



# **ECONYL® Qualified**

## **Guidelines for partners**

**Version 3.0, valid from 1<sup>st</sup> August 2021**

- 1. Introduction**
- 2. Sectors involved**
- 3. Paper tubes manufacturing requirements**
- 4. Logistics and distribution services requirements**
- 5. Yarn finishing requirements**
- 6. Fishing net recovery and supply requirements**
- 7. Pre and post consumer yarn supply**
- 8. Rules for application**
- 9. Contacts**

# ECONYL<sup>®</sup> Qualified

---

The “**ECONYL<sup>®</sup> Qualified (EQ)**” scheme recognizes Aquafil suppliers’ (as well as customers becoming suppliers for returning materials for recycling) efforts made to enhance environmental performance of products and services, stimulating a dynamic behaviour for continuous improvement.

All our partners already play an **active role** in ECONYL<sup>®</sup>’s supply chain and the EQ scheme aims at increasing the final product value as well as at strengthening a strict cooperation.

ECONYL<sup>®</sup> Qualified suppliers will be actively involved to start a sustainability path together with Aquafil, aimed at increasing environmental performances of all parties.

At present the scheme is voluntary but, in the next future, all companies intending to supply goods and services within the ECONYL<sup>®</sup> production chain **may be asked to apply**.

These Guidelines, drafted with a **Life Cycle Thinking approach**, establish **criteria** and **application rules** to become an ECONYL<sup>®</sup> Qualified Supplier.

---

ECONYL<sup>®</sup> Qualification is a **step forward a continuous relationship**

---

The scheme is organized per **business sectors**, rewarding specific action areas by means of a set of qualification requirements (targets) that can be updated every year to take into account technology improvements.

Scientifically based criteria for partner's environmental performances evaluation are determined by means of selected pilot projects. At **present**, these criteria are determined for the following **five sectors**:

### Paper tubes manufacturing

Paper tubes are cylindrical yarn-carriers, classified as primary packaging. They are the first essential component of the ECONYL® yarn package.

### Logistics and distribution services

Logistics and distribution services play an important role in the value chain.

### Yarn finishing

Before the utilization by customers, the yarn undergoes to a warping and sizing process (chemical or mechanical), to improve the performances in the final utilization.

### Fishing net recovery and supply

One of the ECONYL® regeneration system raw materials is represented by fishing nets/aquaculture nets recovered by sea or collected at the end of their life. They cannot be immediately used once recovered but need to be pre-treated.

### Pre and post cons. yarn supply

Production processes where yarn is used generate scraps that can be recovered, REGENERATED and used to produce new yarn. At the same time, TEXTILE products made of yarn, at their end of life, can be recovered, DECONSTRUCTED in order to REGENERATE the yarn and use it again

---

All **Aquafil** partners belonging to these sectors can apply for the **ECONYL® Qualification**.

---

For the paper tubes manufacturing sector, the evaluation criteria are organized via the following **hotspot** areas.

### ENERGY MANAGEMENT

Paper tubes manufacturing process is energy intensive, usually from electricity and fuel oil use.

### WATER MANAGEMENT

Water consumption for cooling or other technological applications is an issue in this manufacturing process.

### PACKAGING MANAGEMENT

Companies give high importance to packaging used for paper tubes, since its management leads to affect at least two aspects: a good packaging optimization can generate raw material saving, product transport efficiency and safer material handling.

### PAPER WASTE MANAGEMENT

Technology involved in this process cannot avoid paper scrap. Their amount and final fate plays an important role.

### RAW MATERIALS

Paper is the most used raw material, with other ancillary materials added (i.e. glue, water, pigments, etc.). The choice of materials with high/low performances affects the overall process performances.

### TRAINING

Environmental and production performances of the company are strongly dependent on employees' knowledge and awareness on their activities. For this reason, the company should put considerable efforts on their training.

### COMPLIANCE

Other than legal compliance, application to other voluntary certification systems represents an added value for a company's profile.

## PAPER TUBES MANUFACTURING

Environmental performances per each hotspot area shall be evaluated by using selected Key Performance Indicators (**KPIs**). A specific **target** is identified per each KPI, as reported in the following table.

Hotspot	KPI	Target
Energy management	1 Energy consumption per unit of product	≤ 300 kWh/ton
	2 Amount of electricity from renewable energy source	≥ 30%
Water management	3 Water consumption per unit of product	≤ 0.200 m <sup>3</sup> /ton
Packaging management	4 Packaging optimization	Implementation of at least 1 approved initiative for packaging optimization in the last 3 years
Paper waste management	5 Amount of paper waste per unit of product	≤ 10%
Raw materials	6 Recycled paper content	≥ 80%
Training	7 Training hours per employee	At least 1 h per employee
Compliance	8 Voluntary certifications	At least 1 approved certification

**ECONYL® Qualification** requires the achievement of **at least 7 targets**.

The achievement of targets will be assessed by a third-party **audit**, ahead of the qualification status to become effective.

The evaluation stage can have **three results**:

### SUPPLIER ECONYL® Qualified



Qualification requirements are achieved.  
The partner can be an ECONYL® Qualified supplier until the qualification expiring date.

### SUPPLIER QUALIFIED WITH RESERVE



Some of the requirements (max 3) are not completely achieved.  
The evaluation team releases observation to the supplier requiring improvement actions, whose efficiency will be checked after a two months period.  
During this period, the partner is Qualified with reserve.  
If improvement actions are **effective** and qualification criteria are satisfied, the supplier is approved as ECONYL® Qualified.  
If improvement actions are **not effective**, the supplier cannot be ECONYL® qualified at the moment. He can apply again in the next period to reach the qualification.

### SUPPLIER NOT QUALIFIED



The supplier has not reached qualification targets, thus cannot be ECONYL® qualified at the moment.  
He can apply again in the next period to reach the qualification.

The following slides introduce **KPIs evaluation method**.  
Data shall be **averaged on a year basis**.

<b>KPI 1</b>	<b>Energy consumption per unit product</b>
<b>Evaluation method</b>	$\frac{\text{Energy consumption [kWh]}}{\text{Total paper tubes production [ton]}}$
<p>Where:</p> <ul style="list-style-type: none"> <li>• <b>Energy consumption</b> includes both thermal and electric energy for the production of paper tubes. Energy consumption for utilities (e.g. heat and energy for lightening for offices) shall be included.</li> <li>• <b>Total paper tubes production:</b> whole amount of produced paper tubes in the reference period.</li> </ul> <p>Both terms shall be referred to the same period.</p>	

<b>KPI 2</b>	<b>Amount of electricity from renewable energy source</b>
<b>Evaluation method</b>	$\frac{\text{Electricity consumption from renewable sources [kWh]}}{\text{Total electricity consumption [kWh]}}$
<p>Where:</p> <ul style="list-style-type: none"> <li>• <b>Electricity consumption from renewable sources</b> includes the amount of electricity, used for the production process, certified as renewable, coming from dedicated plants implemented within the company or from purchased Green Certificates (RECs, GOs, etc)</li> <li>• <b>Total electricity consumption</b> includes the total amount of electricity used for the production process</li> </ul> <p>Both terms shall be referred to the same period. Documents supporting the certification of renewable energy source shall be provided.</p>	



### KPI 3

### Water consumption per unit product

#### Evaluation method

$$\frac{\text{Water consumption [m}^3\text{]}}{\text{Total paper tubes production [ton]}}$$

Where:

- **Water consumption** is the water used in paper tubes production process. Water consumption for utilities (e.g. for sanitary use) shall be considered as well.
- **Total paper tubes production:** the whole amount of produced paper tubes in the reference period. Both terms shall be referred to the same period.

### KPI 4

### Packaging optimization

#### Evaluation method

*List of initiatives aimed at optimizing the use of packaging*

Packaging optimization shall be evaluated by Aquafil experts in order to evaluate any advantages generated by the initiative.

Packaging optimization may be related to:

- Reducing the ratio packaging/product, in terms of weight;
- Improving transport efficiency;
- Using reusable packaging materials;
- Increasing recyclability of packaging materials.

All initiatives carried on during the last 3 years can be taken into account for evaluation.

Initiatives must be approved by Aquafil to be valid for qualification purposes.

### KPI 5

### Amount of paper waste per unit of product

#### Evaluation method

$$\frac{\text{Paper waste [ton]}}{\text{Total paper tubes production [ton]}} [\%]$$

Where:

- **Paper waste** represents the amount of all paper scraps produced over the production process.
- **Total paper tubes production:** whole amount of produced paper tubes in the reference period

Both terms shall be referred to the same period.

### KPI 6

### Recycled paper content

#### Evaluation method

$$\frac{\text{Input recycled paper [ton]}}{\text{Total input paper [ton]}} [\%]$$

The recycled paper content is the proportion (by mass) of recycled material in the paper tubes.

It is calculated by the ratio of the following two terms:

- **Input recycled paper** is the whole amount of recycled paper used for the paper tubes production. (Recycled paper is paper that has been reprocessed from recovered paper by means of a manufacturing process and made into a final product).
- **Total input paper** is the whole amount of recycled and virgin paper used for paper tubes production.

Both terms shall be referred to the same period.

Only paper tubes provided to Aquafil will be considered.

### KPI 7

### Training hours per employee

#### Evaluation method

$$\frac{\text{Total number of training hours [h]}}{\text{Average number of employee of the company}}$$

Where:

- **Total number of training hours:** sum of all training hours (related to environmental issues, production efficiency, health and safety) attended by employees over the reference year. Only training hours that can be documented shall be considered.
- **Number of employees:** average number during the reference year.

Both terms shall be referred to the same period.

### KPI 8

### Voluntary certifications

#### Evaluation method

*List of voluntary certifications owned*

Relevant certifications considered for the specific sector are the following:

- ISO 14001 – Environmental management system
- EMAS - Eco-Management and Audit Scheme
- ISO 9001 – Quality management system
- ISO 50001 – Energy management system
- ISO 11011 - Compressed air-energy efficiency
- ISO 14064 – Greenhouse gases
- ISO/TS 14067 – Greenhouse gases -- Carbon footprint of products
- ISO 45001 / OHSAS 18001 - Occupational health and safety
- EPD - Environmental product declaration (of one or more product supplied for ECONYL®)

Any other voluntary certification owned could be valid for qualification purpose only after Aquafil approval.

The certifications shall be demonstrated (by providing certificates) and approved by Aquafil to be valid for qualification purposes.

For the logistic and distribution services sector, the evaluation criteria are organized via the following **hotspot** areas.

**ROAD FLEET EFFICIENCY**

Road trips are unavoidable for logistics services. Fleet's polluting class is used as indicator of the efficiency of this part of service.

**INTERNATIONAL TRANSPORT MODE**

Transport can be organized by water, air, road and rail: the choice of the mode generates strong effects on the overall environmental performance.

Requirements are different based on the presence of infrastructures in involved delivery countries.

**ROAD FLEET SAFETY SYSTEMS**

Transport could lead to important safety risks connected to accidents and consequent material losses. In last years, the European Regulation started introducing new obligations related to active safety systems.

**COMPLIANCE**

Other than legal compliance, application to other voluntary certification system represents an added value for company's profile.

## LOGISTICS AND DISTRIBUTION SERVICES

Environmental performances per each hotspot area shall be evaluated by using selected Key Performance Indicators (**KPIs**). A specific **target** is identified per each KPI, as reported in the following table.

Hotspot	KPI	Target
Road fleet efficiency	1 Road trips for Aquafil by Euro 5, Euro 6 and following trucks	> 95 %
International transport mode	2 Countries with infrastructures: Percentage of intermodal transport for Aquafil delivery	≥ 20%
	3 Countries without infrastructures: Percentage of Euro 6 transport for Aquafil Delivery	≥ 50%
Road Fleet Safety System	4 Percentage of Trucks with active safety systems, within the fleets	> 30 %
	5 Percentage of trailers with XL characteristics, within the fleet	> 20 %
Compliance	6 Voluntary certifications	At least 1 approved certification

---

**Econyl® Qualification** requires the achievement of **at least 4 targets**.

---

The achievement of targets will be assessed by a third-party **audit**, ahead of the qualification status to become effective.

The evaluation stage can have **three results**:

### SUPPLIER ECONYL® Qualified



Qualification requirements are achieved.  
The partner can be an ECONYL® Qualified supplier until the qualification expiring date.

### SUPPLIER QUALIFIED WITH RESERVE



Some of the requirements (max 3) are not completely achieved.  
The evaluation team releases observation to the supplier requiring improvement actions, whose efficiency will be checked after a two months period.  
During this period, the partner is Qualified with reserve.  
If improvement actions are **effective** and qualification criteria are satisfied, the supplier is approved as ECONYL® Qualified.  
If improvement actions are **not effective**, the supplier cannot be ECONYL® qualified at the moment. He can apply again in the next period to reach the qualification.

### SUPPLIER NOT QUALIFIED



The supplier has not reached qualification targets, thus cannot be ECONYL® qualified at the moment.  
He can apply again in the next period to reach the qualification.

The following slides introduce **KPIs evaluation method**.  
Data shall be **averaged on a year basis**.

<b>KPI 1</b>	<b>Road trips for Aquafil by Euro 5, Euro 6 and following trucks</b>
<b>Evaluation method</b>	$\frac{\text{Road trips for Aquafil with Euro 5, 5eev or 6 trucks}}{\text{Total road trips for Aquafil}} \quad [\%]$
<p>Every trip conducted for Aquafil by means of truck shall be considered. Data on the polluting class shall be approved by Aquafil.</p> <p>Only trips carried for Aquafil shall be considered.</p>	

<b>KPI 2</b>	<b>Countries with infrastructures: Percentage of intermodal transport for Aquafil delivery</b>
<b>Evaluation method</b>	$\frac{\text{Intermodal trips for Aquafil}}{\text{Total trips for Aquafil}} \quad [\%]$
<p>Where:</p> <ul style="list-style-type: none"> <li>• Intermodal trips: number of trips for Aquafil that can be classified as intermodal in the reference period.</li> <li>• Total trips: total number of trips for Aquafil, considering all the ways of transport, in the reference period.</li> </ul> <p>In case of utilization of “groupage”, partners can substitute the number of trips with the amount of transported Aquafil material (ton) for indicator calculation.</p> <p>All terms shall be referred to the same period.</p> <p>Intermodal trips with substitution of part of road transport with rail mode shall be considered.</p> <p>The countries considered within this calculation shall be approved by Aquafil as concerning the availability of infrastructures for intermodal transport infrastructures.</p> <p>In case of absence of trips covered by the partner within countries with infrastructures, this indicator shall not be accounted for in the final evaluation (Not Applicable).</p>	

### KPI 3

#### Countries without infrastructures: Percentage of Euro 6 transport for Aquafil Delivery

#### Evaluation method

$$\frac{\text{International trips for Aquafil with Euro 6}}{\text{Total international trips for Aquafil}} [\%]$$

Where:

- Trips with Euro 6: number of trips for Aquafil that can were carried by road with Euro 6 trucks in the reference period.
- Total trips: total number of international trips for Aquafil, considering all the ways of transport, in the reference period.

In case of utilization of “groupage”, partners can substitute the number of trips with the amount of transported Aquafil material (ton) for indicator calculation.

All terms shall be referred to the same period.

The countries considered within this calculation shall be approved by Aquafil as concerning the availability of infrastructures for intermodal transport infrastructures.

In case of absence of trips covered by the partner within countries without infrastructures, this indicator shall not be accounted for in the final evaluation (Not Applicable).

### KPI 4

#### Percentage of Trucks with active safety systems, within the fleet

#### Evaluation method

$$\frac{\text{Number of trucks with active safety systems}}{\text{Total number of trucks within the fleet}} [\%]$$

Where:

- Trucks with active safety systems: all systems compliant with CE Regulation n. 661/2009 shall be taken into account. Any further systems shall be evaluated by Aquafil for approval.
- Total number of trucks within the fleet: all partner road fleet shall be taken into account.

All terms shall be related to the same period.



<b>KPI 5</b>	<b>Percentage of trailers with XL characteristics, within the fleet</b>
<b>Evaluation method</b>	$\frac{\text{Number of XL trailers}}{\text{Total number of trailers within the fleet}} [\%]$
<p>Where:</p> <ul style="list-style-type: none"> <li>• XL trailers: all systems compliant with EN 12642 regulation shall be taken into account. Any further systems for charge protection shall be evaluated by Aquafil for approval.</li> <li>• Total number of trailers within the fleet: all partner road fleet shall be taken into account.</li> </ul> <p>All terms shall be related to the same period.</p>	

<b>KPI 6</b>	<b>Voluntary certifications</b>
<b>Evaluation method</b>	<i>List of voluntary certifications owned</i>
<p>Relevant certifications considered for the specific sector are the following:</p> <ul style="list-style-type: none"> <li>• ISO 14001 – Environmental management system</li> <li>• EMAS - Eco-Management and Audit Scheme</li> <li>• ISO 9001 – Quality management system</li> <li>• ISO 50001 – Energy management system</li> <li>• ISO 45001 / OHSAS 18001 - Occupational health and safety</li> <li>• ISO 14064 – Greenhouse gases</li> <li>• ISO/TS 14067 – Greenhouse gases -- Carbon footprint of products</li> <li>• EPD - Environmental product declaration (of one or more service supplied for ECONYL®)</li> <li>• PEF - Product Environmental Footprint (of one or more service supplied for ECONYL®)</li> </ul> <p>Any other voluntary certification owned could be valid for qualification purpose only after Aquafil approval.</p> <p>The certifications shall be demonstrated (by providing certificates) and approved by Aquafil to be valid for qualification purposes.</p>	

For the yarn finishing sector, the evaluation criteria are organized via the following **hotspot** areas.

### **ENERGY MANAGEMENT**

The yarn finishing process involves energy consumption, both electric energy and heat.

### **PACKAGING MANAGEMENT**

Aquafil yarn is transported to yarn finishing process and then directly to clients: a good packaging is necessary to protect the yarn, thus a good packaging management is needed to avoid high impacts in this stage

### **PRODUCTION EFFICIENCY**

Every production process aims at the minimization of scraps: yarn finishing is very focused on this, since it deals with synthetic yarn

### **WASTE MANAGEMENT**

Waste are mainly composed by packaging materials and production scraps: both can be efficiently recovered

### **CHEMICAL MANAGEMENT**

Yarn finishing process can involve different chemicals to obtain good quality of the final product: all suppliers shall guarantee a good management of these substances.

### **TRAINING**

Environmental and production performances of the company are strongly dependent on employees knowledge and awareness on their activities. For this reason, the company should put considerable efforts on their training.

### **COMPLIANCE**

Other than legal compliance, application to other voluntary certification systems represents an added value for a company's profile.

Environmental performances per each hotspot area shall be evaluated by using selected Key Performance Indicators (**KPIs**). A specific **target** is identified per each KPI, as reported in the following table.

Hotspot	KPI	Target
Energy management	1 Energy consumption per unit of product	$\leq 6\ 000$ kWh/ton
	2 Amount of electricity from renewable energy source	$\geq 20\%$
Packaging management	3 Reutilization of packaging material used for yarn input from Aquafil	$\geq 30\%$
	4 Reutilization of packaging material used for product delivery to Aquafil customers	$\geq 30\%$
Production efficiency	5 Amount of yarn scrap per unit of product	$\leq 5\%$
Waste management	6 Amount of waste sent to recovery/ recycling process	$\geq 90\%$
Chemicals management	7 Safety datasheets management	Good management evaluated
Training	8 Training hours per employee	$\geq 1$ h per employee
Compliance	9 Voluntary certifications	$\geq 1$ approved certification

**ECONYL® Qualification** requires the achievement of **at least 6 targets**.

The achievement of targets will be assessed by a third-party **audit**, ahead of the qualification status to become effective.

The evaluation stage can have **three results**:

### SUPPLIER ECONYL® Qualified



Qualification requirements are achieved.  
The partner can be an ECONYL® Qualified supplier until the qualification expiring date.

### SUPPLIER QUALIFIED WITH RESERVE



Some of the requirements (max 3) are not completely achieved.  
The evaluation team releases observation to the supplier requiring improvement actions, whose efficiency will be checked after a two months period.  
During this period, the partner is Qualified with reserve.  
If improvement actions are **effective** and qualification criteria are satisfied, the supplier is approved as ECONYL® Qualified.  
If improvement actions are **not effective**, the supplier cannot be ECONYL® qualified at the moment. He can apply again in the next period to reach the qualification.

### SUPPLIER NOT QUALIFIED



The supplier has not reached qualification targets, thus cannot be ECONYL® qualified at the moment.  
He can apply again in the next period to reach the qualification.

The following slides introduce **KPIs evaluation method**.  
Data shall be **averaged on a year basis**.

<b>KPI 1</b>	<b>Energy consumption per unit product</b>
<b>Evaluation method</b>	$\frac{\text{Energy consumption [kWh]}}{\text{Total paper tubes production [ton]}}$
<p>Where:</p> <ul style="list-style-type: none"> <li>• <b>Energy consumption</b> includes both thermal and electric energy for the yarn finishing process. Energy consumption for utilities (e.g. heat and energy for lightening for offices) shall be included.</li> <li>• <b>Total finished yarn production:</b> whole amount of finished yarn produced in the reference period.</li> </ul> <p>The entire production of the plant shall be considered (not only Aquafil products). Both terms shall be referred to the same period (e.g. the same year). The target is valid for all finishing methods.</p>	

<b>KPI 2</b>	<b>Amount of electricity from renewable energy source</b>
<b>Evaluation method</b>	$\frac{\text{Electricity consumption from renewable sources [kWh]}}{\text{Total electricity consumption [kWh]}}$
<p>Where:</p> <ul style="list-style-type: none"> <li>• <b>Electricity consumption from renewable sources</b> includes the amount of electricity, used for the production process, certified as renewable, coming from dedicated plants implemented within the company or from purchased Green Certificates (e.g. GOs)</li> <li>• <b>Total electricity consumption</b> includes the total amount of electricity used for the production process</li> </ul> <p>Both terms shall be referred to the same period (e.g. the same year). The entire production of the plant shall be considered (not only Aquafil products). Documents supporting the certification of renewable energy source shall be provided.</p>	

### KPI 3

#### Reutilization of packaging material used for yarn input from Aquafil

#### Evaluation method

$$\frac{\text{Packaging material reused [ton, n]}}{\text{Total packaging material used [ton, n]}}$$

Where:

- **Packaging material reused:** amount (as ton or number) of packaging material that is sent back to Aquafil for reutilization for yarn input transport.
- **Total packaging material used:** amount (as ton or number) of packaging material used in the year for Aquafil product input.

Both terms shall be referred to the same period (e.g. the same year).

Only Aquafil products shall be considered.

### KPI 4

#### Reutilization of packaging material used for product delivery to Aquafil customers

#### Evaluation method

$$\frac{\text{Packaging material reused [ton, n]}}{\text{Total packaging material used [ton, n]}}$$

Where:

- **Packaging material reused:** amount (as ton or number) of packaging material used for Aquafil products delivery to customer that is asked back from them and reused (for product delivery or for other aims).
- **Total packaging material used:** amount (as ton or number) of packaging material used in the year for Aquafil product delivery to the customers.

Both terms shall be referred to the same period (e.g. the same year).

Only Aquafil products shall be considered.

### KPI 5

### Amount of yarn scrap per unit of product

#### Evaluation method

$$\frac{\text{Yarn scrap [ton]}}{\text{Total finished yarn production[ton]}} [\%]$$

Where:

- **Yarn scrap** represents the amount of all yarn scrap produced over the production process.
- **Total finished yarn production:** whole amount of finished yarn in the reference period.

Both terms shall be referred to the same period (e.g. the same year).

The entire production of the plant shall be considered (not only Aquafil products).

### KPI 6

### Amount of waste sent to recovery/recycling process

#### Evaluation method

$$\frac{\text{Waste sent to recovery or recycling [ton]}}{\text{Total amount of produced waste [ton]}}$$

Where:

- **Waste sent to recovery or recycling:** amount of waste that are sent to recovery processes (codified as "R"). The verification of the final destination can be done by means of yearly waste declaration (e.g. MUD).
- **Total amount of produced waste:** amount of waste produced in the reference year.

All kinds of waste produced by the company shall be considered (e.g. plastic waste, packaging materials).

In case of output material as "subproduct" (out of the definition of "waste"), these must be declared separately to be evaluated.

Both terms shall be referred to the same period.

The entire production of the plant shall be considered (not only Aquafil products)..

### KPI 7

### Safety data sheet management

#### Evaluation method

*Safety data sheets of substances used in the process*

Aquafil will evaluate during a specific audit and/or with offsite sampling the following criteria:

- a) Company shall maintain Safety Data Sheets (SDS) for each substances (or mixture) used in the process. The SDS shall be less than three years old.
- b) Any chemicals used in products shall not contain Substances of Very High Concern (SVHC) as referred to in Article 57 of European Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), and included in Annex XIV of the Regulation.
- c) Chemical formulations that exceed the parameters set forth by ZDHC's MRSL may not be used in GRS products. The MRSL is publicly available at <http://www.roadmaptozero.com/>, along with additional tools and resources for use.

### KPI 8

### Training hours per employee

#### Evaluation method

$$\frac{\text{Total number of training hours [h]}}{\text{average number of employee of the company [n]}}$$

Where:

- **Total number of training hours:** sum of all training hours (related to environmental issues, production efficiency, health and safety) attended by employees over the reference year. Only training hours that can be documented shall be considered.
- **Number of employees:** average number during the reference year.

Both terms shall be referred to the same period (e.g. the same year).



### KPI 9

### Voluntary certifications

#### Evaluation method

*List of voluntary certifications owned*

Relevant certifications considered for the specific sector are the following:

- ISO 14001 – Environmental management system
- EMAS - Eco-Management and Audit Scheme
- ISO 9001 – Quality management system
- ISO 50001 – Energy management system
- ISO 45001 / OHSAS 18001 - Occupational health and safety
- ISO 11011 - Compressed air-energy efficiency
- ISO 14064 – Greenhouse gases
- ISO/TS 14067 – Greenhouse gases -- Carbon footprint of products
- EPD - Environmental product declaration (of one or more service supplied for ECONYL®)
- PEF - Product Environmental Footprint (of one or more service supplied for ECONYL®)

Any other voluntary certification owned could be valid for qualification purpose only after Aquafil approval.

The certifications shall be demonstrated (by providing certificates) and approved by Aquafil to be valid for qualification purposes.

## FISHING NET RECOVERY AND SUPPLY

For the fishing net sector, the evaluation criteria are organized via the following **hotspot** areas.

### RAW MATERIAL TRANSPORT

One of the specificities of the sector is the lack of a defined supply chain. Fishing net recovery is a quite new process, thus raw materials suppliers are not in a huge number and they can be located in different parts of the world, following fish farming needs and net recovery applications. For this reason, the way of transport used for input material can strongly affect the impact of this stage.

### PROCESS EFFICIENCY

Every production process aims at the minimization of scraps: for this sector, the ability of separating fishing nets components represent a plus that can lead to high levels of performances. However, it must be taken into account that the efficiency is very affected by the initial quality of the raw materials.

### WATER MANAGEMENT

To guarantee a good quality of the final product, a washing stage may be applied: suppliers are focused on minimization of water consumption, sometimes with the application of internal recycling systems.

### WASTE MANAGEMENT

Waste are mainly composed by scraps during the separation phase as well as packaging materials: both can be efficiently recovered.

### CHEMICALS

Nets treatment process can involve some chemicals in order to remove some pollutants: a good management of all substances is always necessary.

### COMPLIANCE

Other than legal compliance, application to other voluntary certification systems represents an added value for a company's profile.

## FISHING NET RECOVERY AND SUPPLY

Environmental performances per each hotspot area shall be evaluated by using selected Key Performance Indicators (**KPIs**). A specific **target** is identified per each KPI, as reported in the following table.

Hotspot	KPI	Target
Raw materials transport	1 Percentage of travels covered by train or ship	$\geq 5\%$
Process efficiency	2 Amount of material scrap per unit of input material	$\leq 30\%$
Water management	3 Amount of net consumed water for production process	$\leq 20$ litres/ton input
Waste management	4 Percentage of production scraps sent to energy or material recovery treatments	$\geq 50\%$
Chemicals	5 Availability of safety data sheet for all chemicals	100%
Compliance	6 Voluntary certifications	$\geq 1$ approved certification

**ECONYL® Qualification** requires the achievement of **at least 4 targets**.

The achievement of targets will be assessed by a third-party **audit**, ahead of the qualification status to become effective.

The evaluation stage can have **three results**:

### SUPPLIER ECONYL® Qualified



Qualification requirements are achieved.  
The partner can be an ECONYL® Qualified supplier until the qualification expiring date.

### SUPPLIER QUALIFIED WITH RESERVE



Some of the requirements (max 3) are not completely achieved.  
The evaluation team releases observation to the supplier requiring improvement actions, whose efficiency will be checked after a two months period.  
During this period, the partner is Qualified with reserve.  
If improvement actions are **effective** and qualification criteria are satisfied, the supplier is approved as ECONYL® Qualified.  
If improvement actions are **not effective**, the supplier cannot be ECONYL® qualified at the moment. He can apply again in the next period to reach the qualification.

### SUPPLIER NOT QUALIFIED



The supplier has not reached qualification targets, thus cannot be ECONYL® qualified at the moment.  
He can apply again in the next period to reach the qualification.

The following slides introduce **KPIs evaluation method**.  
Data shall be **averaged on a year basis**.

<b>KPI 1</b>	<b>Percentage of travels covered by train or ship</b>
<b>Evaluation method</b>	$\frac{\text{Trips by train or ship [n]}}{\text{Total trips [n]}}$
<p>Where:</p> <ul style="list-style-type: none"> <li>• <b>Trips by train or ship:</b> number of trips conducted by ship or train in the reference period.</li> <li>• <b>Total trips:</b> total number of trips, considering all the ways of transport, in the reference period.</li> </ul> <p>All terms shall be referred to the same period. The entire production of the plant shall be considered (not only Aquafil products). Intermodal trips with substitution of part of road transport with rail mode shall be considered. In case suppliers are located in places where train/ship travels are not possible, it shall be indicated and this indicator shall not be accounted for in the final evaluation (Not Applicable).</p>	

<b>KPI 2</b>	<b>Amount of material scrap per unit of input material</b>
<b>Evaluation method</b>	$\frac{\text{Production scrap [ton]}}{\text{Total input material [ton]}}$
<p>Where:</p> <ul style="list-style-type: none"> <li>• <b>Production scrap</b> represents the amount of all scrap produced over the production process.</li> <li>• <b>Total input:</b> the whole amount of raw materials in input in the reference period.</li> </ul> <p>Both terms shall be referred to the same period (e.g. the same year). The entire production of the plant shall be considered (not only Aquafil products). Since the amount of output material and the production efficiency can vary a lot based on the input quality, the calculation shall be referred to the total input amount of the reference period.</p>	

### KPI 3

### Amount of net consumed water for production process

#### Evaluation method

$$\frac{\text{Water consumption [l]}}{\text{Total input material [ton]}}$$

Where:

- **Water consumption** is the water used in the production process. Water consumption for utilities (e.g. for sanitary use) shall not be considered.
- **Total input:** the whole amount of raw materials in input in the reference period.

Since the amount of output material and the production efficiency can vary a lot based on the input quality, the calculation shall be referred to the total input amount of the reference period.

Both terms shall be referred to the same period.

### KPI 4

### Percentage of production scraps sent to energy or material recovery treatments

#### Evaluation method

$$\frac{\text{Waste sent to recovery or recycling [ton]}}{\text{Total amount of produced waste [ton]}}$$

Where:

- **Waste sent to recovery or recycling:** amount of waste that are sent to recycling or to material or energy recovery processes (codified as "R"). The verification of the final destination can be done by means of an official declaration.
- **Total amount of produced waste:** amount of waste produced in the reference year.

All kinds of waste produced by the company shall be considered (e.g. plastic waste, packaging materials, ropes).

In case of output material as "subproduct" (out of the definition of "waste"), these must be declared separately to be evaluated.

Both terms shall be referred to the same period.

The entire production of the plant shall be considered (not only Aquafil products)..

### KPI 5

### Availability of safety data sheet (SDS) for all chemicals

#### Evaluation method

$$\frac{\text{Available SDS for chemicals [n]}}{\text{Total number of chemicals used in the process [n]}}$$

Where:

- **Available SDS for all chemicals:** number of chemicals with a valid Safety Data Sheet available. Only SDS in compliance with the actual legislations and available for operators at the production plant shall be accounted.
- **Total number of chemicals:** number of all the chemicals used in the production process.

All the chemicals that can get in contact with the raw material or the product shall be considered.

Both terms shall be referred to the same period.

Only Aquafil products shall be considered.

### KPI 6

### Voluntary certifications

#### Evaluation method

*List of voluntary certifications owned*

Relevant certifications considered for the specific sector are the following:

- ISO 14001 – Environmental management system
- EMAS - Eco-Management and Audit Scheme
- ISO 9001 – Quality management system
- ISO 50001 – Energy management system
- ISO 11011 - Compressed air-energy efficiency
- ISO 14064 – Greenhouse gases
- ISO/TS 14067 – Greenhouse gases -- Carbon footprint of products
- OHSAS 18001 - Occupational health and safety
- EPD - Environmental product declaration (of one or more product supplied for ECONYL®)

Any other voluntary certification owned could be valid for qualification purpose only after Aquafil approval.

The certifications shall be demonstrated (by providing certificates) and approved by Aquafil to be valid for qualification purposes.

## PRE AND POST CONSUMER YARN SUPPLY

For the pre and post consumer yarn supply chain, the evaluation criteria are organized via the following **hotspot** areas. Please note that the use of Econyl yarn as a raw material for the company production processes is a **prerequisite**.

### PACKAGING MANAGEMENT

Companies give high importance to packaging used for paper tubes, since its management leads to affect at least two aspects: a good packaging optimization can generate raw material saving, product transport efficiency and safer material handling.

### RAW MATERIALS TRANSPORT

Yarn scraps and end-of-life yarn recovery is a quite new process and suppliers can be located in different parts of the world. For this reason, the way of transport used for input material can strongly affect the environmental impact of this stage.

### ENERGY MANAGEMENT

The production processes involve energy consumption, both electric energy and heat. The amount of energy covered by renewable energy sources is a key aspect to reduce the environmental impact.

### CIRCULAR ECONOMY

Companies aiming for yarn scraps and end-of-life yarn recovery should have a certain level of attention for circular economy matters and therefore for minimising both raw materials consumption and waste production.

### CHEMICALS

Yarn treatment process can involve some chemicals in order to remove some pollutants: a good management of all substances is always necessary.

### COMPLIANCE

Other than legal compliance, application to other voluntary certification systems represents an added value for a company's profile.



## PRE AND POST CONSUMER YARN SUPPLY

Environmental performances per each hotspot area shall be evaluated by using selected Key Performance Indicators (**KPIs**). A specific **target** is identified per each KPI, as reported in the following table.

Hotspot	KPI	Target
Packaging management	1 Packaging optimization	Use of paper tubes with at least 50% of recycled material
Raw materials transport	2 Percentage of travels covered by train or ship	≥ 5%
Energy management	3 Amount of electricity from renewables	≥ 50%
Circular economy	4 Number of projects carried out on circular economy matters	At least 1 project started
Chemicals	5 Availability of safety data sheets for all chemicals	100%
Compliance	6 Voluntary certifications	≥ 2 approved certifications

**ECONYL® Qualification** requires the achievement of **at least 4 targets**.

The achievement of targets will be assessed by a third-party **audit**, ahead of the qualification status to become effective.

The evaluation stage can have **three results**:

### SUPPLIER ECONYL® Qualified



Qualification requirements are achieved.  
The partner can be an ECONYL® Qualified supplier until the qualification expiring date.

### SUPPLIER QUALIFIED WITH RESERVE



Some of the requirements (max 3) are not completely achieved.  
The evaluation team releases observation to the supplier requiring improvement actions, whose efficiency will be checked after a two months period.  
During this period, the partner is Qualified with reserve.  
If improvement actions are **effective** and qualification criteria are satisfied, the supplier is approved as ECONYL® Qualified.  
If improvement actions are **not effective**, the supplier cannot be ECONYL® qualified at the moment. He can apply again in the next period to reach the qualification.

### SUPPLIER NOT QUALIFIED



The supplier has not reached qualification targets, thus cannot be ECONYL® qualified at the moment.  
He can apply again in the next period to reach the qualification.

The following slides introduce **KPIs evaluation method**.  
Data shall be **averaged on a year basis**.

<b>KPI 1</b>	<b>Packaging management</b>
<b>Evaluation method</b>	<p>The recycled content of paper tubes shall be at least 50%. The recycled material content is the proportion (by mass) of recycled material in the tubes.</p> <p>A declaration of recycled content shall be required.</p>

<b>KPI 2</b>	<b>Percentage of inbound travels covered by train or ship</b>
<b>Evaluation method</b>	$\frac{\text{Trips by train or ship [n]}}{\text{Total trips [n]}}$
<p>Where:</p> <ul style="list-style-type: none"> <li>• <b>Trips by train or ship:</b> number of trips conducted by ship or train in the reference period.</li> <li>• <b>Total trips:</b> total number of trips, considering all the ways of transport, in the reference period.</li> </ul> <p>All terms shall be referred to the same period.</p> <p>The entire production of the plant shall be considered (not only those products where ECONYL is used as an ingredient).</p> <p>Intermodal trips with substitution of part of road transport with rail mode shall be considered.</p> <p>In case suppliers are located in places where train/ship travels are not possible, it shall be indicated and this indicator shall not be accounted for in the final evaluation (Not Applicable).</p>	

### KPI 3

### Amount of electricity from renewables

#### Evaluation method

$$\frac{\text{Electricity from renewable sources [kWh]}}{\text{Total electricity consumption [kWh]}}$$

Where:

- **Electricity consumption from renewable sources** includes the amount of electricity used for the production process, certified as renewable, coming from dedicated plants within the company or from purchased Green Certificates (e.g. GOs)
- **Total electricity consumption** includes the total amount of electricity used for the production process

Both terms shall be referred to the same period (e.g. the same year).

The entire plant production shall be considered.

Documents supporting the certification of renewable energy source shall be provided.

### KPI 4

### Number of projects carried out on circular economy matters

#### Evaluation method

*List of projects started*

Circular economy projects can include initiatives dealing with several aspects, such as water consumption, packaging, energy efficiency etc

Any projects included in this KPI is considered valid for qualification purpose only after Aquafil approval.

All initiatives carried on during the last 3 years can be taken into account for evaluation.

Projects development and results shall be demonstrated (by providing documentation) and approved by Aquafil to be valid for qualification purposes.

### KPI 5

### Availability of safety data sheets for all chemicals

#### Evaluation method

$$\frac{\text{Available SDS for chemicals [n]}}{\text{Total number of chemicals used in the process [n]}}$$

Where:

- **Available SDS for chemicals:** number of chemicals with a valid Safety Data Sheet available. Only SDS in compliance with the actual legislations and available for operators at the production plant shall be accounted.
- **Total number of chemicals:** number of all chemicals used for the production process.

All chemicals that can get in contact with the raw material or the product shall be considered.

Both terms shall be referred to the same period. Only for those products where ECONYL yarns are used in the manufacturing of final product.

### KPI 6

### Voluntary certifications

#### Evaluation method

*List of voluntary certifications owned*

Relevant certifications considered for the specific sector are:

- Cradle to Cradle Certified®
- ISO 14001 – Environmental management system
- EMAS - Eco-Management and Audit Scheme
- ISO 9001 – Quality management system
- ISO 50001 – Energy management system
- ISO 11011 - Compressed air-energy efficiency
- ISO 14064 – Greenhouse gases
- ISO/TS 14067 – Greenhouse gases -- Carbon footprint of products
- OHSAS 18001 - Occupational health and safety
- EPD - Environmental product declaration (one or more products where ECONYL® is used as ingredient)

Any other voluntary certifications owned could be valid for qualification purpose only after Aquafil approval. Certificates shall be provided..

---

### Necessary conditions for application

- Compliance with all European Union and country-specific **legal requirements**
  - Belonging to one of the five involved sectors
- 

## HOW TO APPLY

### STEP 1: REQUEST FOR APPLICATION

Partners send a **request for application** by email to Aquafil reference contacts (see paragraph 9).

The latest version of the present Guidelines is published on Aquafil website at the following link:

<http://www.aquafil.com/sustainability/econyl>.

### STEP 2: SIGN OF AN INFORMATION AND DATA HANDLING AGREEMENT

A mandatory **Information and data handling agreement (AGREEMENT)** will be delivered by Aquafil and signed by parties.

Aquafil guarantees all data to remain confidential, as regulated by the agreement.

The agreement allows Aquafil to verify background documents by **on-site audits** with a 30-day written notice.

## HOW TO APPLY

### STEP 3: SUPPLIER SYNTHETIC DOCUMENT DELIVERY

Partners are invited to submit to **Aquafil** a **synthetic document** including the following key points:

- A **brief description** of the company profile with a concise technical overview of processes
- **KPIs evaluation** according to the “evaluation method” reported in previous paragraphs. Excel files, explanation notes and other additional documents are welcome if useful to understand the KPIs evaluation.

## TIMING

Partners can request the application in every moment of the year.

The **ECONYL® Qualification** will be effective after the conclusion of Aquafil evaluation phase, which will last around 2 months, and has a **validity of 1 year**.

The qualification will be communicated to the supplier by means of an **ECONYL® Qualified Certificate**.

At the **qualification expiration**, partners shall apply again to obtain the renewal, using the latest version of the guidelines (partners will be notified individually).

For applications or further information, please contact:

<b>Mr. LUI Massimiliano</b>	<a href="mailto:massimiliano.lui@aquafil.com">massimiliano.lui@aquafil.com</a>
-----------------------------	--

Guidelines revisions and validity

<b>Version</b>	<b>Emission date</b>	<b>Main news</b>
1.0	1 <sup>st</sup> July 2016	First emission
1.1	1 <sup>st</sup> November 2018	Revision of qualification requirements for sectors “paper tubes manufacturing” and “logistics”. Introduction of the “qualification with reserve” condition.
2.0	1 <sup>st</sup> November 2019	Integration of two sectors: yarn finishing and fishing net recovery and supply
3.0	1 <sup>st</sup> August 2021	Integration of a new sector: pre and post consumer yarn supply