



FREGUESIA DE BUARCOS  
Portugal



KUNSIILL LOKALI  
HAL SAFI  
MUNICIPALITY OF SAFI  
Malta



ОБЩИНА СУХИНДОЛ  
MUNICIPALITY OF SUHINDOL  
Bulgaria



MUNICIPALITY OF LWÓWEK ŚLASKI  
Poland



MUNICIPALITY OF BUSINEC  
Slovakia



THE ORGANIZATION FOR POVERTY  
ALLEVIATION & DEVELOPMENT  
Finland



otigroup.org  
ONE TERRENE INTERNATIONAL GROUP  
Cyprus



MUNICIPALITY OF KLANJEC  
Croatia



MALTAS APVIENĪBAS PĀRVALDE  
MUNICIPALITY OF REZEKNE  
Latvia



MUNICIPALITY OF CURTEA DE ARGES  
Romania



MUNICIPALITY OF HÉHALOM  
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Italy



ASOCIACIÓN XUVENIL  
Vrenza  
ASOCIACION XUVENIL VRENZA  
Spain



## Best practices for coastal or riverside sustainability: the sea, the land and the community

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## Arroupa: Circular Textile Management and Social Inclusion in Galicia

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The "Arroupa" project, implemented by Cáritas Diocesana de Santiago de Compostela, is a flagship circular economy initiative that transforms textile waste into a powerful tool for environmental sustainability and social integration. The core idea is to manage the entire lifecycle of used clothing—collection, sorting, and redistribution—within a social economy framework. By diverting over 1,800 tons of textiles from landfills annually, the program significantly reduces the environmental footprint of the fashion industry in Galicia. This model proves that waste management can be more than a technical process; it is a vehicle for "integral ecology" that protects the planet while restoring dignity to individuals through meaningful employment in a professionalized green sector.

The program's development is supported by a sophisticated logistics network of over 500 "Latoneira" collection containers across the region, ensuring efficient textile recovery. Once collected, the clothing undergoes a rigorous classification process at a specialized treatment plant, where high-quality items are sanitized and repaired for resale in "Arroupa" retail shops at social prices. Items that cannot be reused are directed toward industrial recycling, ensuring that no material is wasted. With an annual budget of approximately €1.5 million and the creation of nearly 40 direct jobs for people at risk of social exclusion, Arroupa demonstrates how circular economy principles can simultaneously solve environmental challenges and address local unemployment. It serves as a comprehensive European model for sustainable textile management, prioritizing the value of resources and the empowerment of the community.



MUNICIPALITY OF LWÓWEK ŚLĄSKI  
Poland

## Closed-Loop Water Management: Sustainable Urban Fountains in Lwówek Śląski

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The initiative to remodel the city's fountains in Lwówek Śląski represents a significant commitment to the circular economy through the implementation of closed-loop water systems. In an era of increasing climate instability, heatwaves, and recurring droughts, this project addresses the urgent need for water conservation in urban public spaces. The core idea is to transform traditional open-flow fountains into high-efficiency recirculation systems where water is constantly filtered and reused. By significantly reducing water abstraction and minimizing losses from evaporation or runoff, the project demonstrates how decorative urban elements can be modernized to meet ecological standards without sacrificing their aesthetic and recreational value for the community.

The development of this program involved a detailed technical analysis of existing historic and modern fountains to optimize water recirculation and minimize investment risks. With an estimated budget of approximately 1.5 million PLN, the project integrates advanced filtration technologies and automated water management to ensure high sanitation standards while maintaining low energy consumption. This systemic approach not only preserves the architectural heritage of Lwówek Śląski's squares but also reduces the city's overall ecological footprint and operational costs related to water purification. By aligning urban design with climate adaptation strategies, the municipality provides a replicable model for other European cities looking to manage precious water resources more sparingly. This project proves that even small-scale urban infrastructure can play a vital role in the transition toward a more sustainable and resource-efficient future.



KUNSILL LOKALI  
HAL SAFI

MUNICIPALITY OF SAFI  
Malta

## Solar-Powered Sustainable Roundabout: A Circular Energy Model in Hal Safi

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The Solar-Powered Roundabout project, spearheaded by the Hal Safi Local Council, stands as a pioneering circular economy initiative in the Maltese Islands, merging urban landscaping with renewable energy technology. Located at the primary entrance to the village of Safi, this project represents the first of its kind in the country, where all electrical and maintenance requirements of a public space are satisfied through an autonomous, closed-loop energy system. The core idea is to utilize photovoltaic cells integrated into the urban design to power the entire infrastructure, including LED lighting and the irrigation pumps for the surrounding greenery. This model demonstrates how traditional urban elements can be transformed into self-sustaining assets that reduce the carbon footprint of local government operations and set a high standard for energy efficiency in public administration.

The development of this program highlights a successful synergy between environmental engineering and urban embellishment. By generating its own clean energy on-site, the roundabout saves an estimated 10 kilograms of CO<sub>2</sub> emissions every 24 hours, contributing directly to Malta's climate neutrality targets. Furthermore, the project applies circular principles to resource management by utilizing a solar-powered irrigation system that waters climate-appropriate shrubs, which were specifically selected for their low water requirements and benefits to local pollinators. With a total budget of approximately €56,000, the initiative serves as a scalable and replicable proof-of-concept for other European municipalities. It illustrates that circular economy thinking is not limited to waste management but extends to energy cycles and sustainable urban planning. By turning a common traffic feature into a landmark of renewable innovation, Hal Safi provides a clear example of how local councils can lead the transition toward a more resilient and environmentally responsible future.



ОБЩИНА СУХИНДОЛ

MUNICIPALITY OF SUHINDOL

Bulgaria

## Integrated Recovery of Food and Agro-Waste: A Circular Model for Suhindol

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The "Recovery of Food and Agro-Waste" initiative in the Municipality of Suhindol represents a strategic shift towards a resource-efficient economy by transforming organic waste into high-value secondary products. In a region where agriculture and food processing are central to the local economy, this project addresses the environmental challenge of organic waste disposal. The core idea is to establish a systemic cycle where food scraps, agricultural residues, and biodegradable materials are collected and processed to produce biogas for energy, high-quality organic fertilizers, and animal feed. This approach effectively closes the nutrient loop, ensuring that materials previously considered "trash" are reintegrated into the production chain. By reducing the volume of waste sent to landfills and cutting methane emissions, Suhindol is actively implementing a local-scale Green Deal that promotes environmental health and economic resilience.

The development of this program is supported by the Bulgarian national "Environment Programme 2021–2027," which allocates over €312 million to circular economy measures. In Suhindol, the program is realized through the creation of specialized collection systems and processing centers that utilize anaerobic digestion and composting technologies. A crucial component of the project is the continuous training of local producers and processors, educating them on the technical benefits of waste segregation and the economic advantages of using bio-based fertilizers. This systemic monitoring and adaptation allow the municipality to optimize the recovery process constantly. By integrating industrial symbiosis with community education, the Suhindol model demonstrates how small municipalities can lead the transition to a circular economy. The initiative not only preserves the local ecosystem but also creates new green jobs and reduces the community's dependence on imported chemical fertilizers, serving as a replicable blueprint for sustainable rural development across Europe.

## From Waste to Opportunity: Finland's Inclusive Circular Economy Model

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The "From Waste to Opportunity" Circular Economy Programme, spearheaded by the Organization for Poverty Alleviation and Development (OPAD) in Finland, represents a transformative social innovation model that effectively converts waste materials into significant economic, environmental, and social value. The core idea is to integrate rigorous waste reduction and resource recovery with specialized green skills training to create sustainable employment pathways for vulnerable groups, including unemployed youth, migrants, and women. By focusing on the intersection of environmental stewardship and social equity, the initiative ensures that the transition to a circular economy is inclusive, providing participants with the tools to become active contributors to a greener labor market while simultaneously addressing the urgent need for local waste management solutions.

The development of the program is rooted in the establishment of community-based repair, recycling, and upcycling systems that actively divert diverse materials from landfills and significantly reduce regional carbon emissions. Operationally, the model supports sustainable consumption patterns by offering high-quality, upcycled products to the local market, thereby reducing the demand for virgin resources. A key innovation of the project is its reinvestment strategy: revenue generated through these social enterprise activities is directly channeled back into community development initiatives, ensuring the program's long-term financial sustainability and measurable social impact. By demonstrating how circular economy principles can simultaneously tackle environmental degradation and social exclusion, OPAD Finland provides a robust and scalable blueprint for European regions. This systemic approach not only preserves the environment but also strengthens the social fabric, proving that a truly sustainable future must prioritize both ecological health and human dignity.

## GAIA Protocol: Incentivizing Verified Environmental Action in Cyprus

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The GAIA Protocol represents a groundbreaking digital and social innovation in Cyprus designed to accelerate the transition to a circular economy by validating and rewarding real environmental impact. The core idea behind this initiative is to create a transparent, data-driven framework that allows municipalities, organizations, and individual citizens to measure and verify their environmental actions, such as waste reduction, energy efficiency, and the implementation of nature-based solutions. By moving away from vague sustainability claims, GAIA focuses on "Proof of Impact," ensuring that every action taken—from recycling a specific volume of material to reducing communal energy consumption—is accurately recorded and rewarded. This model addresses the challenge of "greenwashing" and provides a reliable mechanism for tracking progress toward net-zero targets and circularity at both the local and national levels.

The development of the program is characterized by its pilot implementations in collaboration with various European municipalities and local stakeholders in Nicosia. The system integrates digital monitoring tools with community participation, translating complex environmental data into measurable indicators that are easy for the public to understand. A key component of the GAIA Protocol is its incentive mechanism; citizens are actively engaged through local initiatives where their verified contributions to the circular economy are recognized through a reward system. This approach not only strengthens the transparency of environmental governance but also fosters a sense of collective ownership over resource management. Although currently in its development phase supported by research and innovation funding, the GAIA Protocol serves as a scalable model for modernizing how societies interact with their resources. It demonstrates that by linking digital verification with citizen participation, it is possible to create a more resilient and accountable circular economy that benefits both the environment and the community.



ASSOCIATION POUR LE SOUTIEN  
A LA CITOYENNETE EUROPEENNE  
France

## Regional Circular Economy Strategy: Transforming Waste into Local Resources in Martinique

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The Circular Economy Strategy developed by the Territorial Collectivity of Martinique (CTM) is a comprehensive regional framework designed to decouple economic growth from resource depletion on the island. The core idea is to transform Martinique's waste management system into a circular model that prioritizes the recovery of local secondary raw materials. Given the island's geographic constraints, this initiative focuses on reducing dependence on imports by fostering local recycling and upcycling industries. The program addresses the entire lifecycle of products, from promoting responsible consumption and sustainable public procurement to the implementation of advanced selective collection systems. By focusing on critical waste streams—such as glass, plastics, and construction materials—Martinique is building a self-sufficient economic ecosystem that preserves its unique natural environment while creating local "green" employment.

The program's development is supported by a mix of regional and European funds (ERDF), enabling the co-financing of innovative projects in composting, methanisation, and industrial repair. A key pillar of the strategy is the professionalization of the recycling sector, encouraging the creation of companies that can transform construction debris into public works materials or convert organic waste into high-quality compost for local agriculture. Beyond industrial infrastructure, the CTM conducts extensive public awareness campaigns to combat illegal dumping and promote waste sorting. This integrated approach ensures that the circular economy is not just a policy but a community-wide practice. By integrating economic incentives with environmental protection, Martinique serves as a leading example for island territories, proving that circularity is essential for long-term resilience and the preservation of maritime and terrestrial heritage in the Caribbean.



MUNICIPALITY OF KLANJEC  
Croatia

## Circular Lighting Systems: Energy Efficiency and Resource Recovery in Klanjec

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The Modernization of Public Lighting in the Town of Klanjec is a strategic circular economy project that focuses on the transition toward sustainable urban infrastructure. The core idea is to replace obsolete, high-energy-consuming lighting systems with advanced LED technology through an innovative governance and financing model supported by the ELENA program. This initiative goes beyond simple energy saving; it applies circular principles by utilizing durable, low-maintenance components that extend the lifecycle of the infrastructure and minimize the generation of electronic waste. By drastically reducing electricity consumption and greenhouse gas emissions, the project demonstrates how municipal resource management can be optimized to meet both environmental and economic goals, ensuring that public lighting becomes a self-sustaining and efficient service for the community.

The development of the program was realized through a collaboration with regional energy agencies, ensuring that the new system significantly reduces light pollution and enhances the safety of public spaces. The circular approach is evident in the project's long-term maintenance strategy, which prioritizes the reparability and recyclability of the installed components. With a total budget of approximately €200,000, the initiative has successfully decreased operational costs, allowing the municipality to reinvest savings into further sustainability projects. This model of "circular energy use" serves as a replicable blueprint for other European small towns, proving that modernization of public services is a key driver for climate neutrality. By integrating innovative financing with resource-efficient technology, Klanjec provides a clear example of how local authorities can lead the way in reducing the urban ecological footprint while improving the quality of life for their citizens.



FREGUESIA DE BUARCOS  
Portugal

## Bio-waste Has a Lot to Give: Transforming Organic Waste into Natural Resources

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The initiative "Bio-waste Has a Lot to Give!", implemented by the Municipality of Figueira da Foz, is a cornerstone of the regional circular economy strategy, focusing on the systemic recovery of organic materials. The core idea is to shift from the traditional "produce-use-discard" model to a circular loop where food scraps and biodegradable waste are no longer treated as refuse but as valuable raw materials. By implementing specialized collection systems for households, industrial kitchens, and school canteens, the municipality aims to divert approximately 33% of organic waste from landfills. This process significantly reduces environmental pressure and methane emissions, while providing the necessary feedstock for the production of high-quality natural fertilizers, thereby closing the organic nutrient cycle and supporting sustainable local agriculture.

The development of the program involves a comprehensive logistics and education infrastructure. The municipality facilitates the selective collection of bio-waste by distributing various types of domestic composters and specialized containers to residents and institutions. Once collected, the waste is transported to the Mechanical and Biological Treatment Unit operated by ERSUC, where it undergoes controlled biological decomposition to be transformed into compost. A vital component of the project is its emphasis on community engagement; through continuous awareness campaigns, citizens are educated on the technical and ecological benefits of waste separation. By integrating modern waste treatment technology with active public participation, Figueira da Foz provides a scalable model for urban resource management. This initiative demonstrates that managing bio-waste effectively is a key driver for climate resilience, turning a significant environmental challenge into a sustainable economic opportunity that enriches the soil and preserves the local ecosystem for future generations.



CENTRO EDUCATIVO DI PROGETTAZIONE  
E HOSTING INTERNAZIONALE  
Italy

## EcoCirc: Industrial Symbiosis and Circular Manufacturing in Lombardy

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The "EcoCirc" initiative, led by the Lombardy Region in collaboration with the Politecnico di Milano, is a transformative circular economy program designed to foster industrial symbiosis among small and medium-sized enterprises (SMEs). The core idea is to transform the traditional manufacturing landscape into a collaborative network where the waste or by-products of one industry become the high-value raw materials for another. This systemic approach addresses the critical challenge of industrial waste by creating "closed-loop" value chains within the regional economy. By focusing on resource efficiency and the substitution of virgin materials with secondary ones, EcoCirc significantly reduces the environmental impact of Lombardy's industrial sector while enhancing the competitiveness and resilience of local businesses in the global market.

The program's development is supported by a substantial regional investment of €5 million, which funds the creation of digital platforms for resource sharing and specialized working groups focused on specific waste streams. These groups target high-impact areas such as organic waste for biogas production, the recovery of industrial waste heat for district heating networks, and the transformation of agricultural residues into bio-based materials. A key component of the project is the continuous monitoring of performance indicators, such as waste diversion rates and carbon emission reductions, ensuring that the transition to circularity is measurable and transparent. By promoting peer-to-peer learning and building trust between industrial actors, the EcoCirc model demonstrates how a regional government can act as a catalyst for systemic change. It provides a robust European blueprint for high-density industrial areas, showing that sustainable growth is possible when economic actors embrace the principles of resource recovery and industrial collaboration.



MUNICIPALITY OF BUSINCE  
Slovakia

## Closed-Loop Automotive Plastics: Regional Recycling of Car Bumpers and Fuel Tanks

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The "Plastic Car Parts Recycling" initiative in Haniska, Slovakia, is a strategic response to the European Union's shifting environmental regulations and the urgent need to retain valuable raw materials within the continent. The core idea is to establish a local, specialized recycling line that focuses on high-volume automotive waste, specifically polypropylene (PP) from bumpers and polyethylene (PE) from fuel tanks. Historically, these materials were often exported or transported long distances to other European regions, resulting in high carbon footprints and economic leakage. By processing up to 1,500 tons of plastic annually—equivalent to approximately 500,000 car bumpers—this facility ensures that automotive waste is transformed back into high-quality secondary raw materials. This closed-loop approach not only addresses the environmental challenge of scrap yard waste but also strengthens the regional supply chain for major car manufacturers like Volkswagen and Renault.

The program's development was driven by a market-oriented approach that identifies economic profit as a catalyst for environmental sustainability. By sourcing materials directly from local car scrap yards and repair services, the initiative minimizes logistics costs and maximizes resource efficiency. The recycled polypropylene produced is sold back to Tier-1 suppliers, such as Plastic Omnium, demonstrating a perfect example of industrial symbiosis where old car parts are reintegrated into the production of new vehicles. Furthermore, the facility aligns with the 2026 European regulation mandates that prohibit the export of valuable waste to third countries, ensuring that strategic materials stay within the EU. With a focus on technical excellence and high recycling efficiency, this Slovakian model proves that small-scale, specialized recycling operations are vital for achieving large-scale circular economy targets. It serves as a practical blueprint for regional waste management, showing how localized industrial efforts can turn environmental liabilities into valuable economic assets.



MUNICIPALITY OF HÉHALOM  
Hungary

## Infinite Aluminum: HELL Energy's Integrated Circular Packaging Model

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The "Infinite Aluminum" initiative by HELL Energy in Hungary represents a world-class benchmark for circular economy in the beverage industry. The core idea is to eliminate the reliance on single-use plastics by transitioning entirely to aluminum packaging, which is 100% and infinitely recyclable without losing its physical properties. Unlike plastic, which degrades in quality during recycling, aluminum can be melted down and reformed into new cans in a "closed-loop" system that saves up to 95% of the energy required for primary production. By establishing its own state-of-the-art aluminum can factory, QUALITY PACK, the company has secured a vertical integration that allows for total control over the recycled content of its products. This model demonstrates how a major industrial player can proactively redesign its supply chain to align with global sustainability goals, significantly reducing its carbon footprint and environmental impact on a massive scale.

The program's development is backed by a massive industrial investment exceeding €150 million, featuring one of the most automated and energy-efficient factories in Europe. A key component of the strategy is the "Green HELL" marketing campaign, which serves to educate consumers on the environmental benefits of aluminum over plastic, fostering a culture of responsible disposal. Furthermore, the company actively collaborates with national and international deposit-return systems (DRS) to ensure that used cans are efficiently recovered and returned to the production cycle. Continuous research and development efforts are focused on further reducing the weight of the cans—the "light-weighting" process—which minimizes material usage and energy consumption during transport. By combining large-scale industrial innovation with consumer education, Hungary's HELL Energy provides a robust and replicable blueprint for a truly circular manufacturing sector, proving that business growth and environmental stewardship can go hand in hand.

## KAS? TE!: Community-Based Item Exchange Centers for Reuse in Latvia

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The "KAS? TE!" (What? Here!) initiative, established by the waste management company SIA ALAAS in collaboration with the Rezekne District and City Municipalities, is a grassroots circular economy project that focuses on extending the lifecycle of household goods. The core idea is to create a network of accessible exchange centers where residents can freely donate and take usable items, ranging from kitchenware and tools to toys and sports equipment. By providing a structured and dignified alternative to disposal, the project shifts the public perception of "waste" toward "reusable resources." This model promotes a culture of sharing and responsible consumption, ensuring that functional products remain in the local economic loop as long as possible, thereby reducing the volume of waste sent to landfills and minimizing the environmental impact of producing new consumer goods.

The program's development is characterized by its strategic location of exchange points, such as the one at the Križevniki waste drop-off site and the specialized youth-oriented center at "ZEIMUĻS." This latter expansion, opened in September 2025, was developed through a unique public-private partnership involving the local youth center and the "VEREMS" plywood factory, highlighting how different sectors can cooperate to foster sustainable habits among younger generations. With a modest budget of approximately €3,000, the initiative demonstrates that high-impact circularity does not always require massive investment, but rather effective community engagement and smart logistics. The centers accept a wide variety of non-electric items, including school supplies, musical instruments, and interior decorations, which are then made available to the community at no cost. By integrating waste management with social solidarity, the "KAS? TE!" project serves as a highly replicable and scalable model for rural and urban areas alike. It proves that local initiatives can play a vital role in achieving national circular economy targets by empowering citizens to become active participants in resource conservation.



MUNICIPIUL CURTEA DE ARGES  
Romania

## RetuRO: Romania's National Return Guarantee System for Sustainable Packaging

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The RetuRO Return Guarantee System is a landmark initiative in Romania's transition toward a circular economy and sustainable water resource protection. Established in 2022 as a unique partnership between the Romanian state and major private sector associations—including brewers, soft drink producers, and retailers—the system was created to manage the national lifecycle of beverage packaging. Its primary goal is to ensure the efficient collection and reuse of single-use containers, significantly reducing the amount of waste that ends up in Romania's rivers and natural landscapes. By formalizing the return process, the system provides a structured response to the environmental impact of industrial packaging, fostering a culture of accountability among both producers and consumers.

The program operates through a highly organized administrative framework designed to optimize the recovery of glass, plastic, and metal materials. By creating a nationwide network of collection points and incentivizing public participation, RetuRO minimizes the leakage of non-biodegradable waste into the environment, thereby protecting vital ecosystems and improving overall urban and rural cleanliness. This collaborative model demonstrates how the public and private sectors can work together to achieve national environmental targets and comply with European sustainability standards. Ultimately, RetuRO serves as a strategic pillar for Romania's sustainable development, proving that efficient resource management is essential for preserving the country's natural heritage for future generations.

# Collaborators



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Funded by  
the European Union