

HSE Report 2017

Welcome to Teijin Aramid's HSE Report 2017.

HSE stands for 'Health, Safety and Environment' and is closely related to sustainability in the broadest sense of the word. It is Teijin Aramid's ambition to be the global leader in the aramid business and to enhance people's quality of life with our products, in harmony with society and by empowering our people. We believe that sustainable value creation is part of this ambition. That is why we are transparent about the impact of our activities on people and the environment, reporting openly on our environmental footprint and on how we are contributing to a more sustainable world.

Teijin Aramid is part of Teijin Ltd., and our performance in terms of corporate social responsibility is reflected in the [Teijin Group Integrated Report 2017](#). However, we find it important to report on our own HSE performance, which is why we are also publishing a separate Teijin Aramid HSE Report for 2017. In this report, we provide insight into the HSE performance of our facilities in Delfzijl, Emmen and Arnhem (The Netherlands).

In this HSE Report, we report on HSE matters we focused on in 2017. For example, we made good progress with regard to efficiency: through our approach of continuous

improvement, we are seeing more and more uniformity in our way of working within our organization. This continuous improvement approach is also applied to our products, technologies and value chains, so that we can make our products in the most efficient way and serve our customers as transparently as possible.

We would very much like to receive your feedback on this report, so that we can make relevant improvements next year. Please send us your views, comments or observations by submitting the [online contact form](#) and we will get back to you. Any feedback will be greatly appreciated.



Health and safety

Health and safety are our main priorities in the development and manufacturing of our products. Given that our core business involves the handling of hazardous chemicals and machinery, it is of crucial importance that our employees and contract workers, as well as people living in the neighborhood, always remain safe.

With regard to safety, we aim to be among the best in class. We want our employees and contract workers to return home from work safely, every day. A safe work environment can be achieved by managing risks well. On the one hand, this is done by means of process management (technologies and systems) and, on the other hand, by means of social management (people and behavior). This mainly relates to conscious behavior, a well-functioning dialogue between collaborative parties, and compliance with relevant procedures. We are striving for what we call a 'proactive safety culture' within our organization. However, we are not there yet. To achieve our goal, we have set up various programs that address both labor safety and process safety.

In addition, we also pay a lot of attention to the general health of our employees.

Labor safety – Behavior-based safety

In our spinning plant in Emmen, there is a lot of human-machine interaction – more than at our other locations. Labor safety relating to all these interactions is therefore essential at this plant. Given its wealth of experience, Emmen has a leading role when it comes to labor safety within Teijin Aramid.

To make structural improvements to safety within our work environment, we investigate all reports made of unsafe situations and incidents. From these analyses, it appears that opportunities for improvement can be found particularly in people's behavior. That is why, in 2017, at our plant in Emmen, we started working in accordance with the principles of 'brain-based safety' and appointed safety coaches. This allows us to get increasingly closer to the desired proactive safety culture.

The 'brain-based safety' principles

There are 7 principles that lead to safe behavior:

1. Enhance social safety
2. Explain the rules
3. Enforce the rules and comply with them
4. Always give priority to safety
5. Recognize risks and explain them
6. Be a role model
7. Use 'safety incentives'

These 7 principles offer a reference framework for leadership, coaching and learning interventions. In 2017, we started working in accordance with these principles, and practical experience shows that they make it easier to enter into a dialogue with employees and managers about safe behavior.

Safety coaches

Good coaches provide feedback on our behavior. In 2017, we started training employees from the operational environment as safety coaches. They were trained to identify issues in the field of safety at an early stage and learned how to make them a topic of discussion. By asking the right questions, unsafe situations are recognized, and targeted action can be taken to ensure a safer work environment. In this way, managers and employees learn to gain more insight into their own safety behavior. In 2017, 30 safety coaches were trained in Emmen.

In 2018, we will continue to train new safety coaches, so that each team will have its own safety coach. The experience gained by our production plant in Emmen will be used for the 2018 policy at the other locations.

Labor safety – Exposure

In our production processes, we work with various chemical substances. Preventing exposure of employees to chemical substances is an absolute priority and receives a great deal of attention on a continuous basis. Over the past few years, the Dutch government has also been paying more attention to protecting employees against exposure to hazardous substances. We strive to stay well within the legal boundaries.

Although we make sure that our employees can work safely with all substances, we would like to highlight two specific substances below, i.e., sulfuric acid in Emmen and NMP in Delfzijl. Given changing insights and requirements, we paid specific attention to these substances over the past few years.

Besides exposure to chemical substances, there is also the risk of exposure to microbes. In 2017, we paid specific attention to Legionella exposure.

Emmen – Exposure to sulfuric acid aerosols

In Teijin Aramid's spinning plant in Emmen, sulfuric acid is used to produce aramid (Twaron). Sulfuric acid is a hazardous substance and sulfuric acid aerosols are on the list of carcinogenic substances and are subject to an exposure limit value. Aerosols are miniscule particles that float in the air. We are mapping exposure to sulfuric acid aerosols by means of Personal Air Sampling. The results are used to test if we are

indeed complying with the exposure limit value and to identify opportunities for improvement.

In 2017, some 180 personal and local measurements were carried out to monitor exposure to sulfuric acid aerosols and to gain insight into the sources. The results of the personal air samples are virtually all below the exposure limit value. In a number of work situations, extra breathing protection must be worn. We are striving to design our workplaces in such a way that no breathing protection needs to be worn. In addition, the measurements have shown that the background level of sulfuric acid aerosols (i.e., in places where sulfuric acid is not actually used) could be improved in some areas of the spinning plant. A work group paid specific attention to sources of aerosols and to reducing the background level. This has led to improvements in machine settings, closing off sources, and optimizing ventilation. To achieve further improvements, more insight will be necessary into the entire air climate in the spinning plant. This research is planned for 2018.

Besides taking technical measures, we also informed all employees of the spinning plant, paying attention to the measurement results, health aspects, sources of aerosols and work methods. In 2018, all employees will be able to follow developments with regard to sulfuric acid aerosols via new information screens.

All of the above aims to further reduce the exposure to sulfuric acid aerosols, and to ensure the concentration is below the exposure limit value everywhere, with the ultimate aim of making it unnecessary to wear breathing protection.

Delfzijl – Exposure to NMP

In Delfzijl, NMP (N-Methylpyrrolidone) is used as a solvent in the polymerization of aramid. On 1 March 2018, European introduced stricter regulations with regard to the 'labeling limit' of products containing NMP. This limit means that the packaging of products containing more than 0.3 wt% of NMP should be provided with a hazard label (this limit used to be 5 wt%). The amount of NMP in our Twaron yarn and pulp is well below 0.3 wt%. However, we cannot guarantee that the amount of NMP in the polymer raw material (PPTA) that is delivered from Delfzijl to Emmen is always lower than 0.3 wt%. That is why, in 2017, we prepared for the labeling of this product flow.

In addition, as of May 2018, the exposure limit of NMP was tightened for both inhalation and skin contact. We prepared for this by carrying out personal monitoring and other

checks. Exposure to NMP through the air remains well within the new limits. Exposure through skin contact can be managed by using the right personal protection equipment. Proper use of this equipment is essential, and we will continue to focus on making sure the equipment is always correctly applied.

Exposure to Legionella

Over the past few years, Teijin Aramid has also focused on preventing Legionnaires' disease, caused by the Legionella bacterium. Under certain conditions, the Legionella bacterium can quickly expand in 'dead' parts of the water pipes. This is undesirable, as the bacterium poses serious health risks. People can be infected by inhaling small droplets of water containing the Legionella bacterium. To minimize this risk, in 2017, a Risk Inventory & Evaluation (RI&E) was carried out of the water pipe network, with a specific focus on Legionella. Based on the results, a Legionella management plan was drawn up and measures were taken to prevent Legionella infection.

For instance, in Emmen we made changes to the water pipe network in the buildings and cooling towers to improve the water flow. In addition, the water treatment was adjusted, and a flushing regime was introduced for taps that are less frequently used. Finally, we are taking regular water samples to determine the possible presence of Legionella.

Process safety

Our production plant in Delfzijl is a process facility par excellence. Delfzijl is therefore the location that plays a leading role within Teijin Aramid when it comes to process safety.

For the past five years, our large production plants have been working in accordance with the international standards drawn up by the international Center for Chemical Process Safety (CCPS). In line with these standards, we periodically carry out scans of twenty different parts of our organization. Based on the results, we implement targeted projects to make our plants even safer.

These are not just projects of a technical nature, but may also focus on organizational aspects (e.g., 'management of change') or behavior-based aspects (e.g., 'process safety culture').

Safety studies and projects

All plants and process parts are examined with a view to potential safety risks in accordance with a multi-year scheme. This includes standardized methods for risk determination. As

we apply strict safety standards, we always find some points for improvement that will allow us to further increase the intrinsic safety of our plants. The nature of these technical projects varies largely, and may concern the implementation of extra securities or adjusting existing ones, such as installing new equipment with an even lower chance of failure. In addition, they may concern adjustments in the production process or operations. In 2017, some of these projects were implemented in Delfzijl during normal production. For several other projects, this was not possible. These projects were therefore prepared to such an extent that they could be implemented during the production stop in Delfzijl in May 2018.

Management of change

When implementing technical adjustments, it is essential to have in-depth understanding of what the adjustment involves in order to prevent undesirable and unacceptable consequences, particularly when it comes to safety, quality and the environment. To have good control over each change process, we follow a procedure called 'management of change'. In 2017, this procedure was thoroughly reviewed, improved and clarified where necessary. For instance, project leaders are now encouraged even more to think about potential risks, their consequences, and how to prevent them. All this contributes to the aforementioned proactive safety culture.

Earthquake dossier

Specifically for our location at Delfzijl, earthquakes caused by gas extraction remain a topical theme. In 2017, in collaboration with neighboring companies, public authorities and research institutes, we continued to work on compiling an earthquake dossier. So far, our Delfzijl site has not suffered any earthquake-related damage. The collaboration mainly focused on mapping the current state of affairs in order to be prepared for future developments.

Safety performance 2017

Despite all our efforts, hazardous situations still occur and incidents happen. We do everything we can to prevent this, as we believe that each incident is one too many.

We measure our safety performance on the basis of the following data:

1. Incidents leading to absence (Lost Time Injuries – LTI)
2. Incidents leading to temporary alternative work (Restricted Work Cases)
3. Incidents requiring medical treatment (Medical Treatment Cases)

Using this information, we calculate the Total Recordable Rate (TRR), which is the total number of incidents (i.e., the total of Lost Time Injuries, Restricted Work Cases and Medical Treatment Cases) per one million working hours. We also calculate the LTI frequency rate, which is the total number of LTIs per one million working hours.

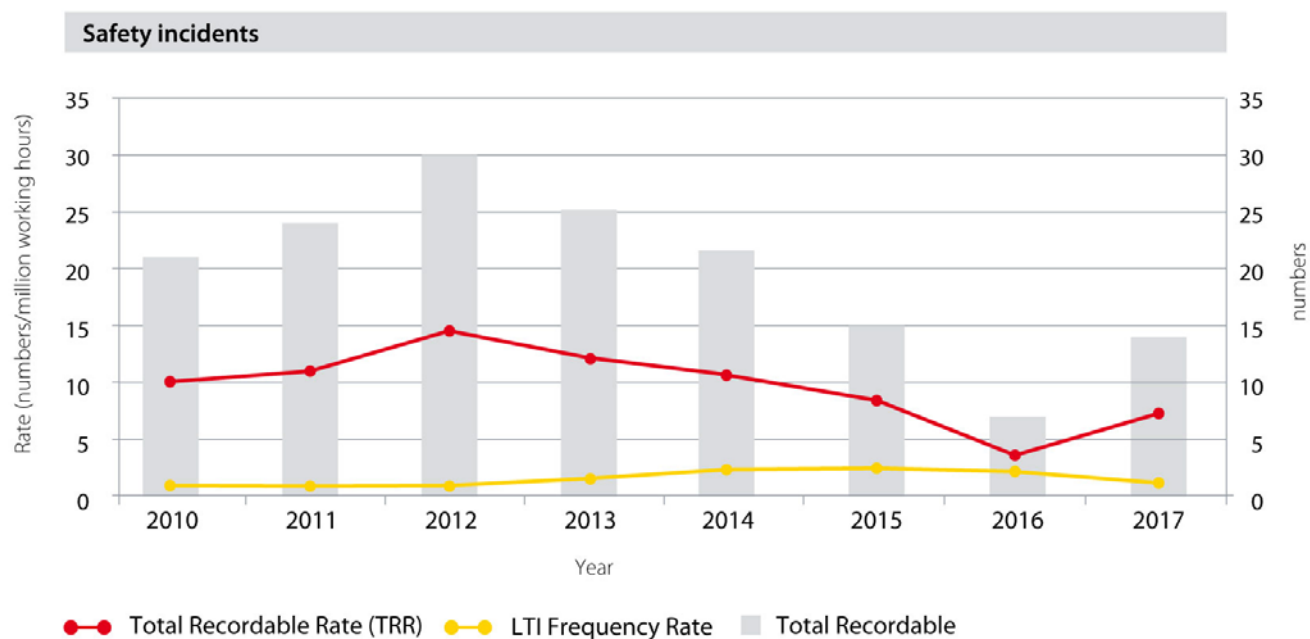
Safety targets

In order to be able to measure the effect of our improvement programs, we have set ourselves the target of an overall Total Recordable Rate (TRR) of below 8. In 2017, our TRR was 7.3. This is below our ambition, but clearly an increase compared to the trend we saw over the past few years (declining TRR). On the basis of thorough analyses of all reports, we are trying to find the cause of this increase. It is too early to talk about a new trend here.

For 2017, the Teijin Group had set itself a target of keeping the LTI frequency rate below 0.25. If we translate this target for the Teijin Aramid organization, this means less than one

LTI per year. This is the number of serious industrial accidents leading to absence per one million working hours. A serious accident is defined as an accident resulting in serious injuries, such as permanently torn muscles or tendons, serious fractures, or worse. Unfortunately, in 2017, two such serious LTIs occurred within Teijin Aramid, which resulted in an LTI frequency rate of 1.05. The incidents concerned a ruptured ankle ligament and a production worker suffering three crushed fingers. Both incidents were thoroughly assessed, which led to adjustments to the equipment and stricter work instructions, among other things. Fortunately, both workers made a sufficient recovery.

In addition, at Teijin Aramid, we register all incidents that lead to lost time. These also include incidents resulting in, for example, a sprained ankle, cuts, and other relatively light injuries. In 2017, we recorded no such LTIs. We also monitor the LTIs of our contractors. In 2017, no contractors reported any LTIs.



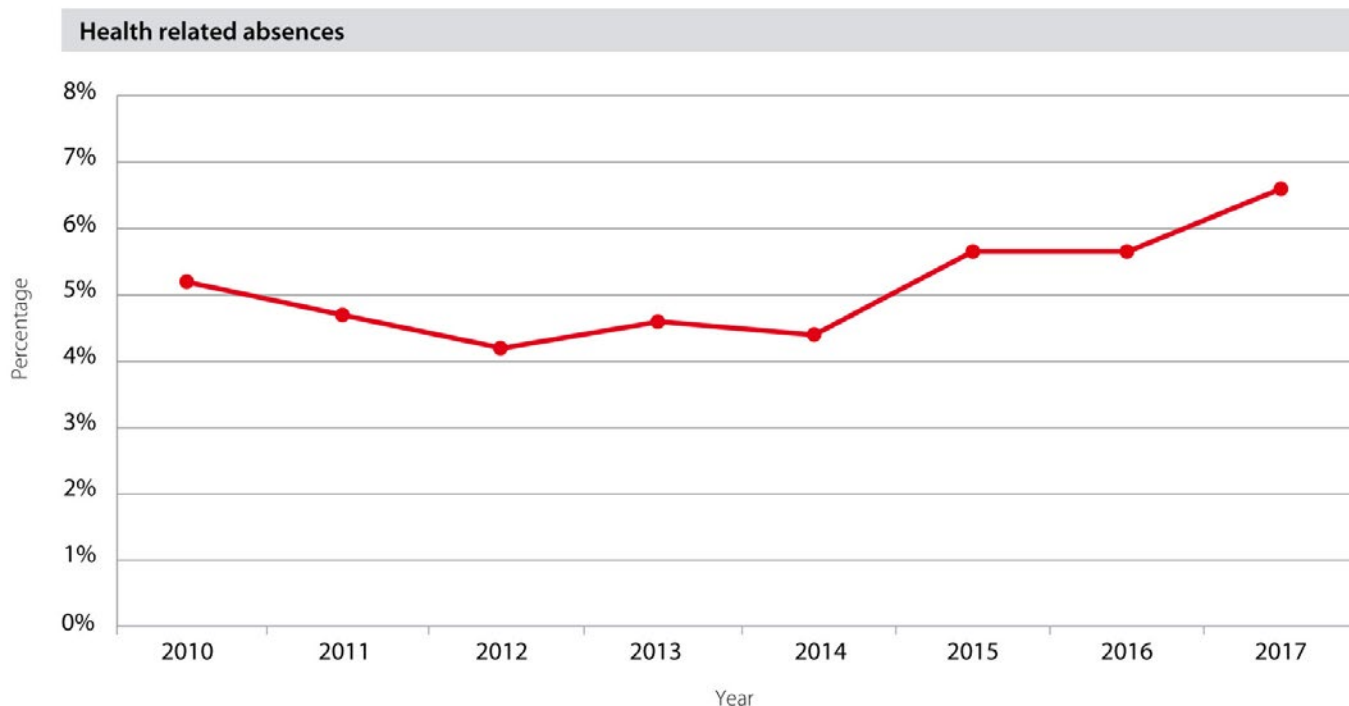
Health

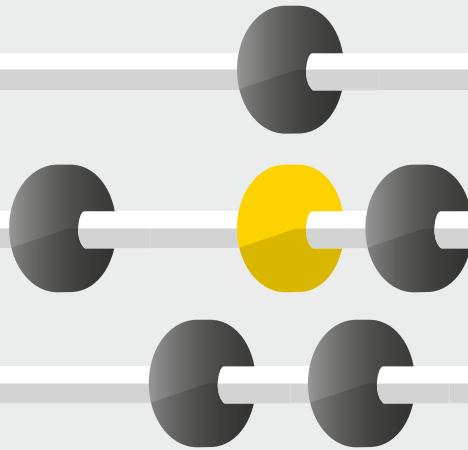
The health of our employees is very important to us. One of the ways we measure our performance with regard to our employees' health is our 'Absence due to illness' rate. This rate was 6.6% in 2017.

Despite many efforts geared to lowering absence due to illness and improving the employability of our employees, absence due to illness remains very high, particularly in Emmen. More than half of this absence is due to long-term absence (> 6 weeks), with the most frequent reason for absence at the production plants being musculoskeletal disorders. Factors that play a role here include the high average age of workers, combined with physical workload.

We continue to focus on lowering absence due to illness. Specifically, in collaboration with a certified occupational healthcare organization, we are deploying vitality coaches. We are also implementing various projects that focus on sustainable employability, such as flexible schedules for shift workers. In addition, we are lowering the physical workload by introducing ergonomic tools and appliances.

In 2017, we also made a start on the Sustainable Employability Budget. Each employee can use a personal budget of € 1,200 per three years for interventions geared to improving their employability.





Energy & Environment

Besides taking care of our employees, we also consider our environmental impact. This impact is mainly caused by the raw materials we use, our emissions, and our energy consumption. Reducing the use of raw materials and energy is an important focus area for us.

In our efforts, we need to find a good balance. In the manufacturing of our products, we aim to recycle our raw and intermediate materials as much as possible. In order to minimize the intake of raw materials, our production processes are designed with various closed loops. Although this results in a more energy-intensive process and thus higher energy use, it also leads to a positive net result, which is why we choose to give priority to closed loops.

Energy

Energy has a significant impact on our ecological footprint. In our efforts to reduce our ecological footprint, in manufacturing our products we pay much attention to ways of reducing our

energy consumption. Energy savings not only result in a reduced ecological footprint, but also lead to cost savings.

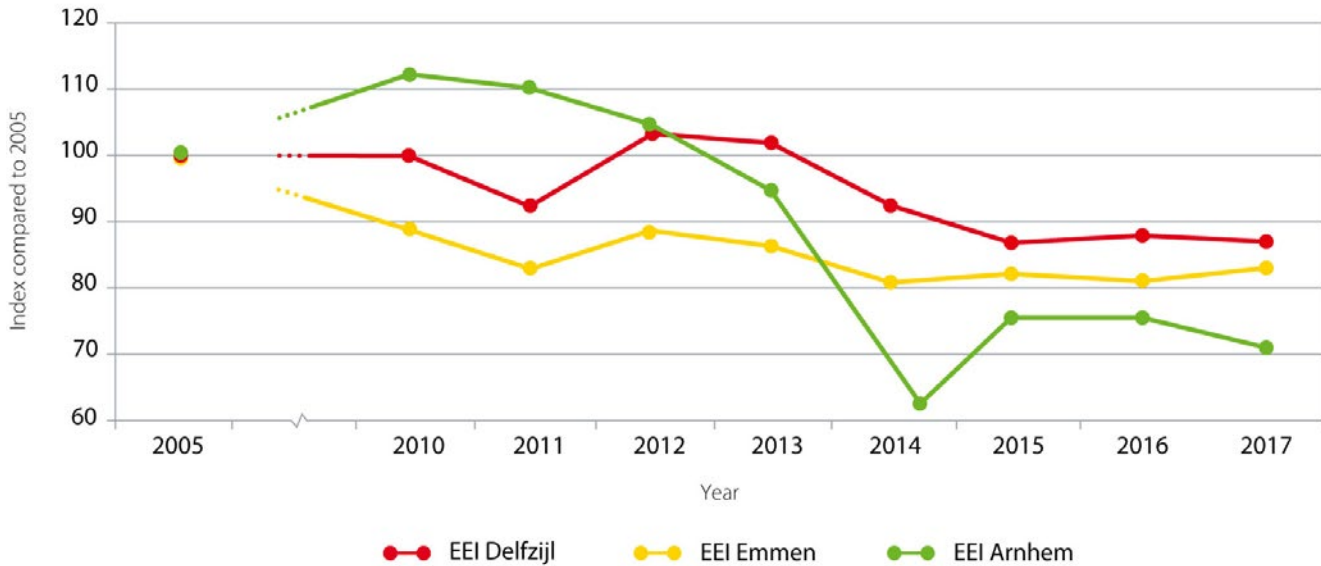
Since 2009, Teijin Aramid has participated in the MJA-3 covenant, which involves long-term agreements between the Dutch government and companies on improving energy efficiency. The objective is to achieve an annual average of 2% energy efficiency savings. The implementation of these agreements are defined per location in an Energy Efficiency Plans (EEP).

In 2017, we drew up our third EEP, this time for the period 2017-2020. For this new period, we are striving to achieve additional energy savings of 6.5% in our production processes and an additional saving of 1.5% in the value chain, thanks to the application of our strong and light materials.

Our energy performance in 2017

We express our energy consumption by means of the Energy Efficiency Index (EEI). This is the total energy consumption per tonne manufactured product per site, compared to 2005.

Energy efficiency index



In 2017, all locations worked in accordance with the EEPs and achieved corresponding energy savings. The slight increase of our EEI in Emmen is mainly due to the fact that we have now included the energy consumption of compressed air and cooled water. This is new compared to previous years. The decline in Arnhem is due to the savings achieved, combined with the effect of a more constant pulp production.

Decarbonization

We are gradually seeing that, over the years, the 'low-hanging-fruit' measures to reduce energy consumption have all been taken, which makes it increasingly difficult to achieve

the EEP targets in conventional ways. To keep making progress, in 2017, we increased our focus on the process of decarbonization. How can we reduce our direct CO₂ emissions further in the future? The Teijin Aramid Energy Strategy Team is considering our current position and sorting out the questions to which we still need to find answers. In 2018, we will work on formulating a program to give shape to decarbonization.

Our product carbon footprint

In 2016, we calculated the product carbon footprint, the average eco-profile of our Twaron yarn and pulp.

Twaron Product Carbon Footprints per kg		2015	2016
Average Twaron Yarn	GWP ¹ excl. biogenic carbon ² [kg CO ₂ -eq/kg average yarn]	12.6	12.2
Average Twaron Pulp	GWP excl. biogenic carbon [kg CO ₂ -eq/kg average pulp]	13.3	12.9

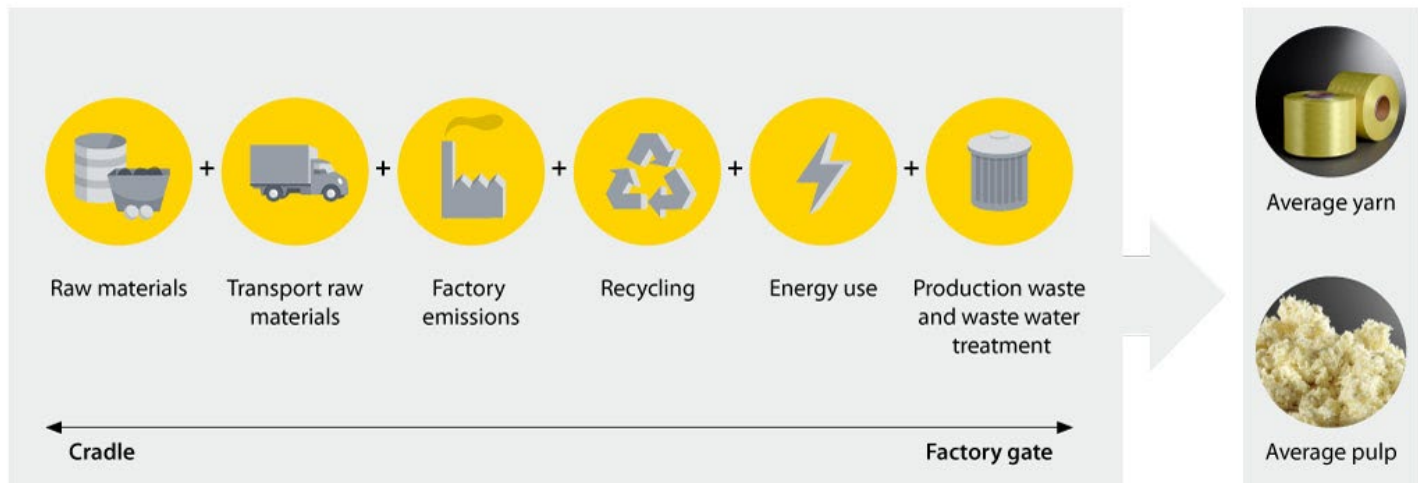
¹ GWP = Global Warming Potential

² Other impact categories are available on request

In order to be able to make a good comparison, the current GWP values are based on a fixed set of data: the average production data from 2012 to 2014. The scope of these product carbon footprints is 'from cradle to factory gate', covering the extraction of raw materials, the production of intermediate materials, and the production of our end-product Twaron. The transport of end-products to the customers, the use phase, and the end of life of the products are not included.

The footprint was not recalculated in 2017, as we were making the necessary preparations to improve our calculations. For 2018, we are planning to update the eco-profiles of Twaron yarn and Twaron pulp, based on primary production data retrieved for the years 2015-2017. The updated eco-profiles will again be calculated on the basis of the 'cradle to gate' principle, just as it was three years ago. In addition, for these updated eco-profiles, we will also incorporate greenhouse gas (GHG) emissions from biogenic sources.

Scope Twaron products carbon footprint

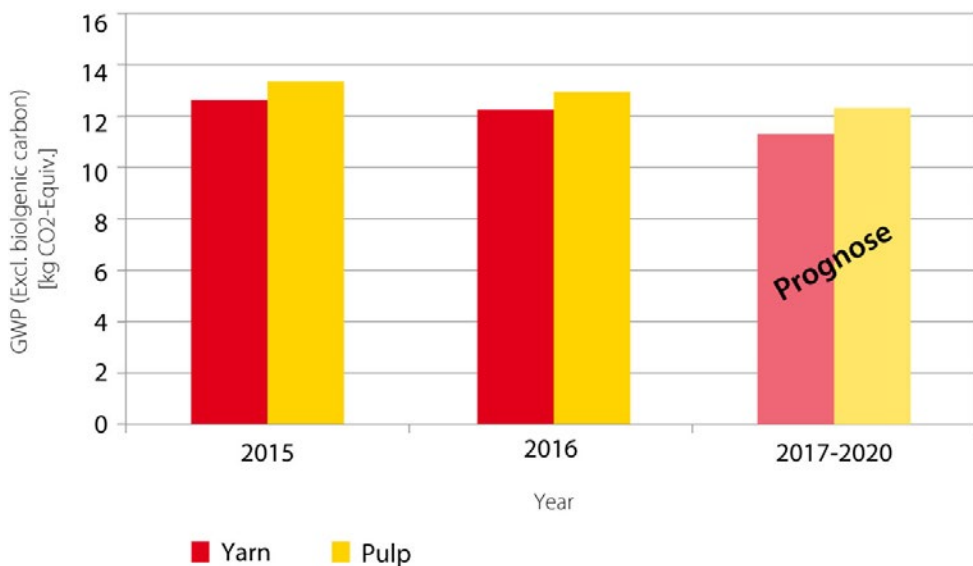


Improving our eco-profile

Over the past few years, we have been working hard on the implementation of energy reduction targets in our production plants. We therefore expect to see an improvement in the eco-profiles of average Twaron yarn and average Twaron pulp.

That is why we wish to quantify the magnitude of the effect of the application of targets on our product carbon footprints. The effect of achieved and planned energy reductions on our product carbon footprints is reflected in the graph below.

Product Carbon Footprint development



Emissions to air

In order to minimize and control our emissions to the air, we have various installations in place, such as filters, activated carbon, and scrubbers. We have optimized our processes as far as possible. Nevertheless, we have several emissions to the air. All our emissions, including variations compared to

previous years, are well within the legally permitted levels. Significant deviations are explained below. All deviations are within the standards permitted. Significant deviations are explained below. All deviations are within the standards permitted.

Air emissions

	Location	2010	2011	2012	2013	2014	2015	2016	2017
Component (in kg)									
Polymer dust and other particulates	Delfzijl	999	884	1148	1143	1070	991	1029	1450
	Arnhem	52	17	15	8	8	2	36	2
Tetrachloromethane	Delfzijl	103	145	301	81	184	677	145	132
N-Methylpyrrolion (NMP)	Delfzijl	149	146	251	513	871	624	436	852
	Arnhem						6	10	<0.1
Aniline	Delfzijl	81	23	26	21	20	20	20	50
Dichloromethane	Delfzijl	1059	1609	1051	1839	894	366	800	315
Freon 507	Emmen	490	49	0	245	147	98	245	294
	Arnhem					0	20	0	20
Nitrogen oxide (tons)	Delfzijl	11	12	11	11	12	9	8	10
	Emmen	1	2	2	2	2	2	2	2
	Arnhem	1	1	1	1	0.7	0.4	0.4	0.9

Polymer dust

In Delfzijl, the wet end-product is dried using warm air, which leads to polymer dust being released to the air. This dust is captured in filter bags. In 2017, the total amount of polymer dust increased, mainly due to an increase in the production level. In addition, there were two small incidents with the filters.

NMP

We use NMP as a solvent for the polymerization of aramid. We subsequently separate the aramid and NMP. We then purify and reuse the NMP for the next polymerization round. The increase in emissions in 2017 is mainly due to a higher production capacity, combined with an incident that led to the release of approximately 50 kg NMP to the air. In Arnhem, NMP is also used, but on a smaller scale and not continuously. Small losses may occur here. In 2017, this production was limited, which explains the low emissions.

Aniline

Aniline is one of the building blocks for the production of PPD. The process has been designed in such a way that the emissions are manageable and minimal. In Delfzijl, an additional 30 kg of Aniline was emitted following an incident, caused by a faulty flange gasket. The flange gasket concerned

was replaced immediately.

Dichloromethane (DCM)

Even though our processes that use DCM are basically designed to emit no significant quantities of DCM, there are always small DCM emissions caused by 'diffuse' sources. Maintenance can have a significant positive effect on these diffuse emissions. The 2017 emission values fit within this policy. In 2016, these emissions were higher due to a large-scale maintenance shutdown.

Freon 507

Freon 507 is used as a cooling medium in Arnhem and Emmen. We measure our emissions when we refill the cooling medium by measuring the required amounts.

In Emmen, the emissions mainly concerned regular diffuse emissions. In addition, there were two small leaks, which became apparent during checks and were instantly repaired.

In Arnhem, the additional emission of Freon was mainly caused by leaks in one or more gaskets. This was discovered during the periodic maintenance. The leaks were sealed and the Freon was replenished.

Emissions to water

In order to minimize and control our emissions to water, we have various installations in place, such as filters, separators, activated carbon, strippers, and water purification plants. However, as in the case of emissions to air, there are also some emissions to public waters. All these emissions are well within the legal standards.

In Delfzijl, one part of the wastewater is discharged directly into public water. The other part is sent to a local wastewater purification plant for further treatment. In Emmen and at our

production location in Arnhem, all production and wastewater is sent to a water purification plant on site, prior to discharge into public waters.

The table below shows our emissions into public water, which are all well within our permitted levels.

All emission levels are within our normal range of operation, and no incidents occurred.

Sulfate

The figures for Arnhem refer to the emissions at our Research location at Velperweg.

Emissions to water

	Location	2014	2015	2016	2017
Component (in tons)					
Chemical Oxygen Demand (COD)	Delfzijl	57	60	48	61
	Emmen	5.1	4.5	5.8	5.4
	Arnhem	15	7.0	6.1	6.1
Total Nitrogen	Delfzijl	5.1	5.6	4.6	5.6
	Emmen	0.5	0.4	0.4	0.4
	Arnhem	–	–	0.2	0.1
N-methylpyrrolidone	Delfzijl	1.7	2.1	1.9	2.2
	Arnhem	0	0.23	0.17	0.09
Sulfate	Delfzijl	54	49	46	50
	Emmen	226	237	231	253
	Arnhem	70	57	49	67

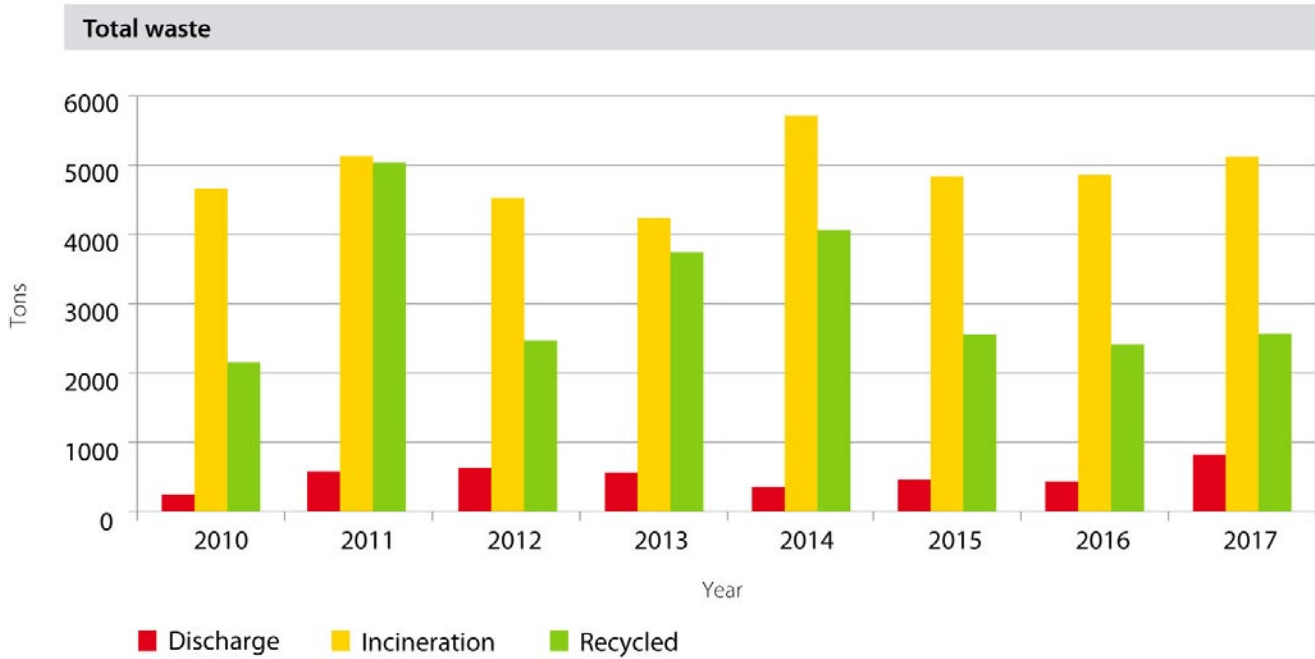
Waste and recycling

In the manufacturing of our products, we aim to recycle materials as much as possible within our processes. Our production processes include various closed loops. This not only results in reduced emissions, but also, and more importantly, maximizes the extent to which we can reuse our material streams.

In spite of our closed loop approach, our production plants still produce waste that we cannot reuse. At all our locations,

this waste is either offered for external recycling or sent to incinerators. A small part is discharged as landfill (indicated in the figure below as 'discharge').

The increase in discharged waste is a direct consequence of a change in the processing of sludge from the sulfate treatment plant at our water purification facility in Emmen. Until 2017, this material was offered for incineration. In 2017, our waste management operator started discharging this material for landfill.



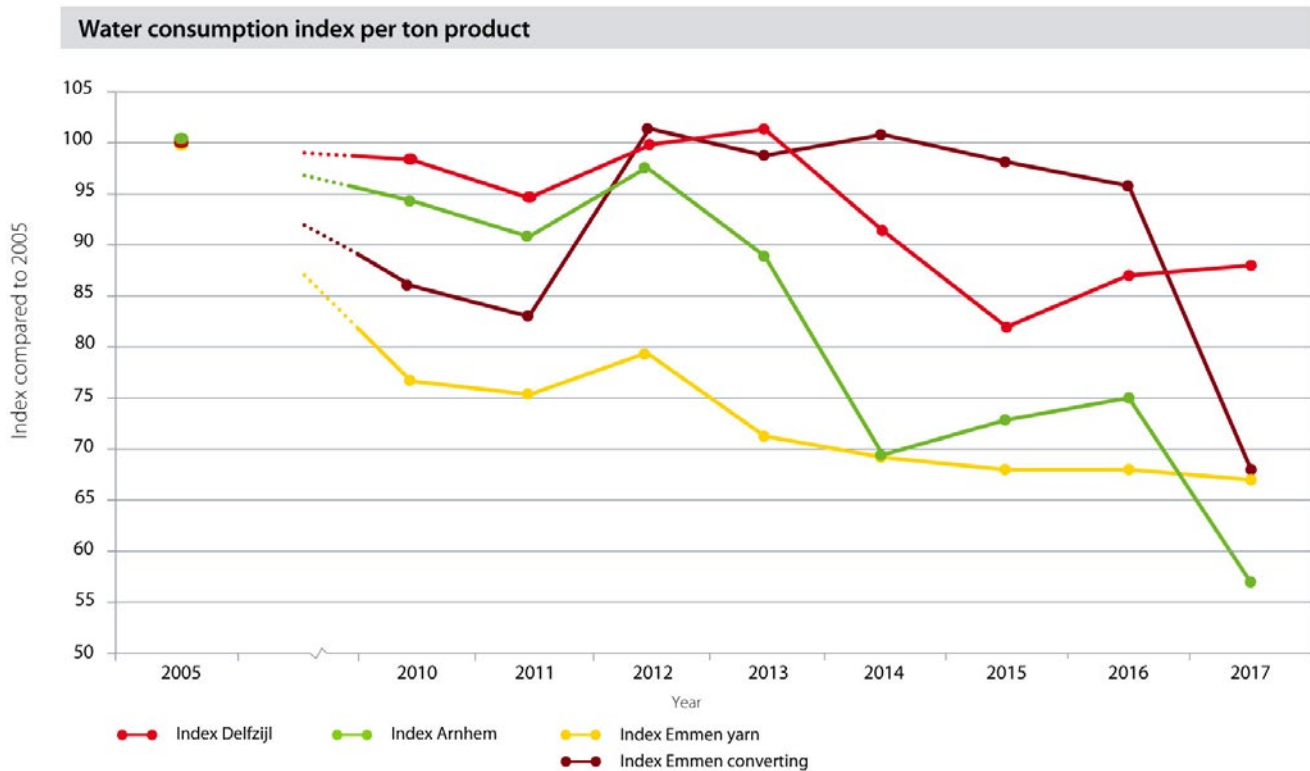
Water consumption

All our factories make use of industrial water. Nevertheless, additional fresh water is still needed in our production processes and facilities. We report on our water consumption by means of the water consumption index per location. This is the water consumption per tonne of production, compared to our reference year of 2005.

The huge decrease in water consumption at Converting in Emmen cannot be easily explained. In 2017, we repaired a malfunctioning water meter. The water meter now shows structurally lower water consumption than before, even

though there have been no changes in the production process. It is not yet clear what has caused the difference in measurements.

In Arnhem, we also see a significant decrease. There were several causes for this. As part of the production process in Arnhem, the water supply is now switched off during stop periods. This has certainly led to some savings, but the exact extent of these savings has not been measured. In addition, our test facility, a major water consumer, only ran minimally in 2017.





Continuous improvement

Everything we do at Teijin Aramid is driven by our ambition: 'to be recognized as the best aramid company in the world'. This ambition contributes to the mission of Teijin Limited: 'to enhance the quality of life in harmony with society and by empowerment of our people'.

To be successful in this ambition, we strive to offer all our customers the best quality products and services. An important part of our strategy to achieve this is continuous improvement. That is why Teijin Aramid works on efficient, streamlined and standardized processes, while striving to continuously improve our processes throughout the organization. We carefully consider how we can avoid and eliminate waste, and we design and implement our processes in a cost-conscious manner.

Over the past few years, within the various QHSE departments of our production locations, we paid a lot of attention to standardization and uniformity.. In 2017, this led to, among other things, the completion of our SDS database, ISO recertification, and an improved EcoVadis certification.

ISO certification

In 2017, our entire QHSE management system was recertified. We went through a successful transition to the newest ISO 9001: 2015 ([NEN.nl](#)) and ISO14001: 2015 standards. After long

preparations and an intermediate assessment by Lloyd's, we were again assessed positively and received the new certificates. This makes us one of the first companies in the Netherlands to achieve this. The new ISO 14001, ISO 9001 and OHSAS 18001 certificates can be found on [our website](#).

Safety Data Sheets- SDS database

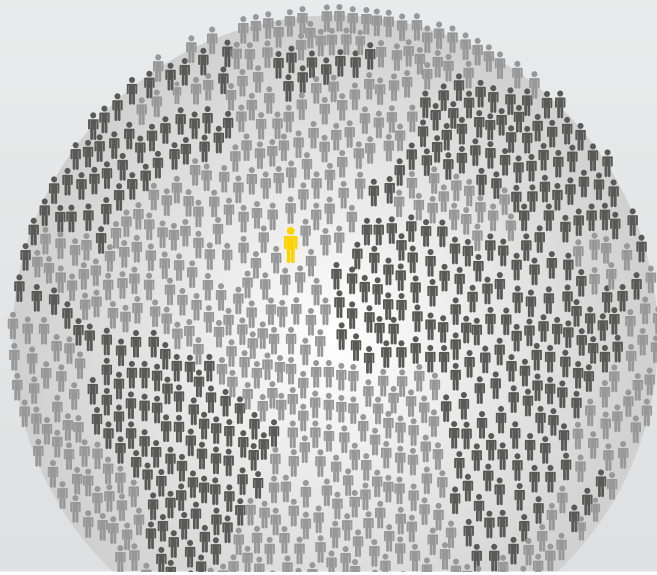
For years, many departments within Teijin have worked with 'Safety Data Sheets', better known as SDSs. Purchasing, sales, production, logistics, R&D, QHSE – they are all dealing with materials for which relevant safety information can be found or transferred by using an SDS. These SDSs are managed in a central place: the SDS database. This database was completed in 2017, a real milestone. It includes 1,600 SDSs, which can easily be found by all employees. The database is kept actively up to date, ensuring that everyone works with the same and most up-to-date information. This is one of the measures we have taken to encourage working safely with chemical substances.

In addition, for the most important substances that our various locations work with, we use Work Instruction Cards for Substances (WICS). The SDSs are very extensive and it requires knowledge and experience to interpret them well. We have therefore made a 'translation' of the most essential information in the SDS to people's own work situation through the WICS. These cards contain clear instructions for

employees on how to work well and safely with the substances. Over the past few years, a lot of time has been invested in standardizing the WICS. As part of the SDS database, we have now standardized WICS for more than 70 substances and made them easily accessible.

EcoVadis

In 2017, we were awarded the EcoVadis Gold certificate for the first time. EcoVadis runs a collaboration platform that allows companies to evaluate their suppliers' sustainability performance. In 2015, we were first assessed by EcoVadis as a Silver partner, with the assessment showing a number of points for improvement. We took the improvements suggested by EcoVadis to heart and implemented them where this was appropriate. In 2017, EcoVadis again assessed our sustainability efforts with regard to the automotive industry. This resulted in the **Gold certificate**.



Teijin Group Integrated Report

Teijin Aramid is part of Teijin Limited, our Japanese parent company and the holding company of the Teijin Group. As of 1 April 2017, a significant organizational change was implemented.

As part of an earlier decision to change the organizational structure of the Teijin Group, all aramid activities were combined into one global aramid business unit: Teijin Aramid. As a result, all aramid activities – production, research and sales of Technora, Teijinconex, Twaron and Endumax – have been brought together under one Management Team. As one aramid business unit, Teijin Aramid forms an important foundation that will help to strengthen the strategy of the [Teijin Group](#) as a whole.

This organizational change has turned Teijin Aramid into an even more international organization, with plants in Japan, Thailand and the Netherlands, and with research centers in Japan, Arnhem, Wuppertal and Shanghai. Our sales organization covers all regions of the World: US, South America, EMEA, Japan, China and India. The new organization employs some 1,750 people.

In addition to the specific insight we provide into Teijin Aramid's HSE performance, our performance in terms of corporate social responsibility is reflected in the [Teijin Group Integrated Report 2017](#).



For more information, please email
information@teijinaramid.com
or visit www.teijinaramid.com/sustainability