



# AQUAFIL AND SUSTAINABILITY

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2018

# **We have a story to tell**

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*A story that started more than fifty years ago in Arco di Trento, close to the banks of Lake Garda.*

*This is the story of a small company that through an ambitious vision in harmony with its territory, quickly became a leading player in the production of Polyamide 6.*

*Many things have changed during this time: people, markets, activities. But what moves us, the will to make the difference, has remained intact.*

*Our ambition to create products with respect to the environment is what has driven us since the very beginning of our sustainability journey, an ambition that has been clearly expressed in our sustainability report in the last 12 years. This report is an overview of everything we have achieved so far and the future challenges that lie ahead. We see this report as a precious means for dialogue with our stakeholders.*

*From 2018 and onwards, our sustainability report forms an integral part of the non-financial disclosure included in the annual consolidated financial statements as established by the Italian Legislative Decree n. 254/2016, and summarises all the commitments Aquafil has made to support and safeguard its employees, local communities, the environment in which it operates and the planet as a whole. The aim of this document is to provide a clear and concise summary of what is more extensively covered in the non-financial statement.*

*“Aquafil and Sustainability” is the story of what we do every day to contribute to sustainable development. We have chosen to report here only the most relevant information: the pillars on which we base our sustainability path, which we called ECO PLEDGE®, and some of the main results achieved in 2018. At the end of each paragraph you will find the link to the more detailed information in the non-financial disclosure.*

**Giulio Bonazzi**





# 2018

## An overview

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For more than 50 years Aquafil has been a global leader in the production of synthetic fibres, particularly for Polyamide 6 applications.

Through our never-ending search for excellence and innovation, together with our commitment to sustainability, we aim to make our company a benchmark for the entire sector.

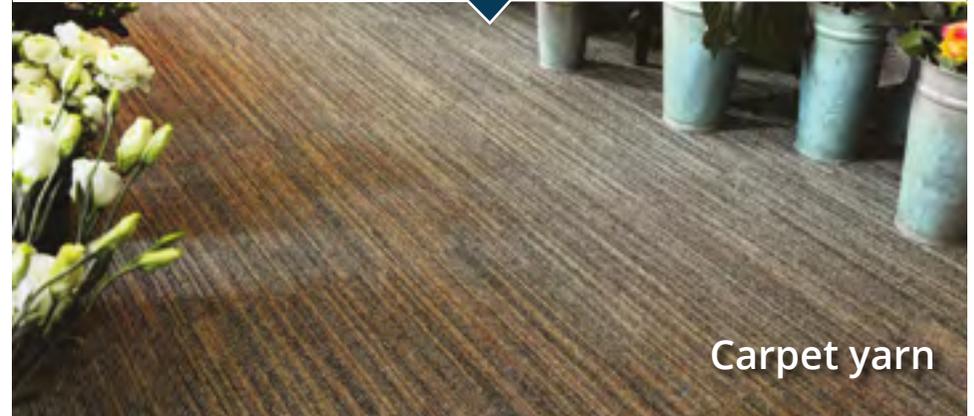
**2** Plants certified  
ISO 50001 (Energy)

**4** Plants certified  
OHSAS 18001 (Safety)

**5** Plants certified  
ISO 14001 (Environment)

**8** Plants certified  
ISO 9001 (Quality)

### 3 Product areas



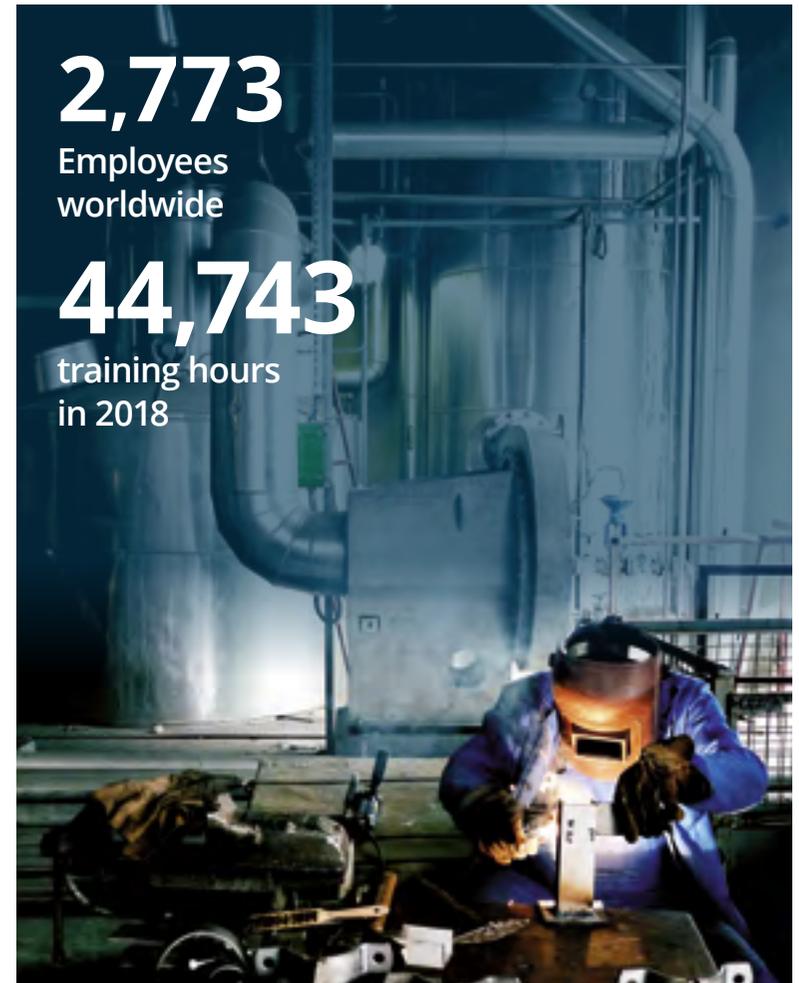
Carpet yarn



Textile yarn



Polymers



# Our sustainability path

For more than 30 years Aquafil has placed the circular economy as a core value of the company's business strategy in order to:

- save resources
- give new life to otherwise lost materials
- increase efficiency along the value chain.

Through our ambitious goals, step by step we are positioning the Group as a sustainability leader, both nationally and internationally.

While a lot has been achieved, there is more that can be done.

## 1990

### 1990

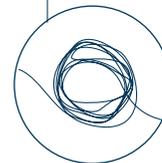
**Recycling of the lactam waters** resulting from the polymerization process



## 2000

### 1998

**Waste recycling** to produce technopolymers



### 2008

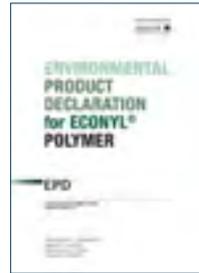
Creation of the **“Energy & Recycling”** operating unit, which develops and promotes projects, technologies and skills to improve environmental performances of products and processes



# 2010

## 2013

Launch of **“Healthy Seas – A Journey from Waste to Wear”** an initiative aimed at raising awareness on marine pollution and recovering abandoned fishnets



First EPD published for the ECONYL® polymer



## 2015

**Industrial symbiosis:** AquafilSLO gives the excess thermal energy produced to the Atlantis water park in Ljubljana, reducing the impact and wasted energy of the two activities

## 2017

Aquafil is listed on the Italian Stock Exchange

Launch of the **“Io Penso Circolare”** contest for start-ups and research centres in Italy to propose ideas for how to make the most of resources and materials



## 2011

Creation of the **ECONYL® Regeneration System**, a production model which allows Aquafil to obtain regenerated raw material from recycling nylon waste



## 2015

Start of the **ECONYL® Qualified** initiative, aimed at developing the Group’s suppliers’ environmental qualification protocol. The Group works together with its suppliers to continually improve the ECONYL® supply chain



## 2018

Start of the European project **EFFECTIVE**, aimed at the development of nylon and other textile fiber from biomaterials



Opening of the US **Aquafil Carpet Recycling** plant (ACR#1) created to recycle old carpets. The recovered materials find different uses: the nylon fraction is regenerated in the ECONYL® process, while the others are used in other industrial sectors

OUR SUSTAINABILITY  
PILLARS:

# THE ECO PLEDGE®

## Support communities

To grow in harmony with local communities, supporting their thriving development with attention to the environment

## Virtuous supply chain

To work together with suppliers and clients to bring change and drive environmental sustainability across the entire sector

## Rethink products

To design products with circularity principles, giving new life to waste materials and resources through an infinite cycle

## Environmental protection

To produce in a conscious and responsible way, pursuing continuous improvement and striving for excellence at every level

## Care for people

To support the growth of Aquafil's employees who, through commitment and passion, constitute the basis of the company's Group

# AQUAFIL AND THE SUSTAINABLE DEVELOPMENT GOALS

We endorse the UN Sustainable Development Goals (SDGs) and use them as a guide to determine our sustainability goals and objectives.

This provides us with a framework to measure and track our progress, and globally communicate about a model for sustainable development.

In 2018, Aquafil tracked its sustainability progress against **8 SDG's** as highlighted here.



## OUR COMMITMENT

# Rethink products

A circular economy encompasses more than recycling. It concerns the entire lifecycle of a product; from design and production, to end of use. It requires new thinking to move away from the take-make-dispose model to an innovative one driven by resource saving and impact reduction.

Aquafil has based its enterprise model on this idea to create high quality products from recycled resources, giving new life to materials that still have an infinite number of lives to live.

*For more information please refer to the Financial Report 2018, pages 36, 43*



## ECONYL® the infinite yarn

Thanks to the ECONYL® Regeneration System it is possible to obtain new nylon yarn from discarded resources such as fishing nets and other waste materials that would otherwise go to landfill. Our system also allows us to reduce GHG emissions from the caprolactam, the raw material used to produce nylon yarn.



FOR EVERY 10 THOUSAND OF  
ECONYL® RAW MATERIAL,  
WE ARE ABLE TO SAVE



70,000

Barrels of oil

57,100

Tons of CO<sub>2</sub>

compared to the production of virgin nylon

## Research never stops

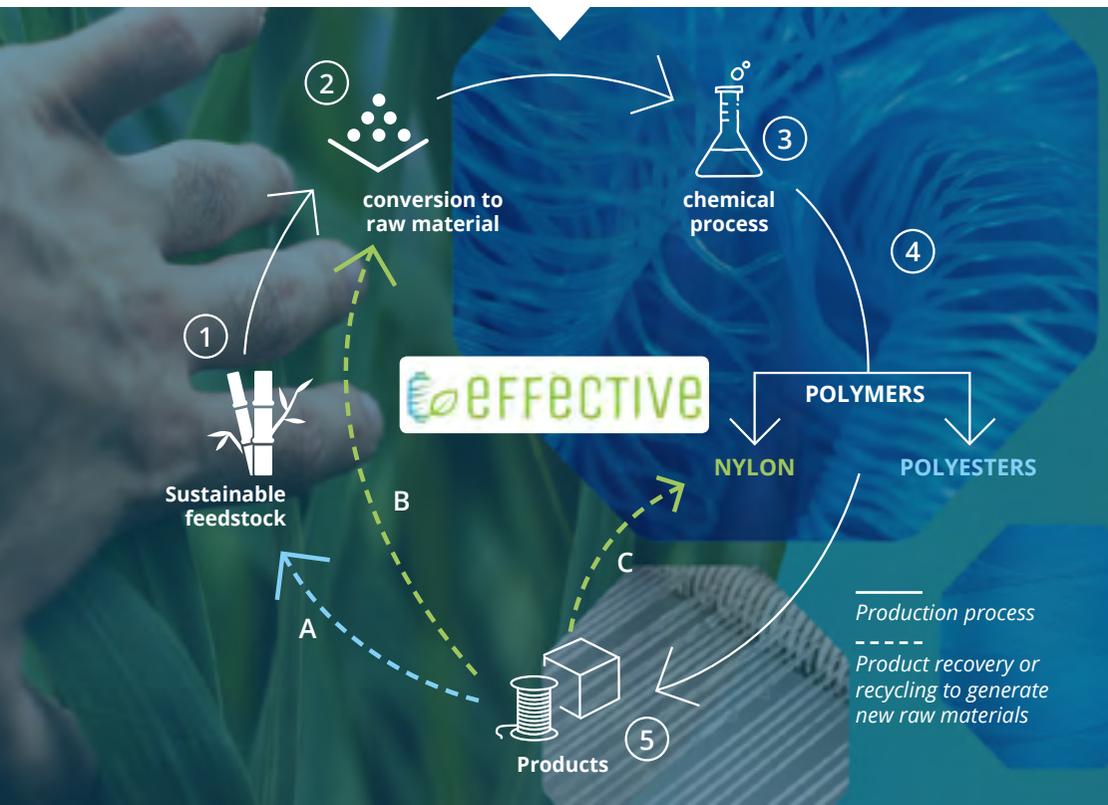
Aquafil's research aims to improve sustainability performance in every aspect of the supply chain. A key example of this is the ECONYL® regeneration process, which enables us to regenerate materials at their end of life.

The cooperation between Aquafil and Genomatica, which began in 2017, aims to make virgin material supply chains more sustainable.

Aquafil is part of the EFFECTIVE project, a key industrial initiative to introduce the circular economy to the textile and packaging sectors. The project is part of the European Union H2020 program.

Its objective is to efficiently develop innovative materials (such as a bio-based nylon) from renewable raw materials, in order to reduce the dependence on fossil raw materials.

[www.effective-project.eu](http://www.effective-project.eu)



## The recycling of carpets

In 2018 Aquafil opened its first carpet recycling plant (ACR#1) in the United States, for the purpose of recycling and transforming old carpets into regenerated nylon yarn. The plant is set to process more than 16,000 tons of carpet each year.

At this facility, every part of the carpets are entirely repurposed thanks to cutting edge technologies. The different materials that are processed will be used by different industries – the nylon will be regenerated in ECONYL® yarn, polypropylene will be sold to the moulding industry, while calcium carbonate will be used in road constructions or by cement plants.



## OUR COMMITMENT

# Protect the environment

Aquafil is committed to protecting the environment throughout the entire supply chain.

We have specific initiatives in place designed to reduce the environmental impacts of our processes for example through energy recovery.

AquafilSLO transfers our excess thermal energy to Atlantis water park, where it is used to heat their water, thus minimising energy wastage for both companies.

## Reducing the impact of our processes



**-30%**

TOTAL GHG  
EMISSIONS REDUCTION  
FROM 2016



**100%**

ELECTRICITY  
FROM RENEWABLE  
SOURCES

*For more information please refer to the Financial Report 2018, pages 38-40*

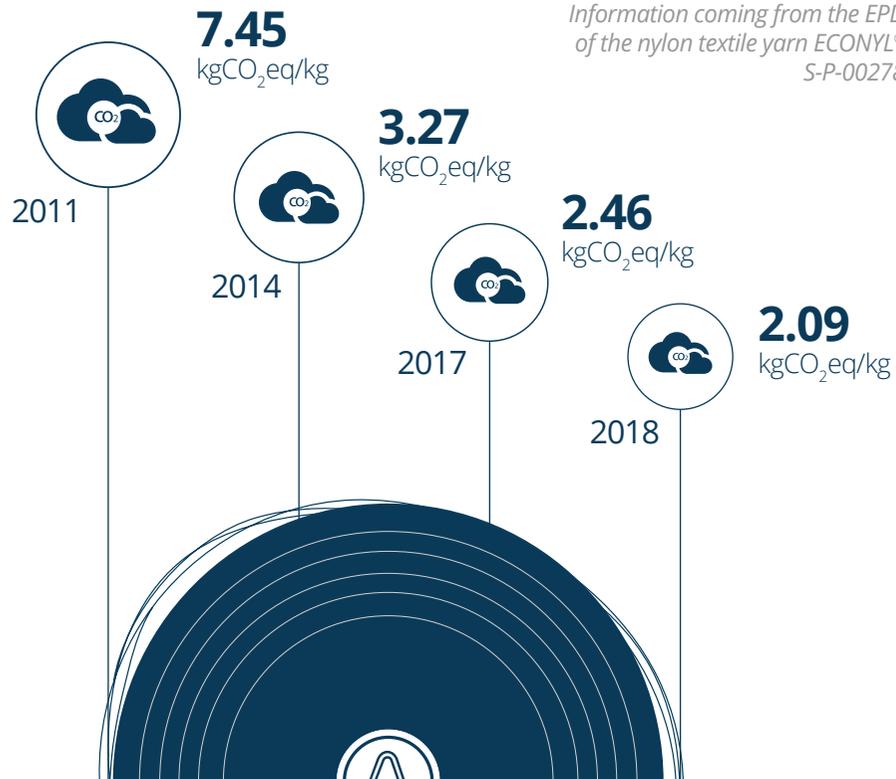
## Cutting-edge products

Aquafil is committed to continually improving product performance and quality, in line with reducing the environmental impact of its production processes.

We carry out LCA analysis to measure and monitor the environmental impacts of our products and processes throughout their entire life cycles, in order to identify areas and opportunities for improvement.

**Results are positive, and you can see it.**

### CARBON FOOTPRINT 2011-2018 TREND TO PRODUCE 1 KG OF ECONYL® YARN



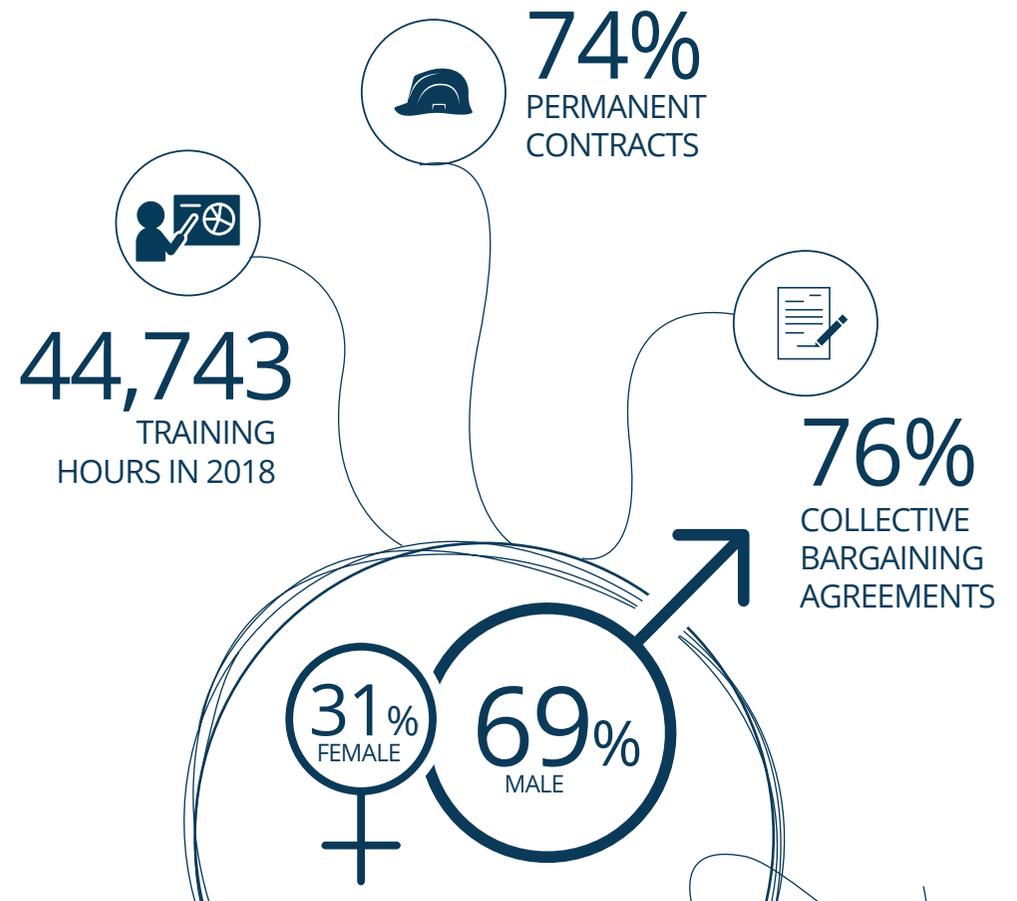


## OUR COMMITMENT

# Care for people

There are almost 2,800 people who, with their value and commitment, contribute to making Aquafil a reference point internationally.

Their commitment, experience and passion are integral to the continuing growth and success of the Aquafil Group.



# EMPLOYEE INITIATIVES



## CANCER CARE

Thanks to an agreement with local organisations, the employees at Aquafil's Croatian and Chinese plants, benefit from prevention and control medical examinations for the main forms of cancer.



## DIVERSITY CHARTER

Signed by AquafilSLO and AquafilCRO, it is an international voluntary commitment to safeguard diversity and prevent discrimination in workplaces.

## HEALTH WEEK

An initiative to encourage a healthy lifestyle and a proper diet.

Held in the Slovenian, Chinese and Croatian plants at set weeks throughout the year, educational materials are provided for employees and fresh fruit is made freely available in canteens.



## EMPLOYEE WELFARE

Aquafil offers its employees services and benefits in order to balance work and family life. For example, flexible shift work is guaranteed to female employees with children to enhance their family-work balance.



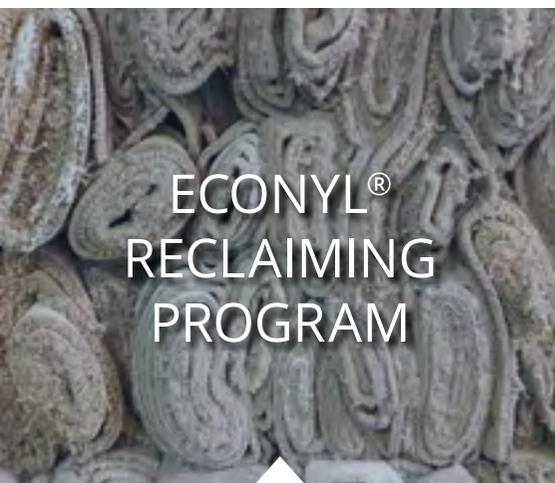
## OUR COMMITMENT

# Responsible supply chains

To realise our ambition for a circular business, ongoing collaboration with stakeholders along our value chain is fundamental. Aquafil aims to build strong relationships with clients and suppliers based on a shared commitment to continually improving the way we work.

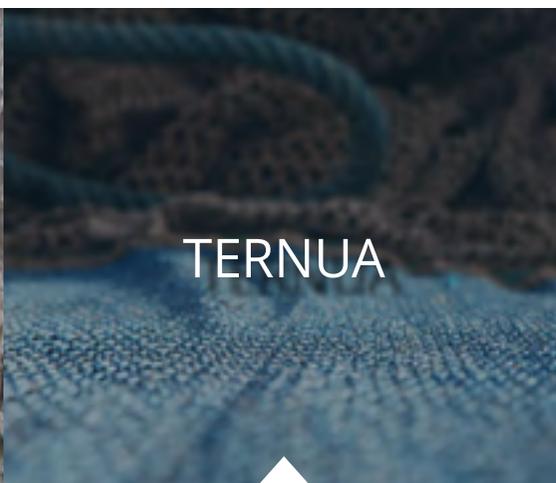
*For more information please refer to the Financial Report 2018, pages 51-52*

## PARTNERSHIPS



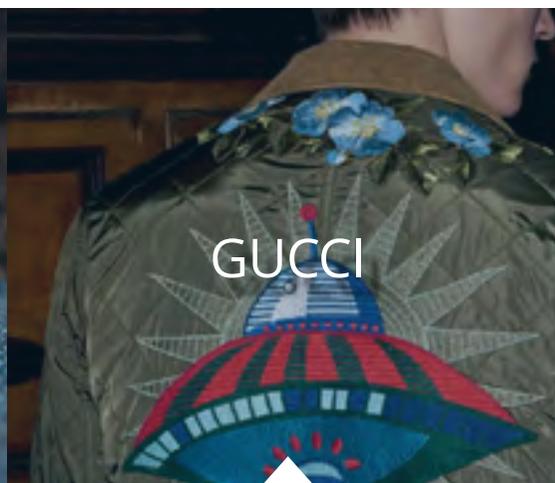
### ECONYL® RECLAIMING PROGRAM

An international network structured around recovering materials at end of use, based on partnerships with institutions, organisations, private and public associations and companies. This system allows Aquafil to collect large quantities of waste for regeneration into ECONYL® yarn.



### TERNUA

TERNUA collaborated with Aquafil on REDCYCLE, a project that recycles discarded fishing nets into ECONYL® yarn. The material created from the rescued nets is then used in the production of sportswear.



### GUCCI

In 2018 Gucci launched its own recycling program to convert textile scraps into new ECONYL® yarn.



### SPEEDO USA

Aquafil and Speedo USA launched the first take back program for swimsuits, where Speedo's production scraps are used to produce ECONYL® yarn.

# THE PROJECT

# ECONYL® QUALIFIED

At the end of 2015, Aquafil set-up a project aimed at driving excellence and continuous improvement in the ECONYL® supply chain. The key objective of this was to increase the recognition of the "ECONYL® Qualified" mark, which highlights suppliers that are involved in the ECONYL® supply chain.

## Engaged suppliers



To reduce ECONYL®'s impact in stages of the supply chain that are not supervised by Aquafil through supplier engagement

To involve suppliers in Aquafil's sustainability path

To develop a suppliers' Qualification Protocol

## Objectives

## Activities carried out

2015  
Assessment of suppliers' initiatives to monitor and limit their own environmental impact

2016-2017  
Development of a suppliers Qualification Protocol (Guidelines), based on environmental requirements

2018  
Revision of Guidelines

## OUR COMMITMENT

# Supporting communities

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Aquafil supports the local communities in which it operates through a number of initiatives and projects, with special attention being given to supporting youth education and sport activities.

*For more information please refer to the Financial Report 2018, pages 52-54*



## Healthy Seas initiative

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Aquafil supports the “**Healthy Seas, a journey from Waste to Wear**” initiative, which promotes marine protection and reduces ocean debris, such as fishnets, while procuring the materials needed to create ECONYL® regenerated nylon.

In order to increase awareness of marine pollution, Healthy Seas also runs education activities in primary and secondary schools.

## Youth education

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To enrich education with experiences, Aquafil offers internship periods through the “Alternanza scuola-lavoro” program, held both in classrooms and with plant visits.

As evidence of Aquafil’s commitment to youth educational development, in 2018 the company was awarded first place in the 10th edition of the “Tu Sei” project; a program which fosters mutual knowledge between schools and businesses, and gives the participating students an opportunity to gain practical experience to facilitate their entry into working life.



## Donations and support to the local territory

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Aquafil seeks to contribute to the communities in which it operates, as well as society as a whole, through a number of charitable projects and further initiatives.

This includes support for Telethon and ABIO, as well as promotion of cancer research.



*Editorial project management and coordination*

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**ECONYL®**

www.econyl.com



**HEALTHY SEAS**

www.healthyseas.org



**DRYARN**

www.dryarn.com



*Aquafil S.p.A. August 2019*

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