D3.3 Catalogue of good practices

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Contents

1. Introduction to WP3

The BIOLOC project aims to support and inspire the communities of 12 participating European regions to unlock and develop local development potentials. This to assist regions to foster sustainable, innovative, tangible and participatory initiatives and pathways to an inclusive Circular Bioeconomy (CBE).

The objectives of WP3 'Catalogue biobased solutions and good practice examples' within BIOLOC are to build catalogues of relevant bio-based solutions and good practices that may contribute to the revitalization of the selected European local communities. WP3 is composed of four different tasks and three deliverables as shown in Table 1. This document (D3.3) describes the result of Task 3.3 Inclusion of good practices.

The outcome of Task 3.3 is deliverable D3.3 'Catalogue of good practices' toward the Revitalization of European Local Communities. The catalogue is built considering initiatives implemented already elsewhere in Europe that support local biobased systems and revamp European local communities, focussing on local/regional needs of marginalized people. The catalogue includes examples of good practices related to biobased solutions with balanced technical and social approaches. D3.3 is partly building on solutions described in D3.2, however, in D3.3 these solutions are described in a story-like manner.

This deliverable has been developed in close collaboration with the BIOLOC regional partners and it will be used to support the development of biobased solutions for the revitalization of local communities (WP5). Some of these practices serve as an input for the development of D.4.3 New network-oriented business models (WP4), which focuses on governance, capacity building, and collaborative networks. By leveraging the examples from D3.3, these good practices can evolve into innovative business models that align with emerging market needs and sustainability goals.

TABLE 1. WP3 TASKS AND DELIVERABLES.

Tasks	Deliverables
3.1 Development of the factsheet template, list of different concepts of the biobased catalogue	D3.1 Factsheet template for biobased catalogue
3.2 Development of the catalogue of biobased solutions according to the concepts established in task 3.1	D3.2 Draft catalogue of biobased solutions with an Annex on the development of the Societal Readiness Level (SRL) concept
3.3 Inclusion of good practices	D3.3 Catalogue of good practices
3.4 Presentation of final version of the catalogue	PowerPoint presentation

2. The development of this catalogue

2.1 Stepwise approach

The development of the good practices catalogue was done following the next five steps:

1) **Definition of key elements for good practices**
    a. Aspects like: different stakeholders across different value chains; innovative processes; contribute to strengthening local circular bioeconomy and contribute to beneficial social impact and coherence.
2) **Identification of possible good practices**
    a. Design a long list of biobased solutions from catalogue D3.2 as far as they have potential to address region needs.
    b. Feedback from BIOLOC regions on the catalogue 3.2 to identify good practices and relevant cases and additional information from BIOLOC regional 'learning from experience' examples.
3) **Evaluation and selection of good practices (short list)**
    a. Assess the effectiveness and replicability of each practice based on outcomes (effectiveness, efficiency and reliability), scalability, transferability and sustainability in order to select an limited number (14) of good practices to be further described.
4) **Drafting template for describing good practices**
    a. The template reflects the key elements addressed in step 1.
    b. Construct a story telling template/format to present the information.
5) **Documentation of good practices**
    a. Provide detailed descriptions, implementation steps, and case studies for each practice.
    b. Present the good practices in a user-friendly and accessible way using the template of step 4.

2.2 Step 1 - Definition of good practices in the context of BIOLOC

Good practices can be defined in various ways. However, a common thread in most definitions involves strategies, approaches, and activities proven through research and evaluation to be effective, efficient, sustainable, and/or transferable, consistently leading to the desired outcome.[1]

In the BIOLOC context, good practices have to contribute to regional CBE with a social perspective and involve utilizing renewable biological resources and recycling materials to minimize waste and environmental impact while promoting social well-being. These practices help to create a sustainable and resilient economy with long-term benefits that balances ecological health, social well-being and economic viability.

2.3 Step 2 - Identification of possible good practices (long list)

2.3.1 Examples from Deliverable D3.2

Possible good practices were initially selected from the BIOLOC D3.2 ‘Catalogue of biobased solutions’ (the description of the solutions can be found in Annex 3 of D3.2). The solutions that are relevant to tackle the needs of several BIOLOC regions (see Annex 1 of D3.2), and have shown social commitment were placed on the list. This first selection from this very long list was made by WR based on the description of the needs of the regional partners. Table 2 shows the assessment by WR and the regions of the technical biobased solutions and Table 3 depicts the assessment of the biobased social innovations.

[1] European Website on Integration (europa.eu)

TABLE 2.MATCHING OF REGIONAL NEEDS WITH TECHNICAL BIOBASED SOLUTIONS FROM BIOLOC D3.2.

Solution source Code [2]	Bulgaria	Croatia	Czech Republic	Germany	Greece	Hungary [1]	Italy	The Netherlands	Romania	Slovakia	Slovenia	Spain	Number of suitable regions
MB-B-01	X	X	-	-	-	-	-	-	-	-	-	-	
OTH-01	X	X	-	-	-	-	-	-	-	-	-	GP	2
MB-B-02	X	-	X	-	-	X	X	-	-	X	X	X	
MB-C2.2	X	-		-	-	X	X	-	-	X	-	X	5
MB-C2.3	X	-	X	-	-	X	-	-	-	-	-	X	4
MB-C2.8	-	-	-	-	-	-	GP/X	-	-	-	X	-	2
MB-B-03	-	-	X	-	-	-	-	-	-	X	X	X	
MB-C3.1	-	-	-	-	-	-	-	-	-	X	X	X	3
MB-B-04	X	-	-	-	-	X	-	-	-	-	-	X	
MB-C4.1	X	-	-	-	-	X	-	-	-	X	-	X	4
MB-B-05	X	-	X	-	-	X	-	-	-	X	-	X	
MB-C5.1	X	-	GP/X	-	-	X	-	GP	-	GP/X	-	GP/X	5
MB-B-06	-	X	-	-	X	X	X	X	-	-	-	-	
(P4B-01)	-	X	-	-	X	X	X	X	-	-	-	-	5
MB-B-07	X	-	-	-	X	X	X	-	-	-	-	X	
MB-C7.1	-	-	-	-	-	-	X	-	-	-	-	X	2
MB-C7.2	X	-	-	-	-	-	-	-	-	-	-	GP/X	2
MB-B-08	-	X	X	-	X	X	X	X	X	X	X	X	
MB-C8.1 (P4B-02)	-	-	-	-	-	-	-	-	GP	-	X/GP	-	1
MB-C8.4	-	GP/X	-	-	X	X	-	-	-	-	GP/X	-	4
MB-C8.6	GP	-	X	-	-	X	-	-	X	-	X	X	5
OTH-03	-	X	-	-	GP/X	X	-	X	X	-	GP/X	-	6
BPM-01	GP	-	X	-	-		-	-	-	-	GP/X	X	3
AFV-01	-	X	-	-	X	X	X	-	-	X	X	-	6
OTH-02	-	-	X	-	-	X	X	X	-	X	X	X	7
OTH-04	-	-	-	-	-	-	-	-	-	X	-	GP	1
MB-B-09	-	-	-	-	-	-	-	X	-	-	X	-	
MB-C9.1	GP	-	-	-	-	-	-	X	GP	GP	GP/X	GP	2
MB-B-10	-	X	X	-	X	X	X	X	-	X	X	-	
OTH-05	-	X	X	-	X	X	X	X	-	X	X	GP	8
MB-B-11	-	X	-	-	X	X	-	X	-	X	X	-	
MB-C11.1	-	X	-	-	X	X	-	X	-	X	X	GP	6
MB-B-13	X	X	X	-	X	X	-	X	X	X	X	-	
BR-01	X	X	X	-	X	X	-	X	X	X	X	-	9
MB-B-14	-	X	X	-	X	X	-	-	X	-	-	-	
MB-C12.1	-	X	X	-	X	X	-	-	X	-	-	-	5
OTH-06	-	-	-	X	-	X	X	X		-	X	-	5
OTH-07	-	-	X	-	-	-	-	-	X	-	-	-	2
OTH-08	-	-	GP/X	-	-	-	-	-	GP/X	-	-	-	2

1) According to Hungary, the currently existing solutions reported in D3.2 cannot be described as being innovative or forward-looking for this region, so no GP scores have been given.

2) The explanation of source codes in the tables is as follows: P4B = Power4Bio, MB-C = MainstreamBIO - Small-scale technologies (D2.1 Annex C), MB-D = MainstreamBIO - Social innovations related to small-scale bio-based solutions (D2.1 Annex D), CL = CityLoops, AFV = AgriForValor, BR = BE-Rural, BPM = Bio-based products-from idea to market*15 EU successful studies, OTH = Other solutions identified during BIOLOC project.

TABLE 3.MATCHING OF REGIONAL NEEDS WITH BIOBASED SOCIAL INNOVATIONS FROM BIOLOC D3.2.

Solution source Code [2]	Bulgaria	Croatia	Czech Republic	Germany	Greece	Hungary [1]	Italy	The Netherlands	Romania	Slovakia	Slovenia	Spain	Number of suitable regions
MB-D-01	-	-	-	-	-	X	X	X	-	X	-	X	5
MB-D-02	-	-	-	X	-	X	X	X	X	X	-	-	6
MB-D-03	X	X	GP	X	X	X	GP/X	-	-	-	-	-	6
MB-D-04	-	X	-	-	-	X	X	-	-	-	-	-	3
MB-D-05	X	-	-		-	X	X	-	-	-	-	-	3
MB-D-06	-	-	-	-	-	-	-	-	-	-	-	X	1
MB-D-07	X	-	-	-	-	X	-	-	X	-	-	-	3
MB-D-08	X	-	X		-	X	X	-	-	-	-	X	5
MB-D-10	-	X	-	-	-	-	-	-	-	-	-	-	1
MB-D-11	-	-	-	-	-	X	-	-	-	X	-	-	2
MB-D-12	X	-	-	-	-	X	-	-	-	GP/X	-	-	3
MB-D-13	X	-	-	X	X	-	X	X	-	-	-	-	5
MB-D-14	X	-	-	-	-	-	-	GP	-	-	-	-	1
MB-D-15	-	X	-	-	-	X	GP/X	-	-	-	X	-	4
MB-D-16	-	X	-	-	-	X	X	-	-	-	-	-	3
MB-D-17	X	GP	-	GP/X	-	-	X	-	-	-	-	-	3
MB-D-18	-	-	-		-	-	-	-	-	-	-	-	0
MB-D-19	X	-	X	X	-	-	-	-	-	-	-	-	3
CL-01	X	-	-	X	-	-	-	-	-	-	-	-	2
CL-02	-	-	-	-	-	-	-	-	-	-	X	-	1
CL-03	-	-	-	-	X	-	-	-	-	-	-	-	1
CL-04	X	-	-	GP/X	X	-	X	-	-	-	-	-	4
CL-05	X	-	-	-	-	-	-	-	-	-	-	-	1
CL-06	X	-	-	-	-	-	-	GP/X	X	-	-	-	3
CL-07	X	-	-	-	-	X	-	-	-	-	-	-	2
CL-08	X	-	-	GP/X	-	-	-	-	-	-	-	-	2
CL-09	X	-	-	-	-	X	-	-	-	-	-	-	2
OTH-09	-	-	-	X	-	-		GP/X	X	--	-	-	3
OTH-10	-	X	-	X	-	-	-	-	-	-	X	-	3
OTH-11	-	-	-		-	-	-	X	-	X	-	-	2
OTH-12	X	X	-	X	GP/X	-	-	-	-	-	GP/X	-	5

3) According to Hungary, the currently existing solutions reported in D3.2 cannot be described as being innovative or forward-looking for this region, so no GP scores have been given.

4) The explanation of source codes in the tables is as follows: P4B = Power4Bio, MB-C = MainstreamBIO - Small-scale technologies (D2.1 Annex C), MB-D = MainstreamBIO - Social innovations related to small-scale bio-based solutions (D2.1 Annex D), CL = CityLoops, AFV = AgriForValor, BR = BE-Rural, BPM = Bio-based products-from idea to market*15 EU successful studies, OTH = Other solutions identified during BIOLOC project.

An "X" in the two tables indicates that the solution has the potential match with one of the needs of the specific regions according to the assessment made by WR in BIOLOC D3.2 (page 28 & 29). For this D3.3 the regional partners were asked to perform a quick assessment themselves. This is marked in the two tables by a 'GP' potential good practice.

After this initial assessment of the D.3.2, biobased solutions were further assessed and considered as good practice candidates if they meet one of the following conditions (lines marked in green), all criteria weight equally:

- the example is seen as a potential solution by WR for more than 6 BIOLOC regions (marked as X);
- the example is seen as a potential solution by WR for more than 4 BIOLOC regions (marked as X) and it has also been selected as potential solution by at least 1 BIOLOC region (marked as GP);
- the example is seen as a potential solution by at least 2 BIOLOC regions (marked as GP).

2.3.2 Examples suggested by BIOLOC regional partners

Possible further examples were identified by considering the suggestions of good practices from the 12 BIOLOC regional partners. These suggestions of good practices have been identified during the execution of other BIOLOC project activities like workshops, hub meetings, etc. and are given in Table 4.

TABLE 4.EXTRA EXAMPLES SUGGESTED BY BIOLOC REGIONAL PARTNERS.

BIOLOC-01	Bio-Brezovo: Organic farming production and certification including training for unemployed people and farmers, (Bulgaria)
BIOLOC-02	Organic farm mixed (crop and animal) farming and waste recycling practices engaging local unemployed population (Bulgaria)
BIOLOC-03	Vamvakies -MYROLAND Social Green Project: Cultivation of Mediterranean seasoning herbs to support women and unemployed individuals. (Greece)
BIOLOC-04	Staramaki Social Coop: production of straws from natural wheat stems, to replace single use plastic (Greece)
BIOLOC-05	Waste to warmth: Capitalizing forest shrubberies and the textile residues by employing the available and currently unemployed labour force (Hungary)
BIOLOC-06	Coop Terra Felix: Social agriculture in abandoned areas confiscated from organized crime and social inclusion of people with disabilities (Italy)
BIOLOC-07	Good Shepherd: Traditional farming to help the social integration of people in vulnerable condition. (Slovakia)
BIOLOC-08	Cooperativa Tararaina- ECORADIZ: Revitalization of liquorice cultivation in the Ebro flooding area to empower socially vulnerable women (Spain)
BIOLOC-09	Valentia Foundation: Cultivation of ornamental flowers and food in greenhouses for the inclusion of people with intellectual disabilities (Spain)
BIOLOC-10	Paturpat, improving circularity in the regional potato industry sector (Spain)

2.3.3 Possible examples from other sources

Finally, two good practices were identified by WR (Table 5) that may not exist in the BIOLOC regions, but that are well known-successful projects and cover relevant needs in the BIOLOC context. The first one is a good practice for 9 years already and the second one exists already 40 years.

TABLE 5. EXTRA POSSIBLE EXAMPLES SUGGESTED BY WUR.

BIOLOC-11	Bio&co: Cultivating solidarity, biodiversity and responsibility (Romania)
BIOLOC-12	La Fageda: Social Innovation project for people with mental disabilities with a business perspective (Spain)

2.4 Step 3 - Evaluation and selection of good practices (short list)

The good practices catalogue is a selection (short list) of high potential solutions. The qualification 'high potential' is considered when the solution has already been tested at high TRL, it has relevant social benefits and acceptance identified but aspects such as the replicability of the solutions in the BIOLOC regions or if the solutions can be deployed and competitive at a scale that is needed for the BIOLOC region.

Therefore, the five key elements used to select the local Circular Bioeconomy (CBE) good practices in the context of BIOLOC are described below. To be included in the catalogue the good practice should:

- have a clear description of context, objectives, activities and purpose;
- provide a product or services that contribute to CBE;
- lead to local social well-being;
- have been applied in practice;
- have a high potential to be transferable.

Some criteria that can be used to assess whether the example contributes to CBE and social sustainability are given in Table 6.

TABLE 6. CRITERIA TO ASSESS THE CONTRIBUTION OF AN EXAMPLE TO CBE AND SOCIAL SUSTAINABILITY.

Contribution to CBE	Contribution to Social Sustainability
Promote the deployment of bio-based products and processes, bioenergy, food systems	Engagement of local community participation
Sustainable production and/or consumption	Community development and inclusiveness
Resource efficiency	Contribution to local health and well-being
Product Life Extension or biodegradable products	Promotion of local employment
Sustainable agriculture and forestry	Fair labour practices
Supporting new technical application in CBE	Promotion of education and capacity building

Some examples of integrated concepts in good practices could be:

- Community-Based Renewable Energy Projects/ Local Bioenergy Initiatives
- Collaborative Ownership Models
- Sustainable Product Design and Consumption
- Development of policies that support the transition to a circular bio-based economy while promoting social equity and sustainability.

Given these considerations an assessment of potential good practices examples was made according to the five key elements, which is presented in Table 7. Each of the key elements was marked:


means that the example does not meet the key element and


means that the example does meet the key element

In the catalogue only good practice examples have been described that meet all five key elements.

TABLE 7. ASSESSMENT OF THE POSSIBLE EXAMPLES USING FIVE CRITERIA.

No	Solution Code	Solution Name	Clear context, purpose &	Contribution to CBE	Contribution to Social well-being	Applied in practice	Transferability
		D3.2. Catalogue of biobased solutions					
1.	MB-C5.1	Rotterzwam: Coffee residues based growing producing mushrooms (NL)	✓	✓	✓	✓	✓
2.	MB-C8.1 (P4B-02)	Biowert: Meadow grass silage based mechanical treatment and compounding, producing grass fibre enhanced plastic granulates and natural insulation material (DE)	✓	✓	✗	✓	✓
3.	MB-C8.4	Biomassehof-Chiemgau: Wood residues based mechanical disruption producing pellets for energy applications (DE)	✓	✓	✗	✓	✓
4.	MB-C8.6	Pelletierungs Genossenschaft: Agricultural waste based mechanical disruption producing pellets (AT)	✓	✓	✗	✓	✓
5.	OTH-03	Biopel: Production of wide range of wood fuels (SK)	✓	✓	✓	✓	✓
6.	BPM-01	Biotrem: Wheat bran disposable tableware (PL)	✓	✓	✗	✓	✓
7.	MB-C9.1	Bio-Lutions: Agricultural residue to produce tableware and packaging material (DE)	✓	✓	✓	✓	✓
8.	OTH-05	Bioenergy NEXTgarden: Biomass- CHP combustion plant (NL)	✓	✓	✗	✓	✗
9.	MB-C11.1	Hynoca: Wood waste-based gasification producing renewable hydrogen (FR)	✗	✓	✗	✓	✓
10.	BR-01	ETIA Biogreen: The containerized-mobile pyrolysis unit (FR)	✓	✓	✗	✓	✓
11.	OTH-08	Phytoremediation to produce bioenergy and biofuels (ES, LT, SB, FR, UK, SB, RO)	✓	✓	✓	✓	✗
12.	MB-D-03	Rural Hub: Centre for Education and Personal Development in Nature, an innovative co-working space and educational complex in (Serbia)	✗	✓	✓	✓	✗
13.	MB-D-15	Planeta Madera: An organization for the promotion of sustainable forest management in Spain (ES)	✗	✗	✓	✓	✗
14.	MB-D-17	Haver til maver: Promoting sustainability, food culture, and health among children and young people in Denmark. School gardens (DK)	✓	✗	✓	✓	✓
15.	CL-04	Organizing a contest to encourage new bio-based initiatives (PT)	✓	✗	✓	✓	✓
16.	OTH-12	Usefulwood: Recycling wood from local building sites (UK)	✓	✓	✓	✓	✓
		New Examples from BIOLOC regions					
17.	BIOLOC-01	Bio-Brezovo: Organic farming production and certification including training for unemployed people and farmers, (BU)	✓	✓	✓	✓	✓
18.	BIOLOC-02	Organic farm mixed (crop and animal) farming and waste recycling practices engaging local unemployed population (BU)	✗	✓	✓	✓	✓
19.	BIOLOC-03	Vamvakies -MYROLAND Social Green Project: Cultivation of Mediterranean seasoning herbs to support women and unemployed individuals. (GR)	✓	✓	✓	✓	✓

	Solution Code	Solution Name	Clear context, Purpose & activities	Contribution to CBE	Contribution to Social well-being	Applied in practice	Transferability
20.	BIOLOC-04	Staramaki Social Coop: production of straws from natural wheat stems, to replace single use plastic (GR)	✓	✓	✓	✓	✓
21.	BIOLOC-05	Waste to warmth: Capitalizing forest shrubberies and the textile residues by employing the available and currently unemployed labour force (HU)	✓	✓	✓	✗	✗
22.	BIOLOC-06	Coop Terra Felix: Social agriculture in abandoned areas confiscated from organized crime and social inclusion of people with disabilities (IT)	✓	✓	✓	✓	✓
23.	BIOLOC-07	Good Shepherd: Traditional farming to help the social integration of people in vulnerable condition. (SK)	✓	✓	✓	✓	✓
24.	BIOLOC-08	Cooperativa Tararaina- ECORADIZ: Revitalization of liquorice cultivation in the Ebro flooding area to empower socially vulnerable women (ES)	✓	✓	✓	✓	✓
25.	BIOLOC-09	Valentia Foundation: Cultivation of ornamental flowers and food in greenhouses for the inclusion of people with intellectual disabilities (ES)	✓	✓	✓	✓	✓
26.	BIOLOC-10	Paturpat, improving circularity in the regional potato industry sector (ES)	✓	✓	✓	✓	✓
27.	BIOLOC-11	Bio&co: Cultivating solidarity, biodiversity and responsibility (Romania)	✓	✓	✓	✓	✓
28.	BIOLOC -12	La Fagueda: Social Innovation project for people with mental disabilities with a business perspective (Spain)	✓	✓	✓	✓	✓

2.5 Step 4 - Drafting good practice template

The good practices are presented in a format to effectively convey the essence and impact of solution in an engaging and accessible manner, suitable for dissemination in layman terms and including the above mentioned 'good practice elements' with an emphasis on:

- a Storytelling-narrative format aiming to influence, teach, inspire and forge connections among people, and between people and ideas;
- describing solutions from a social-participatory perspective;
- describing challenges detected, opportunities, social and economic impacts, identification of risk, success factors and lessons learned useful for other regions.

The good practice template (Table 8) was established by the WR team by merging concepts from the technical solution and social innovation reported in D3.2.

TABLE 8. ASPECTS COVER IN THE NARRATIVE DESCRIPTION OF GOOD PRACTICES.

Title: *Enter your project title here*

Location: *Enter your project location*

Keywords: *Enter your project keywords*

1. Introduction: Setting the Scene

Introduce the context of the project, highlighting the main problem and its significance. Set the scene by describing the location social, environmental and/or economic context information on the industry or sector. Mention the main objectives of the project and any relevant historical or situational information.

2. Project Overview

Describe the project in detail, including the main activities involved. Explain the processes and technologies used. Highlight the key products that result from these activities.

3. Actors Involved and Organizational Aspects

Mention the key stakeholders and partners involved in the project. Explain the governance structure and the roles of different actors. Detail how these collaborations and structures support the project's goals.

4. Impacts: Transforming Communities

Local Bioeconomy Development: Discuss the project's impact on the local economy. Highlight job creation, support for local businesses, and any other economic benefits.

Social Well-Being: Describe the social benefits of the project. This could include improved quality of life, health benefits from a cleaner environment, community engagement, or educational opportunities.

5. Financial Aspects

Detail the financial components of the project. Include information on initial investments, operational costs, and the sources of funding. Discuss the financial sustainability and profitability of the project.

6. Challenges for Implementation: Overcoming Hurdles and Transferability

Identify the key challenges faced during the implementation of the project. Discuss how these challenges were overcome. Highlight the potential for transferring the project to other regions or contexts .

7. Conclusion: A Vision for the Future

Summarize the main achievements of the project. Reflect on the broader implications for sustainability and community development. Offer a vision for the future, suggesting how the project can evolve and inspire similar initiatives.

8. Key Takeaways

List the most important lessons learned from the project. Highlight best practices, innovative approaches, and critical success factors. Provide actionable insights for other regions or projects looking to replicate this success.

For More Information: Provide contact details or a website for readers to learn more about the project.

References: List relevant studies, reports, and sources that provide additional information on the project and its impacts.

Pictures: Include images of the process, products, and team to visually support the information provided.

2.6 Step 5 - Documentation of good practices

The good practices identified as most relevant in Step 3 to address the needs of the 12 Regional BIOLOC partners constitute the Catalogue of Biobased Solutions (Table 9). These good practice examples will be further described in detail in Annex 1 according to the format that was developed in Step 4.

TABLE 9. THE SELECTED EXAMPLES OF GOOD PRACTICES TO BE FURTHER DOCUMENTED.

No	Solution Code	Solution Name
1.	MB-C5.1	Rotterzwam: Coffee residues based growing producing mushrooms (Netherlands)
2.	OTH-03	Biopel: Production of wide range of wood fuels (Slovakia)
3.	MB-C9.1	Bio-Lutions: Agricultural residue to produce tableware and packaging material (Denmark)
4.	OTH-12	Usefulwood: Recycling wood from local building sites (UK)
5.	BIOLOC-01	Bio-Brezovo: Organic farming production and certification including training for unemployed people and farmers, (BU)
6.	BIOLOC-03	Vamvakies: Social Green Project: Cultivation of Mediterranean seasoning herbs to support women and unemployed individuals. (GR)
7.	BIOLOC-04	Staramaki Social Coop: production of straws from natural wheat stems, to replace single use plastic (GR)
8.	BIOLOC-06	Coop Terra Felix: Social agriculture in abandoned areas confiscated from organized crime and social inclusion of people with disabilities (IT)
9.	BIOLOC-07	The Good Shepherd: Social inclusion that integrates circular economy principles.(SK)
10.	BIOLOC-08	CooperativaTararaina-ECORADIZ : Revitalization of liquorice cultivation in the Ebro flooding area to empower socially vulnerable women (ES)
11.	BIOLOC-09	Valentia Foundation: Cultivation of ornamental flowers and food in greenhouses for the inclusion of people with intellectual disabilities (ES)
12.	BIOLOC-10	Paturpat, improving circularity in the potato regional agro-industry sector (ES)
13.	BIOLOC-11	Bio&co: Cultivating solidarity, biodiversity and responsibility (RO)
14.	BIOLOC-12	La Fageda: Social Innovation project for people with mental disabilities with a business perspective (ES)

3. Final remarks

The BIOLOC Good Practices Catalogue developed through the BIOLOC project embodies a comprehensive approach to identifying, evaluating, and documenting biobased solutions that can drive regional circular bioeconomy (CBE). By integrating insights from regional partners and leveraging proven examples from diverse sources, the catalogue stands as a resourceful tool for stakeholders aiming to foster sustainable economic growth, environmental stewardship, and social well-being.

The systematic methodology—from defining key criteria to gathering regional input and assessing practices—ensures that the selected good practices are both impactful and adaptable. The emphasis on a storytelling format and comprehensive documentation makes the catalogue user-friendly, bridging the gap between technical details and accessible dissemination.

Ultimately, this catalogue not only highlights innovative solutions but also provides a roadmap for replication, enabling regions to adopt strategies that align with their unique needs. The combined effort of BIOLOC regional partners, expert evaluations, and practical case studies will aid in building resilient, sustainable, and socially inclusive bioeconomy across the BIOLOC regions. We trust that these examples will help the regions to see the importance of collaborative efforts and shared learning in advancing circular bioeconomy goals for long-term regional and global benefits.

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Annex 1. Good practice examples

The following good practice examples are described in this Annex:

- Rotterzwam, growing mushrooms on coffee residues
- BIOPEL, turning wood residues into sustainable fuel pellets
- Bio-Lutions: Renaturing the world of materials
- Usefulwood, Recycling wood-Transforming Lives
- Bio-Brezovo, Ecological Farming and Organic Agriculture
- Vamvakies: A social green project
- Staramaki, unique single-use drinking straws made of wheat
- Cooperative Terra Felix: Championing Biobased-Social Regeneration Project in Campania Region
- The Good Shepherd: The last become first
- Tararaina-ECORADIZ: ecological production of liquorice
- Valentia Foundation, organic cultivation and social inclusion
- Paturpat, improving circularity in the agro-industry sector
- Bio&co, Cultivating solidarity, biodiversity and responsibility
- La Fagueda: A social Project with a business infrastructure

ROTTERZWAM, GROWING MUSHROOMS ON COFFEE RESIDUES

Location: *Rotterdam, Netherlands*
Keywords: *Reuse, Coffee grounds, Mushroom, Oyster mushroom, Food.*

"Rotterzwam believes in a society that closes cycles, makes maximum use of raw materials and consumes more plant-based than animal proteins."

Introduction: Setting the Scene

Many products are transported from ports and rural areas into cities and a large amount of residues is transported out from the cities again. With the tendency of growing cities, transportation increases. Transforming residue streams into new products in the city itself, or in its direct proximity, may reduce traffic in metropolitan areas, while also reducing transportation costs and emissions like GHG and fine particles. However, similar issues apply in rural areas where it makes sense to valorise residue streams locally and keep employment and capital in the region.

Rotterzwam, located in Rotterdam, the Netherlands, has been established in 2013 by two young entrepreneurs with backgrounds in financial services and the energy sector with interest in sustainability. Since then the company has developed and implemented an innovative system of collecting spent coffee grounds from local bars, growing (Oyster) mushrooms on them, and selling the nutritious mushrooms to supermarkets and restaurants in the area. As a result, waste does not have to be transported far

away, and nutritious food does not have to be transported from far away.

Project Overview

The key ingredient for Rotterzwam are the coffee grounds which are collected from local bars. However, in order to grow mushrooms successfully, the coffee grounds are mixed with cereal straw and some lime. But also other substrates may be used such as sawdust, seed hulls, leaves, etc.

Then, the growing of mushrooms is done in old containers. The production consists of multiple stages, ensuring optimal growing conditions. After about 5-8 weeks Oyster mushrooms can be harvested, mushrooms offering a nutritious food containing in particular proteins, carbohydrates, minerals, fibres and vitamins. In the Rotterzwam case, about 16 tonnes of fresh Oyster mushroom is harvested from 80 tonnes of coffee grounds per annum. The mushrooms can be enjoyed as they are, or in processed food such as croquettes. The organic residual flows from the production process can be applied as soil improver in arable farming, when regulations allow it, achieving total circularity.

Short production cycle: The production cycle of Oyster mushrooms is relatively short, about 2 months. After each production cycle the production cells need to be entirely cleaned. This means that each new batch of growing mushrooms in principle can start with another kind of substrate.

The production scale is very much adaptable to the volume of available substrate material or the required mushroom production, going from a few tonnes per annum up to ktonnes. The use of containers even allows moving the production units to places where substrate material becomes available.

The technology is not covered by patents, but specific know-how is required. Therefore, Rotterzwam offers training for local entrepreneurs worldwide for teach how they can set up a similar local initiative. They have already trained over 40 entrepreneurs to start growing mushrooms on coffee grounds themselves.

Actors Involved and Organizational Aspects

The partners of Rotterzwam are quite diverse. First there are the bars where the coffee grounds are collected, the supplier of mushroom strains and the customers of their products such as supermarkets, restaurants and private customers who can buy online. Then there are the enablers such as providers of equipment and installations, as well as financial support like Triodos Foundation. But also the Municipality of Rotterdam and volunteers are key enablers, as well as research partners such as Wageningen University and Research, Louis Bolk Institute, and Ecochain. The approach of Rotterzwam is to

establish and then replicate the business model that has an economic, environmental and social revenue model.

Impacts: Transforming Communities

The solution can be operated in rural areas and cities where wet organic streams become available. Operators of the solution may be farmers but also other persons having room to place the production facilities. The operators require specific know-how, which can be learned by many persons, however, including young people. The mushrooms can be used fresh but can also be used in snacks and even in products like beer. Further, soap can be produced based on the coffee grounds. So potentially other bioeconomy activities can be established next to this solution. The infrastructure may be provided by local or regional enterprises. Thus the solution contributes to job creation locally and stimulates the implementation of circular bioeconomy at local level.

In particular when disposal of organic streams can be converted from landfilling, even when it is a temporary storage of the organic stream before a farmer may spread it over the land as a fertilizer, to other usage such as mushroom production, formation of bio-methane, a strong greenhouse gas, can be reduced.

Edible mushrooms may also contribute to human health. They contain proteins and fibres, but also vitamins B and eventually D, as well as antioxidants which may help to support the immune system and prevent damage to cells and tissues. Own production of mushrooms may stimulate rural communities to strengthen their healthy diet while making the use of expensive dietary supplements superfluous at the same time.

Financial Aspects

Capital required for establishing the facilities was largely collected via crowdfunding; the idea of growing healthy food on local residues may have contributed to the popularity of the initiative.

Facilities of this example case include 8 containers including climate system and installation, area for preparing substrate, mixer, packaging machine, cold room and office. All of this can be sourced locally. Also, the nursery roof is covered with solar panels which fully cover the energy requirement on an annual basis. Solar panels are produced elsewhere, but can be installed by local companies.

Investment costs very much depend on the local situation, such as which facilities, installations and materials can be re-utilized.

This solution used the crowdfunding scheme to start operations and received subsidy from the province of South Holland and the European Union via POP3 scheme. The POP3 is a grant programme for agricultural development, sustainability and innovation in the Netherlands. The company's revenue is generated from coffee grounds collection services and sales of Oyster mushrooms, cultivation kits, training workshops and educational and inspirational talks.

Challenges for Implementation: Overcoming Hurdles and Transferability

An important barrier to enhance circular economy for this solution was within the Laws and Regulations: Coffee grounds were considered waste in the Netherlands, and officially it was not allowed to grow mushrooms on them and sell them. However, during the implementation of this solution, it was possible to change the status of waste for the coffee grounds. With an administrative legal judgment of 'continued use of coffee grounds', Rotterzwam has obtained legal permission to utilize the coffee grounds, thus setting an example for improved circular use of organic residue streams.

A next barrier is that the spent coffee ground substrate is still classified as waste, although it contains a lot of ingredients which make it potentially useful as a fertilizer. In order to stop the most wanted residue stream to end up as waste, Rotterzwam investigated the effect of the organic residual flows from the production process on the quality of the soil, soil organisms and soil biodiversity, with the help of Wageningen University & Reserach, Louis Bolk Institute and Ecochain. The outcome has not yet been reported.

The solution may be of particular interest for (small) rural communities having their own organic residues. To overcome the issue of insufficient amounts of organic residues and insufficient means to invest individually, farmers could collaborate in a cooperative to jointly invest in an adapted scale mushroom production facility as well as to jointly operate the solution and benefit from it. Mushroom production may be accompanied by smell. Mushroom production on coffee grounds are causing less smell issues compared to mushroom growing on conventional straw and horse and chicken manure based substrates.

Conclusion: A Vision for the Future

The easily scalable production of solution provides a high-quality reuse of coffee grounds and production of oyster mushrooms and food snacks, thus contributing to close local loops in urban areas as well as reduction of waste management.

Key Takeaways

The Rotterzwam case provides a local high-quality reuse of coffee grounds and production and selling of nutritious Oyster mushrooms and food snacks; coffee grounds which were treated as waste before. The mushrooms can partially replace e.g. meat, and may contribute directly to reduced logistics and CO_2 emissions.

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BIOPEL, TURNING WOOD RESIDUES INTO SUSTAINABLE FUEL PELLETS

Location: *Kysucký Lieskovec, Slovakia*
Keywords: *Biomass, Renewable Energy, Wood Residues, Sustainability*

"Processing low-quality and waste wood, not useable as high-quality material."

Introduction: Setting the Scene

Leaving material residues unused when there is a much desired application, is a pity. Slovakia has got a vast amount of wood residues which are currently left unused to a large extent. At the same time, fuel prices have increased significantly during these past years. In Kysucký Lieskovec, in the Zilina region in the north of Slovakia, BIOPEL has pioneered since 2012 to convert wood waste into pellets for heating houses. Thus offering the opportunity to replace expensive imported non-circular fossil fuels by renewable energy of local origin.

Project Overview

The BIOPEL process starts with sourcing residues of wood like sawdust from local sawmills, or collecting other wood sources. Larger pieces of wood are first converted into chips using a machine which can produce 200 cubic meters of wood chips per hour. Next, the humidity of the material is reduced by natural drying. And if the moisture content would need to be even lower, a mobile drying unit is used. Finally, when the material has the required small size and low enough humidity, it is compressed and densified into pellets of uniform diameter. These pellets are

ideal for use in heating systems like pellet stoves and boilers.

Actors Involved and Organizational Aspects

BIOPEL can function thanks to the close collaboration of multiple companies, such as local sawmills, forest owners, small processing enterprises, carpenters, and foresters.

The daily management of BIOPEL consists of a board of directors, which is supervised by a supervisory body including all shareholders for ensuring the company's strategic direction and accountability.

Impacts: Transforming Communities

The activities of BIOPEL contribute to local bioeconomy at different levels. A wide range of actors may find an (additional) outlet for their woody biomass residue stream which may otherwise be left unused near the field, in the forest, or just burnt to get rid of the waste stream. These actors include companies as well as farmers and forest owners, and eventually even private owners of a couple of trees which need to be pruned at intervals. This may create (season) jobs at farmers and forest owners, or generate some small additional income for private tree owners.

At the other end, the produced pellets may be sold to a wide group of customers, such as power plants, companies with heat demand, or households in want of keeping their homes warm. The local sourcing reduces reliance on imported fuels, promoting energy independence and fostering a resilient local economy while keeping the currency in the country and even in the region. Further, when replacing fossil fuels, using wood pellets may significantly reduce greenhouse gas emissions.

Beyond economic benefits, BIOPEL activities enhance social well-being. The creation of local jobs supports community stability and the livelihood of a significant number of stakeholders, while the use of renewable energy sources contributes to climate change mitigation. This dual benefit underscores the beneficial impact of such a basically simple socio-technological solution.

Financial Aspects

The journey to transforming wood waste into valuable pellet fuel involves significant initial investment and operational costs. BIOPEL is financially supported by grants from Norway, credit from Tatra bank, and the company stakeholders' own resources. This diverse funding portfolio indicating that significant effort is required to set up such operation.

Challenges for Implementation: Overcoming Hurdles and Transferability

Biopel's journey has not been without challenges. The high initial investment and operational costs

posed significant hurdles. Securing financial support was crucial, and Biopel relied on grants from Norway, credit from Tatra banka, and its own resources to get started.

Another challenge was public perception. Encouraging communities to adopt eco-friendly fuels required continuous education and awareness campaigns. Biopel had to demonstrate the benefits of their products and convince people of the importance of renewable energy.

However, the potential for transferability is promising. The technology and processes used by Biopel can be adapted and implemented in other regions with similar wood waste issues. By sharing best practices and lessons learned, Biopel can inspire and guide other communities in developing their own sustainable biomass projects. This transferability can lead to a broader impact, extending the benefits of renewable energy and waste reduction to a global scale.

Conclusion: A Vision for the Future

The BIOPEL approach differs from large scale overseas monoculture forest-based pellets by using local, diverse and residue stream based feedstock to produce renewable energy. Thus, BIOPEL helps creating and supporting resilient local economies, and contributing to a greener future for the region and a more sustainable world.

Key Takeaways

The BIOPEL solution combines a broad range of benefits. It sources local raw material which may otherwise be (partly) left unused or just burnt. This feedstock is converted into a biobased fuel which can serve the demand of a broad range of customers such as power plants, and both companies and household in need of heat and warmth. At the same time, it reduces the dependence on imported (fossil) fuels while reducing CO_2 emissions. And maybe most of all, it creates local jobs and promotes a resilient local and circular economy. However, challenges to replicate such solution need to be considered, such as the need of a wide network of suppliers and customers, together with sufficient capital to invest in equipment and start up production and bringing products to the market.

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BIO-LUTIONS, RENATURING THE WORLD OF MATERIALS

Location: *Hamburg, Germany*
Keywords: *Food Agricultural residues, circular economy, tableware and packaging material.*

"It is time to bring nature back into the world of materials!"

Introduction: Setting the Scene

Each year around 10 million tonnes of plastic waste end up in nature, surface waters and oceans. This plastic pollution, also called 'the plastic soup', poses a huge tread to ecosystems, and the human food chain as well. Bio-Lutions, a pioneering company founded in Germany, has developed a technology to make biodegradable packaging solutions from agricultural waste, thus offering sustainable alternatives to conventional plastics, contributing to a circular economy, and helping to create a cleaner, greener planet.

may reduce traffic in metropolitan areas, while also reducing transportation costs and emissions like GHG and fine particles. However, similar issues apply in rural areas where it makes sense to valorise residue streams locally and keep employment and capital in the region.

Project Overview

Bio-Lutions specializes in utilizing agricultural residues such as tomato trunks, cereal straw, hemp, banana trunks, sugarcane leaves, and rice straw to produce high-quality biodegradable packaging materials.

The production process involves several key steps:

• Collection, Drying, and Shredding of the feedstock: The company gathers various plant residues and prepares them for processing.

• Mechanical Refining: Without using heat or chemicals, these residues are refined into self-binding micro and nano fibrillated fibres, named 'FIBCRO®'. This innovative and patented approach does not extract any components from the raw materials, ensuring maximum utilization of agricultural waste.

• Pulp formation and Shaping: The fibres are mixed with water to create a pulp, which is then pressed into the desired shapes for a range of products. The final products are hot-pressed using bio-heat, requiring only 3.5 litres of water for every kilogram of product manufactured.

The products include disposable tableware and packaging, but also sporting goods, car panels, furniture and insulation for building and construction can be made. With a capacity of 1,500 to 2,000 tons of input per year in India and an ambitious plan to establish a facility in Germany with a capacity of 72,000 tons per year, Bio-Lutions is poised to make a first step on the sustainable packaging market.

Bio-Lutions also teamed up with PulPac, a dry moulded fibre pioneer, to develop dry moulded products to save water resources and energy.

Actors Involved and Organizational Aspects

Bio-Lutions operates through a collaborative model that involves multiple stakeholders, including local farmers, agricultural cooperatives, logistics companies, and research institutions. By sourcing agricultural waste locally, the company ensures a steady supply of raw materials while promoting sustainable agricultural practices. The (potential) customers of the plant include a wide variety of sectors, thus allowing to spread the risk of sales.

The governance structure focuses on providing technology to partners interested in establishing production plants, fostering a network of decentralized facilities that can adapt to local needs. This model empowers communities by valorising agricultural residues, creating job opportunities, and promoting local economies.

Bio-Lutions is headquartered in Hamburg, and opened its first factory in Bangalore in the Indian state of Karnataka in 2008.

Impacts: Transforming Communities

The impact of Bio-Lutions extends beyond environmental benefits; it significantly transforms communities by fostering economic development and social empowerment. With approximately 80 employees at its Indian facility, the cooperative supports rural livelihoods in areas that often face economic challenges. The company's innovative use of agricultural waste not only enhances local economies but also raises awareness about sustainability and waste management. By providing a sustainable alternative to single-use plastics, Bio-Lutions encourages consumers and businesses to adopt environmentally friendly practices, fostering a culture of sustainability and attention for the environment.

Financial Aspects

Bio-Lutions employs a comprehensive financial strategy to support its innovative projects. Initial investment costs for establishing production facilities are estimated at €8.3 million.

The company generates revenue through the sale of biodegradable products, including disposable tableware, packaging items, and potentially a range of other products. Financial support is also sought through partnerships and grants focused on sustainability and technological innovation, allowing Bio-Lutions to expand its production capacity and product offerings.

Challenges for Implementation: Overcoming Hurdles and Transferability

The use of agricultural residues as a feedstock also comes with challenges in implementation. One significant hurdle is the need for the processing facilities to be located close to feedstock sources, ideally within 60 kilometers, to minimize transportation costs and environmental impact. Additionally, the company requires a qualified workforce with expertise in the paper industry to ensure efficient production operations.

Adequate infrastructure, including transportation and power and water supplies, is essential for the successful implementation of the Bio-Lutions model. Addressing these challenges will be crucial for the implementation of the company's innovative solutions for different regions and markets.

Conclusion: A Vision for the Future

Bio-Lutions approach allows to make sustainable materials for the packaging industry, thus offering alternatives to plastic waste and environmental degradation. The larger the number of production facilities, the larger the impact. Bio-Lutions is committed to building strong partnerships to contribute to circular economies and create a more sustainable future. Their vision encompasses not only environmental sustainability but also economic resilience and social equity, ensuring that all communities benefit from the transition to greener practices.

Key Takeaways

The Bio-Lutions model transforms agricultural waste into high-quality biodegradable packaging, providing an alternative to plastics, eventually ending up as pollution in nature, 'the plastic soup'.

The company's approach supports local economies by sourcing materials from farmers and creating job opportunities in rural areas. It is a Collaborative Model with feedstock providers, logistics companies, and research institutions enhance sustainability and innovation. Workforce qualification and infrastructure development are key challenges to address for the implementation of this technology. Bio-Lutions aspires to contribute to a truly circular economy, promoting environmental and social benefits for all communities.

For More Information:
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USEFULWOOD, RECYCLING WOOD-TRANSFORMING LIVES

Location: *Woking, United Kingdom*
Keywords: *Waste wood collection, wood recycling, training for unemployed people..*

"Recycling reduces use of virgin timber and avoids emissions from landfill."

Introduction: Setting the Scene

In a world increasingly aware of the importance of sustainability, a UK-based organization, Usefulwood, has emerged as a example for both environmental conservation and community empowerment. Established with a clear mission to promote sustainable woodworking practices, Usefulwood seeks to bridge the gap between responsible resource use and the development of local communities. Against the backdrop of growing concerns over deforestation and the loss of biodiversity, this organization has embarked on a journey to transform the way we think about woodworking, placing environmental stewardship and social impact at the heart of its operations.

Project Overview

The Usefulwood's core mission revolves around sustainable woodworking, focusing on the responsible use of wood resources while uplifting local economies and artisans. The organization's activities are diverse, encompassing everything from the collection of wood from small construction sites to the creation of value-added wood products. By charging a small fee to collect leftover wood from construction sites, they ensure that this valuable resource does not go to waste. After collection, the wood is meticulously cleaned and prepared for resale, often finding new life in small building projects or Do it yourself (DIY) projects. Additionally, Usefulwood operates a workshop where these collected materials are transformed into products, further exemplifying the potential of sustainable practices.

At the heart of these operations lies a commitment to community involvement. Volunteers, ranging from seasoned woodworkers to complete novices, work alongside each other, gaining valuable skills and experience. This

collaborative environment not only fosters a sense of community but also serves as a stepping stone for those seeking to re-enter the workforce, offering them training, support, and the confidence needed for future employment.

Actors Involved and Organizational Aspects

Usefulwood Company is a not-for-profit social enterprise and registered charity. The success of this project is rooted in the collective efforts of various actors, each playing a crucial role in driving the organization's mission forward. The founders and leadership team behind Usefulwood, providing strategic direction and ensuring that the organization stays true to its mission of sustainability and community empowerment. They are supported by a dedicated team of staff, supervisors, and volunteers, who bring the organization's initiatives to life.

Volunteers are the backbone of Usefulwood, contributing their time and energy to a range of activities, from wood collection to customer assistance in the wood store. Importantly, Usefulwood welcomes individuals with diverse backgrounds, emphasizing that no prior woodworking experience is necessary. The focus is on fostering a supportive environment where everyone, regardless of skill level, can contribute meaningfully.

Partner organizations, including environmental NGOs, forestry associations, educational institutions, and governmental agencies, play a pivotal role in advancing Usefulwood's goals. These collaborators bring expertise, resources, and networks that enhance the organization's ability to make a broader impact. Lastly, the community members themselves are both beneficiaries and active participants in Usefulwood's initiatives, contributing to and reaping the rewards of the organization's sustainable practices.

Impacts: Transforming Communities

Usefulwood's impact extends far beyond its immediate operations, contributing significantly to the development of the bioeconomy. By promoting responsible wood sourcing and supporting local woodworkers, artisans, and communities, the organization stimulates economic growth and job creation in the area. This reduces unemployment and fosters entrepreneurship within the woodworking sector.

Socially, Usefulwood serves as a transformative force in the lives of its volunteers and community members. The organization offers a unique opportunity for individuals, particularly those seeking to re-enter the workforce, to gain valuable skills and experience in a supportive environment. Both men and women are welcomed with open arms, and all necessary training and equipment are provided, ensuring that everyone has the tools they need to succeed. This focus on inclusivity and empowerment is at the core of Usefulwood's mission, making it a true social enterprise.

Usefulwood's activities not only create value-added wood products but also help to preserve forests and promote biodiversity, ensuring that

future generations can continue to benefit from these vital resources.

Financial Aspects

As a non-profit organization, Usefulwood relies heavily on external support to sustain its operations. While the collection and resale of wood generate some revenue, these activities alone are not sufficient to cover the costs of running the organization. Therefore, sponsorships and donations are crucial to maintaining and expanding Usefulwood's impact. The organization continually seeks out financial support from individuals, businesses, and philanthropic organizations that share its vision of a sustainable and socially responsible future.

Challenges for Implementation: Overcoming Hurdles and Transferability

Like any ambitious project, Usefulwood faces several challenges in its quest to create lasting change. One of the most pressing issues is the need for ongoing financial support. While the organization has made significant strides in building a self-sustaining model, it still requires external funding to fully realize its potential. Securing long-term sponsorships and donations is essential to overcoming this hurdle and ensuring the continued success of Usefulwood's initiatives.

Another challenge lies in the transferability of Usefulwood's model to other regions. While the organization has achieved success in its local context, replicating this model elsewhere would require careful consideration of local conditions, including the availability of wood resources, the level of community engagement, and the presence of potential partners. Nonetheless, Usefulwood's approach offers valuable insights and a potential blueprint for similar initiatives in other parts of the world.

Conclusion: A Vision for the Future

Looking ahead, Usefulwood envisions a future where sustainable woodworking practices are the norm rather than the exception. The organization aims to continue expanding its impact, both locally and beyond, by fostering partnerships, enhancing its operations, and inspiring more individuals and businesses to adopt eco-friendly practices. With the right support, Usefulwood believes that it can play a key role in shaping a more sustainable and socially responsible future for the woodworking industry.

Key Takeaways

The organization's activities include wood collection, resale, product creation, and volunteer training, all aimed at promoting responsible resource use and supporting local economies. Usefulwood contributes to the local bioeconomy by creating jobs, fostering entrepreneurship, and promoting environmental conservation. The organization's vision for the future is one of widespread adoption of sustainable woodworking practices, leading to a more sustainable and socially responsible industry. Financial support is essential for the organization's continued success, and challenges remain in terms of securing funding and transferring the model to other regions.

For More Information:

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[1] https://www.usefulwood.org/

Pictures sources:
https://www.usefulwood.org/

BIO-BREZOVO, ECOLOGICAL FARMING AND ORGANIC AGRICULTURE

Location: *Brezovo, Bulgaria*
Keywords: *Organic farming, high quality local and traditional products, eco-tourism*

"Bio Brezovo, a synonym for the highest standard and guarantor of quality in the field of organic farming."

BIO BREZOVO

Introduction: Setting the Scene

In the rural region of Plovdiv, centrally located in Bulgaria, traditional agri-food industry is the main economic activity and there is a high availability of residual biomass and by-products. Valorisation of these residue streams requires both implementation of new technologies and development of new valorisation pathways to increase the profitability of the sector. At the same time, the region faces people migrating out of the region, while already there is a lack of skilled workforce.

The municipality of Brezovo, which is located in the eastern part of the Plovdiv region, joined forces with the Agricultural University of Plovdiv (AUP) to coordinate two projects: one for setting up a Consultative Center for training of small-scale farmers, local agri-food companies, minority groups, self-employed (seasonal) workers, entrepreneurs; and one for the development and valorization of the economic potential of the Municipality of Brezovo through the creation, promotion and enforcement of the brand 'Bio Brezovo'. The main goal of the initiatives is to connect Brezovo's local communities with bioeconomy stakeholders, enhancing their capacities to find employment or start agri-food businesses. These efforts align with broader goals of poverty reduction, social inclusion and sustainable development.

Project Overview

The Consultative Center for Organic Agriculture focusses to provide a set of services to help farmers and food processors to switch from conventional to organic farming in their farms or businesses, including assistance in finding markets for their organic produce. For this purpose, four unemployed persons having higher education already were assigned to coordinate the project activities. They were trained by educators from AUP and took over the advisory and administrative role in the Centre.

The capacity building Training Programme focussed on a couple major topics. Farmers and processors who want to switch from conventional to organic farming and/or processing were taught and trained about various benefits, techniques, new trends, certification and other aspects of organic farming, aligning with global trends on eco-friendly farming practices. Also, courses on financial accounting and control for farmers were developed and held. For the support of starters in the field of agriculture and animal husbandry, trainings of entrepreneurial knowledge and skills were offered, among others on involving socially disadvantaged groups and marginal groups.

For the promotion of the organic products from Brezovo municipality, a 'Bio Brezovo' brand has been developed and introduced. Farmers are encouraged to join and get their products certified. The first aim of this brand is improving the business capacity of hoteliers and restaurateurs in the municipality of Brezovo.

Actors Involved and Organizational Aspects

The key actors involved in this project include the Municipality of Brezovo, the Agricultural University of Plovdiv (AUP), and local agri-food businesses. Regional authorities are working hand-in-hand with small-scale farmers, unemployed individuals, and marginalized communities, offering training to develop entrepreneurial skills and organic farming techniques. The Consultative Center's advisory role is primarily supported by trained personnel, including four unemployed people who were provided with specialized education from AUP. Other involved stakeholders include minority groups and small business owners.

Impacts: Transforming Communities

The projects are designed to uplift socially disadvantaged groups by providing them with the skills and knowledge to enter the bioeconomy. Through organic agriculture training and entrepreneurial development, local unemployed individuals are now better equipped to start their own ventures or find jobs within the agri-food sector. Over 175 people already attended the capacity building Programme for the unemployed people. The impact of this project extends beyond the participants. By embracing organic farming and animal husbandry, the community is not only preserving the environment by tackling soil contamination caused by excessive pesticide use, but also creating new opportunities for economic development. Further, a significant impact is made by improving resource efficiency, waste management, and sustainable agricultural practices. The initiative has enhanced the skills and knowledge of disadvantaged groups in Brezovo, enabling them to participate more actively in the regional bioeconomy.

Financial Aspects

The project was financed under the program 'Local development, poverty reduction and improved inclusion of vulnerable groups' through the support of the Financial Mechanism of the European Economic Area 2014-2021, which is funded by donor countries such as the Norwegian Association of Local and its international partner organisation the Council of Europe. This financial

support was vital for establishing the Consultative Center, developing training material, training activities, other expert services and promoting the 'Bio Brezovo' brand.

Challenges for Implementation: Overcoming Hurdles and Transferability

The project has faced several challenges, including the reluctance of some local farmers to transition to organic farming and the need to convince employers to hire individuals from vulnerable groups. On the other hand, persons from marginalized groups needed to be convinced of the rational and benefits of elevating their knowledge, skills and qualification in bioeconomy and to practice more their own entrepreneurial skills.

This project offers a model that can be replicated in other regions with similar challenges, highlighting the importance of collaboration, education, and community involvement. Despite the enthusiasm, challenges such as limited financial resources, resistance to change from traditional practices, and the need for continuous education will need to be overcome. However, the project success in Brezovo provides a model that can be replicated in other rural areas with similar conditions.

Conclusion: A Vision for the Future

The Brezovo initiative is more than just a local project; it represents a vision for the future where rural communities thrive through sustainable practices and active participation in the bioeconomy. With necessary investments, education and entrepreneurship training results in many benefits, including improved sustainable business opportunities, increased skilled workforce, improved soil quality and social inclusion of marginalized groups. The success of this initiative could inspire other regions to adopt similar models, leading to broader social and economic transformations in many other regions.

Key Takeaways

The Bio-Brezovo case is an example of community empowerment as the project is empowering vulnerable groups through education and sustainable practices. The initiative promotes organic farming and resource-efficient practices to reduce environmental degradation; it aims at permanent reduction of unemployment by creating jobs and enhancing skills. The local involvement and effective partnerships between local authorities, educational institutions, and various groups within the communities are key to its success. Overcoming scepticism towards organic farming and bioeconomy benefits are hurdles to be tackled for long-term success. Bio-Brezovo is a model for other regions facing similar challenges in economic and social development.

For More Information:
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https://www.biobrezovo.bgo

VAMVAKIES, A SOCIAL GREEN PROJECT

Location: *Western Macedonia, Greece*
Keywords: *Agrivoltaic cultivation, support for women and unemployed individuals*

"Our Creating Shared Value initiatives are fully in line with the 17 UN Sustainable Development Goals."

Introduction: Setting the Scene

In the Kozani region of Northern Greece, a forward-thinking initiative unfolded: The Vamvakies Social Green Project, an innovative agrivoltaic venture and educational program which aimed to promote agri-food entrepreneurship mixing renewable energy with sustainable agriculture. At its heart, the project supports local women and unemployed individuals through the cultivation of Mediterranean seasoning- aromatic herbs in the grounds of a solar park in order to supply Europe's first agricultural products from a solar park. Furthermore, the project also actively supporting the local community through continuous initiatives in the village of Polymylos.

Project Overview

The Vamvakies project combined solar energy generation with herb farming, a pioneering model where PV panels co-exist with agricultural production. Women from the area were empowered to cultivate Mediterranean herbs, such as oregano and thyme, contributing to local

employment and fostering a sustainable economy. The harvested herbs were intended for national and international markets, introducing a new agricultural product into a region that was once economically stagnant.

A small group of women cultivated aromatic herbs, both in the open spaces of the park and under the panels. The women were supported by a team of advisors and experts, with the aim of becoming micro-entrepreneurs, marketing these original products and earning a substantial income. From the project's crops, the MYROLAND series of products was created, which consists of: spices for chicken, spices for pork, a Mediterranean mixture of herbs, as well as herbal drinks with the flavor of melomakarono, tsoureki, banoffee and paliouri. This is the first time in Europe that a series of products from the land of a solar park has been launched on the market.

At the same time, educational programs were organized and made available to all Kozani residents in order to promote and enhance entrepreneurship. The seminars took place online and were supported by a large team of experienced trainers who supported the participants in every stage of their business career.

Actors Involved and Organizational Aspects

The Vamvakies Social Green Project was initiated by Principia Energy, a company specializing in renewable energy and sustainable solutions, in partnership with Wise Greece, a non-profit organization thar helps the small Greek producers -the backbone of the Greek economy- to develop, to promote and to export their products and the Cluster of Bioeconomy and Environment of Western Macedonia (CluBE), under the auspices of the Municipality of Kozani. The project focused on empowering individuals in the Kozani Prefecture and surrounding areas by promoting entrepreneurship and providing career opportunities, particularly in the food industry. It combines sustainable agricultural practices with social impact initiatives to support women and unemployed individuals in the region.

The program is divided into 2 sub-projects: the empowerment of a small group of women farming in the Vamvakies PV plant area and the provision of free educational seminars on various topics for all the residents of Kozani.

Impacts: Transforming Communities

Vamvakies is more than an agricultural initiative; it's a social transformation. By offering training and employment to women and unemployed individuals, it provides a pathway to economic independence while strengthening the local community. Additionally, the project contributes to regional sustainability goals by fostering a circular economy and reducing carbon footprints through agrivoltaic innovation.

Financial Aspects

The project relies on public-private partnerships, regional funding, and sustainable investment strategies to cover initial costs. The cultivated herbs, with their strong market demand in Europe, provide a financial return that ensures the long-term viability of the initiative. Moreover, the project's dual-purpose land use, combining solar energy production with agriculture, optimizes land

utilization, reducing the need for additional land purchases.

Challenges for Implementation: Overcoming Hurdles and Transferability

Implementing an agrivoltaic system involves organizational challenges in coordinating multiple stakeholders. The need for specialized infrastructure and consistent maintenance of both solar panels and environmental factors affecting agricultural activities requires ongoing collaboration between these two areas. However, the project's success demonstrates its potential transferability to other regions where renewable energy production can be combined with local agriculture, offering a model for rural development across Europe.

Conclusion: A Vision for the Future

The Vamvakies project offers a hopeful glimpse into a future where sustainable energy and agriculture not only coexist but thrive together. By fostering social inclusion and environmental responsibility, the project showcases a replicable model for rural revitalization in Europe and beyond.

The Vamvakies Social Green Project was honored for its Innovation and Social Impact with the Bravo Sustainability Award in the Society and Partnerships category and with the Gold Hellenic Responsible Business Award in the Decent Work & Economic Growth category. The Vamvakies Social Green Project is aligned with Goal 4 (Quality Education), Goal 5 (Gender Equality) and Goal 8 (Decent Work & Economic Growth).

Key Takeaways

Vamvakies is an agrivoltaic initiative combining renewable energy and herb farming. The project empowers women and unemployed individuals, transforming local communities. Financial sustainability comes from strategic partnerships and the European herb market. Challenges involve maintaining dual-purpose land, however the model is transferable to other regions.

For More Information:

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STARAMAKI, UNIQUE SINGLE-USE DRINKING STRAWS MADE OF WHEAT

Location: *Kilkis, Grece*

Keywords: *Natural wheat stems, secondary raw material, alternative to plastic, social cooperative*

"Staramaki is fully compatible with the European and National Legislation."

Introduction: Setting the Scene

In the northern Greek city of Kilkis located in the region of Central Macedonia, a unique initiative has been developed. This is a local project with a story of innovation, sustainability, and community empowerment. A group of volunteers sought to reduce plastic usage and created "Staramaki," a term blending "kalamaki" (straw) with "stari" (wheat). The product is made from discarded wheat shafts, these straws offer a sustainable alternative, responding to the European Commission's ban on single-use plastics. Staramaki, collaborates with local farmers to

support the region's economy, highlighting Greece's potential for innovative solutions within a circular economy. residue streams locally and keep employment and capital in the region.

Project Overview

The heart of the project lies in the simple idea of turning a byproduct of farming into something valuable. The initiative is all about taking the leftover straw from wheat farming and transforming it into eco-friendly, biodegradable drinking straws. The production is simple, involving cutting and sterilizing the wheat stems without chemicals. These straws are a sustainable alternative to plastic, addressing the global challenge of plastic pollution.

Actors Involved and Organizational Aspects

Staramaki is a Social Cooperative Enterprise. This ambitious project brings together a diverse group of actors, each playing a crucial role in making it a reality. Local farmers are at the forefront, supplying the wheat straw that forms the raw material. Staramaki social enterprise handles the production and distribution of the staramaki straws.

Impacts: Transforming Communities

The impacts of the Staramaki project are relevant and far-reaching. Environmentally, Staramaki's straws is an alternative to plastic straws which, despite the European ban, are still used and for paper straws that often contain harmful PFAs and are typically shipped in containers from Asia. Therefore, this product reduces waste and cuts down on the use of harmful plastics, offering a natural alternative that decomposes without leaving a trace. Economically, it creates new income streams for local farmers and jobs in production, helping to revitalize rural areas that have been struggling with economic decline. Socially, it fosters a sense of community and shared purpose, as everyone involved works together towards a common goal. This project doesn't just produce straws; it builds stronger, more resilient communities.

Financial Aspects

From a financial perspective, the project is a model of sustainability. Staramaki hit the Greek market in 2019 and has both retail and wholesale channels. It has already cooperated with well-known global brands such as Nestlé and L'Oréal.

The initial investment comes from a combination of impact investing and grants. Revenue is generated through the sale of the eco-friendly straws, which are marketed both locally and internationally.

Challenges for Implementation: Overcoming Hurdles and Transferability

Like any groundbreaking initiative, the Staramaki project has faced its share of challenges. One of the main hurdles has been changing the mindset of both producers and consumers. Farmers needed to see the value in what was once considered waste, and consumers had to be educated about the benefits of using biodegradable products. Additionally, the process of setting up production facilities and ensuring consistent quality required significant effort. Despite these challenges, the project has proven that with determination and collaboration, such hurdles can be overcome. Importantly, the Staramaki model is designed to be transferable, offering a blueprint that can be adapted in other regions facing similar environmental and economic challenges.

The solution may be of particular interest for (small) rural communities having their own organic residues.

Conclusion: A Vision for the Future

The Staramaki project is more than just a local initiative, it represents a vision for a sustainable future. By turning waste into a resource, it shows how innovative thinking can address some of the world's most pressing issues, from plastic pollution to rural economic decline. As the project continues to grow, it serves as an inspiration for other communities to take control of their future, leveraging local resources to create lasting positive change.

Key Takeaways

Staramaki project is not just changing the way we think about waste but it's offering a blueprint for other regions to replicate, promoting sustainability by turning agricultural waste into eco-friendly products and enhancing community empowerment; local farmers, cooperatives, and social enterprises work together to create jobs and strength community bonds and economic revitalization by generating new income streams and reinvests profits locally.

For More Information:

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Pictures sources:
https://www.staramaki.gr/e

COOPERATIVE TERRA FELIX, BIOBASED-SOCIAL REGENERATION PROJECT IN CAMPANIA REGION

Location: *Campania, Italy*
Keywords: *Social agriculture, confiscated areas from organized crime, social inclusion*

"Inspiring people, communities and territories to generate well-being for a more sustainable future."

Introduction: Setting the Scene

The Cooperative Terra Felix, located in the Campania region of Italy, is a forward-thinking organization dedicated to biobased social innovation. With a mission to restore local ecosystems, reclaim lands, and promote social inclusion, Terra Felix integrates organic farming, environmental education, and social regeneration into its sustainability model. One of its most innovative initiatives is the cultivation of cardoon for bioplastic production on lands confiscated from organized crime, creating a unique blend of environmental, economic, and social impact.

Project Overview

Terra Felix operates by leveraging natural resources and sustainable practices to transform the local environment and empower the community. Key areas of focus include social agriculture, educational activities, consulting

services, and social regeneration of confiscated properties:

Social Agriculture: The cooperative adopts natural farming methods that prioritize ecological agriculture, with a focus on including disadvantaged groups in the labour force. Terra Felix promotes the cultivation of traditional local products and educational gardening to foster awareness of sustainable agriculture.

Educational Activities: Terra Felix conducts various environmental education programs, primarily through its Ecomuseum, where students learn about sustainable development models and environmental stewardship.

Consulting Services: The cooperative offers consulting services to public and private organizations, helping them integrate sustainable development strategies, environmental protection, and waste management into their operations.

Social Regeneration of Confiscated Properties: As an accelerator of territorial regeneration processes with sustainable civil economy activities, Terra Felix has initiated projects on properties confiscated from organized crime.

An example is the Cardoon Cultivation and Bioplastic Production project. As part of its efforts to revitalize confiscated lands and contribute to the local bioeconomy, Terra Felix launched a pioneering project centred around the cultivation of cardoon, a robust Mediterranean plant. This initiative serves both symbolic and practical purposes, reclaiming land for productive use while advancing sustainable agricultural and industrial practices.

On lands previously controlled by organized crime, Terra Felix has established organic cardoon cultivation fields, working with local farmers and volunteers. The plant, well-suited to Mediterranean climates, is grown using sustainable agricultural methods and plays a role in environmental restoration by improving soil health and supporting local biodiversity.

Through projects like the cardoon cultivation for bioplastics, the cooperative plays a significant role in promoting bioeconomy in the region. In a strategic partnership with Novamont, Terra Felix is exploring the use of cardoon biomass to produce bioplastics, which are biodegradable and environmentally friendly. This partnership introduces advanced bioplastic technology to the region, replacing conventional plastics and promoting circular economy principles. The cardoon's dual-use potential is further enhanced by mushroom cultivation, using residual biomass from the bioplastic production process, which minimizes waste and maximizes economic return. key ingredient for Rotterzwam are the coffee grounds which are collected from local bars. However, in order to grow mushrooms successfully, the coffee grounds are mixed with cereal straw and some lime. But also other substrates may be used such as sawdust, seed hulls, leaves, etc.

Actors Involved and Organizational Aspects

Organizationally, Terra Felix operates as a social cooperative, integrating economic activities with its social mission. It thrives on a participatory governance model, allowing diverse stakeholders to contribute to its decision-making processes, ensuring that all projects align with environmental, social, and economic sustainability goals. Terra Felix collaborates with various stakeholders, such as:

Local Farmers who play a critical role in sustainable agricultural production, particularly in the cultivation of cardoon and other crops that support the bioeconomy.

Educational Institutions to collaborate in environmental education programs.

Companies like Novamont a leader in bioplastic production that brings technological innovation to the region through its partnership with Terra Felix, utilizing cardoon as a bioplastic feedstock.

Organizations focused on social inclusion, ensuring that marginalized groups are integrated into agricultural and production activities, thereby creating job opportunities and fostering social integration.

Impacts: Transforming Communities

The impact of Terra Felix's work, particularly the cardoon cultivation project, extends across the bioeconomy, social inclusion, and environmental regeneration.

By promoting sustainable agricultural practices through the cultivation of cardoon, Terra Felix helps reduce CO2 emissions, enhance soil health, and provide feedstock for the bioplastic industry. Its partnership with Novamont allows Terra Felix to contribute to the creation of biodegradable, eco-friendly plastics, reducing reliance on fossil fuels and supporting circular economy principles.

Terra Felix offers employment opportunities to disadvantaged groups, including long-term unemployed individuals, immigrants, and those with disabilities. By involving these individuals in the cardoon cultivation and mushroom production processes, the cooperative fosters social integration and strengthens community ties. Additionally, the project serves as a symbol of resistance against organized crime, turning confiscated lands into symbols of hope and renewal.

The restoration of degraded lands through sustainable cardoon cultivation contributes to the regeneration of ecosystems, improving biodiversity and soil quality. The project also helps mitigate climate change by promoting agricultural practices that sequester carbon and reduce environmental degradation.

Financial Aspects

The Cooperative Terra Felix finances its activities through a mix of public and private funding which include Public Grants from local, regional, and national governments, often related to social inclusion, environmental protection, and rural development programs. European Union Funding from programs like the European Agricultural Fund for Rural Development (EAFRD) and Horizon Europe, supporting bioeconomy and sustainability projects.

They also get revenue from Agricultural Products and Consulting Services, generated through the sale of organic crops and advisory services on sustainability. Private Sector Partnerships, such as with Novamont, offer both financial and technical support for joint projects like bioplastic production and finally donations from organizations or individuals aligned with its mission.

Challenges for Implementation: Overcoming Hurdles and Transferability

Terra Felix has achieved remarkable progress, however the cooperative still faces several financial and operational challenges which include:

- Securing continuous funding: the cooperative needs additional resources to expand its bioplastic production and other sustainable agriculture projects.
- The region also faces limited access to technological infrastructure. While Novamont introduces cutting-edge bioplastic technology, more support is required to ensure that local

farmers and community members can fully benefit from the innovations.

• Consumer Education: Terra Felix also works to raise awareness about the benefits of bioplastics and organic farming. Shifting consumer behaviour to favour sustainable products over conventional options is an ongoing challenge.

• Supportive Policies: The cooperative continues to advocate for policy incentives that promote sustainable agriculture and investments in the bioeconomy, which are essential for scaling its operations and driving regional development.

Conclusion: A Vision for the Future

The cooperative's long-term vision is to continue transforming lands, communities, and economies, providing a replicable model of social inclusion and sustainability. Terra Felix envisions a future where the cooperative expands its role as a leader in sustainable territorial regeneration and bioeconomy development. Through its innovative projects, such as cardoon cultivation for bioplastics and mushroom production, Terra Felix seeks to deepen its environmental and socio-economic impact. The cooperative aims to replicate its successful model in other regions, promoting the integration of socially disadvantaged groups into the bioeconomy while fostering environmental sustainability.

Key Takeaways

Terra Felix is dedicated to promoting biobased social innovation through projects that combine sustainable agriculture, social inclusion, and environmental education. The cooperative's cardoon cultivation project reclaims lands confiscated from organized crime and contributes to bioplastic production in partnership with Novamont, creating a circular bioeconomy model.

Terra Felix's impact spans across bioeconomy development, job creation, and environmental restoration, making it a leader in sustainable territorial regeneration. Through its commitment to innovation, social justice, and environmental stewardship, Terra Felix offers a powerful example of how social cooperatives can drive systemic change.

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THE GOOD SHEPHERD,THE LAST BECOME FIRST

Location: *Kláštor pod Znievom, Slovakia*
Keywords: *local farming, self-food production, reduction of food waste, re-construction for social purposes, repair and revitalization of old furniture*

"Social inclusion of marginalized individuals by circular economy principles."

Introduction: Setting the Scene

The OZ Dobrý Pastier (Good Shepherd) community, located in Kláštor pod Znievom, Slovakia, is a transformative social initiative focused on rehabilitating individuals marginalized by society. Founded by Father Vladimír Maslák, it provides a haven for people grappling with addiction, homelessness, and long-term unemployment and Roman people, offering them not just shelter but an opportunity to reclaim their dignity and reintegrate into society. The community does so by actively engaging residents in agricultural and artisanal work, combining these efforts with circular economy principles to promote sustainability and self-sufficiency.

Project Overview

The core of the Good Shepherd project is to provide home (accommodation, food, accompaniment and permanent support) to homeless and marginalized people and providing them with a sense of community usefulness and safety. Additionally, using circular economy principles, they work on activities around self-sufficiency. Residents manage livestock farming (pigs, sheep, goats), vegetable and fruit cultivation, and basic food processing (e.g. marmalade) and dairy production, which helps to provide food for the community and reduce dependency on external sources. They also cooperate with the Slovakian food-bank and

receive unsold and discarded food from the supermarket chains. Surplus agricultural products, such as meat and cheese. Additionally, residents participate in renovation and craftsmanship activities, like housing renovation, carpentry and metalworking, where donated items are repurposed, repaired and sold, creating a revenue stream that sustains the community financially and contributing to a sustainable cycle of resource use and waste minimization.

The Good Shepherd project has proven to be successful and self-sustainable. At the end of 2015, around 216 people were living in the Good Shepherd facility. Currently, more than 700 people live and work there.

Actors Involved and Organizational Aspects

The Good Shepherd community is led by Father Vladimír Maslák and supported by a network of volunteers and donors, including local businesses and individuals. The residents themselves play a fundamental role in running day-to-day operations, making the project largely self-sustaining. Additionally, Professor Ján Košturiak, plays a pivotal role in the project, he is an expert in lean management, innovation, and business strategy works closely with them and is actively involved in advising and mentoring the community in its strategic development to set an economically sustainable model that also align with broader social goals and its long-term viability and success. Father Vladimír Maslák and Professor Ján Košturiak jointly lead and manage this important project.

The Good Shepherd also cooperates with other organisation like the Innovato cluster which helps to provide technology (e.g. solar panels) and other resources for the Good Shepherd. They have an agreement with Tesco for a so called food bank where Tesco delivers food just before the use by date, Sportisimo delivers discarded clothes (old collections, damaged clothes, etc.).

Impacts: Transforming Communities

The impact of the Good Shepherd project extends far beyond its immediate residents. By providing a space for rehabilitation through meaningful work, the community fosters personal development and a sense of purpose. Many residents, once excluded from the workforce, gain essential vocational skills that prepare them for reintegration into society. Furthermore, the project contributes to sustainability goals by implementing circular economy practices—minimizing waste, recycling materials, and promoting local food production. This model has a ripple effect, as the residents regain their independence and dignity, which positively influences their families and the broader community. The social and environmental impacts are significant, contributing to both community transformation and sustainability goals.

Financial Aspects

Capital required for establishing the facilities was largely collected via crowdfunding; the idea of

growing healthy food on local residues may have contributed to the popularity of the initiative.

Facilities of this example case include 8 containers including climate system and installation, area for preparing substrate, mixer, packaging machine, cold room and office. All of this can be sourced locally. Also, the nursery roof is covered with solar panels which fully cover the energy requirement on an annual basis. Solar panels are produced elsewhere, but can be installed by local companies. Investment costs very much depend on the local situation, such as which facilities, installations and materials can be re-utilized.

Challenges for Implementation: Overcoming Hurdles and Transferability

The Good Shepherd project operates largely on a self-sustaining financial model. Revenues are generated through the sale of surplus products, such as meat, cheese, and repurposed goods created by the residents. Donations from individuals and local businesses also provide crucial financial support. In addition, the project benefits from volunteer labour and contributions of materials, helping to reduce operational costs. This financial structure enables the community to remain independent while focusing on its primary mission of rehabilitation and sustainability.

Conclusion: A Vision for the Future

The Good Shepherd project offers a vision for the future where social care and environmental sustainability are intertwined. Through the integration of circular economy principles, the community has demonstrated how marginalized individuals can not only be rehabilitated but can thrive by contributing to a self-sufficient ecosystem. The project's success highlights the importance of shared responsibility and collective action in addressing both social and environmental challenges. As it continues to grow, the Good Shepherd community could inspire similar initiatives across Europe and beyond, offering a scalable model for rehabilitation through sustainability.

Key Takeaways

The Good Shepherd community provides a comprehensive rehabilitation model through agricultural work and vocational training and prepare the residents for societal reintegration It integrates circular economy practices, focusing on resource efficiency, waste minimization, and self-sufficiency. The project operates on a self-sustaining financial model, supported by product sales and donations. The Good Shepherd project stands as a pioneering model of how social innovation can be aligned with circular economy principles to foster resilience, sustainability, and individual empowerment.

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Social media Facebook's page

TARARAINA-ECORADIZ, ECOLOGICAL PRODUCTION OF LIQUORICE

Location: *Aragon, Spain*
Keywords: *Revitalization of rural-areas, organic liquorice, preservation of cultural heritage and woman inclusion*

"We promote the recovery of liquorice, cultural heritage and social inclusion."

Introduction: Setting the Scene

Tararaina is a social cooperative, focused on innovation and rural revitalization. It was founded in 2021 with a mission to promote sustainable, balanced, and inclusive territorial development, using social creativity and innovation. The cooperative supports various social and economic projects that address the challenges faced by rural communities. The key activities of Tararaina include: Providing services related to rural participation, social responsibility, and sustainable practices; promoting cooperative models and offering training for rural entrepreneurs and social economy projects and offering guidance to emerging social and environmental projects. One notable project is the ECORADIZ a social and environmental initiative, aiming to revitalize the cultivation and production of liquorice (Regaliz de Palo) in rural areas of Spain, particularly in the municipality of Pina de Ebro in Zaragoza. The project is design to foster local agricultural

development, increase opportunities for women in rural areas and preserve cultural heritage.

Project Overview

The ECORADIZ project is an excellent example of how the social and biobased economies can grow together, bringing both social and economic benefits to rural regions. Liquorice roots tolerate flooding very well therefore it is a good crop to be grown on in flood-prone areas near the Ebro River that can be converted into cultivation fields. By revitalizing liquorice cultivation, the project not only restores a local tradition but also promotes the sustainable production of liquorice which is also converted into added-value products by using simple pretreatments and mechanically processes in situ. The project is in an initial stage of development and has rebuild of an old installation (a community laundry house in the past) in the village to create a shared working space dedicated to the cultivation and conversion of organic liquorice and it also has a strong social profile as it will empower socially vulnerable women to manage the working space in a collaborative and flexible manner, considering their needs (time schedule, location) and providing the necessary training and infrastructure. The objective is to is to help the family conciliation, as the installation is close to the school and he kindergarten of the village and the work allows flexibility. In addition, as the liquorice crop is harvested every four years, they are also looking for ways to valorise the part of the plant that is harvested every year and to obtain an additional income.

Actors Involved and Organizational Aspects

TARARAINA cooperative was founded in 2021 by Bárbara Marqués and Ángela Millán, two professionals with more than fifteen years of experience and a strong commitment to the rural world and experience on sustainable territorial development, rural revitalization and innovation. Besides the founders of the cooperative, this initiative is being developed together with the local government and agri-food entities of the region.

A close public-private collaboration will be established, with the direct involvement of the City Council of Pina de Ebro, through the support in the planting of liquorice in the municipal fields of private use and the transfer of the premises of the old laundry. The municipality also provides support in the selection of the women who will participate in the project and in facilitating their training. Agri-food actors in the region are involved particularly to add value to the residual side streams.

Impacts: Transforming Communities

The project has a dual impact: restoring the liquorice industry and providing employment opportunities, particularly to women with family responsibilities in a situation of social vulnerability, who will be trained in the product and in self-management, with the aim of setting

up their own cooperative in the mid-term, in a process supervised and supported by Tararaina. The new working place not only increases liquorice's economic value but also serves as a shared space for other agri-food initiatives, stimulating rural development. By targeting socially vulnerable individuals, ECORADIZ project fosters empowerment and community cohesion.

Financial Aspects

The success of ECORADIZ relies on contributions from public and private entities, alongside small donations from individuals. Funding was necessary for the workshop's rehabilitation, equipment, and training programs. The project's financial model is rooted in social entrepreneurship, aiming for self-sufficiency through the eventual formation of a cooperative managed by the women it employs.

Challenges for Implementation: Overcoming Hurdles and Transferability

One of the key challenges ECORADIZ faces is creating a stable value chain for liquorice, which takes four years to mature and be harvested. In this period, finding alternative ways to valorise by-products or residual streams such as residual biomass (leaves, trunks, pruning) which will be converted into pellets for energy production and animal feed is key. Thus, the envisioned value chain aims at maximizing circularity while respecting the environment and to maintain financial sustainability. Despite these challenges, the project's model can be adapted to other regions looking to combine social impact with environmental and economic benefits.

Conclusion: A Vision for the Future

ECORADIZ represents more than just a return to liquorice cultivation; it embodies a vision of rural revitalization, environmental sustainability, and social inclusion. By leveraging local traditions, the project aims to create a model for other rural communities facing depopulation and economic challenges. There are European countries that offer opportunities for suppliers of liquorice like France, Germany, Spain, the UK and the Netherlands. Germany and France are by far the leading importers of liquorice extract due to their robust cosmetics manufacturing industry.

Key Takeaways

The project contributes to sustainable agriculture by utilizing a flood-resistant crop (liquorice), in areas prone to flooding. Reviving a traditional crop tied to the region's heritage.by adding value through processing and market diversification.

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VALENTIA FOUNDATION, ORGANIC CULTIVATION AND SOCIAL INCLUSION

Location: *Huesca, Spain*
Keywords: *Cultivation flowers and food, inclusion of people with intellectual disabilities*

"Trabajamos por la inclusión sociolaboral de las personas con discapacidad."

Introduction: Setting the Scene

The Valentia Foundation, based in Huesca, Spain, stands as a beacon of support and inclusion for individuals with intellectual disabilities. Originally founded in 1971, Valentia (formerly known as the Assistance Association for People with Intellectual Disabilities in Huesca) has consistently worked towards the goal of improving the quality of life for these individuals and their families. By focusing on fostering autonomy, promoting social integration, and providing opportunities for personal development. Valentia has emerged as a key player in the disability support sector within the region. Through its diverse programs and activities, the organization has become instrumental in shaping inclusive communities that value diversity and equality.

Project Overview

Valentia's work is centred around a comprehensive support system for people with intellectual disabilities. The foundation operates in various areas, including specialized residential care, occupational and employment programs, therapeutic services, and community engagement activities. The projects aim to improve the self-reliance and well-being of people with disabilities by helping them achieve as much independence as possible in daily life, offering them both the resources and skills needed to integrate into society.

Valentia's projects contribute significantly to the development of a bioeconomy in the region. Through the production of food and ornamental plants, the foundation generates local economic value while reducing environmental impact. The products grown in Valentia's greenhouses are sold

in local markets, and any surplus is donated to food banks, helping to reduce food waste. The foundation's dissemination activities raise awareness of bioeconomy practices and capabilities of intellectual disabled people, promoting sustainability and environmental responsibility in the community while demonstrating social integration is possible.

Actors Involved and Organizational Aspects

Valentia's impact is made possible through the collaboration of a wide range of actors, including:

• Local Government and Public Authorities: The foundation works closely with the regional government of Aragon and local municipalities to secure funding, enact policy changes, and coordinate services. These institutions play a critical role in sustaining the foundation's financial resources and ensuring access to public services.

• Private Companies and Local Businesses: Valentia has a business club with local companies. Valentia partners with them to create employment opportunities for people with intellectual disabilities, integrating them into the workforce while raising awareness of their contributions and capabilities.

• However, the key stakeholders in Valentia's initiatives are people with intellectual disabilities, their families, and local communities and volunteers which ensure the success of Valentia's projects.

Impacts: Transforming Communities

The Valentia Foundation's work has had a profound impact not only on the individuals it serves but also on the broader community. One of the key contributions is the promotion of social inclusion, which challenges societal misconceptions about intellectual disabilities. Through its awareness campaigns, partnerships with local businesses, and community activities, Valentia fosters a culture of acceptance and understanding.

Additionally, Valentia has played a crucial role in enhancing the employability of people with intellectual disabilities in Huesca. Through tailored vocational training and employment support, the foundation helps individuals develop the skills and self-confidence needed to integrate into the workforce, which in turn boosts their economic independence and self-esteem.

Families of those with disabilities have also experienced transformative changes. Valentia's services offer much-needed respite and support, allowing families to take breaks from caregiving responsibilities while knowing that their loved ones are receiving quality care. The foundation's psychological and emotional support programs further strengthen family bonds and alleviate stress associated with caregiving.

On a larger scale, the foundation's activities contribute to breaking down barriers between disabled and non-disabled individuals, creating more cohesive and compassionate communities.

Financial Aspects

Valentia's funding model is diverse but comes with its own set of challenges. The foundation is primarily funded through a combination of government grants, private donations, and partnerships with local businesses. The regional government of Aragon provides essential funding to maintain services, and local businesses often

offer both financial support and employment opportunities for program participants.

Challenges for Implementation: Overcoming Hurdles and Transferability

Some challenges for implementation still remain:

• Ensuring consistent and sustainable funding remains one of the most significant challenges for the organization. With limited public resources available and rising costs associated with providing personalized care, Valentia often relies on private donations and fundraising campaigns to bridge the gap. The fluctuating nature of these funding sources can lead to uncertainty in planning long-term projects and expanding services.

Additionally, there are logistical challenges related to the geographic dispersion of Huesca's population. Many of the people served by Valentia live in rural areas, making it difficult to provide equal access to all the foundation's services. Overcoming transportation barriers and extending outreach efforts to these isolated regions is a permanent struggle.

Despite the success and community support Valentia has received, several technical challenges remain. One of the primary hurdles is the valorisation of garden residues, which requires innovative solutions to ensure efficient and sustainable waste management. Although the local government has supported the foundation, ongoing technical improvements in areas like residue management are essential for the project's long-term sustainability and growth. In order to comply with the current regulation on landfill waste, they must stop burning and look for recovery schemes. They considered developing a composting plant, but technical barriers and the initial investment required has put the brakes on the plan.

Conclusion: A Vision for the Future

Looking ahead, the Valentia Foundation aspires to further expand its reach and impact by continuing to innovate and adapt to the needs of the community. One of its long-term goals is to develop more inclusive employment opportunities in partnership with a broader range of businesses, ensuring that people with intellectual disabilities have a more significant presence in the regional workforce. The foundation also aims to improve rural outreach efforts, ensuring that individuals living in more isolated areas can access the same quality of services as those in urban areas. By further collaborating with local businesses and governments, Valentia aims to address its challenges, scale its activities, and build a more inclusive, sustainable future for Huesca region and beyond.

Key Takeaways

The foundation's vision for the future includes increasing inclusive employment opportunities, improving rural outreach. Valentia continues to be a transformative force, advocating for the rights and well-being of individuals with intellectual disabilities and working toward a future where everyone can participate fully in society. Valentia promotes employment in bio-based industries such as greenhouse cultivation and garden maintenance. The foundation's projects contribute to the development of the local bioeconomy, reducing environmental impact while generating economic value. Socially, Valentia fosters community integration and

inclusion, ensuring that people with disabilities have meaningful work opportunities and that children learn about social integration, sustainability and biodiversity from an early age.

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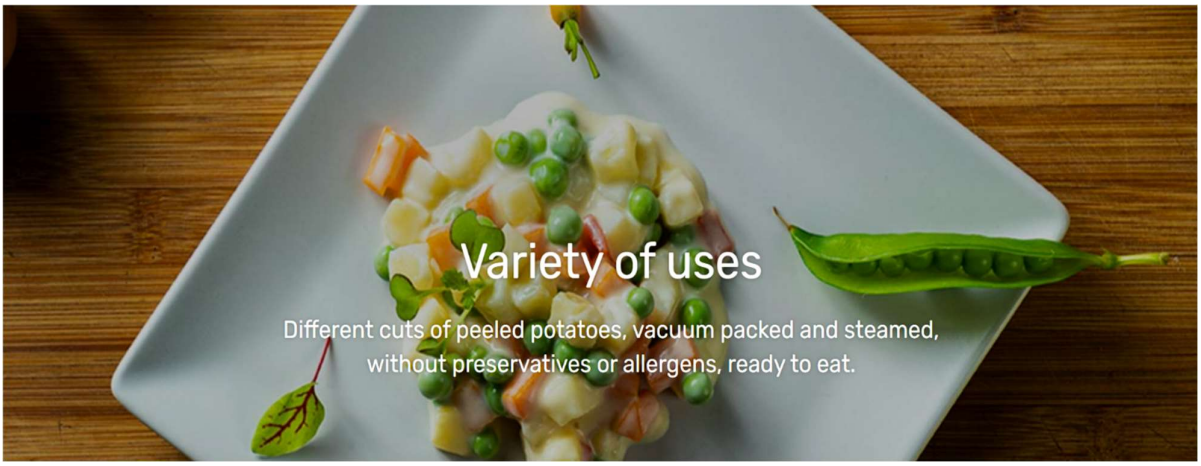
PATURPAT, IMPROVING CIRCULARITY IN THE AGRO-INDUSTRY SECTOR

Location: *Vitoria-Basque Country, Spain*
Keywords: *Potato industry, zero waste, sustainable rural communities*

"One of our main initiatives is the revaluation of second-class potatoes."



Introduction: Setting the Scene

Paturpat is a forward-thinking agroindustry cooperative based in the Basque Country in Spain. It was created in 2016 and it is devoted to produce different potato preparations from different cuts of vacuum-packed and steamed potatoes from second class potatoes, responding to the new consumer trends through products that are easy to prepare, nutritious and healthy. Paturpat is a spin-off from Udapa which is a unique cooperative project that unites an agricultural producers' cooperative and a worker cooperative with a credit cooperative.

Project Overview

Paturpat is a cooperative dedicated to producing 5th range high quality potato products ready for consumption and designed for industry, food Service and retail.

As part of the Udapa Group, a cooperative focused on potato cultivation, processing, and commercialization. Paturpat operates with a mission to support local agricultural communities, promote environmentally friendly practices, and create value-added products that cater to modern consumer needs.

Paturpat integrates advanced food processing technologies with a focus on reducing waste and optimizing energy use, aligning with circular economy principles.

Actors Involved and Organizational Aspects

Paturpat operations involves multiple actors to support its activities as a producer of pre-cooked and ready-to-eat potato products and for the development of a new value chain that includes a starch recovery system .

Udapa Group, provides strategic guidance, raw material sourcing, and operational support to Paturpat. The local and regional potato farmers supply the raw materials ensuring sustainable practices and consistent quality.

Additionally, Paturpat continues collaboration with food technology and engineering firms research institutions for innovations in food preservation, packaging, and production processes (e.g., vacuum cooking techniques) and to develop R&D activities.

Impacts: Transforming Communities

Paturpat contributes to regional economic development by supporting local farmers and generating employment in the region.

This initiative also aims at minimizing environmental impact and promoting long-term ecological balance in the region. Showing how businesses can balance profitability with social and environmental impact.

Financial Aspects

Financially, Paturpat was created under the umbrella of Udapa, a cooperative with strong financial backing from entities like Laboral Kutxa (credit cooperative), ensuring stability and growth potential.

This initiative has also received co-finance from its participation in European Union programs like Horizon Europe through initiatives such as the BRILIAN project, that promotes circular economy and sustainable business models in rural areas.

Challenges for Implementation: Overcoming Hurdles and Transferability

Paturpat has faced numerous challenges to establish itself in the 5th range potato market. Transitioning from fresh products to processed ones required a high initial investment costs for installing recovery and processing systems, financial backing is important.

Mastering unfamiliar technologies, training new staff, and convincing customers to embrace a product without direct market precedents is also part of the implementation route. Despite these hurdles, Paturpat has made significant strides, supported by its parent company, Udapa. Key challenges remain, such as increasing consumer awareness of its products in retail and developing new markets and value chains.

Conclusion: A Vision for the Future

Paturpat aspires to further expand its operations implementing the starch extraction plant and expand the circularity and sustainability model to other potential routes. The objective is to continue to innovate and adapt to improve their process and further contribute to forge a more robust and sustainable rural community. The cooperative has launched a new facility to recover starch from processing water and rejected potato pieces, repurposing it for industries like packaging, chemicals, and pharmaceuticals. Paturpat aims to reduce waste and improve sustainability while revaluing discarded starch for industrial use, marking significant progress in circular bio-economy efforts.

Key Takeaways

Agro-industries that valorise their by-products can achieve significant benefits across economic, environmental, and social dimensions.

A new business line contributes to diversify the revenues by create an additional revenue stream through the production of value-added products and allow to reduce waste disposal costs and enhances resource efficiency. In this sense, converting by-products into valuable materials supports the transition to a circular economy

From the social point of view, new employment is created associated to the new value chain implemented but also agroindustries in rural areas contribute to local economic growth and community empowerment through sustainable practices.

The solution can be replicable in other food companies or sectors leading with potato residues.

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BIO&CO, CULTIVATING SOLIDARITY, BIODIVERSITY AND RESPONSIBILITY

Location: *Ciocanari, Romania*
Keywords: *Sustainable development, organic cultivation*

"We offer jobs to adults from disadvantaged backgrounds and we grow certified organic vegetables, taking care of the environment."

Introduction: Setting the Scene

In the village of Ciocanari located 40 kilometers away from the bustling capital of Bucharest, a transformative social enterprise is changing the life of adults with vulnerabilities and their families. Bio&co farm is a four hectares land but it is not just a conventional agricultural business, it is a social project creating sustainable employment for disadvantaged groups in a rural community. Bio&co follows the model of organic farming to organic farming, certified by Ecocert.

Project Overview

bio&co is a social and pedagogical farm that was established in 2015 with the aim of providing stable jobs to marginalized people in rural areas who have extremely limited opportunities on the labour market and to create an organic, healthy and local agriculture for both the soil and the environment, as well as for the consumer. Bio & co project is part of Ateliere Fără Frontiere (AFF), an non-profit organisation that supports social and professional inclusion through various initiatives.

bio&co offers marginalized people, including victims of violence, the long-term unemployed, and those with disabilities, an opportunity to work and rebuild their lives. In 2018, the farm received organic certification for the 5 hectares of agricultural land on which about 80 varieties of vegetables are grown according to the principles of organic farming, there are 4000 m2 of solariums for a production of 52 weeks per year, creating 20 new jobs for people in difficulty, employees from the local community.

The farm operates a subscription-based model, delivering fresh, organic vegetables which are picked every week just before the delivery day. The delivery date is fix and there are 14 partner delivery points in Bucharest or in Ilfov County), they can also be delivered directly to consumers but in order to reduce the carbon footprint of the service bio&co encourages the use of the delivery points while promoting environmental protection and sustainable agriculture. In addition, Bio & co runs a pedagogical farm where children learn about healthy eating and biodiversity.

Actors Involved and Organizational Aspects

The core mission of Bio & co is driven by AFF's goal of integrating socially excluded individuals into the workforce. The farm's beneficiaries, primarily women from the Roma community, receive individual socio-professional support to help them transition from social dependency to active, productive citizens. The farm's operational team includes 8 to 12 beneficiaries, two horticultural engineers, a driver, and a development coordinator. The crucial role of an Insertion Counsellor ensures that employees can manage personal problems while adapting to workplace responsibilities. Funding for the farm comes from agricultural revenues and private contributions from partners like Carrefour Romania.

Impacts: Transforming Communities

The social impact of bio&co is profound. It has empowered employees who were once considered unemployable to become self-reliant, contributing members of society. The farm provides stable jobs and a sense of purpose to individuals struggling with unemployment, education, and social exclusion.

Most of the beneficiaries are Roma women, mothers of more than two children with no track record of employment. Beneficiaries' children are now enrolled in schools, with some even advancing to vocational schools and high school.

The project has helped build stronger, more resilient families and communities. In 2020 alone, Bio & co supported 24 individuals to grow and succeed. Additionally, bio&co also educate costumers about sustainable agriculture and social economy by sending them a weekly newsletter with updates about the life in the farm with recipes and description of the vegetables.

Financial Aspects

Bio & co is set up as a Work Integration Social Enterprise and it is managed by Ateliere Fara Frontiere as sole shareholder. As social enterprise

financial model, bio&co relies on a combination of self-generated revenue from its agricultural activities, private donations, and partnerships. Carrefour Romania and Carrefour Foundation are key contributors. The farm also repurposes waste from supermarkets and hotels into compost, which is used on-site but may soon be sold as an additional revenue stream. To diversify its offerings, Bio & co has recently expanded its product range, adding herbs like thyme, basil, and mint to their weekly subscription baskets.

Challenges for Implementation: Overcoming Hurdles and Transferability

Implementing a social business like bio&co comes with unique challenges. One of the biggest obstacles has been the lack of qualified labour willing to work in agriculture, particularly in rural Romania. Managing beneficiaries with unstable personal lives, alcoholism, and housing issues posed additional difficulties. To address this, the farm created the role of Insertion Counsellor, helping employees navigate their transition to working life.

Another challenge was the lack of suitable soil for diverse crops, requiring trial and error before achieving successful harvests. Despite these hurdles, Bio & co has developed a sustainable model that can be replicated in other regions facing similar social and economic challenges. The bio&co project was inspired by a similar initiative in France, the Cocagne Network that has more than 100 work integration farms.

Conclusion: A Vision for the Future

Looking ahead, Bio & co envisions expanding its reach both socially and commercially. By fostering deeper connections with local communities and expanding its product offerings, the farm aims to continue providing meaningful employment and helping marginalized individuals reintegrate into society. The success of the farm has inspired similar initiatives in Romania, demonstrating the potential for social businesses to contribute to both economic and environmental sustainability.

Key Takeaways

Bio & co is located in a rural Romanian village, providing jobs to the Roma community and other disadvantaged groups. The farm promotes social

inclusion, offering employment and professional support to individuals struggling with social exclusion. Bio & co practices organic farming, delivering fresh produce via a subscription model and promoting environmental sustainability. Bio & co has transformed lives, empowered families, and inspired similar models across Romania.

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LA FAGEDA, A SOCIAL PROJECT WITH A BUSINESS INFRASTRUCTURE

Location: *Girona, Spain*
Keywords:. *Marginalized people, social inclusion, dairy products, gardening services*

"40 years supporting and improving the quality of life of people in vulnerable situations."

Introduction: Setting the Scene

In 1982, Cristóbal Colón, a psychologist with a radical vision, started an unconventional initiative to set up a company where mentally ill people could be integrated and find a purpose of life. Colón, believed that the way to rehabilitate individuals with mental illnesses was not to confine them to institutions, but to give them meaningful work, purpose, and a place within society. They envisioned a new kind of therapy, where people were brought out of mental asylums, into nature, and offered jobs that restored their dignity. This vision laid the foundation for what would become La Fageda, a company that provides real jobs in a real company to people suffering from mental illness.

Project Overview

Located in the Natural Park of La Garrotxa in Catalonia, La Fageda started as a social rehabilitation project that aimed to transform the lives of people who had been marginalized due to intellectual disabilities, mental disorders, or other vulnerable conditions. The idea seemed improbable at first- to provide meaningful

employment for people with disabilities and mental health conditions.

The project started with 15 workers, most of them from the Salt psychiatric hospital using as working place a room provided by the Olot town hall. In 1983, the Gardening section was launched, a group of workers restored the Sant Roc d'Olot fountain, a beloved but neglected public space. This successful restoration led to an agreement between the town hall and La Fageda to maintain and recover natural areas in Olot. Today, nearly 40 employees, that manage both public and private spaces in several municipalities of La Garrotxa and since 2020, the operation has been based in a 1000 m² warehouse in the Sant Roc d'Olot industrial park and is well-equipped to ensure quality work and high customer satisfaction.

The dairy and food related section started in 1984, when La Fageda acquired the Els Casals estate, and by 1989, the farm had 100 cows, producing milk sold to Nestlé. In 1993, La Fageda began producing yogurts, initially selling 50,000 units weekly and in 1998 the visitor service started giving tours to general public to visit the yogurt plant and to see firsthand how this unique community functions. Thousands of visitors come to La Fageda each year, drawn by the beauty of the surrounding forest and the inspiring stories of the workers.

In 2004, the La Fageda Foundation was established to manage the brand and properties. By 2015, they were producing 60 million yogurts per year. Recent developments include the launch of new factories, products like jams and ice cream. La Fageda celebrated its 40th anniversary in 2022. Four decades later, La Fageda is a thriving enterprise with over 300 workers. It has become a beacon of hope and empowerment, not just for those it employs but for the countless visitors who come to witness its transformative impact.

The expansion of services of La Fageda includes the creation of care services, new residences for people with disabilities, and social projects such as training and employment services and programs for vulnerable groups.

Actors Involved and Organizational Aspects

The organization comprised four non-profit organizations, which allow the development of different social and business activities. The actors Involved include:

• People with intellectual disabilities and mental disorders. They are the main beneficiaries of the project, receiving employment opportunities, rehabilitation, and social inclusion.

• La Fageda's Founders (Cristóbal Colón and his wife). Both psychologists who envisioned the project and established La Fageda.

• Employees and workers beyond those with disabilities. La Fageda also employs a variety of people, including psychologists, physiotherapists, podiatrists, farm workers, production staff, and administrative personnel.

• The local community in the region of La Garrotxa benefits from La Fageda's efforts to meet emerging social needs, support local economy, and address challenges related to employment and inclusion.

• Customers and Visitors. People who buy La Fageda's products (mainly yogurt) and the thousands of visitors who tour the farm and learn about its mission, indirectly support the organization's social and environmental goals.

• Environmental Stakeholders. This includes local environmental groups from the Natural Park of the Volcanic Zone of La Garrotxa, where the farm operates.

Impacts: Transforming Communities

Every day, workers at La Fageda wake up with a purpose. They are not just laborers; they are part of a community that supports their well-being. In addition to work, they have access to psychologists, physiotherapists, and even podiatrists to ensure their holistic health. Their treatment is integrated into their daily lives—work is therapy, and therapy is life. They learn, socialize, and grow in an environment that nurtures their physical and mental health.

La Fageda develops all activities from a deep respect for people, animals and the environment and it is committed to benefit the people and region where they live and work by bringing value to society, responding to local social needs, reducing environmental footprint and embracing innovation for continuous improvement.

Financial Aspects

La Fageda operates as a social enterprise, meaning its primary goal is not profit but rather creating social impact by providing work and dignity to people with intellectual disabilities and mental disorders. Profits from selling products like yogurt or gardening services are reinvested into the social mission. The also accept donations from individuals, businesses, and philanthropic organizations that share its vision of a sustainable and socially responsible future via the foundation "Forever Young" by "La Fageda".

Challenges for Implementation: Overcoming Hurdles and Transferability

Competing with some of the world's largest food producers, bring some challenges to La Fageda which is a regional brand with limited distribution and It's not as well-known as its competitors. Offering high-quality dairy products while ensuring social and labour integration for people with mental disabilities also comes with a with a high price of the products, nevertheless the social responsibility of La Fageda gives the company a national recognition, even though La Fageda has never spent a cent on advertising.

La Fagueda is moving towards circular economy, energy efficiency, waste reduction, reuse and recycling which of course this transition comes together with new challenges that are being addressed from all areas of the project using in networks and in close alliances with other entities and stakeholders.

Conclusion: A Vision for the Future

La Fageda's vision for the future is to continue empowering vulnerable individuals through meaningful work, fostering social inclusion, and promoting environmental sustainability. By prioritizing personal development, social cohesion, and responsible resource use, La Fageda aims to increase its social impact and refine its sustainable practices. Committed to innovation and continuous improvement, the organization wants to serve as a model for other social enterprise and foster real and lasting impact on both people and the planet, ensuring that the project continues for future generations.

Key Takeaways

La Fageda has now become the third yogurt maker in Catalonia, thanks to the milk of 500 cows owned by the company. What began as a radical idea of a psychologist has blossomed into a pioneering social enterprise, proving that business can be a vehicle for social change, where making yogurt is just the beginning of transforming lives.

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