



# SLOVENSKI STANDARD

## oSIST prEN 17988-5:2023

01-september-2023

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### Krožna zasnova ribolovnega orodja in opreme za akvakulturo - 5. del: Krožni poslovni model

Circular design of fishing gear and aquaculture equipment - Part 5: Circular business model

Kreislaufwirtschaftliche Gestaltung von Fischfanggeräten und Aquakulturausrüstungen - Teil 5: Kreislaufwirtschaftliches Geschäftsmodell

<https://standards.iteh.ai/catalog/standards/sist/8f7f6fcf-6543-4435-9cb1-100000000000/osist-pr-en-17988-5-2023>

Ta slovenski standard je istoveten z: **prEN 17988-5**

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EUROPEAN STANDARD  
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**DRAFT**  
**prEN 17988-5**

July 2023

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ICS

English Version

## Circular design of fishing gear and aquaculture equipment - Part 5: Circular business model

Kreislaufwirtschaftliche Geschäftsmodelle für  
Fanggeräte und Aquakulturausrüstungen

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If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (prEN 17988-5:2023) has been prepared by Technical Committee CEN/TC 466 “Circularity and recyclability of fishing gear and aquaculture equipment”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

EN 17988 consists of the following parts, under the general title *Circular design of fishing gear and aquaculture equipment*:

- Part 1: General requirements and guidance
- Part 2: User manual and labelling
- Part 3: Technical requirements
- Part 4: Environmental and circularity requirements and guidelines
- Part 5. Circular business models
- Part 6. Digitalization of gear and components

[oSIST prEN 17988-5:2023](https://standards.iteh.ai/catalog/standards/sist/8f7f6fcf-6543-4435-9cb1-43243b3a8f75/osist-pren-17988-5-2023)

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prEN 17988-5:2023(E)

## Introduction

Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment lays down rules on different plastic products, including fishing gear containing plastics, and sets requirement to the Member States to establish Extended Producer Responsibility (EPR) schemes. It also contains rules on minimum national annual collection rates and report fishing gear placed on the market and waste fishing gear collected in ports.

In 2021 the Commission Implementing Decision M/574 on a standardization request to the European Committee for Standardization as regards circular design of fishing gear in support of Directive (EU) 2019/904 was approved, which forms the basis for this document and the series it belongs to.

The purposed of this series of documents is to enable stakeholders to address the different aspects of circular design of fishing gear and aquaculture equipment.

In this part developing circular business models for fishing gear and aquaculture equipment is addressed. Circular business models are intended to not only keep a product in its original intended use for as long as possible, but also to provide opportunities to interact with other sectors. Such interactions enable the development of completely new market and cooperation opportunities. One example is the current trend to take up materials, components/ parts and products from fishing gear applications and introduce them into the fashion industry e.g. as fabric and/ or apparel. These first incentives can be viewed as stunts rather than fully developed business models; however, they have value in promoting circularity commercially and with customers. This can be an important step towards developing stronger networks and therefore, increasingly advanced business models.

This document is also intended to provide the basis for supporting guidelines for Extended Producer Responsibility (EPR) schemes for fishing gear and aquaculture equipment. Taxation is also a method for favouring take-back and recycling (tax rate depends on the amount of recycled material in the product). Costs (and, if needed, subsidies, taxes) are best divided over the different steps in the recycling process.

## 1 Scope

This document provides guidance and fundamental principles for the development of circular business models for fishing gear and aquaculture equipment.

It highlights opportunities for value retention, product life extension and recycling of fishing gear and aquaculture equipment.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

prEN 17988-2 *Circular design of fishing gear and aquaculture equipment – Part 2: User manual and labelling*

prEN 17988-4 *Circular design of fishing gear and aquaculture equipment - Part 4: Environmental and circularity requirements and guidelines*

prEN 17988-6, *Circular design of fishing gear and aquaculture equipment – Part 6: Digitalization of gear and components*

## 3 Terms and definitions

No terms and definitions are listed in this document.

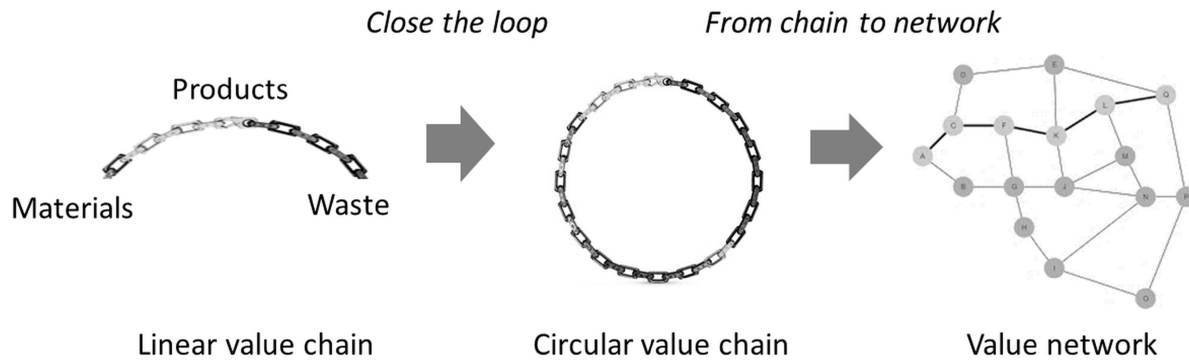
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

## 4 Principle

### 4.1 General

This document provides guidance and fundamental principles for the development of circular business models for fishing gear and aquaculture equipment. It discusses opportunities for value retention, product life extension and recycling of fishing gear and aquaculture equipment.



**Figure 1 — circular economy transition process [source: ISO/CD 59010:2022, Figure 4]**

Often the transition from a linear to a circular economy is depicted as the closing of the value chain (see left and middle image in Figure 1), while it rather should be seen as the transition to a value network. Only when looking beyond the life circle of a specific product to the network of possible combinations of the different stages of product life cycles can a material, component/ part or product remain in the (circular) economy as long as possible. The aim shall always be to choose the pathway giving the highest possible value to the materials, components/ parts and products. In this context it is important to identify the possible gaps but also the possible opportunities.

The ultimate goal of the circular economy is to eliminate the production of waste by keeping all materials, components/ parts and products in the value network. This document aims to provide the reader with tools to develop or participate in the development of business models which support this ultimate goal.

In a first step the type of business model shall be determined. Selected examples for different business models are provided in Annex A.

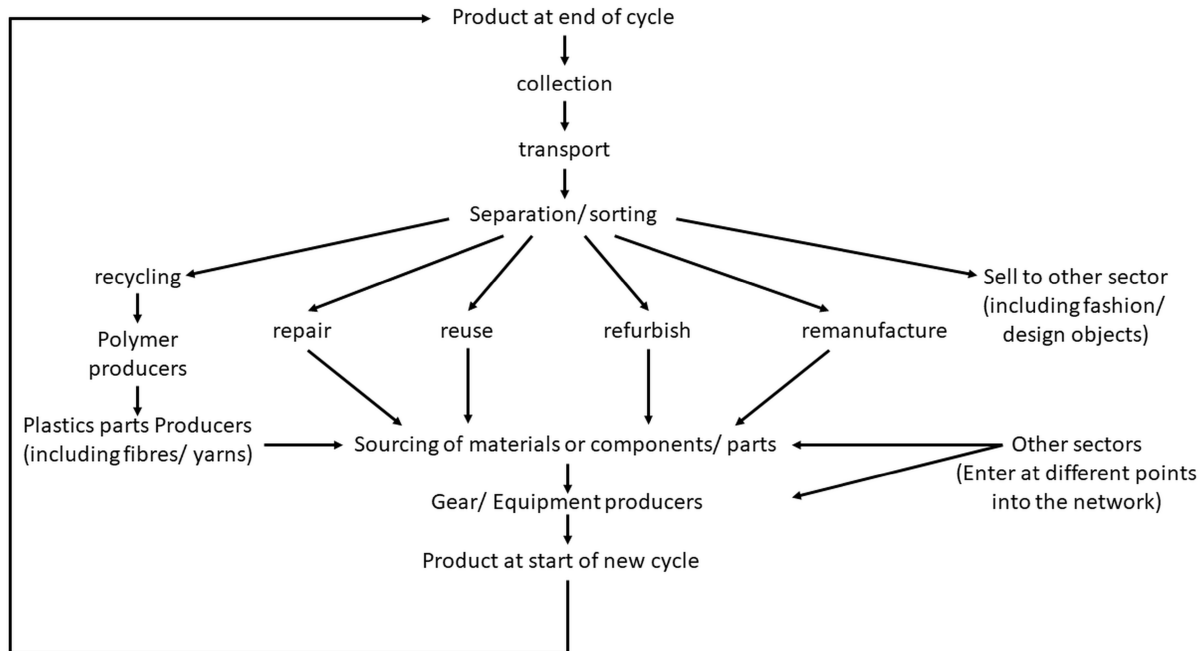
In a second step the key elements for the business model shall be identified. Section 6 provides guidance for identifying and implementing the key elements for developing and setting up business models. It is advisable to draft several business models, taking into account possible variations of the key elements. These different business models shall then be compared, and the most suitable options shall be identified.

The aim shall be to develop self-sufficient business models and processes, but in some cases, subsidies can be needed to start up the process until it can become self-sufficient or to support the process when economic values change.

## 4.2 Value networks for fishing gear and aquaculture equipment

Figure 2 shows a sketch describing part of a circular value network applicable to fishing gear and aquaculture equipment.





**Figure 2 —Sketch describing part of a circular value network applicable to fishing gear and aquaculture equipment**

The left part of Figure 2 focuses on the actions for maintaining the value of the fishing gear and aquaculture equipment for a given product while the right part shows the interactions with other partners in an extended value network.

In Annex A selected examples for circular business models are described, based on business models already implemented in other sectors.

## 5 Identification and list of economic benefits

Table 1 reflects the state of the art at the time of drafting this document; it can be expected that existing processes will be improved, and new processes are under development. It is therefore important to always take the most recent status when developing circular business models.

**Table 1 — Guidelines for identification of available values of materials and components (after disassembly/ dismantling)**

<b>Circularity aspect</b>	<b>Available value</b>	<b>Restored value from the action</b>	<b>Available value for buyer</b>	<b>Possible challenge/ trade-off</b>	<b>Energy consumption<sup>b</sup></b>	<b>Labour intensity<sup>b</sup></b>
repair <sup>d</sup>	The product has the specified quality to be used as product <sup>a</sup>	Up to 100 % possible	Cheaper than buying new Faster to have a tailor- made part repaired	Price and quality of the product need to be competitive	Low	High
re-use in same application	The product has the specified quality to be used as product <sup>a</sup>	Value retained	Cheaper than buying new Faster to buy second hand	Price and quality of the product need to be competitive. Not applicable for tailor made parts.	Low	Low
refurbishing (re-introduce into same application)	The product has the specified quality to be used as product <sup>a</sup> Alternative resource: enlarge pool of available resources	Up to 100 % possible	Cheaper than buying new Faster to have tailor-made adaptation	Price and quality of the product need to be competitive.	Depending on the process (low - medium)	Depending on the process (low - medium)
Sell to other application/ industry (other products <sup>c</sup> )	The product has the specified quality to be used as product <sup>a</sup> Alternative resource: enlarge pool of available resources	Could be higher than 100 %	Cheaper than buying new	Price and quality of the product need to be competitive.	Low	Low
Mechanical recycling ( <i>pure material</i> )	Alternative resource: enlarge pool of available resources	Up to 100 % for high purity feedstock	Reuse of resources Compliance with requirements on recycled content	Energy consumption Investments	High	Depending on the process (e.g. manual pre-