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Circular economy webinar

Município de Santo Tirso – Invest Tirso 28th may



EHNOLOŠKI PARK LJUBLJANA



Presentation points

- 1. Local Accelerator Hub: short summary;
- 2. Cycle of Training Workshops for the Circular Economy;
- 3. Good practices, In depth interviews and Final Ceremony;
- 4. Highlights and challenges of the experience;
- 5. Website & dissemination.









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Local Accelerator Hub



We, firstly, defined our values and goals

MISSION STATEMENT

For Santo Tirso, sustainable investment represents a strategic priority for action, where the business and associative fabric receives and welcomes partners to develop the community in a collaborative way, in favour of a greener ecosystem!















The second step was building a network: our focus was on the plastic, textile and agrofood

OUR MEMBERS















Do the textile, plastic, and agrifood sectors in the Santo Tirso region have potential to implement circular business model creations ?

PLASTIC SECTOR

TEXTILE SECTOR

OUR HYPOTHESIS

OF CIRCULARITY

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THE CIRCULARITY FACILITATORS:





Working on identifying 25 best practices

CIRCULAR ECONOMY WORKSHOPS

4 value propositions developed







ANTO TIRSO





local challenge 24/10/2023

1 project in the piloting phase



1 hypothesis testing conducted



16/01/2024





SHARED GREEN

Circular Economy Workshops





SHARED The Cycle of Training Workshops for the Circular Economy GREEN was composed of three phases

WORKSHOP 1 Mapping Circularity and **Defining the Local Challenge**

Exploration and identification of good business practices Mapping of needs and expectations Identify and define the local challenge(s)

WORKSHOP 2 Ideation and Prototyping

Define a circularity objective linked to new products; Creation of services or problems of the larger community; Identification and development of common local circular business solutions.

WORKSHOP 3 Stakeholder's feedback

Map stakeholders and their main needs and behaviors; Detect the relevance of circular innovation solutions and help translate them into design criteria; Empower to collect feedback from stakeholders on potential local circular businesses.

THE NEXT STEP IS **IMPLEMENTATION!**



During the first workshop resources were mapped between active and passive

ACTIVE RESOURCES

and the second	
Infrastructure	 Rooms at ACIST Vineyards Textile by-product sorting equipment Warehouse space Plastic Injection Equipment
<section-header></section-header>	 Wooden Pallets Paper Glue Varnish Corks Oenological phytopharmaceuticals Food products (cereals, sugar, cocoa, etc.) Oils Industrial kitchen and laundry equipment
Human Resources and Know-how	 Attracting investment and economic development Textile design and production Textile sorting Life Extension Service for Industrial Kitchen Equipment Software, R&D knowledge

"WASTE" OR PASSIVE RESOURCES		
Infrastructure	 Meeting rooms /showroom Free warehouse space 	
	 Municipal solid waste Green waste Waste generated in public infrastructure Purging the production process of plastic and film packaging Plastic Food waste (circular stream – animal feed production) Oils (circular flow – energy recovery) Distillery material Stainless Steel & Multi-Material Kitchen Components Glass Ground and pavement of sidewalks Sludge (opportunity identified) Wooden pallets (opportunity identified) Wooden pallets (samples Surplus fabrics Machine cleaning cloths (circular flow inside the organization) Reuse textiles and textiles for recvcling 	



Which enabled the perception of the existing possible circular flows



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CONTRIBUTE TO THE R ECONOMY?	RESULTS OUTLINED FROM WORKSHOP 1
ucts conventionally, it is oduct as a service. E.g.	Equipment
, or dematerialization, aterial as possible. E.g.	Cardboard/Paper
of the product through reuse of used frying oils	Plastic
ed in the use phase to bility. Ex. Patagonia	Textile
oduct, component, or g bicycle wheels into	Wood/Pallet Textiles
erials for new products. E.g. sneakers	Plastic



As a result, several local challenges were defined

CHALLENGES IDENTIFIED IN WORKSHOP 1

How to reduce the use of raw materials? How to take advantage of the ecosystem ? How to overcome legal barriers? Challenge of economic viability ? Challenge of lack of infrastructure (collection center)?

PROPOSALS FOR WORKING GROUPS FOR WORKSHOP 2

1. How to reduce the use of pallets? How to reduce the use of post-consumer textiles? How to reduce the use of surplus industrial textiles? How to reduce the surplus related to plastic purges? How to reduce sludge-related surplus? How to reduce the use of cardboard, paper and paper scraps? How to create a procurement policy for circularity? How to create a living ecosystem for sharing circular economy knowledge?

WE ALSO GAVE THE OPTION TO

Enrolling teams and work on the specific challenge of circularity of the organization's ecosystem



The local challenges to be worked on during workshop 2&3 were chosen by the participants

The teams were formed with the help of a Google Forms form sent to all participants before the workshop, 6 days.

This form was intended to collect information to form the teams of participants and the challenges they intended to work on.

Type of team	Participant-defined team	Pre-def Inv	
Type of challenge	Challenge internal to the participating organization	Challeng in W	

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ined team by est Tirso

e mapped out orkshop 1



Ciclo de Workshops de Capacitação para a Economia Circular - Workshop 2 - Shared Green Deal

Este formulário tem o objetivo de alavancar o segundo e terceiro workshop do Ciclo Workshops de Capacitação para a Economia Circular.

A informação preenchida no formulário deverá refletir:

a) a escolha de trabalhar numa equipa interna da sua organização ou de trabalhar com os participantes do Ciclo de Workshops que estiveram presentes no Workshop 1;

b) o desafio que o participante ou equipa pretende trabalhar.

NUMBER OF TEAMS

The workshop took place on December

12th with 19 participants who formed 4

teams that prototyped 4 circular solutions

for 3 hours.





The challenges developed into 4 value propositions, 3 of them were further developed during workshop 3

- Município de Santo Tirso
- ACIST



- **Challenge:** Build an ecosystem to implement circular economy practices
- Value Proposition: Build a <u>digital platform</u> that works as a database (resources for donation/sale within the scope of circularity) for the local <u>B2B ecosystem</u>, including companies with production units and local commerce.
- **Curiosities:** Hypothesis were created about face-to-face service to support the platform and piloting the project included in the scope of the city's biowaste project.







Stakeholder mapping: Internal and external stakeholders were mapped, namely from the departments of the Municipality of Santo Tirso that can bring positive synergies to the project, as well as the Municipal Executive, which must approve the implementation. At the external level, waste management and <u>regulatory organizations</u> (Resinorte/APA) were identified, as well as the <u>users</u> of the value proposition (<u>local commerce of Santo</u> <u>Tirso</u>).

Feedback mechanisms: The feedback process was structured following, in a first pivot, a validation logic with a minimum success criterion associated with the validation of at least one of the defined type consumers: <u>supermarkets</u>, shoe stores or appliance stores. Subsequently, the validation should follow a broader model, where the minimum criterion for success is already the acceptance by 5 local businesses, in a universe of 10 in-depth interviews.

Inclusion of people with diabilities: The inclusion of people with disabilities was proposed as an integral part of the process of disseminating the digital platform service.

The group carried out the out-of-the-building feedback process, having conducted an in-depth interview with a supermarket that positively validated the hypotheses associated with the initial value proposition. However, it iterated on the initial value proposition, stating that it would be necessary to add a logistics partner to the proposal that would feed the waste collection process.





- CS Plastic
- Intraplas
- Vizelpas



Challenge: How to reduce the waste of <u>plastic purges</u> in industrial processes?

Value Proposition: Build a collection <u>centre for waste</u>, namely for plastic purges.

Curiosities: Hypothesis of being a complementary idea to working group 1 and to collaborate with the Municipality of Santo Tirso.





TEAM 3

- Finieco
- Adalberto
- Agrenatus



Challenge: How to value the surplus of <u>cardboard</u>, <u>paper</u> and paper scraps?

Value Proposition: Energy recovery of cellulose through biomass

Curiosities: An opportunity was identified with circular synergy amongst team members, with potential to expand to other economic agents with the same challenge. There are already some <u>needs met by the participants</u>, such as the biomass boiler and the resources for recovery.









	START	PNOT1	PNOT2	PIVOT3	PIVOT4
Hipóteses com maior Risco	por los quantido suficiente de doyladio fare genon minturo l'ofté Acadeiro.	Vite -komos Calacidas calorífico Sufacarte loraros Alton constantes	Custo conde. moin elesado do que os contrationis Maticionais.	Ante de brance alo ressociónerado elos lateras apulacitos lato a quero do vorno.	
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nouswidade e vlabilidade ?	- Inclusio dos addada	Constandeda	-	- motorn	

Separation of raw materials; Administrative and financial services; Partners of the scientific community that promotes the inclusion of people with disabilities;

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Stakeholder mapping: The mapped stakeholders correspond to the parties necessary to leverage the project, namely the scientific community, customers/suppliers, investors, the State, among others. The level of interest and power is dispersed.

Feedback mechanisms: For this group, the design of the feedback process was closer to conducting a risk analysis of the hypotheses outlined in the value proposition that indicated, in the participants' consideration, a greater potential for failure of the value proposition in the future. This team was able to successfully filter the various scenarios associated with potential iterations to its value proposition, with the minimum success criteria being essentially related to the financial sustainability of the proposal presented.

Inclusion of people with diabilities: The inclusion of employees with disabilities was considered in all phases of the value chain of the developed proposal. Briefly, participants present the following useful tasks as a proposal for inclusion:

—



TEAM

- Baker & Baker
- Quinta Gomariz
- Escola Profissional Agrícola Conde de São Bento
- CAID



- **Challenge:** How can we make the most of the <u>sludge</u> from Baker & Baker's industrial process?
- **Value Proposition:** Valorisation of the sludge resulting from the industrial process of Baker & Baker as <u>fertilizer in the agricultural</u> process of Quinta Gomariz.
- **Curiosities:** An opportunity was identified with circular synergy amongst team members, with potential to expand to other economic agents with the same challenge. Intervention of the Agricultural Local School was key for
- environmental impact analyses.













Stakeholder mapping: The most relevant stakeholders involved in this value proposition are the <u>Agricultural Local School</u>, which will conduct the tests for validation of biological circularity opportunities, suppliers of products and fertilizers and waste operators.

Feedback mechanisms: The feedback mechanisms designed comprise <u>3 pivots</u> in total, and the hypothesis with the greatest risk is the unfeasibility of using sludge in the agrarian context. The minimum criterion for success is that the sludge can be used in <u>winemaking</u>. Subsequently, the use of the sludge in other crops is considered.

Inclusion of people with diabilities: The inclusion of people with disabilities is designed to be carried out through the main organizations involved in the value proposition, namely the Agrarian School of Santo Tirso and the industrial bakery and pastry company.



Besides team 1's, out-of-the-building feedback process, 1 feedback process to include vulnerable groups was conducted

An in-depth interview was conducted with the president of CAID to obtain feedback on the inclusion of people with disabilities both in the development and operationalization of value propositions and also as typical consumers of innovative solutions.

CAID is a cooperative located in the Industrial Park of Fontiscos, and for this reason, it is surrounded by several companies with production units.

CAID projects that validate the format of the inclusion of people with disabilities in the value propositions developed:

Execution of assembly in the production process.

Execution of a task in the industrial tyre manufacturing process: separation of rubber and extra material from the tyre rollers.

Internal function inclusion of em administrative,

Professional inse kitch

Non-validation of inclusion proposals that understand the need for verbal communication and the execution of non-routine tasks.



ing of the organization with ployees with disabilities in catering, and agricultural positions.	Validation of the inclusion of employees in:
	— Raw material separation
ertion in cafeteria, hotel and en professions.	process (Team 3); Agrarian process (Team 4); Administrative tasks.



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Good practices, In depth interviews and Final Ceremony

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We sucessfully mapped best practices at local SHARED and national level. Here are some examples:

adalberto

funded projects

The Consortium **GIATEX** aims to respond to the challenges faced by textile ennoblement companies in terms of intensive water consumption.







Use of external certifications & tools for sustainable **construction**

LEAD and BREEAM certifications;

Green taxonomy;

Life cycle analysis;

Responsible procurement by asking for ISO norms to suppliers



152 associates 200.000 <u>collaborators</u> 64% SME's

"We believe that our name speaks for us, but to be clear: We are the Association that wants to bring smarter waste management to all Portuguese companies."







- institution;
- shelf life;



COF ASHION SP

1. Recycling pallets provided by neighbouring companies, using them for the development of products, such as benches;

2. Use of surplus fabrics provided by local companies for the development of various products and execution of works, such as all the costumes used for the various parties developed by the

3. We are beneficiaries of the Food Bank and several hypermarket chains, namely, in the use of products approaching the end of their

4. We have recycling practices for paper, glass, cooking oils;

5. We make use of various products for products we develop, both for occupational, decorative and sale purposes;

6. We have our own vegetable garden for the production of some foodstuffs, used in the preparation of our meals.



We have also conducted 10 in depth interviews











Lastly, our final ceremony to recognize the best circular solution will take place in june





JUNE

PARTICIPANTS & LOCAL COMMUNITY

PERSONAL INVITATION

PANNEL OF JURY: Associação Smart Waste Portugal & INVEST TIRSO & Agência Portuguesa do Ambiente



















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Highlitghts and challenges of the experience





During the workshops, participants showed interest in the design thinking methodology and exercices proposed











GOOD ENGAGEMENT FROM PARTICIPANTS DURING THE WORKSHOPS

> **IMPROVEMENT OF METHODOLOGIES AND TEACHING METHODS** ALONG THE WORKSHOPS

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After the workshops, participants were ready to take their ideas out of the building !





Team 1 is, currently, carrying out laboratory analysis to test their hypothesis, including on other products which have not been thought during ideation







LOCAL INNOVATIVE **ENTREPRENAURIAL** COMMUNITY

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2

GOOD PRACTICE COLLECTION AT A LOCAL LEVEL REPRESENTED AN INITIAL CHALLENGE







SHARED Even though the interest is rising there is still a long pathaway to implement sustainability through circularity









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Website & dissemination





The project is being disseminated through the **Municipality website and Invest Linkedin**



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Invest Santo Tirso

Invest Santo Tirso is the Investor Support Office, responsible for hosting and supporting investors in Santo Tirso.

Government Administration · Santo Tirso, Porto · 1K followers · 201-500 employees

INVEST 1,032 followers 1w • Edited • 🕓

O Município de Santo Tirso esteve em Liubliana, Eslovénia a participar na sessão de trabalho do projeto Europeu Shared Green Deal, para apresentar os resultados do trabalho, que tem vindo a ser desenvolvido com as empresas e instituiçõe ...see more

See translation

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