

Interreg



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ITALIA-SLOVENIJA



RETRACKING

Progetto standard co-finanziato dal Fondo europeo di sviluppo regionale
Standardni projekt sofinancira Evropski sklad za regionalni razvoj

Retracking

Towards the Circular Economy: traceability of Fibre-Reinforced Composites (FRC) artifacts.

Project Introduction

Venice March 7th, 2019 - Mid Term Conference



ORIGIN OF THE PROJECT

FRC = Fibre Reinforced Composites

GFRP = Glass Fibre Reinforced Polymers

- MATERIAL: Interesting characteristics, abundance, low price
- PRODUCTS: large use in different industrial sectors
 - marine,
 - aviation,
 - automotive,
 - wind,
 - cold value chain,
 - furniture,
 - Agriculture.



ORIGIN OF THE PROJECT (PROBLEM)

THE CONSEQUENCIES OF A LINEAR ECONOMY BUSINESS MODEL



- **Waste generation:** 80 million tons of end-of-life products (Europe)
- **No efficient recycling solution for FRC**
- **Environmental problem:**
 - disposal to landfills increasingly overflowing
 - abandonment in the environment,



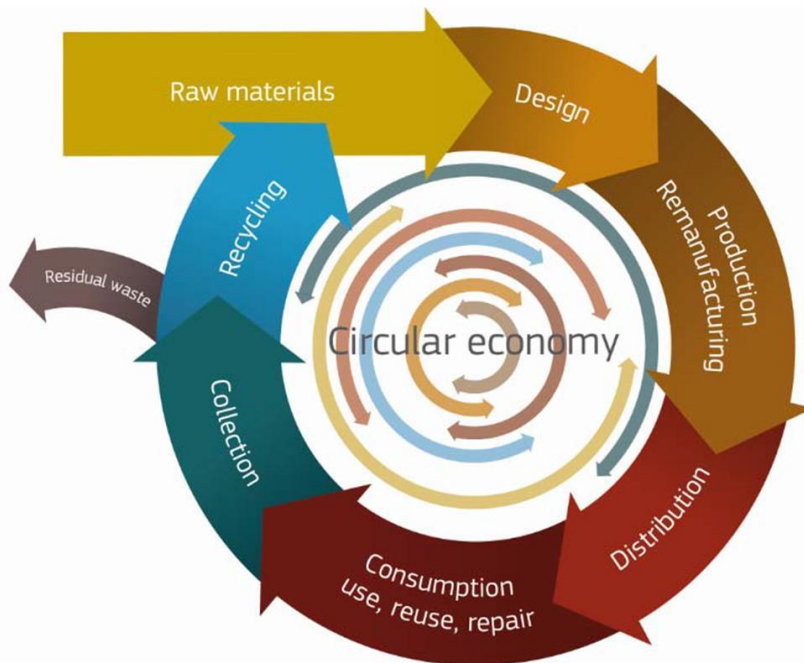
PROJECT OBJECTIVE

SWITCH THE LINEAR ECONOMY BUSINESS MODEL OF FRC ARTIFACTS IN A CIRCULAR ECONOMY BUSINESS MODEL

HOW?

Development of a competitive EU standard compliant management model for FRC waste recycling, that allows the

- recovery,
- analysis and recording,
- production,
- identification and traceability of a "secondary raw material" based sustainable products



PROJECT SOLUTIONS

1. Integrated **management model for the recycling coding and marking** of materials derived from FRC for the production of:
 - Secondary raw materials (SRM)
 - SRM based products 100% recyclables

Key project results

- a) **Pilot Plant** for the:
 - recycling of waste and production scraps
 - Production of SRM panels marked with RFID for traceability
- b) **Web Protocol for the delivery of waste** to the pilot plant



PROJECT SOLUTIONS

2. ICT platform for

- **Traceability** of RFID tags inside FRC panels
- **management of waste life cycle**

Information provided

- place and time of collection, composition of the recycled product;
 - Presence of hazardous components;
 - quantity of waste produced per year;
 - waste producers; waste collectors; waste recyclers
- a) Recyclability of the end-of-life SRM based products (closing the loop)
 - b) Continuous improvement of recycling process



Retracking - information

Project duration	27 months	
Consortium	1. Polo Tecnologico di Pordenone; 2. Gees Recycling S.r.l.; 3. Infordata Sistemi S.r.l.;	ITALY
	4. Slovenian National Building and Civil Engineering Institute 5. Chamber of Commerce of Slovenia	SLOVENIA



An aerial photograph of a sailboat on a calm, turquoise lake. The water is crystal clear, reflecting the surrounding landscape. In the background, there are rugged, rocky mountains under a clear blue sky. The sailboat's mast and rigging are visible in the foreground, extending from the top right towards the center. The overall scene is serene and scenic.

THANKS FOR
YOUR
ATTENTION!!

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www.ita-slo.eu/retracking



Project partners



Polo Tecnologico di Pordenone (IT)



Gees Recycling (IT)



Zavod za gradbeništvo Slovenije (SLO)



Infordata Sistemi Srl (IT)



Gospodarska zbornica Slovenije (SLO)

