of the membranes used in the electrolytic stacks. We are one of the few companies in the world with capabilities to deliver the more sustainable solution and are excited to help make this future a reality around the world.



Highlight

With our partners Pipelife SoluForce and Groningen Seaports we will realize a hydrogen infrastructure demonstration project in the Northern Netherlands in the coming year – one of the global hydrogen valleys appointed by the European Commission. Teijin Aramid's Delfzijl operations will be connected too. With the support of our Customer Benefit Model (CBM), the project aims to highlight the added economic and ecological value of hydrogen infrastructure made with Twaron® non-metal pipelines over conventional steel pipelines. Flexible Twaron® pipelines are safe, cost-effective, sustainable and give a major footprint reduction of 70%.

Numbers tell the tale

5 - Transparency

For more than ten years now we have been developing and optimizing Customer Benefit Models (CBMs) for various applications. It started, back in 2011, with the development of mathematical modeling and detailed calculations to be able to quantify the benefits of aramid-reinforced conveyor belts. Over the years it has evolved into an independently certified software-based model that quickly calculates the potential energy savings of Twaron® during the raw material, production and use phase of aramid-based applications.

Working with customers to quantify their savings

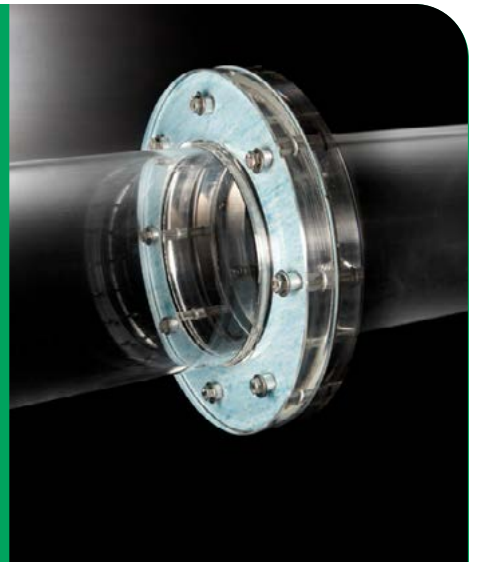
The environmental and economic impacts are measured against those of standard materials used in the same function, such as steel, to provide customers with a clear like-for-like comparison. We aim to strengthen the value proposition of our technology – and amplify our positive contribution to industries and society at large. Working together, we can accurately quantify the possible savings, something we can do for many applications, such as conveyor belts, tires, sealing gaskets, air freight containers, protective apparel.

Sharing our model

The CBM is available for our customers. We have the model in various stages of development for different applications. The CBM model for conveyor belts is **online available** free of charge. Filling in the calculator only takes a couple of minutes and provides a clear first impression of the potential savings. By making our knowledge and this model readily available, we hope more application owners will see the potential of aramid and switch to a more sustainable solution.

New CBM model for gaskets

In cooperation with our customer Frenzelit, a leading gasket manufacturer, we had the ambition to visualize the CO₂ impact of Twaron® reinforced gaskets, benchmarked against other materials used in gasket products. With this newly developed CBM for gaskets one can clearly see how much CO₂-emissions can be saved by choosing the most suitable sealing solution. In the Frenzelit case it shows that their Twaron®-based novapress® product is the most sustainable, not only during production process, but especially during the use phase.



5 - Transparency

Arming our partners with information for a transparent aramid chain

Last year we proudly launched our eco-datasheet for Twaron® as we see open communication about the environmental impact of our products and services as a critical step in the journey towards a fully sustainable and circular aramid value chain.

The eco-datasheet includes the most recent calculation of the carbon footprint of Twaron®, measured in CO₂-equivalent units. Users also receive clear information about the product's recyclability as well as its compliance with current chemicals industry regulation and other leading environmental standards and assessments.

Future proofing with the help of SBTi

SBTi verifies Teijin Group's new greenhouse gas emission targets as science-based targets (SBT) that keep global temperature rise well below two degrees Celsius. Our parent company, Teijin Group, is the first company in the Japanese chemical industry to be awarded this honor.

SBTi lays forth a clearly defined path for enterprises to future-proof their growth by stating how much and how soon they must reduce their greenhouse gas emissions. The goal is to contribute to the Paris Agreement's goal of keeping global temperature rise well below two degrees Celsius over pre-industrial levels, which is predicted to dramatically minimize climate change risks and impacts.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

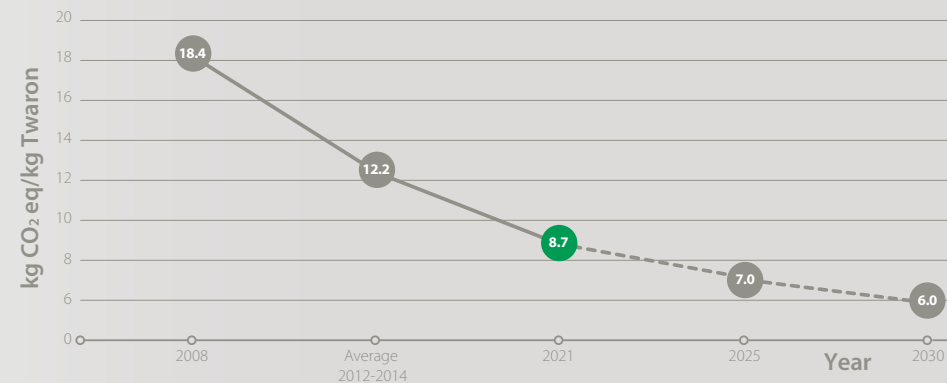
Prolonged 'EcoVadis Gold status'

EcoVadis has awarded Teijin Aramid 'Gold Status' for the 6th consecutive year. Their independent and objective assessment shows that Teijin Aramid is in the top 6% of sustainable manufacturers of man-made fibers. This means a lot to us. Our achievement is the result of fulfilling our ambitions, putting a lot of effort in implementation, and being transparent in the area of CSR and sustainability. We actively seek objective insights and feedback by participating in EcoVadis' rating to strengthen the company's sustainability strategy.



Our Ethics score this year increased by 10% compared to last year. We have been able to accomplish this because we communicated and trained all our employees with an e-learning of our Code of Conduct on the company's policies and practices.

Carbon footprint Twaron®



By the reduction of the carbon footprint to less than half of 2008, our customers benefit strongly because the ecological footprint of their products is reduced as well. The LCA study has been externally reviewed and conducted according to the applicable ISO standards 14040 and 14044.



People and safety are at the heart of our organization

6 - All about people

It is never about statistics but always about people. Despite our efforts, there are still too many incidents in our company, especially in the Netherlands. This needs to change. Safety is the foundation of our work, period.

Changing behavior

Behavior is the most important aspect of safety. Also the most difficult aspect, as safety is about focus; being in the here and now. We must be constantly aware of what we do and how we do it. Safety is also about taking the agreements we make with each other seriously and to raise awareness of the risks that exist.

Learn from each other

What is praiseworthy is that at one of our factories outside the Netherlands, only one safety incident occurred in 2021. At the DAPE factory in Matsuyama in Japan, not a single incident has occurred in the past twenty years. We applaud our colleagues for that effort, it requires perseverance and a lot of discipline: attention to safety every day.

Detailed statistics on HSE performance in the Netherlands and our renewed QHSE policy are available in the Appendix and on our website under Sustainability.



Safety first.

Safety awareness campaign

A companywide safety awareness campaign, Safety First, has been launched. We will reflect - even more in-depth - on incidents that have occurred, give continuous attention to our Life Saving Rules, have discussions in the organization about everyone's role, the perception of safety and possible barriers that we experience. We designed this entire campaign on the foundation of 'creating a great working environment by making it safe'. With all these efforts, we believe we can reduce the incident rates.

6 - All about people

Health, wellbeing and people development

We are working together to make an impact for the world through fibers, believing that aramids can create a positive impact for the world. It is reflected in culture and values, we are innovative, passionate, proactive, and proud.

Various initiatives are taken to ensure that all employees are performing at their best. Safety at work goes well beyond 'not having an accident', it is also about feeling safe at work, being valued for one's contribution and given the opportunity to develop new skills and behaviors. Special attention is given to our leadership program 'Dare to lead' and to 'Diversity & Inclusion', where we are proactive in embracing cultures, languages and gender.

We facilitated remote working and have taken specific ergonomic measures to cater for the needs of our employees. Older employees were given special attention as their needs may differ.

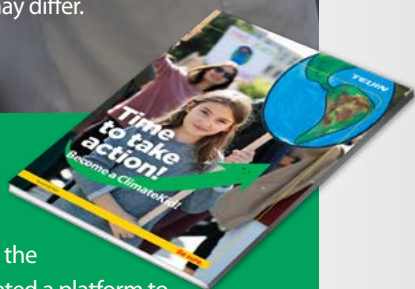
Involving the younger generations

The amount of young and bright professionals with a 'green and social perspective' within Teijin Aramid is growing. They want to make a difference; not just for themselves, but for generations to come. Their drive and enthusiasm are paramount in our quest to become the best high-performance fiber company for the world. The valuable contribution of the Teijin Young Professionals inspired us to broaden our scope and involve children and grandchildren

of Teijin employees too. With the ClimateKids initiative we created a platform to help us to become more sustainable more quickly. ClimateKids will challenge the organization, hold a mirror up to us, and explain what young people find important.

▶ Watch video

Young Teijin Aramid professionals on sustainability



Code of Conduct

The Code of Conduct has been reviewed and is at the heart of everything we do. Based on our PURE values (Passion, Unity, Respect, Excellence) we create a supportive and inspiring environment, where outstanding achievements can be realized. The Code of Conduct describes how we interact with each other, with customers and with our environment. It is important that all employees know these rules of conduct and act accordingly. That is why an e-learning has been developed in which all topics are covered.

Highlights

- > Social dialogue between our employees and the management, both formally via the Works Councils and informally with regular meetings on site
- > Various speak up channels (counselors, Complaint Committee, Ethics Committee and anonymous Speak Up Line) to report concerns
- > All employees of Teijin Group worldwide have participated in an Employee Engagement Survey and an Employee Awareness Survey and follow-up actions have been identified
- > Mandatory e-learning on Information Security and on the Code of Conduct for all employees
- > Dedicated staff from the relevant departments have followed Anti-Corruption and Anti-bribery trainings
- > Sustainable procurement through risks assessments and audits, and our CSR declaration for suppliers with all relevant topics on Ethics and Sustainability included
- > Clear view on the risks involved in doing business globally obtained through a risk assessment (initiated by Teijin Group) regarding the risks of corruption in the various regions in which we operate



The Teijin Group Philosophy. Enhance quality of life

7 - Group philosophy and SDGs

We follow the Teijin Group's strategy and policies, including its firm commitment to society and the planet. Like the rest of the Group, we focus on people, delivering innovative solutions that enhance quality of life and minimizing any negative impact on those around us.

To realize a sustainable world, our focus will be on people, to provide innovative solutions to enhance the quality of life, while minimizing the impacts of our activities on the environment and society. Read more [▶ Teijin Group Integrated Report 2021](#).

Our shared goals

These three fields have been translated into measurable indicators and are directly aligned with the relevant UN Sustainable Development Goals (SDGs), which include 17 key actions on the path to a sustainable world for all. Teijin Group fully supports the SDGs as they provide a clear focus for its thinking and actions.

Visit the [Teijin website](#) for additional information regarding this approach.

Teijin Aramid contributes directly to the vision of Teijin Group and the SDGs. Our objectives and activities are therefore closely aligned with the shared SDGs.

Teijin Group targets

Complying with national and international legislation is a constant priority at Teijin Aramid. Being part of the Teijin Group, we also comply with the targets set by the Teijin Group. In 2020, Teijin Group set new long-term environmental targets for 2030 (all compared to 2018):

Resource recycling
(landfill waste)

10%
improvement in 2030
(per sales unit)

Hazardous chemicals emissions

20%
improvement in 2030
(per sales unit)

Water
(fresh water intake)

30%
improvement in 2030
(per sales unit)

CO₂ target

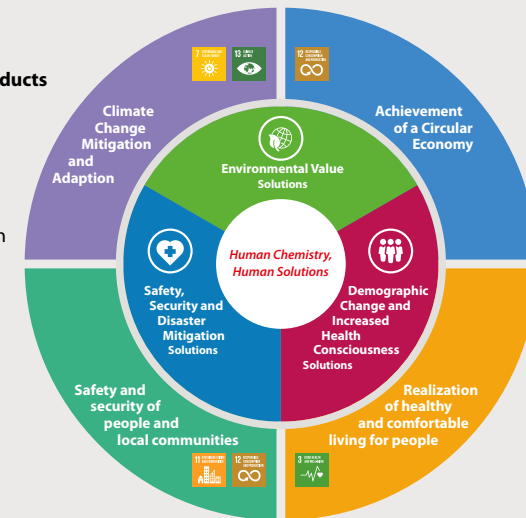
30%
improvement in 2030
(absolute)

Alignment with Teijin Group and SDGs

Teijin Aramid Purpose: We create materials which are produced in a sustainable manner and enable our partners to go beyond performance and realize a sustainable future.

Energy Transition
Raw Material Transition
Reduction of C-footprint of our products

- 13. Climate Action
- 12.2 Responsible Production (energy consumption, responsible sourcing and reduction carbon footprint)
- 7. Supporting Hydrogen transition



Responsible production
Safety and Life Protection

- 12.2 Responsible Production
- 8.2 Economic growth
- 8.8 Health & Safety

Circularity program
Reduce, Reuse and Recycle

- 12.5 Circularity
- 12.8 Insights (datasheets & CBM model)

Further strengthening of sustainable management foundation

5 Diversity & Inclusion

14 Avoiding marine pollution

16 Anti corruption

17 Partnership for the goals

Scaling up for impact

Sustainability Report 2021



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