

Cocreating active urban ecosystems for circular economy in Europe.

YouRban

Introduction to YouRban Project

Davide Delfrate
Politecnico di Milano



Cities **2**
MILAN
BALCELONA

Countries **4**
ITALY
SPAIN
LITHUANIA
AUSTRIA

Partners **8**
POLITECNICO DI MILANO
AIVOX
MILANO MEDITERRANEA
FIBEREUSE TECH
ORIGONI E STEINER ARCHITETTI
LABAULA ARQUITECTES
SYXIS
DESIGNAUSTRIA



**Co-funded by
the European Union**



New European Bauhaus
beautiful | sustainable | together

This project has received funding from the European Union's Horizon Europe Framework Programme HORIZON-CL4-2023-HUMAN-01-53, Project Number: 101135997



*Urban cocreative, sustainable
and inclusive ecosystem, for the
recycling of reinforced
polymers on-the-truck*

Horizon Europe No:101135997

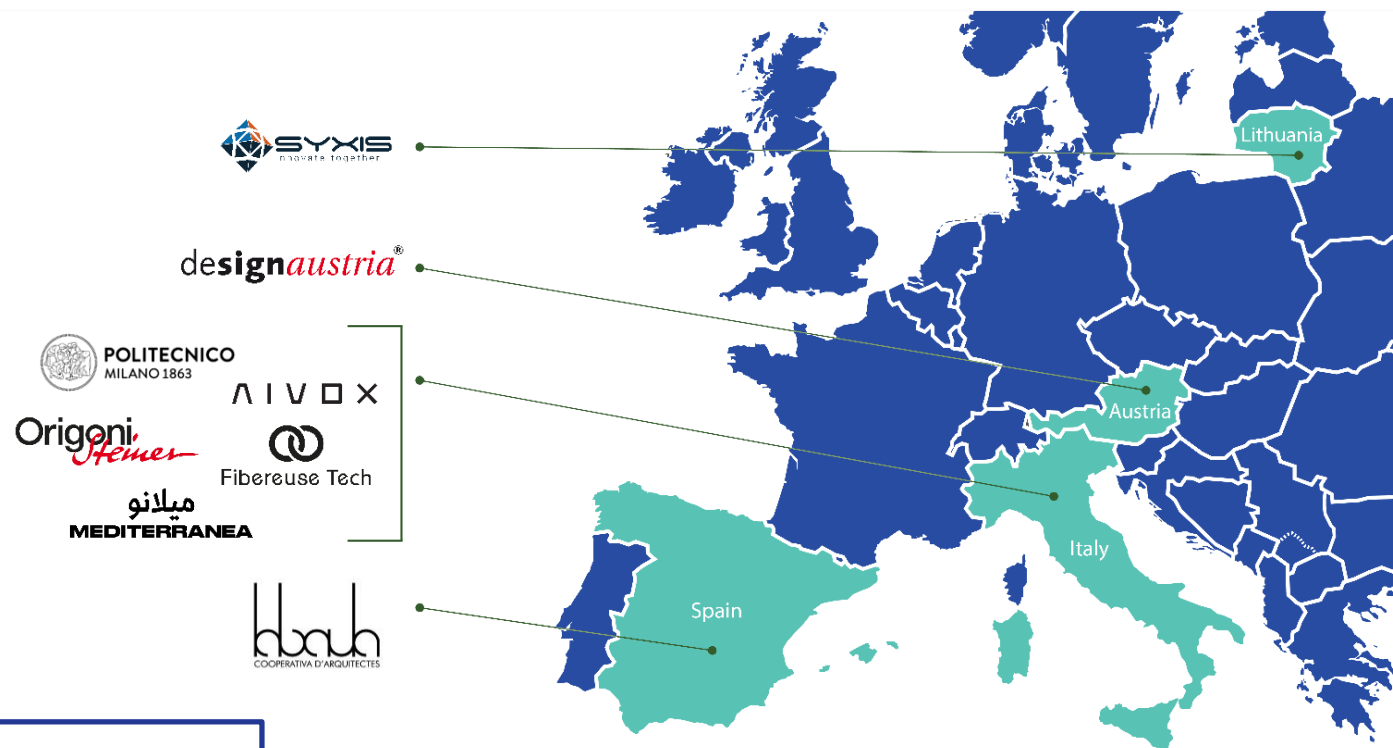
Grant: € 2.5 Million

Duration: 30 months 2023-2026

Consortium: 8 partners, from 4 EU countries.

Coordinator: Politecnico di Milano

**Aim: cocreating an active urban ecosystem for the recycling
and upcycling of objects and materials, in relation to
reinforced polymers coming from local environment.**



**Two 10-days events in Milan
and Barcelona on composite
recycling and circular
economy**

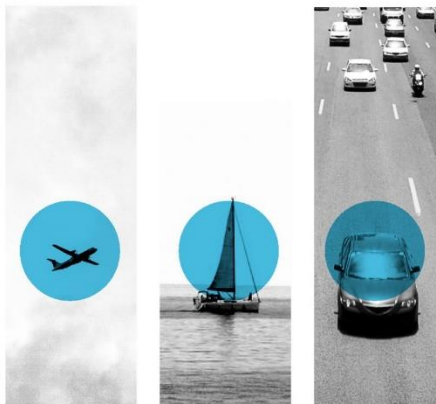




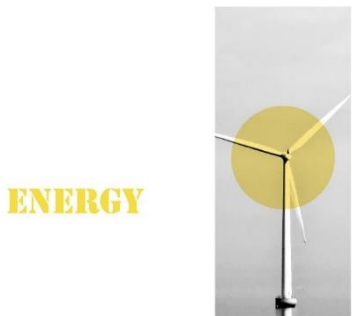
- Fiber-Reinforced Plastics (FRP) are widely adopted in several massively used products due to their better mechanical properties – weight ratio and external environment resistance compared to metals



HOUSING CONSTRUCTION, FURNITURE, CREATIVE



TRANSPORT AEROSPACE, NAUTICAL, AUTO

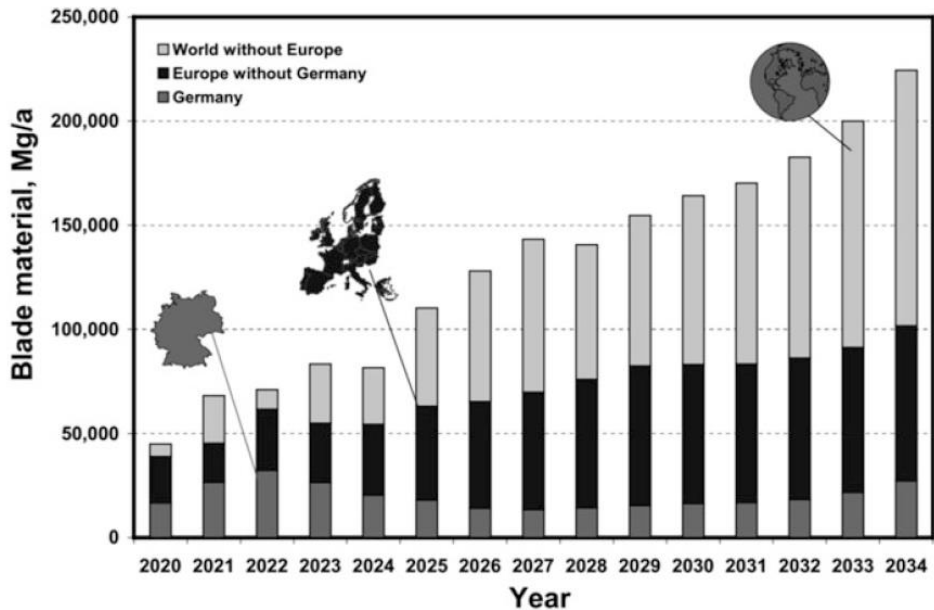


ENERGY



SPORTS

Example: Expected amount of EoL blades



- In Europe, in 2025 almost 700,000 tons of FRP waste are expected, with a growing trend for the future

- **Recycling of FRP at industrial scale (especially thermosets) is challenging due to:**
 - Lack of mature demanufacturing and reprocessing technologies
 - High costs related to waste sorting and preparation
 - High costs related to logistics
 - Highly variable conditions and properties of the waste, leading to variable characteristics of recycled material
 - Unstable and unpredictable waste supply of post-use products
 - Poor consumer acceptance of products embedding recycled materials
- **Nowadays, landfilling and energy recovery are still the typical solutions for FRP disposal**



HOUSING



ENERGY



SPORT



TRANSPORT

- Mobile flexible recycling and reprocessing unit on board of a truck
- Operating in the urban environment
- Citizens, artists, urban factories and MSMEs engagement, thanks to:
 - Cascade funding
 - Workshops and events
 - Digital Co-Creation tool
 - Digital Learning tool
- Regenerative and added-value manufacturing
- Attractive user experience
- Inspired by New European Bauhaus





High value-added and tailor-made production

Co-Creation tool for problem-solution matching

Interdisciplinary approach

Efficient, safe, economically viable

Flexible and resilient

Avoid the economical and environmental impact of waste transportation

Very short value chain

New opportunities for local artisans and MSMEs



Social, environmental and economical sustainability

Regenerative design

Co-Creation approach

IPR protection methodology for Co-Creation

Knowledge sharing

Neighborhood Participatory Approach

Artistic residences

Raising recycling as an attractive career option



Tools, shows, workshops on circular economy and composite recycling

Two ten-days events with de-remanufacturing demonstrations



Definition and optimization of FRP de-remanufacturing processes



Creation of new cross-sectorial value and production chain, both at physical and digital level



Demonstration of the feasibility of producing materials, components and products embedding recycled FRP

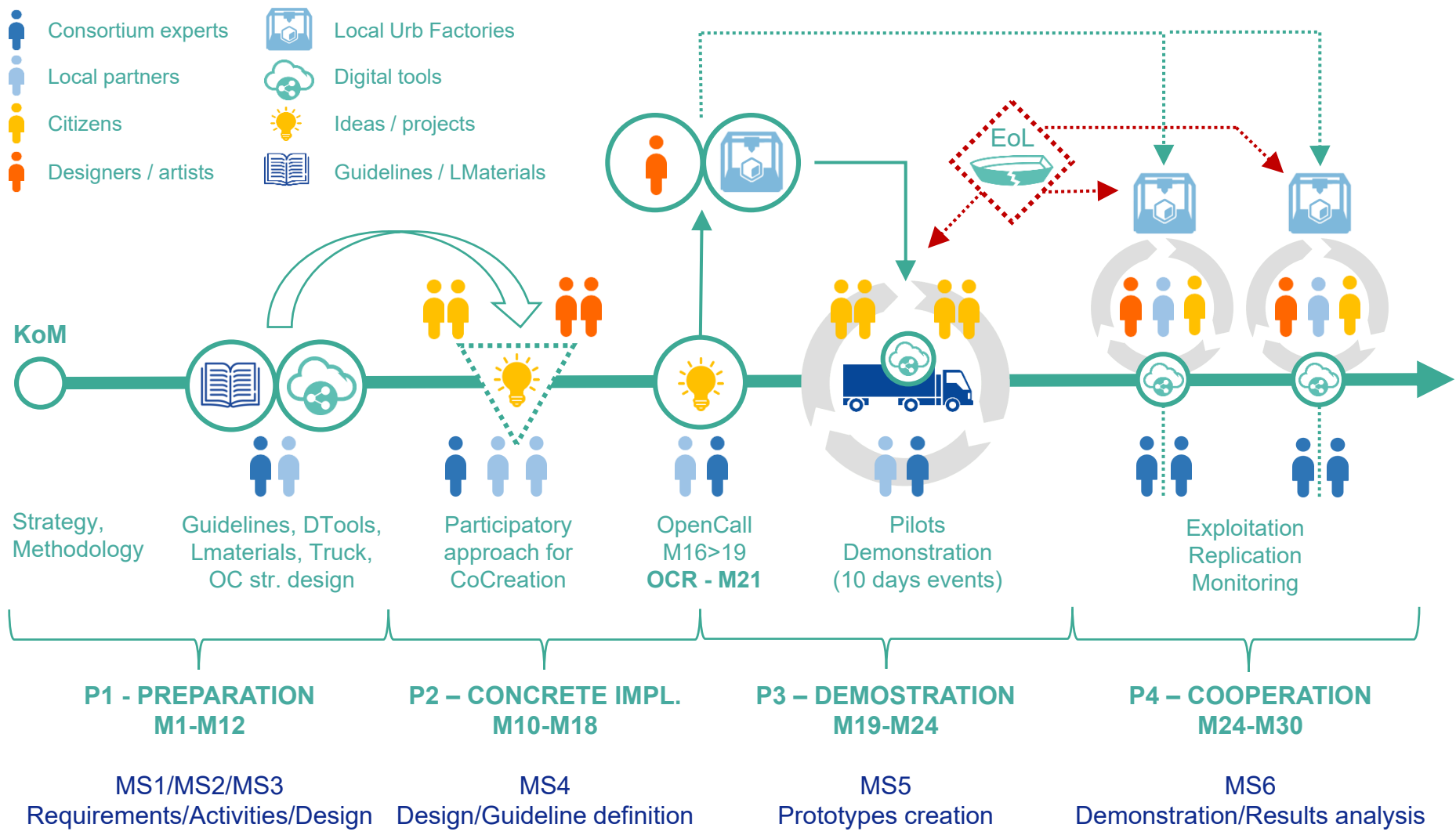
Demonstration of the feasibility of industrial use-cases for large scale recycling

Demonstration of the feasibility of local and urban approach for small scale recycling





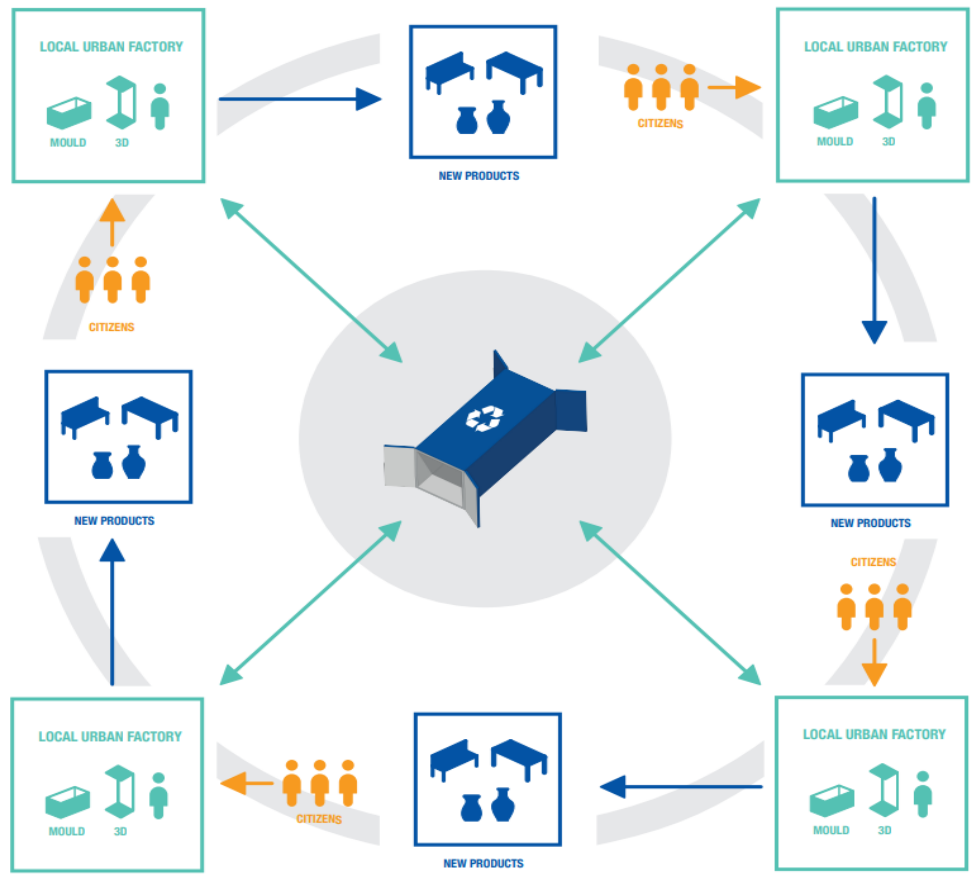
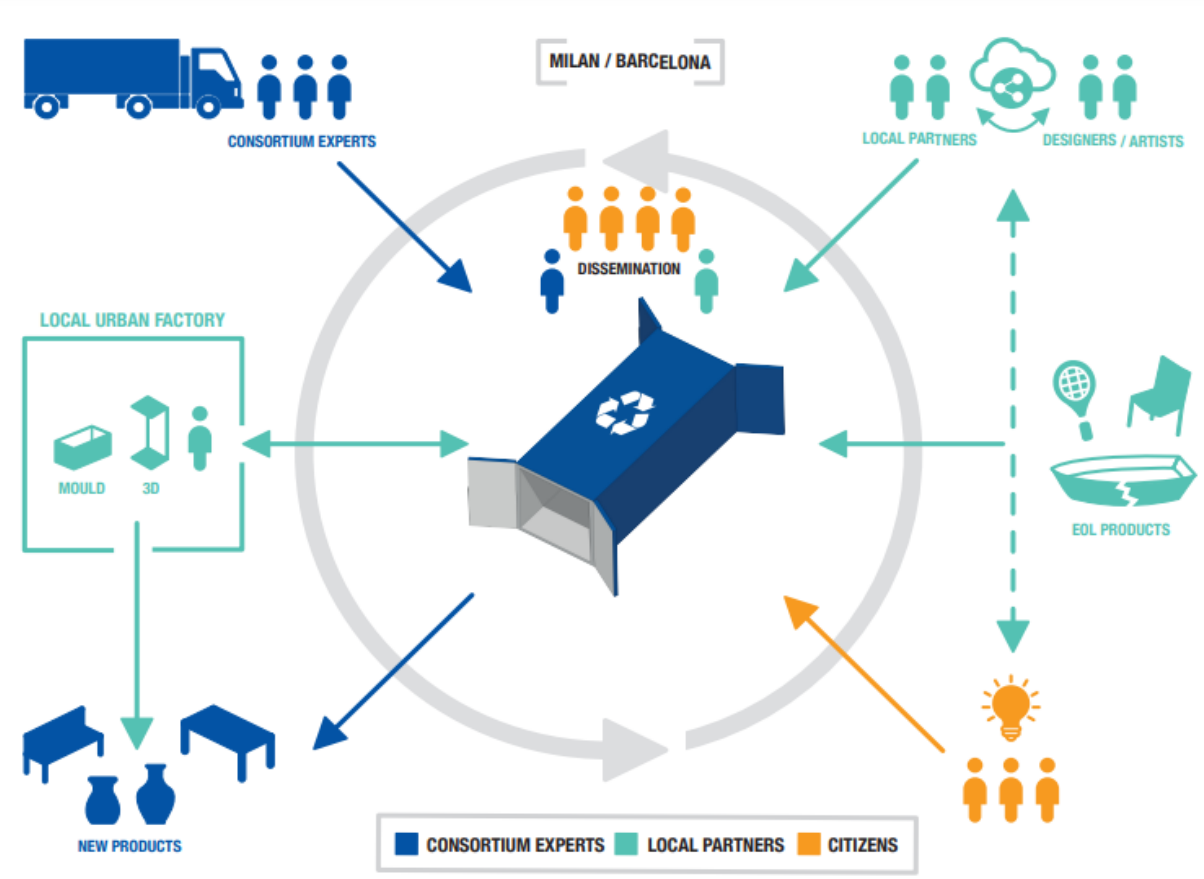
Key Activities





Step 1: 10 days demonstration events in Milan and Barcelona to test the methodology

Step 2: Urban Innovation Diffusion mechanism, Open Calls to involve MSMEs, laboratories, associations





➤ YouRban Co-Creation methodology

➤ YouRban Neighborhood Participatory Approach

➤ Innovative learning and teaching

➤ Artists and Urban Factories engagement methodology

Idea manager v1.0.0

Signed in as user Logout

← Back to challenges list Delete this challenge ✕ Edit your challenge!

Name: New Eco Headrest Cover [✎] 2021-04-12

Description: We want to create a new product: an ecofriendly Headrest cover to improve driver's confort. [✎] Challenge Concept Cancelled

Tag: textile carseat Hedrest cover innovation confort Add a tag

Adoptable Ideas:

- A tool for testing support
- Recycle used car fabrics for new cars
- Jeans fabric without metals

Adopted Ideas:

- Eco-friendly process for chemicals removal.
- Automated and fast testing for textile and textile-like materials.

Co-Creation tool developed during DigiPrime project



ConservaMi experience in Giambellino neighborhood, Milan

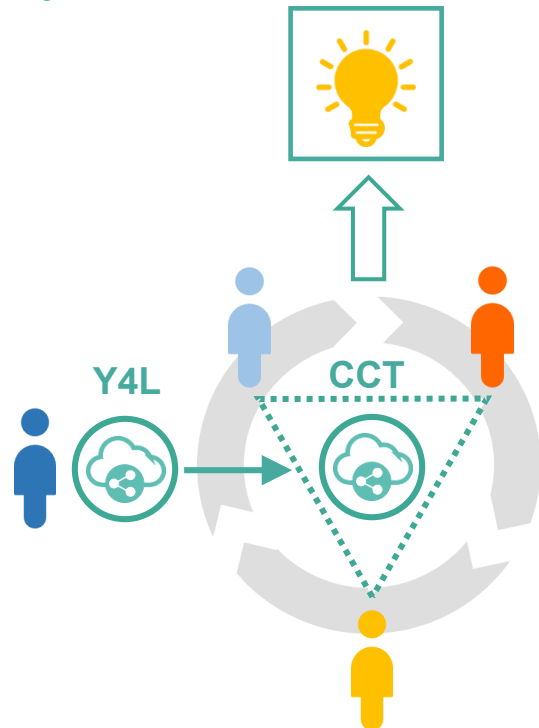


YouRban4Learn tool

- Virtual E-Learning Community Hub
- Sharing technical knowledge among stakeholders
- Dissemination and communication material



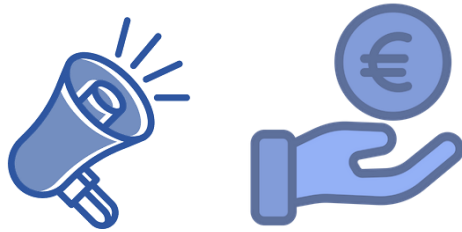
- Consortium experts
- Local partners
- Citizens
- Designers / artists



YouRban Co-Creation tool

- Online Co-Creation tool tailored to the urban environment
- Share ideas, solutions, resources, knowledge and skills
- Generate new business, new opportunities and a new market
- Open Calls management

Engagement methodology for manufacturers, artists and urban factories



- Cascade funding mechanism through Open Calls to award the best projects
- About 25% of the total project budget
- Devoted to startups, MSMEs, laboratories, associations, and other urban organizations



- Generate awareness and concrete experience around the potential of recycled FRPs and YouRban recycling technologies
- Promote concrete long-term cooperation among citizens, artists, designers and urban factories
- Create a significant portfolio of artistic and functional handcrafts
- Develop new business and sustainability models around the proposed technologies

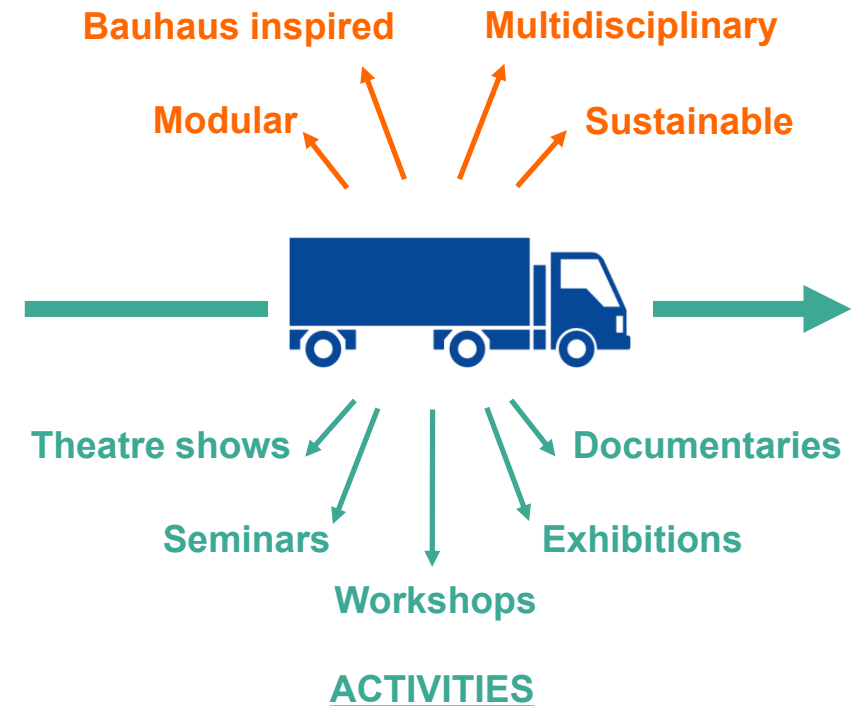
YouRban Truck

- Create knowledge and awareness, through examples and experiments
- Host exhibitions, artistic events and participated activities linked to the circular economy
- Guide the Co-Creation of new objects, from end-of-life products or waste, responding citizen's needs



An inspiring experience: the “UNESCO Laboratorio di quartiere”, Otranto 1979

DESIGN APPROACH





Beautiful

Ambition III: to integrate

Local approach

Regenerative design

Hosting exhibitions, events and participatory activities to raise awareness

Sustainable

Ambition II: to close the loop

Saving 14,25k Tons/year of glass-FRP going to landfill

Saving 0,95 TWh/year of glass-FRP manufacturing related energy

Saving 638 kTons/year of CO2 emissions

Together



New European Bauhaus
beautiful | sustainable | together

Ambition III: to transform

Cascade funding for urban factories, involving designers and artist

YouRban Neighborhood Participatory Approach

New job opportunities

Participatory process

Ambition III: to self-govern

YouRban Co-Creation tool

Training workshops and design briefs

Cooperation among citizens, artists and urban factories

Multi-level engagement

Ambition III: to work globally

Create networks among citizens, artists and urban factories

Replication

Promote change in composite recycling regulation

Transdisciplinary approach

Ambition III: to be beyond-disciplinary

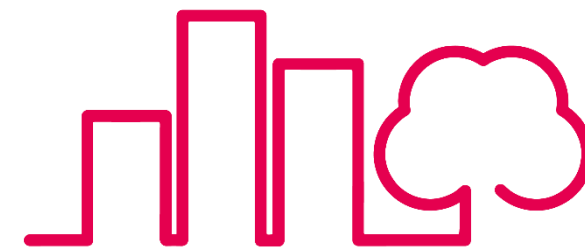
Interdisciplinary approach

YouRban Co-Creation tool

YouRban4Learn tool

Cocreating active urban ecosystems for circular economy in Europe.

YouRban



SUSTAINABLE
PLACES **2024**

Thank you!

Cities **2**
MILAN
BALCELONA

Countries **4**
ITALY
SPAIN
LITHUANIA
AUSTRIA

Partners **8**
POLITECNICO DI MILANO
AIVOX
MILANO MEDITERRANEA
FIBEREUSE TECH
ORIGONI E STEINER ARCHITETTI
LABAULA ARQUITECTES
SYXIS
DESIGNAUSTRIA



**Co-funded by
the European Union**



New European Bauhaus
beautiful | sustainable | together

This project has received funding from the European Union's Horizon Europe Framework Programme HORIZON-CL4-2023-HUMAN-01-53, Project Number: 101135997



Cocreating tomorrow: participative value chains for a sustainable future.

Caterina Calefato

UX Architect



Caterina Calefato, PhD

*Digital Innovation Manager for Domina
EU Project Division Lead for Domina Next*



EU Projects

Writing & implementation
Communication & Dissemination
Branding, Design, Materials, Video
Social Media

Expertise

Digital Development
UX/UI Design
Social Science and Humanities (SSH)

IT Provider

Backend and Frontend Development, Integration, and DevOps
Integration with Manufacturing Software (e.g., MES, ERP)

Tools

Dnext Learn: LMS for training, upskilling, knowledge transfer
SMARTTRACK: digital certifications and autocertifications
Dnext Web: CMS to create EU Funded Project websites

COREU - CO2 routes across Europe

Coordinated by SINTEF, **COREu** brings together over 40 partners, including emitters, technology providers, gas transmission system operators, transportation companies, research institutes, and universities.

The project connects CO2 sources with potential storage sites, accelerating the deployment of CCS across Europe



COREU - CO2 routes across Europe

Carbon Capture, Transport and Storage

COREU considers **CO2 routes** in South and Central East European regions

Beside the technology COREU must build:

- A policy framework
- Social acceptance
- Environmental risk and LCA assessment
- Local/regional media campaign for each route
- Awareness in citizenships, targeting also children and young people



COREU – Enabling knowledge transfer



How can COREU transfer knowledge and share technology to enable CCS?



COREU – Different audience

**EU policy makers, EU
funded project
professionals**



**Chemicals,
Physicists,
Geologists**



**Engineers:
environmental, civil,
maritime and transport**



**Local media,
Citizens, Children
and young people**



COREU is an HE IA, started on 01/01/2024, 48 months, funding > **35M€**

Consortium of 43 partners

- emitters, technology providers, gas transmission system operators, oil and gas companies, academia from Norway, Greece, Italy, the Czech Republic, Poland, Ukraine, Cyprus, Slovenia, the UK and Germany

Two pilots

- In Greece CO₂ will be delivered to the offshore storage site of Prinos by truck and an offshore pipeline to the injection well to test a leak monitoring system
- In Norway, MacGregor will conduct an onshore test of an innovative offloading solution that enables CO₂ transfer and direct injection from a vessel.

COREU is an HE IA, started on 01/01/2024, 48 months, funding > 35M€

Consortium of 4

- emitter operators, oil and gas, Italy, the Czech Republic and Germany

Who can understand this?

Two pilots

- In Greece CO₂ will be delivered to the offshore storage site of Prinos by truck and an offshore pipeline to the injection well to test a leak monitoring system
- In Norway, MacGregor will conduct an onshore test of an innovative offloading solution that enables CO₂ transfer and direct injection from a vessel.



EU's population of approximately 447 million people

Maybe **less than 0.1%** of the EU population works as EC officer, project manager, and researcher within the Horizon Europe.

COREU goal is a reduction of 6.8 Mt/year of CO₂ by 2035 and 36 Mt/year by 2050

GVP Carbon Fibre Cylinders

These cylinders transport captured and compressed CO₂ by truck to storage sites. They are designed to accommodate small to medium-scale emitters, eliminating the need for liquefaction at the capture site.

Seanapsys

This is an induced seismicity monitoring system consisting of wireless, battery-powered sensors that can remain on the seabed for up to six months without needing a recharge. It is used for offshore monitoring.

CO₂-sniffing AUV

This autonomous underwater vehicle is equipped with CO₂ sniffers to detect potential CO₂ leaks along micro-annuli on injection wells and pipelines. It represents the first demonstration of this technology.

COREU goal is a reduction of 6.8 Mt/year of CO₂ by 2035 and 36 Mt/year by 2050

GVP Carbon Fibre Cylinders

These cylinders
storage sites
emitters, elimin

truck to
medium-scale
site.

Seanapsys

This is an indu
powered sens
needing a rech

wireless, battery-
months without

CO₂-sniffing AUV

This autonomous underwater vehicle is equipped with CO₂ sniffers to detect potential CO₂ leaks along micro-annuli on injection wells and pipelines. It represents the first demonstration of this technology.

**Who can
understand this?**



EU's population of approximately 447 million people

Indicatively **about than 0.3%** of the EU population is a chemist / physicists / geologist

Compressed CO₂: Transported by truck and container from the capture site, then collected and transported to offshore storage via pipeline.

Leakage Monitoring: Continuous monitoring of transported vessels and subsea pipelines to detect potential leakages, ensuring a maximum of 1% leakage from transport to storage.

Seismic Monitoring: Continuous monitoring of induced micro-seismicity on the seabed near the injection site.

Onshore Demonstration: High-pressure CO₂ injection and low to medium pressure CO₂ transfer systems demonstrated onshore.

Compressed CO₂: Transported by truck and container from the capture site, then collected and transported to offshore storage via pipeline.

Leakage Monitoring: Monitoring of subsea pipelines for leakage from transport and storage.

Seismic Monitoring: Monitoring of seismicity on the seabed near the storage site.

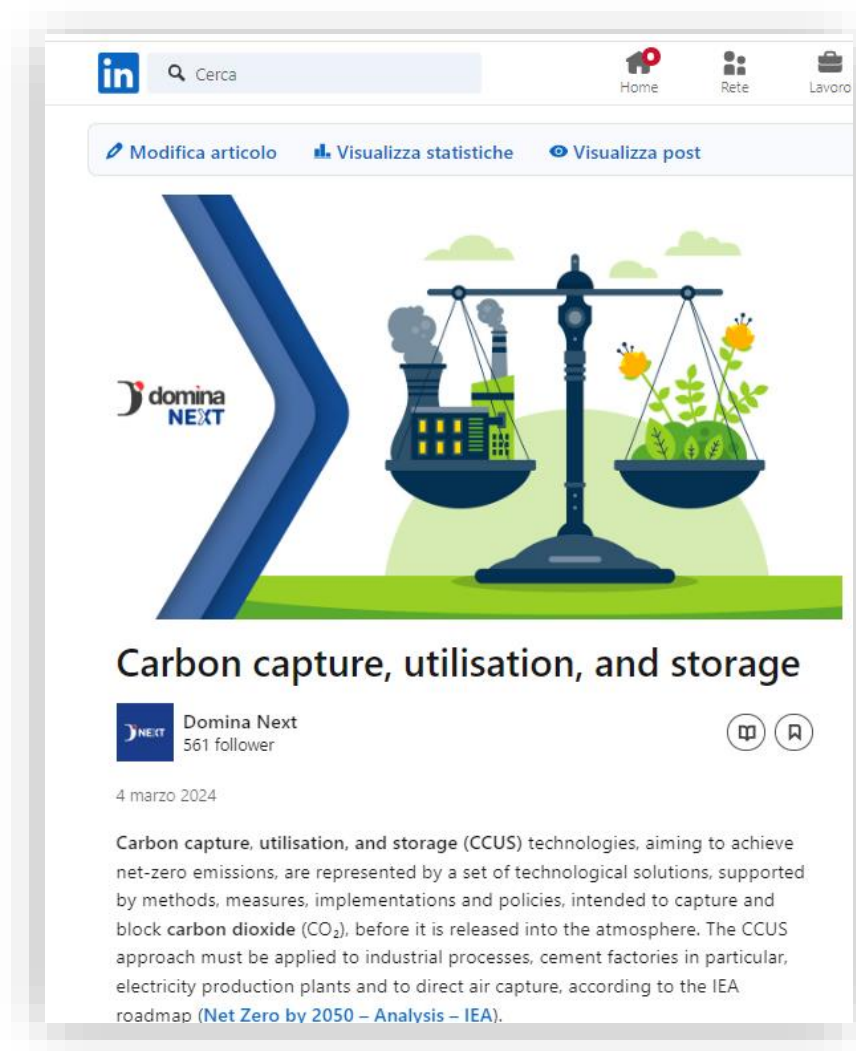
Onshore Demonstration: High-pressure CO₂ injection and low to medium pressure CO₂ transfer systems demonstrated onshore.

**Who can
understand this?**



EU's population of approximately 447 million people

Indicatively **about 3,7%** of the EU population works as Engineers.





Who will read this?



EU's population of approximately 447 million people

About 35.8% of the EU population uses LinkedIn.

COREU and CCS – Engaging and motivating

Knowledge transfer about
CCS technologies is **not**
only informative



It helps users to understand
and emotionally **connect with**
the technology

COREU and CCS – Addressing European citizens

EU's population of approximately
447 million people

77%

Adults

(aged 18 and over)

7%

Children

(aged 6-12)

6%

Teens

(aged 15-18)

“

“If you can't explain it simply, you don't understand it well enough.”

Albert Einstein



COREU and CCS – Tailored Training for professionals

CCS - The process of capturing waste carbon dioxide directly from the atmosphere or from energy production and industrial plants, and subsequently transporting it to sites for reuse or storage in geological formations.

CCS is an innovation



COREU and CCS – Tailored Training for citizens

CCS - The process of capturing waste carbon dioxide directly from the atmosphere or from energy production and industrial plants, and subsequently transporting it to sites for reuse or storage in geological formations.

CCS is a CO2 journey



COREU and CCS – Tailored Training for kids

CCS - The process of capturing waste carbon dioxide directly from the atmosphere or from energy production and industrial plants, and subsequently transporting it to sites for reuse or storage in geological formations.

CCS is the tale of trapping CO2 and sending it to a long sleep in a fortress of rock



COREU and CCS – Dnext Learn application case



Designed for companies, research organizations, and European funded projects.



Promotes a sustainable co-learning educational model for knowledge transfer and sharing among professionals with diverse skills and expertise.



Equipped with a customized frontend tailored to user needs and expectations, adapting to their identity.



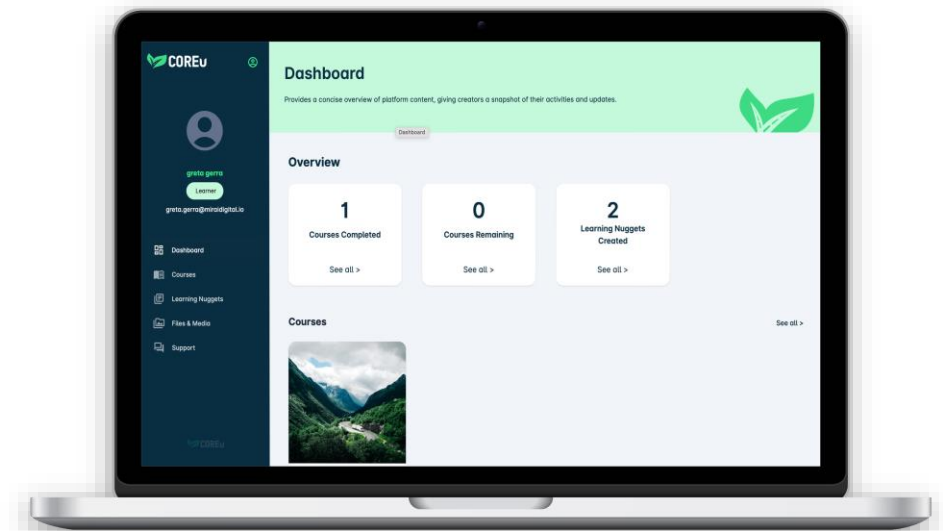
Organized as a structured library with “Learning Nuggets”



Manages training content that serves as valuable dissemination, communication, and exploitation materials.



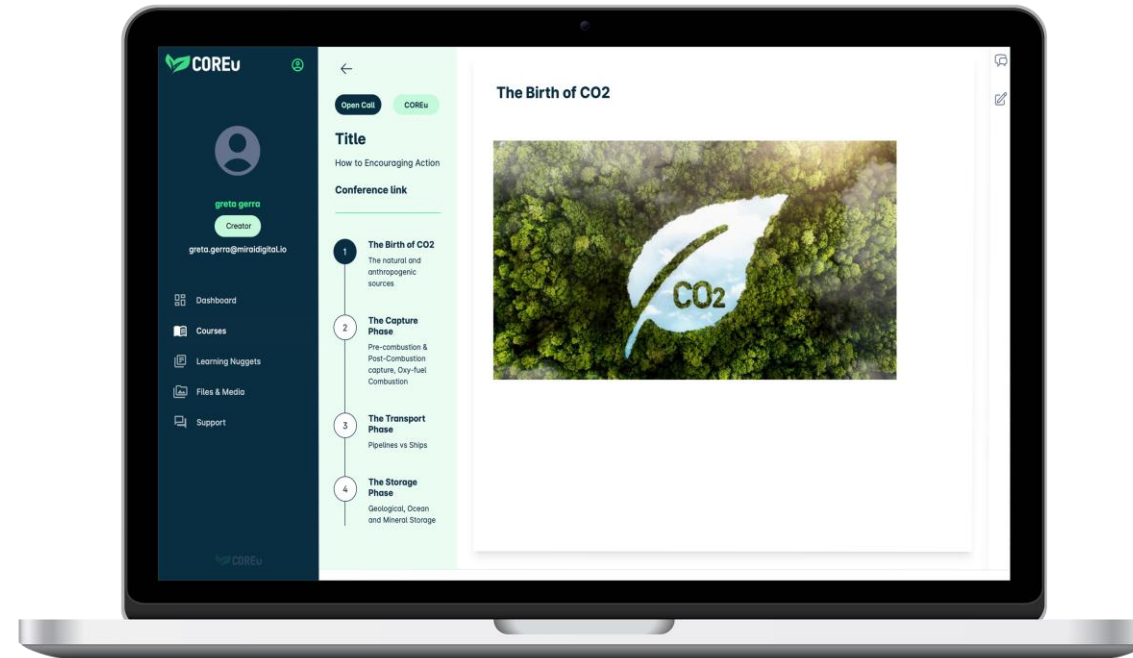
Encourages reflective learning through the generated training content.



Empowering Professionals: Coreu4Learn Facilitates Knowledge Transfer for Investing in CCS

How to Encouraging Action

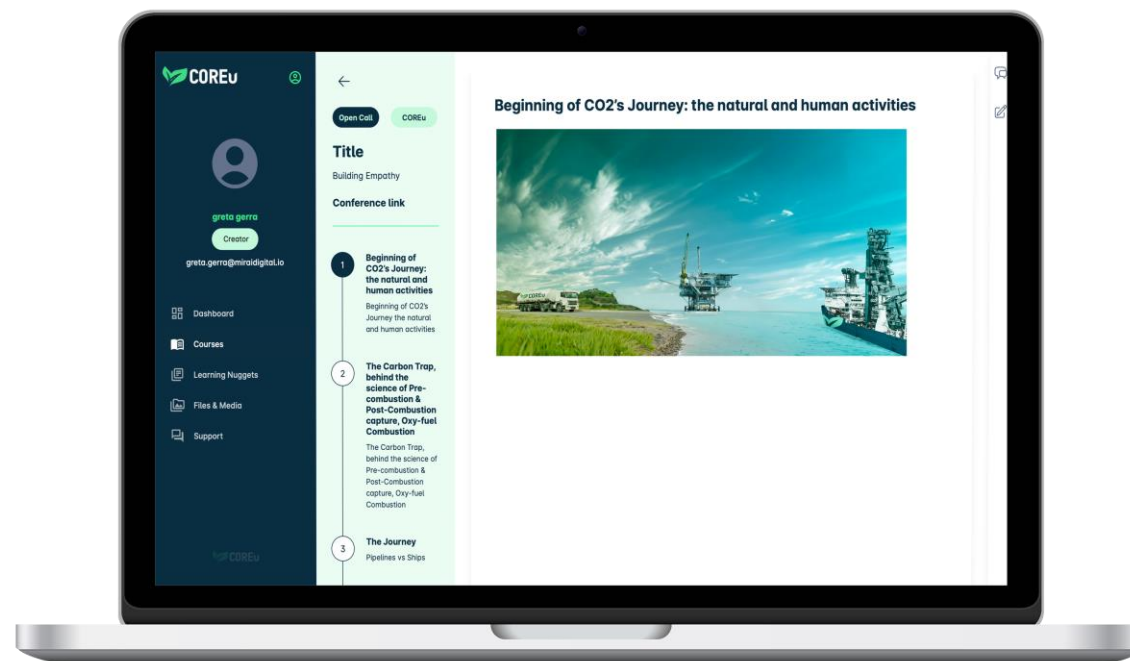
Motivating individuals and policymakers to support and invest in CCS initiatives.



Empowering Citizenship: Coreu4Learn Boosts Public Awareness and Acceptance of CCS

Building Empathy

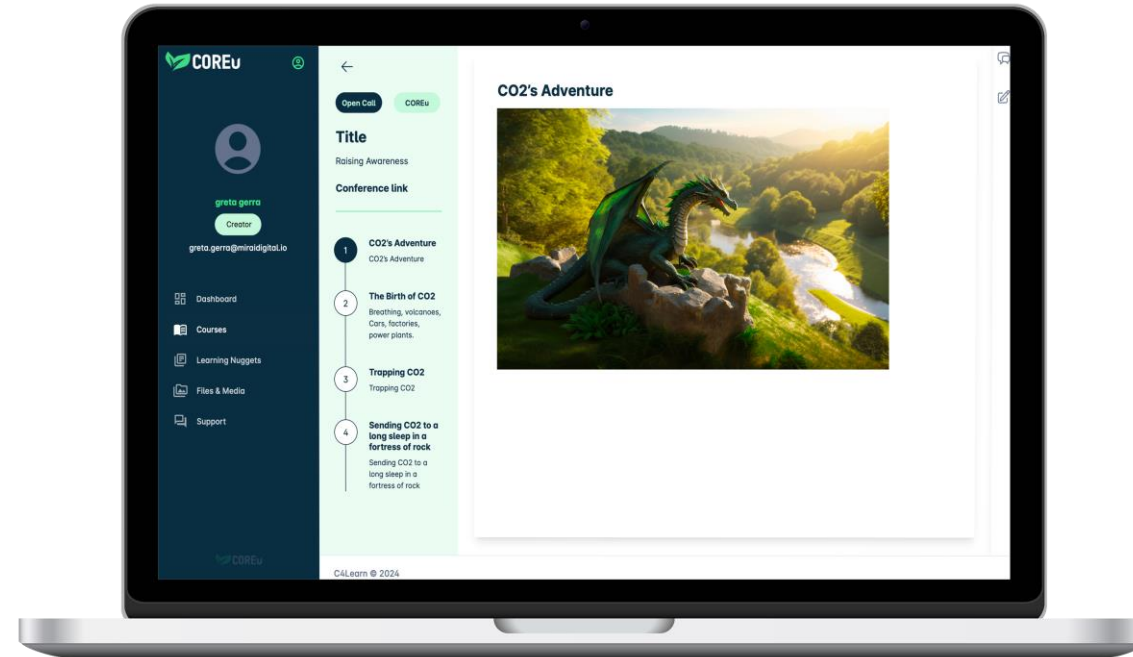
Helping people understand the challenges and efforts involved in capturing and storing CO₂.



Empowering Youth: Coreu4Learn Raises Awareness of CCS Technologies for Climate Change Mitigation

Raising Awareness

Highlighting the importance of CCS technologies in mitigating climate change.



Bite-Sized Learning to reduce Cognitive Load

Short on resources?

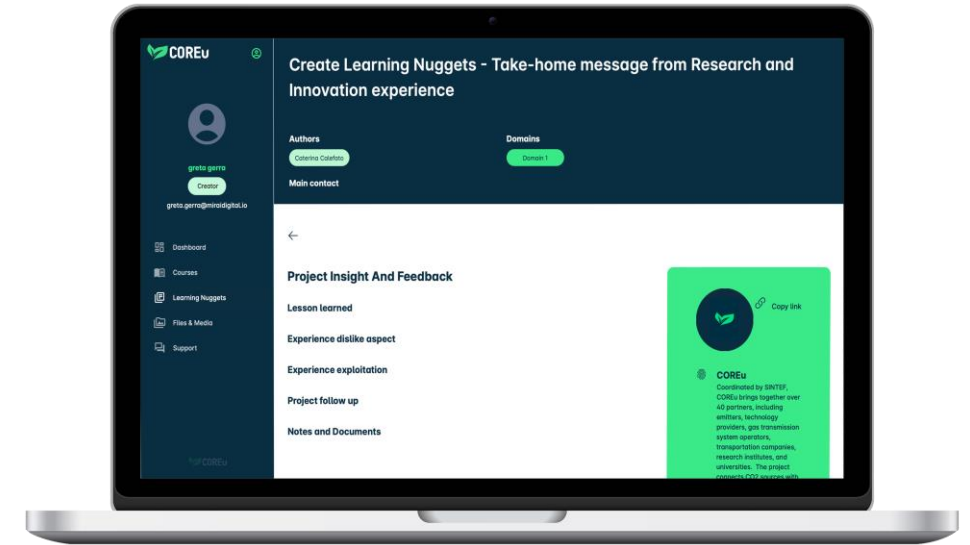
Don't leave a message in a bottle...create a Learning Nugget!



Bite-Sized Learning to reduce Cognitive Load

Short on resources?

Don't leave a message in a bottle...create a Learning Nugget!



The **microlearning** approach allows you to deliver concise, focused content that can be easily absorbed and applied, ensuring effective knowledge transfer even with limited resources.

THANKS FOR ATTENTION!

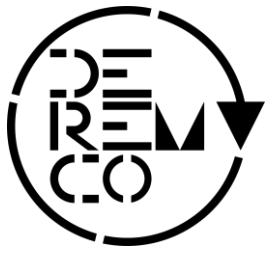
Caterina Calefato, PhD

*Digital Innovation Manager for Domina
EU Project Division Lead for Domina Next*

DOMINA NEXT

<https://www.dominanext.eu/>

*EU project partner Digital Designers SSH experts
IT providers of Dnext Learn, Smartrack and Dnext Web*



De & Remanufacturing for Circular Economy Investments in the Composite Industry

Cocreating tomorrow: participative value chains for a sustainable future - DeremCo Project

- **Presenter:** Silvia Ghidini



Sustainable Places

*Luxembourg,
25 September 2024*



Silvia Ghidini

Jr. Sustainability Project Manager at Holonix

EU Projects

Deliverable writing

Tasks management

Workshop & conferences

Expertise

Environmental Engineering

Information Technology

Circularity and Sustainability



Holonix

- Holonix was founded in 2010 by the Department of Management, Economics and Industrial Engineering of the Politecnico di Milano. We create **software products with IoT and Augmented Intelligence technologies**, offering operational support to small and medium-sized Italian industrial excellences in the manufacturing sector, which want to grow in efficiency, competence and competitiveness.

- Our **products** and our **Know-How** are the result of continuous training and contact with the most innovative ideas, minds and solutions in Europe, thanks to the collaboration with international research institutes, big names in ICT and leaders of sector in applied **research projects**.



Index

- The Project
- Composite Materials
- The Platform



The Project

The DeremCo project will integrate in a systemic approach **different innovation actions** aimed at enhancing the profitability of reinforced plastics recycling and reuse in value-added products.

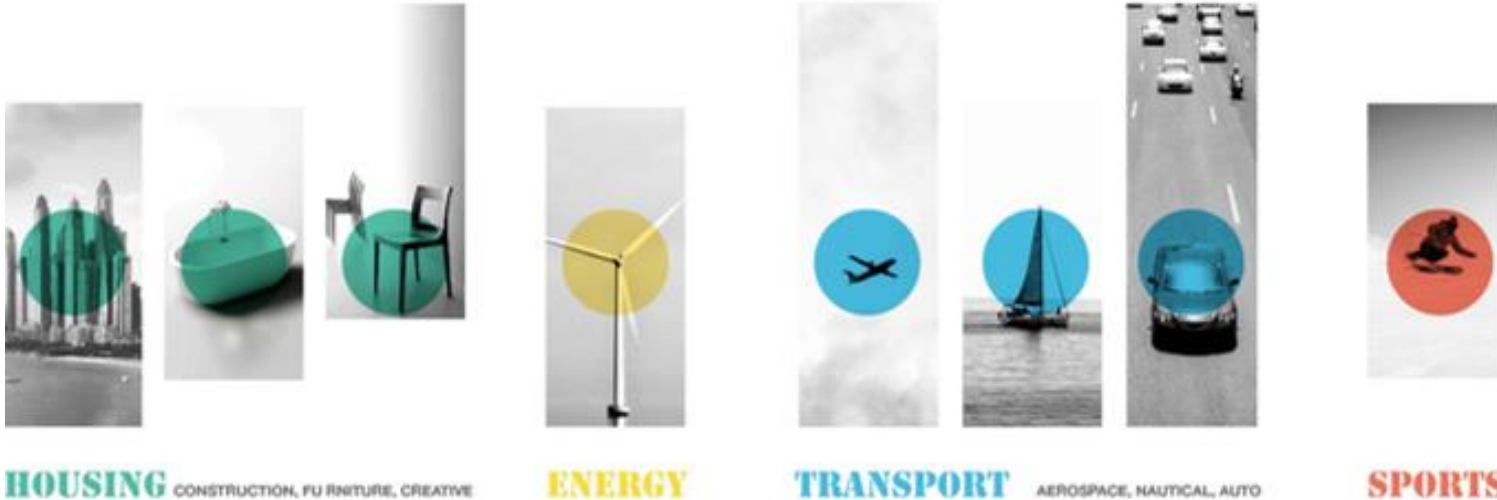
- 3 years: 2022 – 2025
- 30 Partners in 7 EU Countries
- EU Contributions:

8.822.751,58 €



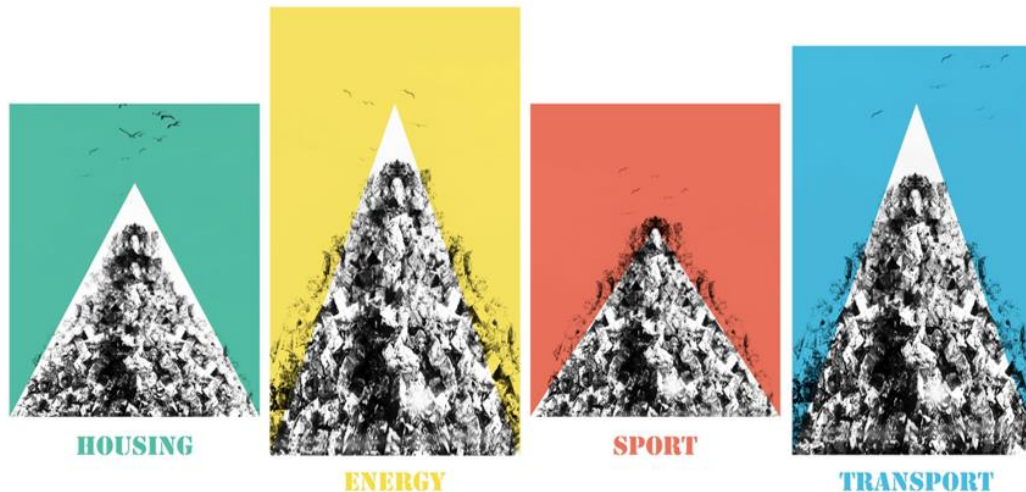
Composite Materials

Fiber-Reinforced Plastics (FRPs) are widely adopted in several sectors due to their lightweight and corrosion-resistance characteristics.



Composite Materials

The lack of a European sustainable circular value-chain for the recovery and re-use of plastics materials into high value-added applications would lead to both untapped business opportunities and economic losses and to a serious environmental burden.



The **DeremCo project** aims to develop innovative systemic solutions for unlocking the great potential of EoL composite materials as new manufacturing sources.

DeremCo Demand-Driven Circular Solution

DeremCo will exploit the **interregional Partnership** to achieve a large-scale demonstration of circular economy solutions for **demand-driven Fiber-Reinforced Plastics reprocessing and re-use into added value products**



The Platform




The DeremCo Platform is a tool that aims to facilitate the pathway of all the actors of the circular value chain of Fiber Reinforced Polymers (FRP) from recycled material towards a fair transition to circular business models.

The DeremCo Platform was designed to make accessible and easy-to-find information about available materials and new processing technologies and to create an inter-sectorial community made by companies, research centers, and service providers, providing a user-friendly interface.

The Admin profile

DEREMCO - Recycling Sector

ADMIN



Home

Project

Topic

Attribute

Enumeration

Backup And Restore

Users

Circular Entity

Process

Company

Topic details

Name

entity

Title

Circular Entity

Section

Topic Type

Entity

Icon

mdi-recycle

Menu weight

1000

isAdmin

☐

inMenu

☒

isMultitem

☒

showOther


☒

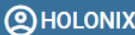
hasAttach


☒

SAVE

The Platform : Home & Project


DEREMCO - Recycling Sector






The DeremCo Platform


The Circular Entity Section


Circular Entities are entities that exist in the circular economy system. They can be objects, final products, materials, recycled materials, waste, dismissed objects, etc. (for example, wind turbines, waste from TP, or components of car bodies...).


On the DeremCo Platform, a **Circular Entity** is described by some **attributes**, that are **common** to all the C.E.:


- **CE Code**, that must follow a coding system defined by Tecnalia and that helps not to lose traceability;
- **Name**, that is a brief description to easily recognize the Circular Entity;
- **CE Typology** of the Circular Entity;
- **Country**, in which the Circular Entity is located;
- **Quantity** available of the Circular Entity;
- **Format**,


Home


Project


Circular Entity



Process


Company

The Platform : Circular Entity Section

DEREMCO - Recycling Sector

HOLONIX



Home

Project

Circular Entity

Process

Company

Circular Entity List

Select an attribute

All

Draft

+


NEW CIRCULAR ENTITY

MINE

SHOW OTHER

CE Code	Name	CE Typology
<div> <div></div> <div>No matching records found</div> </div> <div> <div>DELETE</div> <div>DUPLICATE</div> </div>		

The Platform : Circular Entity



- Home
- Project
- Topic
- Attribute
- Enumeration
- Backup And Restore
- Users
- Circular Entity
- Process
- Company

Circular Entity details

ATTRIBUTES

ATTACHMENTS

CE Code
FIBER1-POLIMI1-RIV1

Name
Grinded wind blades type 1 with 6 mm grid

CE Typology
Demanufactured

Input Circular Entities

Input CE code
FIBER1-POLIMI1

Processes

Processes (Mine)
GRD_RIV001

Country
Italy

Quantity

Format
Granulate

Format Description
Grinded with 6 mm grid

The Platform : Company



- Home
- Project
- Circular Entity
- Process
- Company

DEREMCO - Recycling Sector

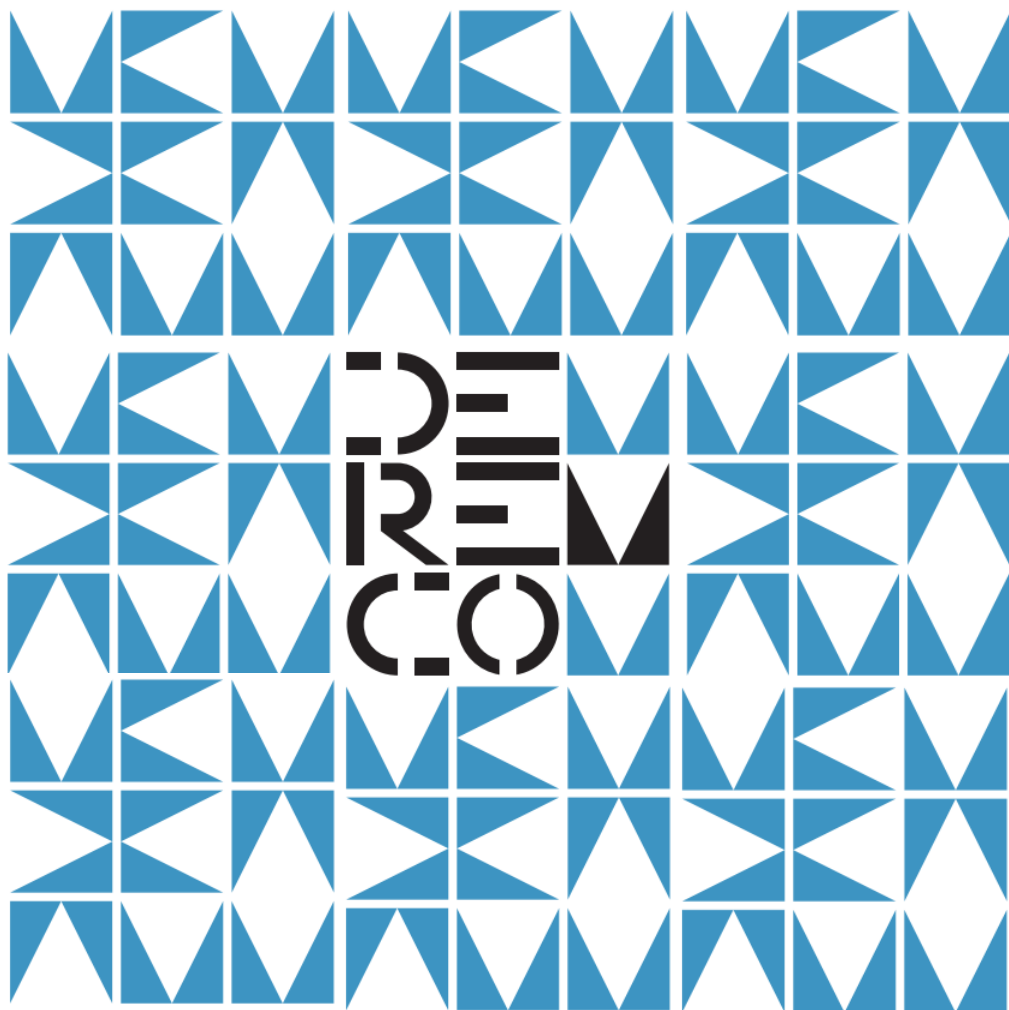
HOLONIX

Company details

+ SHOW OTHER

ATTRIBUTES

- Name
Holonix
- E-mail
info@holonix.it
- Description
We deal with technologies and software products regarding the Internet of Things and Augmented Intelligence.
- Company Type
IT provider
- Processes (Mine)



THANKS

DOES ANYONE HAVE
ANY QUESTIONS?



@DeremCo



@DeremCo_project

 SUSTAINABLE
PLACES 2024



Co-funded by
the European Union



**European Innovation Hub
for testing sustainable pathways**



Dena Arabsolgar

Innovation Project Manager, SYXIS

Cocreating tomorrow: participative
value chains for a sustainable future.





We are a Lithuanian company that sees the
sustainable transformation
as the key to a new future.

Our greatest desire is to spread the **culture of "circular"**
and to become a point of reference for **learning to innovate together**.
How? Being a **real community** and leveraging on technological **skills** and **knowledge** of each individual partner

*Our task is to support and connect SMEs, organizations and research centers across Europe,
that operate in the field of funded **research and innovation**,
helping them in method, operations and technologies,
so that they can welcome and develop a new strategy based on themes such as
digital, circular economy and networking.*



NETWORKING

We connect SMEs, find partners and promote collaboration among entities, encouraging the co-creation model as a new business strategy



DIGITAL SOLUTION

We create technological platforms based on the power and importance of data to improve the digital transformation



CIRCULAR ECONOMY ECOSYSTEM

all our activities aim to provide sustainable solutions for the future of the environment, the economy and the people

13 EU active projects
> 80 EU projects in the team expertise



EU Projects

Writing proposals & EU projects implementation
IT solutions for cocreation and collaboration
Diss&Comm, Circular Exploitation, Networking and Clustering

Expertise

Management Engineering
Team and Community management
Social Impact analysis
Circularity and Sustainability

Sustainable Innovation Lover

Focussed on the CoCreation approach @job, @life, @society

**Dena Arabsolgar,
Eng.**

*Innovation project manager
SYXIS*

www.syxis.eu





WHITE-LABEL SHOP FOR DIGITAL INTELLIGENT ASSISTANCE AND
HUMAN-AI
COLLABORATION IN MANUFACTURING



Co-funded by the Horizon Europe programme
of the European Union under Grant Agreement
N° 101092176

Project details and numbers

Total costs: € 8 909 248.94

Partners: 18

Coordinator: CARSA

User cases: 3 use cases, 5 pilots

Open Calls: 2 rounds, A and B

Project objectives:

- digital intelligent assistance solutions, based on **human-AI collaboration** («conversational AI»)
- manage circular economy information through the **valorisation of production waste**
- increase cognitive abilities of workers, accelerates **transfer of knowledge**
- **upskilling** of the existing workforce

SYXIS role:

Diss & com manager, AI4manufacturing.net community

Waste management platform

 1- **CARSA**

 2- **BIBA**

 3-  **UNIMORE**
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

 4-  **SYXIS**
Innovate Together

 5-  **SINTEF**

 6- **TTTech**

 7-  **ATLANTIS**
ENGINEERING

 8-  **ICCS**
ERITEL

 9- **meWS**
PARTNERS

 10-  **reinova**

 11-  **KU LEUVEN** 
CENTRE FOR IT & IP LAW

 12- 

 13-  **Universität
Bremen**

 14- **TRIMEK**
METROLOGICAL ENGINEERING


 15- **EREMA** GIO.BATT
Quality in Hospital Services

 16-  **episcan**
episcan

 17- **KLISBio**

 18-  **iovalia**
ASSOCIATION

How do WASABI enable participation and collaboration for sustainability?



Answer 1:
Facilitate information exchange
USE CASES as a demonstrator



Why «FACILITATE»?

Sharing doesn't happen
automatically
Organizations needs
enablers
People to be engaged

**Which
«INFORMATION»?**

Company data
Value chain data
Knowledge
Expertise

«EXCHANGE» mindset
Company -> Value Chain
Value Chain -> Company

NOT only
company <-> company

Answer 1:

**Facilitate information exchange
USE CASES as a demonstrator**

DEMONSTRATORS

Create alternatives
through research
Show and share results



USE CASE #1

Augmented waste management and valorisation



TRIMEK
METROLOGICAL ENGINEERING

TRIMEK, dimensional metrology reuse

Develops a module that measures manufacturing scrap pieces to see **if other** manufacturing SMEs or midcaps **can reuse** them.



CROMA
GIO.BATTA
Quality in Hospital Services

CROMA, recycling and revamping surgical tools

Checks the instruments used after each surgery following SOPs (Standardized Operation Procedures), to sterilize if it fit for use or **publish** on the rEUse platform for it **to be recycled**.



Share Materials and Technologies, exchange, reuse, recycle, give benefits to others, activate new value chains, circulating objects



USE CASE #2

Assisted workforce management



EPISCAN, upskilling and integrating workforce, producing sanitary goods

Use of human-centred AI-based digital assistance solutions to **onboard and integrate new workers** facing different job experience, education, ethnic, social and demographic background, and language issues.

Create a knowledge base that contains what new workers should focus on during the onboarding process.

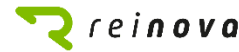
Enhance the **integration and participation** of workers such as **foreign** employees.

Openly share needs, be inclusive, assist humans, enable collaboration with digital solutions, improve knowledge



USE CASE #3

Assisted quality assurance for sustainable products



REINOVA, TRIMEK, EPISCAN, KLISBIO augmenting sustainability



Test the possibilities given by the **use of augmented technologies** in 4 environments to: reduce carbon footprint, up-skill workers cognitive capacities, reduce repetitions, improve quality checks and material tests, etc.



Battery testing, coordinate measuring machine, sanitary quality check, prosthetic quality testing.



Try, describe, generate knowledge, innovation, open science

Answer 2:

Connect stakeholders Strategic matchmake

READ MORE



Why «CONNECT»?

Sustainability and
Circularity are a value
chain topic.

**Who are the
«STAKEHOLDERS»?**

Workers, Cross-sectors,
other companies,
researchers

Answer 2:

**Connect stakeholders
Strategic matchmake**

MATCHMAKE

Know each other, find
partners, find things, find
information, ...



Digitally Enabled Communities

Sharing eol objects, materials, waste, knowledge

Sharing physical things to reuse, recycle, remanufacture

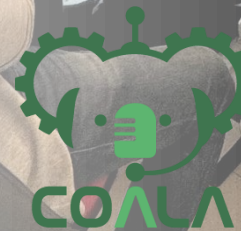
Sharing knowledge, skills, ideas, challenges, problems, solutions

Enabling the creation of communities of stakeholders

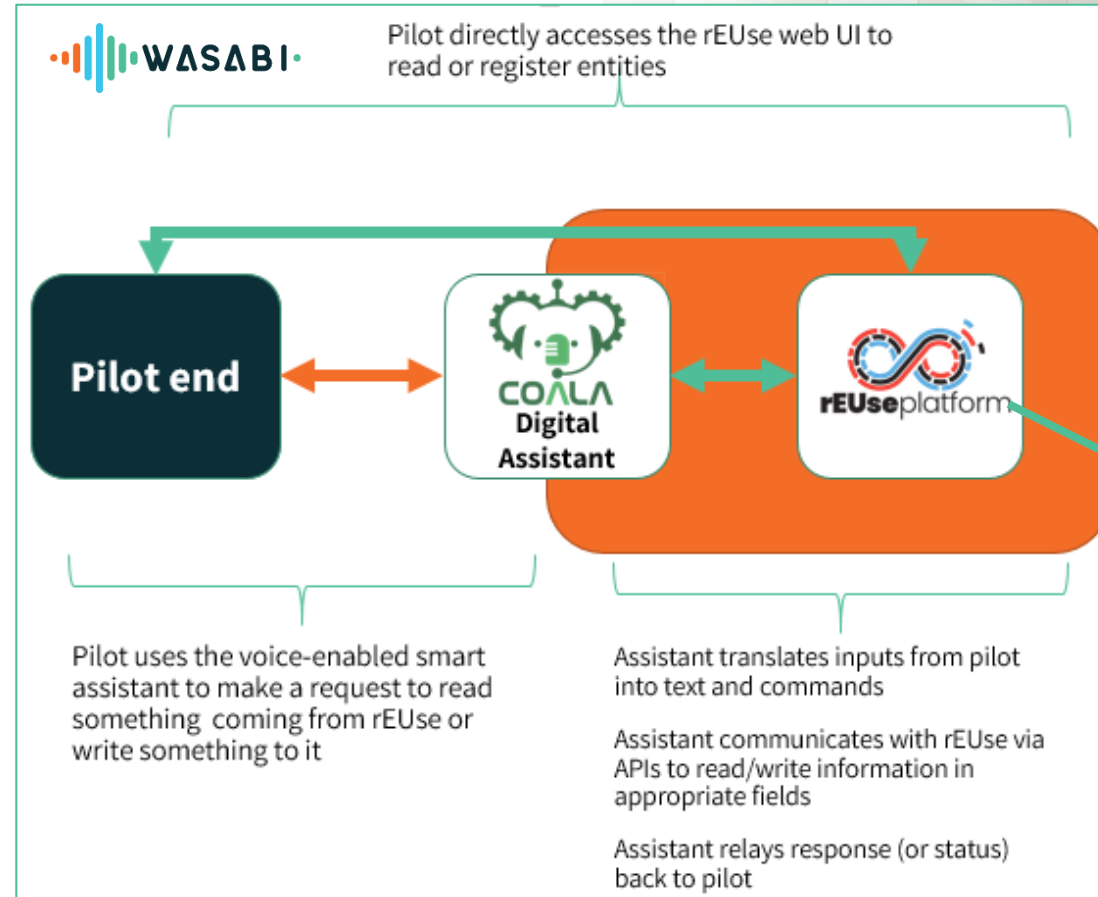
Matchmaking, finding suitable partners, closing loops

Create, preserve, empower contacts and networking

MAA - CoCreation – Collaboration – IT enabling interactions - Matchmake



Digitally Enabled Communities

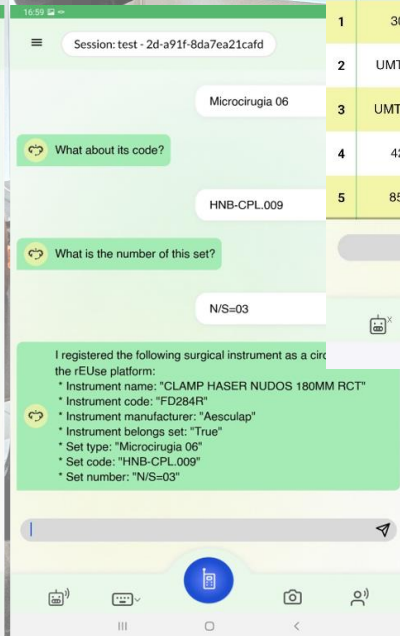
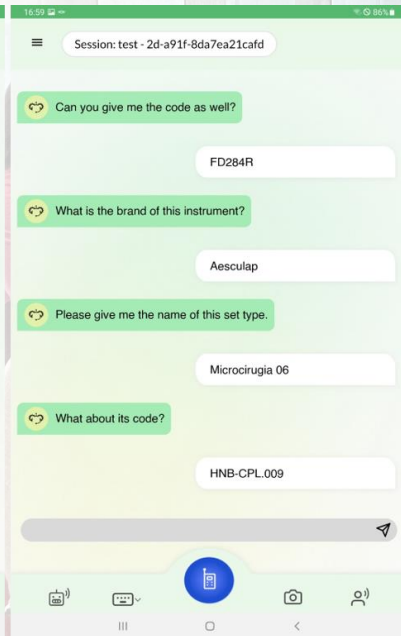
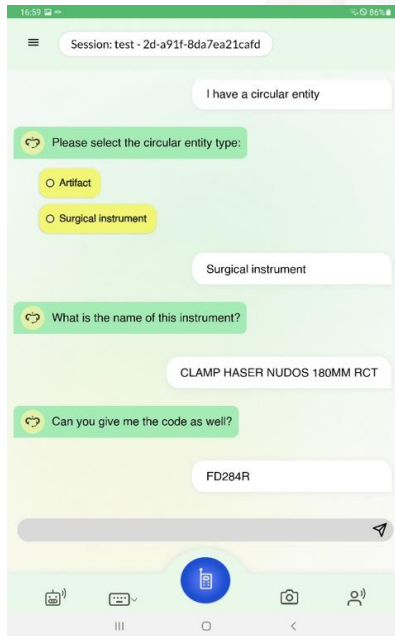
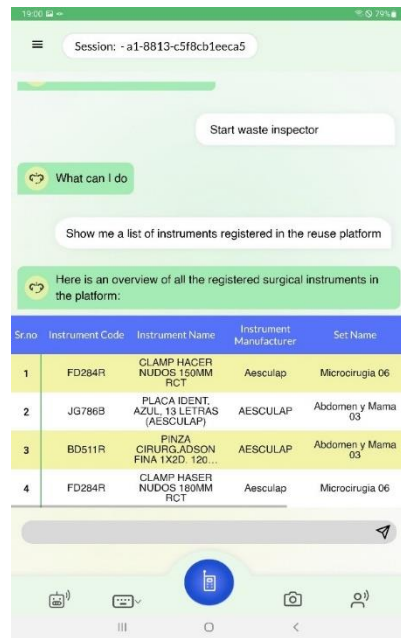
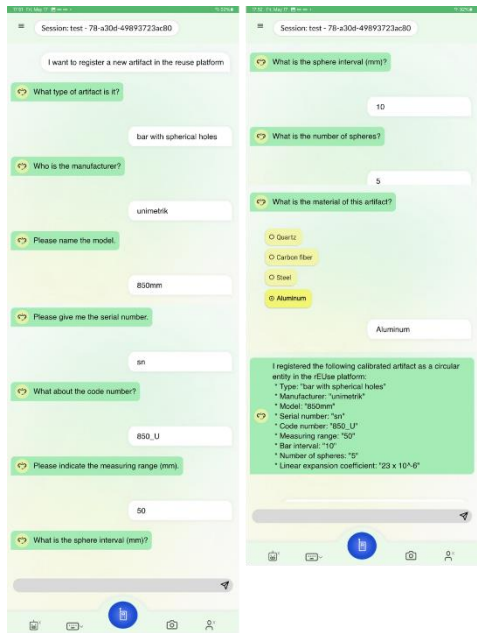


Recycling, reusing, remanufacturing communities.

kartu
connect together



Digitally Enabled Communities



Digitally Enabled Communities



WASABI - AI Sector ADMIN

WASABI

- Home
- Project
- TRIMEK Circular Entity
- Calibrated Artifacts
- CROMA Circular Entity
- CROMA Instruments
- Topic
- Attribute
- Enumeration

HOLONIX® BRING THINGS TO LIFE

Username or Email
admin

Password

WASABI

- Home
- Project
- TRIMEK Circular Entity
- Calibrated Artifacts
- CROMA Circular Entity
- CROMA Instruments
- Topic
- Attribute
- Enumeration

HOLONIX® BRING THINGS TO LIFE

CROMA Instruments details

ATTRIBUTES

Instrument Details

- Instrument name
- Instrument code
- Manufacturer (Brand)
- Set Type
- Set code
- Set No
- Description of the instrument

Status and Damage

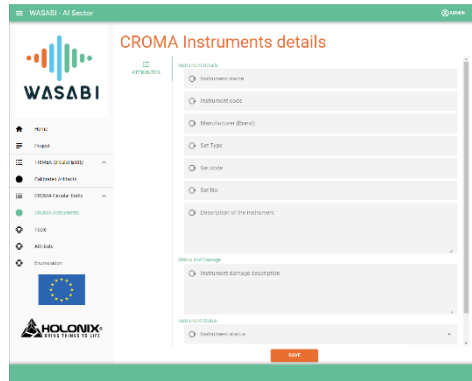
- Instrument damage description

Instrument Status

- Instrument status

SAVE

Digitally Enabled Communities



TECH TIPS:
Cloud hosted
Simple UI
APIs for third party connections
Build on open technologies

Manual data insertion
Vocal data insertion

Get info to evaluate
next cycle step:
Reuse? Recycle?
Remanufacture?
Sale...?

Share with the Value
Chain
Create opportunities
CoCreate tomorrow..

Cocreating tomorrow: participative value chains for a sustainable future



AI4manufacturing Community

AI TECHNOLOGIES IN THE MANUFACTURING DOMAIN

A community to connect innovators of the manufacturing industry experimenting AI

A place to extend dissemination channels and find connection points

An initiative to share experiences & knowledge

A hub to matchmake, cooperate and co-develop

Dissemination – Communication – Circular exploitation – Clustering



AI4MANUFACTURING

www.ai4manufacturing.net



Cocreating tomorrow: participative
value chains for a sustainable future.



THANK YOU!



*EU Project partner and manager
CoCreation and SSH expert
Digital Solutions developer
Communities and clustering
Circular Economy and Sustainability*

Dena Arabsolgar
Innovation Project Manager, SYXIS
Dena.Arabsolgar@syxis.eu
info@syxis.eu
www.syxis.eu