Pre-certified Environmental Product Declaration (EPD)

FASTANDFURIO SAILING TEAM

ARCA SGR

MAXI-YACHT 100 ARCA SGR

The Second life of a boat
born to be the First to cross the finish line

1° EPD of MARINE SECTOR

From wreckage to competition:
first ever boat recycling project.

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Programme:	**The International EPD® System, www.environdec.com**
Programme operator	**EPD International AB**

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This EPD has been developed in conformity with ISO 14025:2006 Standard. An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com.

1. MAXI-YACHT 100 ARCA SGR

THE PROJECT

Wild Thing's recovery project represents a unique initiative globally, which leverages Fast & Furio Sailing Team's talent and professionalism and which finds in Arca Fondi SGR the ideal partner due to the commonality of values and objectives

Having been a central figure of the boat's first life and having learned of the **shipwreck** and the consequent end of the first life, Furio Benussi wanted to undertake an initiative aimed at affirming that it is possible to give a second life to a wreck, recycling it and making it one of the best performing boats in its category.

A challenge that builds upon environmental and social sustainability, innovation and competences as a mean of value creation, competitiveness and performance as recognition of the work and passion of the team.

A coherence laboratory for the values of two different teams, united by a single vision.

TEAM AND APPROACH TO SUSTAINABILITY

FAST AND FURIO SAILING TEAM	ARCA SGR
• A team composed of established professional sailors, united by their love for sea and challenges. • More than 25 years of experience in international regattas • Incredible track record of successes	• Founded in 1983, it has been the best Italian Asset Manager in the BIG segment for the last 10 years («Alto Rendimento» award from Il Sole 24 Ore») • Innovation is Arca Fondi DNA • Arca Fondi believes in the value of ideas, in talent enhancement, in competence and professionalism.

SUSTAINABILITY	Both teams share an approach based upon 4 pillars: • Circular Economy • Talent Enhancement • Social Impact • Growth, Performance and Value Creation

1. MAXI-YACHT 100 ARCA SGR

2021 SAILING SEASON RESULTS - LINE HONOURS

- 151 MILES CETILAR TROPHY
- ROLEX GIRAGLIA
- PALERMO MONTECARLO
- TRIESTE - S. GIOVANNI – TRIESTE
- PORTOPICCOLO MAXI RACE
- BARCOLANA
- VELEZIANA
- MAXI YACHT ADRIATIC SERIES 2022

1. MAXI-YACHT 100 ARCA SGR

FIRST LIFE
SKANDIA: 2003-2013

- Built in 2003 in the Australian shipyard Hart Marine, designed by the architect Don Jones and launched under the name of Wild Thing
- First ever maxi IRC with canting keel
- Wins Sidney-Hobarth in 2003, and participating in the regatta the year after as a Defender it shipwreks losing the keel.
- Recovered and transferred to Europe, it is given to Fast & Furio Sailing Team which prepares it and leads it to win the Barcolana in 2005
- Between 2009 and 2013 it undergoes two refitting interventions: it changes the keel and is lengthened to 100 feet

Sidney-Hobarth 2003

Sidney-Hobarth 2004

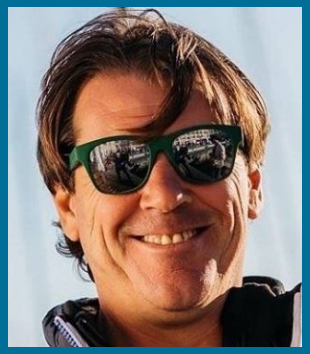
Barcolana 2005

THE END OF THE FIRST LIFE– THE WRECK: 2015

- Failing to participate in other regattas, Wild Thing is brought back to Europe and is used as a day-sailer, leaving the competitive circuit and therefore moving out of media focus.
- In 2015 it shipwrecks on the rocks of Formentera, it gets recovered and is transported on a barge to Menorca.
- Stored at the Pedro Boat shipyard in Mahon, the boat is considered “economically” no longer recoverable for its basic navigation functions. After remaining in storage at the same shipyard with a damaged hull, it is subjected to a partial demolition process as many fundamental parts (rudder, bulb, systems, engine, etc.) are removed. The boat therefore becomes a wreck.

BoReAS project:

Boat Recycle in Action for Sailing project



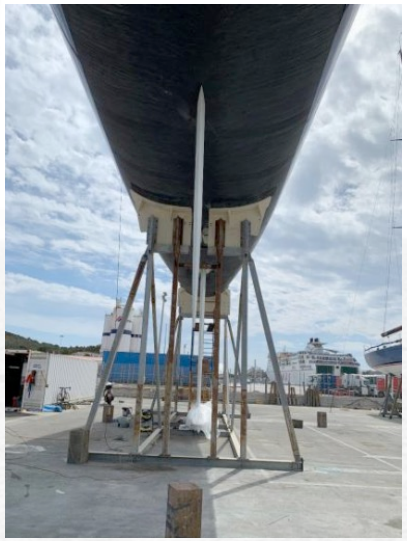
«When I saw the hull I felt again the thrill of the 2005 Barcolana and immediately I thought that the huge wreck deserved the opportunity to return to racing»

BOREAS is the english name for the North-East wind (Bora) also known as Aquilo

This recycling project was narrated in the documentary «The Spirit of Yachting – Rolex Giraglia» produced by BBC World News on the occasion of the Giraglia del 2021.

THE RECYCLING PROCESS*: 2018-2019

- Long sought after by skipper Furio Benussi, Wild Thing was found at the end of 2018 in the small Pedro Boat shipyard in Mahon, on the island of Menorca
- Benussi's initial idea is to recycle the boat in order to restore its primary functions (navigation), but the dream that begins to take shape is to aim for a recovery of competitive functions through extraordinary maintenance activities, always guided by the principles of recovery/reuse
- After negotiations lasting more than three months, the shipowner and Benussi reach an agreement that ensures to the Fast & Furio team the right to use the boat with the commitment to fully bear the costs for the functional recovery of the boat, carrying out activities of partial demolition, recovery and restoration with components from recycling or reuse activities.
- In the March-August 2019 period, the Fast & Furio team starts working on the recovery of Wild Thing without any manuals available, and therefore relying exclusively on its experience and expertise
- Wild Thing's recovery project is presented to Arca Fondi SGR, a historic Italian Asset Manager, which immediately “gets on board”



Keel bulb and blade assembly

*as defined by REGULATION (EU) No 1257/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC

THE RECYCLING PROCESS *: 2018-2019

- At the time of the agreement, the hull exhibited multiple structural damage
- At a first inspection there are in the demolition phase:
  - the entire hydraulic system
  - the KEEL
  - the bulb
  - the rudder wheels and the rudder itself
  - the bow cunard
  - all the deck equipment
  - the electronic navigation system
  - the electronic management system for hydraulic utilities
  - the endothermic ENGINE
  - the sails, the mast rigging and its components

Wild Thing as found in December 2018 after the 2015 sinking

*as defined by REGULATION (EU) No 1257/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC

THE RECYCLING PROCESS *: 2018-2019

Engine Compartment

Deck

Hull

Hydraulic Plant

*as defined by REGULATION (EU) No 1257/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC

THE SECOND LIFE: ARCA SGR
2019-today

- The team rebuilds the boat, thanks to the recycling process, managing to put it back into the sea in August 2019 and pass the testing of the CDP studio in Palma de Mallorca.
- Wild Thing is transferred to Trieste in 10 days of navigation, covering over 1,200 nautical miles and facing multiple technical difficulties, also due to the lack of manuals, an unavoidable lack with the boat being the result of a recycling and reconstruction process that has just begun.
- At the end of October the boat is positioned in the Trieste San Rocco Shipyard where it is hosted for a series of extraordinary maintenance interventions aimed at restoring the function of a racing boat.
- These interventions are carried out in compliance with the idea behind the BoReAS project, namely that it is possible to create an extremely competitive boat through the recycling and/or reuse of parts and components and thanks to the experience and expertise of the team.

The route followed to bring Wild Thing from Palma de Mallorca to Trieste

Wild Thing before leaving Palma de Mallorca

THE SECOND LIFE: ARCA SGR

Trieste shipyards

MAXI-YACHT 100 ARCA SGR - TECHNICAL INFORMATION

Information relating to the boat	Description
Vessel Type	sporting boat (UN CPC 494)
Length Over All	30,48 m
Beam	5 m
Draft	6,20 m
Gross Tonnage	42 GT
Displacement (Light Ship)	27,181 ton
Propulsion Power	170 kW
Total installed power	170 kW
Vessel Name	WILD THING
Hull Material	Carbon fibre and wood sandwich
Vessel Delivery	2019
Propulsion System	Diesel
Cruise Speed, Max Speed	10 kt (engine cruise speed 2500 rpm) – N.A. racing mode
N° Passengers	0
N° Crew	29

3. THE ENVIRONMENTAL FOOTPRINT

Functional unit: The functional unit is defined as 1 tonne of vessel for 1 year of use based on the main operating profile.
Reference flow: 27,181 t which refers to the weight of the boat.
Operational profile: Warm Season Optional Sailing.
Reference Service Life: 20 years.
Reference year: 2021, with the study reference period from April 2021 to April 2022.
Data collection and data quality: The data collection period goes from January 2019 to April 2021. For the calculation of the environmental parameters, specific data of the Maxi 100 ARCA SGR were used for all the components and systems belonging to the boat, while for the upstream and downstream processes both specific data and generic data were selected in accordance with the data quality characteristics required by GPI 4.0 and ISO 14044. In particular, specific data were used for modeling the use phase and the ordinary and extraordinary maintenance of the boat. Proxy data were used only in order to model the production process of paint, lead batteries, Dyneema, antifouling and safety equipment. The contribution of the proxy data to the final results is less than 10%.
Cut-off rule: Data relating to elementary flows, to and from the product system, which contribute to a minimum of 99% of the declared environmental impacts have all been included.
Geographical scope of EPD: Global
Software used: SimaPro v. 9.2
Database used: Ecoinvent 3.7.1
Structure of the LCI model: LCA attributional, the applied rule of allocation of the components is with respect to the number of life cycles of the component, for the study a precautionary approach was used considering a maximum of 2 life cycles for all the components to be reused.
EDP pre-certified: this EPD follows the rules of the pre-certified EPD as it has been verified and published before the end of the open consultation for the PCR used as reference "*YACHTS, SMALL CRAFTS, OTHER VESSELS AND PARTS THEREOF - PRODUCT CATEGORY CLASSIFICATION: UN CPC 49311, 49315, 49316, 49319, 494*"

3. THE ENVIRONMENTAL FOOTPRINT

System boundaries: Cradle to grave

Processes included:

A1) Extraction and production of raw materials and realization of the artifacts and systems used in the shipyards in Trieste and Menorca

A2) Production of auxiliary materials to be used in the shipyard, and the boat recycling process in Menorca

A3) transport from Maiorca to Trieste

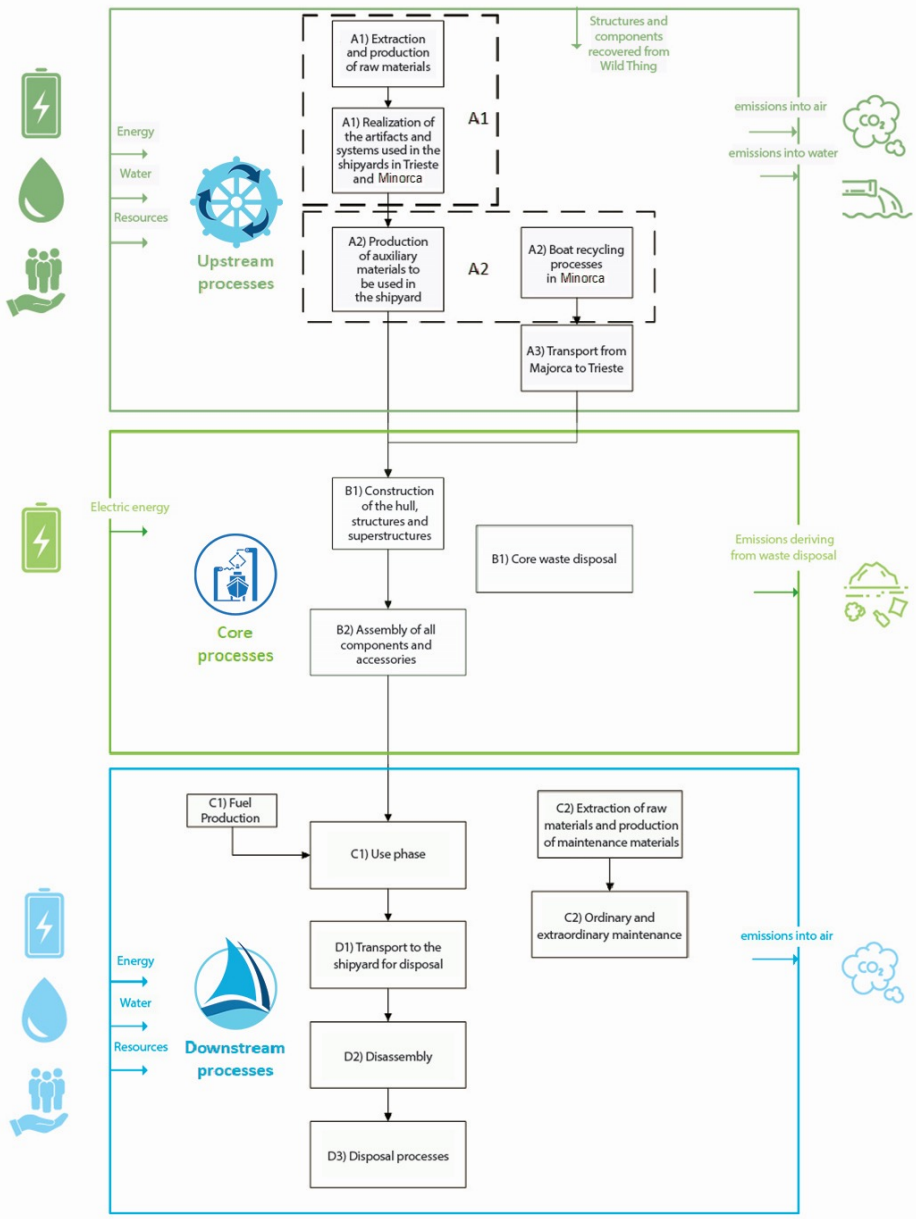
B1) Processings on the structures, superstructures and hull, and waste disposal, using both power tools and manual force for the recovery of the competition function

B2) Installation processes of all components

C1) Production and combustion of fuel in the on-board engine

C2) Ordinary and extraordinary maintenance, components and materials used for maintenance production processes

D3) End-of-life scenario of the boat components, the structural components in landfill and reuse of all the others



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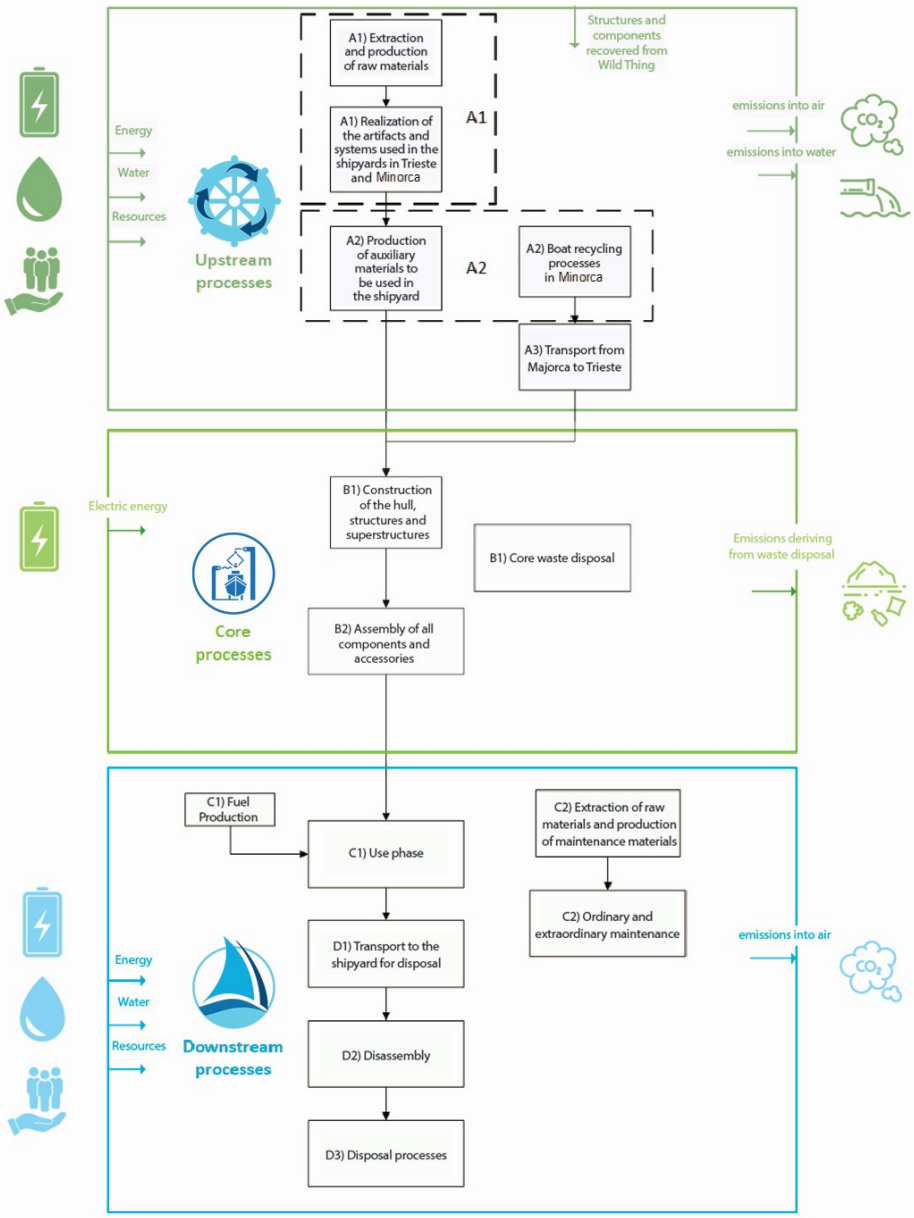
3. THE ENVIRONMENTAL FOOTPRINT

Processes excluded under cut-off:

- Energy consumed in the processings of setting up the hull after its recovery
- Production of small electrical parts that are replaced during the annual routine maintenance
- Energy consumed in ordinary and extraordinary maintenance activities
- PBO rope production for sails
- Electricity for disassembly



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3. THE ENVIRONMENTAL FOOTPRINT

ENVIRONMENTAL METRICS

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potential	Fossil	Kg CO_2 eq.	72,50	0,32	1.047,55	1.120,37
	Biogenic	Kg CO_2 eq.	3,71	< 0,01	7,59	11,31
	Land use and land trasformation	Kg CO_2 eq.	0,15	< 0,01	0,51	0,66
	TOTAL	Kg CO_2 eq.	76,36	0,32	1.055,65	1.132,33
Acidification potential		Kg SO_4^{3-} eq.	0,72	< 0,01	24,3	25,02
Eutrophication, freshwater		kg P eq	0,02	< 0,01	0,20	0,22
Eutrophication, marine		kg N eq	0,16	< 0,01	5,79	5,95
Eutrophication, terrestrial		kg N eq	1,65	< 0,01	62,09	63,74
Formation potential of tropospheric ozone		Kg MVOC eq.	0,46	< 0,01	16,96	17,42
Ozone depletion potential		kg CFC11 eq	< 0,01	< 0,01	< 0,01	< 0,01
Abiotica deplation potential for minerals and metals*		Kg Sb eq.	< 0,01	< 0,01	0,17	0,17
Abiotica deplation potential for fossil resources*		MJ, net calorific value	921,82	0,13	14.146,65	15.068,47
Water scarcity potential*		m^3 eq.	19,22	0,02	136,38	155,62

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*These environmental impact metrics should be treated cautiously as results are uncertain and previous experience in using these gauges is limited.

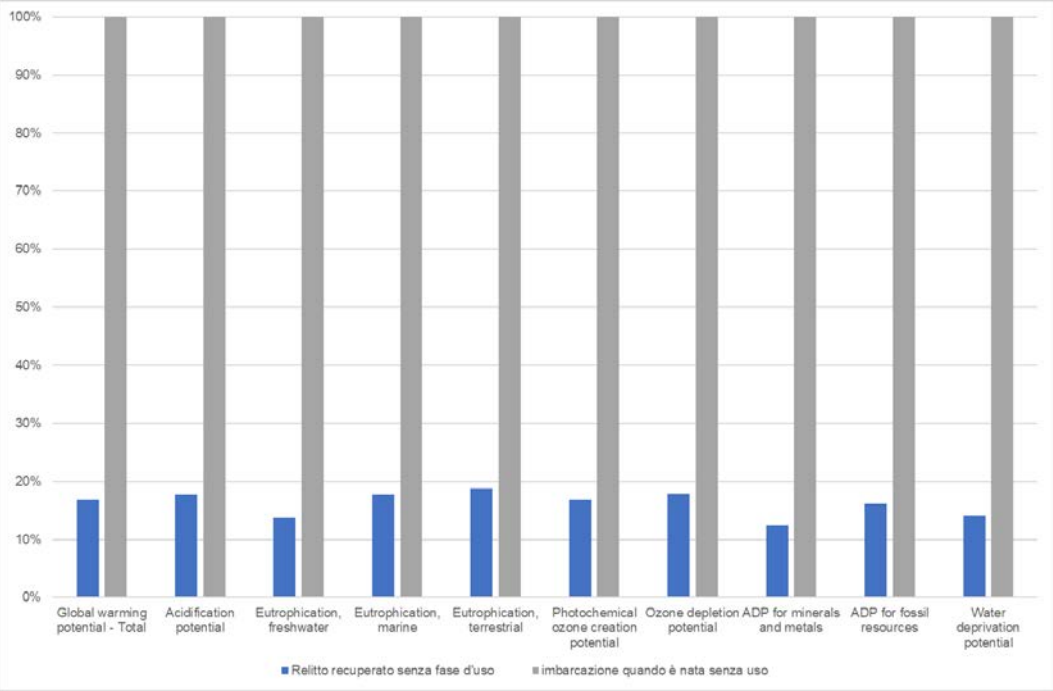
USE OF RESOURCES

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Primary energy resources - Renewable	Use as energy carrier	MJ, net calorific value	124,97	0,01	508,15	633,13
	Used as raw materials	MJ, net calorific value	0,00	0,00	0,00	0,00
	TOTAL	MJ, net calorific value	124,97	0,01	508.15	633,13
Primary energy resources - Non - renewable	Use as energy carrier	MJ, net calorific value	903,95	0,13	14.118,15	15.022,23
	Used as raw materials	MJ, net calorific value	17,97	0,00	28,33	46,30
	TOTAL	MJ, net calorific value	921,92	0,13	14.146,48	15.068,53
Secondary material		Kg	44,38	0,00	2,34	46,71
Non - renewable secondary fuels		MJ, net calorific value	0,00	0,00	0,00	0,00
Renewable secondary fuels		MJ, net calorific value	0,00	0,00	0,00	0,00
Net use of fresh water		m3	0,57	< 0,01	4,72	5,29

WASTE PRODUCTION AND OUTPUT FLOWS

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	Kg	0,00	0,00	0,00	0,00
Non - hazardous waste disposed	Kg	0,00	0,00	50,00	50,00
Radioactive waste disposed	Kg	0,00	0,00	0,00	0,00
Components for reuse	Kg	0,00	0,00	35,97	35,97
Material for recycling	Kg	0,00	0,00	0,00	0,00
Materials for energy recovery	Kg	0,00	0,00	0,00	0,00
Exported energy, eletricity	MJ	0,00	0,00	0,00	0,00
Exported energy, thermal	MJ	0,00	0,00	0,00	0,00

THE ENVIRONMENTAL FOOTPRINT OF THE TWO LIVES OF THE MAXI-YACHT



Polluter Pays Principle:

it is the principle of legislation, also envisaged by the GPI of International EPD System, which establishes that the environmental cost of the end-of-life of an asset must fall entirely and solely on the producer of the asset itself.

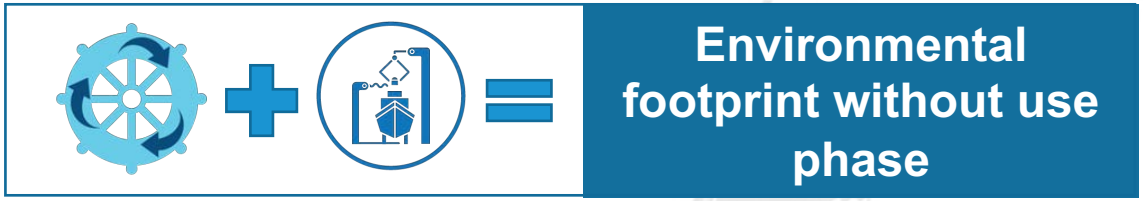
The environmental cost of the end-of-life of a recycled asset is therefore always zero.

With this principle, the legislation wants to reward those who take it upon themselves to give a second life to goods.

- The two lives of the boat (SKANDIA vs MAXI-YACHT 100 ARCA SGR) are characterized by two extremely different environmental footprints, mainly thanks to the application of the Polluter Pays Principle
- The BoReAS project was born to make a performing and competitive racing boat available to the Fast & Furio Sailing Team, minimizing the environmental impact, which would have been associated with the construction from scratch of a boat with the same performance and technical characteristics.
- The BoReAS project therefore immediately and with conviction focused on the recycling and/or reuse of goods and resources, both to bring the boat back into the water and to make it competitive again.

4. OTHER ENVIRONMENTAL INFORMATION

ENVIRONMENTAL FOOTPRINT OF “RECYCLE OR MAKE” ALTERNATIVES



Impact category	Unit	ARCA SGR recycled and ready for competition	SKANDIA at launch	ARCA SGR recycled and ready for competition (%)	SKANDIA at launch (%)
Global warming potential - Total	kg CO2 eq	466,23	2.768,60	17%	100%
Acidification potential	mol H+ eq	2,79	15,71	18%	100%
Eutrophication, freshwater	kg P eq	0,19	1,41	14%	100%
Eutrophication, marine	kg N eq	0,58	3.29	18%	100%
Eutrophication, terrestrial	mol N eq	5,12	27,30	19%	100%
Photochemical ozone creation potential	kg NMVOC eq	2,11	12,52	17%	100%
Ozone depletion potential	kg CFC11 eq	< 0,01	< 0,01	18%	100%
ADP for minerals and metals	kg Sb eq	0,15	1,20	12%	100%
ADP for fossil resources	MJ	5.980,91	36.990,34	16%	100%
Water deprivation potential	m3 depriv.	138,98	982,42	14%	100%

* vessel sensitivity analysis results, evaluating the impact of component production processes with respect to its recovery

- The table presents the total environmental impact without use phase C1 (in flowchart in page 15). It is therefore a measure of the environmental footprint of the recycling activities carried on ARCA SGR MAXI-YACHT, that also include all the extraordinary maintenance interventions aimed at making the boat as competitive as SKANDIA at launch (Arca SGR vs SKANDIA)
- The reduction of the footprint associated with the “recycle” option (ARCA SGR) compared to the “make” option (SKANDIA) is evident

SUSTAINABILITY ACCORDING TO ARCA FONDI SGR

- In 2020 Arca Fondi SGR launched a range of ESG investment funds characterized by ambitious sustainability goals. Today this range offers 3 balanced funds and 2 equity funds that invest in financial instruments of issuers that undertake to reduce their greenhouse gas emissions in line with the Paris Agreement objectives, aimed at limiting the average earth temperature increase to +1.5C° in comparison with pre-industrial levels.
- In 2022 Arca Fondi SGR was awarded as the best Italian company for the management of ESG funds.
- The ESG commitment of Arca Fondi SGR takes the form of a series of environmental (reforestation of the territory, cleaning of beaches and embankments) and social initiatives (support to Vidas, Porto dei Piccoli and Laureus associations).

Reforestation

Beaches clean up

Porto dei Piccoli

AN ECOSYSTEM OF SUSTAINABILITY INITIATIVES
Synergy, Coherence and Value Multiplication

Circular Economy Principles:
- Designing out waste and pollution
- Keeping materials in use
- Regenerating natural system

E
- Lower carbon footprint
- Mitigating climate Change
- Minimal impact on natural ecosystem
- Minimizing resource depletion

S
- Protecting human health
- Good brand reputation
- Good relations with employees and stakeholders
- Animal welfare

G
- Abiding by the environmental laws the land
- Reducing public litigations
- Lesser issues in governance
- Transparency in governance

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ARCA FONDI SGR AND THE BoReAS PROJECT

Participation as a protagonist in the most important Mediterranean regattas makes the MAXI-YACHT 100 ARCA SGR an extraordinary platform for the enhancement of the Arca Fondi SGR brand towards prospects, customers, placers and all other stakeholders.

Consider, for example, the value in terms of communication of Barcolana regatta alone, estimated by an SDA Bocconi research at 26.5 million Euros **.

** Study carried out by Bocconi University Professor Guido Guerzoni and partner of B2G Consulting for the evaluation of the economic impact of Barcolana 50

ARCA FONDI SGR AND THE BoReAS PROJECT

- The "ecosystem" of initiatives centered on the BoReAS project represents for Arca a coherence laboratory linked to the values and principles of environmental and social sustainability.
- The sponsorship of the BoReAS Project (Boat Recycling in Action for Sailing) is part of the line of "impact" initiatives undertaken by Arca Fondi SGR SpA.
- The MAXI-YACHT 100 ARCA SGR recycling project represents an immediate metaphor that allows to effectively communicate the values that characterize the company and make up its DNA (competence, conscious use of resources, talent enhancement, performance, etc.)
- The use of the boat in activities related to charity initiatives supported by Arca Fondi and the role of “ambassador” that Skipper Furio Benussi holds for many associations make the MAXI-YACHT 100 ARCA SGR an effective tool for many social initiatives undertaken by Arca Fondi SGR SpA.

The Maxi 100 Arca SGR in the BBC documentary

Detail of the boom of the Maxi 100 Arca SGR

With the Porto dei Piccoli association aboard the Arca SGR

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- ISO 14020:2000, Environmental labels and declarations – General principles
- ISO 14025:2006 Environmental labels and declarations - Type III environmental declarations - Principles and procedures, International Organization for Standardization, Geneve, Switzerland
- ISO (2006b), ISO 14040:2006 + Amd 1:2020 , Environmental management – Life cycle assessment – Principles and framework
- ISO (2006c), ISO 14044: 2006 + Amd 1:2017 + Amd 2:2020, Environmental management – Life cycle assessment – Requirements and guidelines

PROGRAMME INFORMATION

PROGRAMME OPERATOR:
EPD International AB, Box 210 60, SE-100 31 Stoccolma, Svezia, E-mail: info@environdec.com

REQUIREMENTS FOR COMPARABILITY OF EDPS, ADAPTED FROM ISO 14025 :
EPDs within the same product category but from different programmes may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison.

EPD OWNER
The owner of the EPD is Fast & Furio Sailing Team Srls. EPD owner has the sole ownership, liability and responsibility of the EPD.
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Reference Product Category Rules – PCR (open consultation document) : YACHTS, SMALL CRAFTS, OTHER VESSELS AND PARTS THEREOF - PRODUCT CATEGORY CLASSIFICATION: UN CPC 49311, 49315, 49316, 49319, 494

PCR review was conducted by: open consultation phase will be closed after assessment of International EPD® System technical Committee.

Third-party EPD verification: Independent third-party EPD verification of the declaration and data, according to ISO 14025:2006:

☐Process certification ☑ Individual verification

Third-party EPD verifier:
RINA Services SpA
Via Corsica 12, 16128 Genova
Accredited by: ACCREDIA – Number: 001H
Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third party verifier:

☐ Yes ☑ No

Technical support:
Mapping LCA

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