







Collection of Good Practices

Promoting Re-use from the Public Policies

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The 2LIFES project has the major aim to accelerate Europe's entry into the era of reuse. While the European Union has promoted the Waste Hierarchy as the way forward, a significant portion of re-usable products is still prematurely recycled and even incinerated or landfilled.

According to UN Environment, 50% of all carbon emissions are caused by the extraction and processing of natural resources. That is why the European Commission underlines the need for the EU to "strive to reduce its consumption footprint and double its circular material use rate in the coming decade". Reuse requires a boost to expand across Europe.

This project brings together cities and regions in the backing of re-use. The main expected results are the development of new

channels, infrastructures, and protocols for reuse and the exchange of best practices to enable policy learning and step-up re-use. Awareness-raising of households, businesses and public administrations will also be needed. Green jobs around re-use initiatives are also expected.

This document includes all re-use best practices identified, summarized, and proof-read during the 2LIFES project. All these initiatives have been submitted to Interreg Europe and are available online here.

2LIFES partners share these initiatives with the goal of facilitating public knowledge and policy learning. This information can be used to adapt the initiatives to other cities and regions, therefore contributing to the entry into the era of re-use.



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Værdicentralen or "The Center of Value" (Denmark)

Værdicentralen was established by the waste management company Renosyd in 2015 with the purpose of giving new life to products from their recycling stations.

The municipally owned second-hand shop called Værdicentralen was established in 2015 with the purpose of giving new life to products from the recycling stations of Renosyd, the municipal waste management company just south of Aarhus.

The products sold in Værdicentralen would otherwise be crushed, deposited or incinerated, whereas they are now being directly re-used.

Cooperation with charities

All the products come from the recycling stations of Renosyd, where customers can deliver items directly to re-use. They can also donate items to local charities that also have second-hand shops. This cooperation works well as there are enough items for everyone.

Triple bottom-line results

Værdicentralen has, as part of Renosyd, focused on three bottom-line results; economy, environment and people. It is possible to create a sustainable commercial activity by selling second-hand items. Værdicentralen now holds a cash register in balance and an annual turnover of 2.700.000 DKK ex VAT.

Green Employment

Can a second-hand shop create jobs? Yes, Værdicentralen creates opportunities for people struggling in the job market. It currently employs 14 persons, 6 of them young people.

Værdicentralen collaborates with the municipalities and offers citizens a process with consideration to the need of each individual while offering a meaningful and appropriately challenging job.

Resources needed

In order to implement this practice, you must first and foremost have access to discarded items that could be re-used. For instance, re-usable goods currently going to recycling stations. Furthermore, you will need a start-up budget for logistics, staff and a shop to sell goods.

Evidence of success

Værdicentralen became economically sustainable after three years in business, and now removes 376 tons of waste from the waste flow every year, with an estimated share of reuse of 70%.

Værdicentralen has 14 employees. Some are flex positions, which include working in reduced hours or other special situations.

The quality of the many internships in Værdicentralen are being monitored through simple (and anonymous) questionnaires. The aim is to focus on quality training and the goal of each internship.



Potential for learning or transfer

This practice is easy to copy as well as to scale when your customer base grows. A direct sales channel is a great way to move large amounts of waste out of the waste flow and into an, even more, circular flow.

And better yet – if you can take the amounts of waste from recycling stations, where you will find an almost inexhendless of items that are more than suitable for re-use – then you have done good for the environment and will be able to secure your business for a long time.

Collection of home appliances and knick-knacks: employment created per kg collected (Spain)

Donation of objects in good condition no longer needed to be sold in second-hand stores, creating temporary job opportunities for people at risk of exclusion. This good practice is an action organised by COGERSA in close collaboration with EMULSA.

The activity was framed within the European Week for Waste Reduction, and it had the goal of collecting home appliances of different types that their owners no longer used or kept in a storage room. It also regarded home appliances managed as waste, but that, however, were in good condition for another citizen to give them a second life.

Therefore, this project included products such as bikes, electronic devices, toys and childhood material, books, small furniture, and more. To collect the products, large containers were made available in different locations in Asturias where the citizens could leave the objects they no longer needed.

The action was carried out in collaboration with a non-profit entity, Emaus Riquirraque, so all the chattles and objects collected were donated to this company, which, after





reviewing them, put up for sale in its second-hand stores.

Emaus generated job opportunities for people at risk of exclusion with the benefits obtained. Each kilo of products collected becomes about five minutes of employment. This campaign was carried out for two consecutive years, always in the European Week for Waste Reduction framework, in November 2015 and October 2016.

Resources needed

One big container (30-34m3) in each CAS.

Evidence of success

- 8.300 kg of products collected in 2015. That is 36.700 min = 15,3 weeks of social employment.
- 15.000 kg of products in 2016 (2.800 kg only in Gijón). That is 75.000 min = 31 weeks of social jobs.

Difficulties encountered

Some citizens were unwilling to purchase second-hand items, reporting reasons such as hygiene. Many people still do not understand that using second-hand objects is full of benefits for society. Furthermore, second-hand web pages and apps where it is possible to obtain money for unused goods may seem more attractive than donating.

Potential for learning or transfer

A vital lesson of this best practice is valuing the green and social employment generated by re-use activities. In fact, this experience served as the basis for a permanent project in EMULSA: ReuseApp, which started in June 2018. This space is situated in one of the four CAS of Gijón, where citizens may bring objects they no longer use but are still in good condition, ensuring a second life.

Les Ateliers du Bocage preparing cartridges for re-use (France)

This initiative supports socio-professional integration and the social economy through cartridge preparation for re-use, which has a notable positive environmental impact

Les Ateliers du Bocage (AdB), a member of Emmaüs France, collaborates with Brother and Lexmark to develop positive environmental and social impacts. AdB collects ink and toner cartridges throughout France via the Emmaüs communities.

Once the cartridges are collected/received, they are sorted, identified and weighed by brand, type and reference. The employees at AdB are given repair and re-use information, allowing them to separate the re-usable cartridges from the recyclable ones. After being sorted, cartridges reintegrate the industrial process: they are refilled, repaired, taken apart,



re-used with functioning spare parts, or recycled most efficiently.

Cartridges and toners represent highly polluting waste. The primary users are individuals and enterprises often unaware of how to dispose of them. AdB treats and sorts about 120,000 cartridges monthly, and approximately 500 different types of cartridges are identified. With over 1,375,417 cartridges "saved" in 2019, the environmental impact was huge with less waste produced, more energy saved and less resources extracted. In addition, potentially hazardous substances are being collected and re-used instead of being disposed irresponsibly, which prevents harming the environment.

The contracts between Brother/Lexmark and AdB allow for green jobs for people in precarious situations struggling to enter the labour market and seeking to preserve the environment.

Resources needed

For their environmental branch alone, AdB has an overall turnover of 3,799,897 EUR and

employs 63 people, 10 of which followed a training programme to prepare ink cartridges for re-use. AdB has established partnerships with different organisations to provide this service, including 100 schools committed to.

Evidence of success

Ateliers du Bocage employs about 63 people in their environmental branch alone, 14 of which followed a training programme.

Every year, about 1,5 million cartridges are re-used, remanufactured or properly recycled, saving vast amounts of natural resources, energy and reducing CO2 emissions.

Difficulties encountered

Producers are often unwilling to manufacture easily repairable or dismantled products to re-use the functioning spare parts. Thus, refurbishing some products can be complicated, costly or even impossible. Moreover, some products may need to be tested, which can be expensive.





Potential for learning or transfer

The majority of actors focusing on remanufacturing ink cartridges are private, creating enormous issues within waste management. This initiative shows that social and solidarity actors can also deal with such processes, allowing for a high degree of replicability in other contexts, both at national and EU levels.

Similar partnerships in various EU countries would reduce waste and create green employment for individuals. Such business models based on remanufacturing can enable employees to gain technical skills. In addition, the entities involved might only focus on collecting the products, not the actual remanufacturing process, which means that people without any technical skills can also be eligible for green jobs.

It would also accelerate the change in production and consumption habits, allowing citizens and professionals to use environmentally friendly products while raising awareness on how to return products that can be re-used rather than thrown away.

Towards computer-based management of Reuse Centres (Italy)

In order to solve all problems encountered in the management of the re-use center with a simple spreadsheet, a new management tool has been developed.



Re-use Centres are local reference points for the dissemination of re-use culture and also in environmental protection. In addition, these centres can also generate economic wealth in terms of savings:

- in disposal costs of goods, that would otherwise have ended up in landfills
- in health's costs related to CO2 emissions from the avoided disposal
- in environmental remediation's costs for the illegal dumping avoided

In order to solve all problems encountered in the management of a re-use centre with a simple spreadsheet, Risorse Cooperativa with Sistema 3 (a local software house) developed a new management tool: CDRi Manager. It is the first software with cloud technology specifically created for the complete and optimised management of the Reuse Centres. The main features of the software are:

- Real-time and Cloud management supervision.
- Reduction of data entry and checking times.



- Dematerialisation of conferment and withdrawal forms.
- Flexibility for all the management needs.

The adoption of a shared software could reach the objective of establishing a network of Reuse Centres at the regional level that would also involve small municipalities. It would facilitate the standardisation of the services offered and make it possible to account for the quantity and type of goods that are being recovered. Therefore, it will bring many economic, environmental and social benefits to the entire region.

Resources needed

Risorse Coperativa, which is in charge of managing the re-use centre of Macerata, and Sistema 3 have funded this initiative. It was necessary to use their skills and work to develop and integrate the project.

Evidence of success

- Savings in the disposal costs of goods that would otherwise have ended up in landfills
- Savings in health's costs related to CO2 emissions from the avoided disposal
- Savings in environmental remediation's costs for illegal disposal avoided
- Recovered goods' value restitution to the community
- Revenues derived from taxing withdrawal of goods for citizens who can pay
- Establishing a network of Reuse Centres
- Standardisation of the service

Potential for learning or transfer

The project is easily replicable. It allows flexibility for all management needs and easily customises all operational needs (scores withdrawal, paid withdrawal, benefits based on income, intercommunal centres, types of users, goods classifications, reports, etc.).

The transition to an integrated computerised management system would facilitate the standardisation of the services offered by the centres and the achievement of high management standards.

In addition, it would make it possible to account accurately and immediately for the quantity and type of goods that are being recovered.

Macerata Trashware: prolonging computers' lifespan (Italy)

This initiative focused on the recovery of obsolete computers before they entered the waste cycle, making them usable again through non-substantial repairs and software updates.

According to Italian law, after five years from purchase computer equipment has zero inventory value. Hence, State administrations must proceed with the sale through the State General Superintendency. If no buyer is found, they can be donated to schools or associations that request them. If all this is not possible, they



must be disposed of in compliance with environmental law.

Trashware consists of recovering obsolete personal computers before entering the waste cycle, making them usable again through minor repairs and free and open-source software installations. These changes allow extending the lifespan of personal computers, in line with the circular economy.

The project was developed in 4 main phases:

- Promotion towards organisations and individuals
- Collection of unused computers
- Recovery through the installation of the Linux operating system and other free software
- Redistribution of computers to those who can advantageously re-use them (schools and non-profit organisations).

The targets were the following:

 Decrease waste production from computer equipment

- Promote and spread the culture of re-use among citizens
- Provide efficient recovered computers to the associative world, social cooperation and non-profit sector
- Support the dissemination of basic computer knowledge and the use of open-source software
- Testing a new working model to generate new employment in the re-use sector.

Resources needed

Macerata Trashware, managed by RISORSE Società Cooperativa, was cofinanced by the Municipality of Macerata with a grant of 10,000,00 € and sponsored by the Province of Macerata.

The pilot project Macerata Trashware generated employment for two workers.

Evidence of success

The project has led to increased work for the cooperative in charge, with a consequent





increase in employment for specialised professionals.

The recovered computers, dismissed from the Chamber of Commerce offices, have been donated to local associations and schools. More than 50 personal computers were donated to primary and secondary schools and local cultural associations during the project.

Potential for learning or transfer

The project can be replicated if the legislative conditions of each region of application are verified and respected. The project can:

- Decrease waste production from computer equipment
- Promote and spread the culture of re-use among citizens
- Provide efficient recovered computers to the associative world, social cooperation and non-profit sector
- Support the dissemination of basic computer knowledge and the use of opensource software
- Test a new working model to generate new employment in the re-use sector.

Finally, it must be added that whilst COVID-19 has increased the need for computers for many families, not all families can afford the purchase of a computer.

Ludoteche del Riuso 2.0: expanding operational capabilities through new equipment (Italy)

To create new services and jobs, this project developed innovative services for the Ludoteche, expanding operational capabilities through new digital equipment.



Ludoteca Riù of S. M. Nuova, existing since 2001, is one of the five Ludoteca Riù of Marche Region. Ludoteca Riù are places where children from 6 to 10 learn to respect the planet and prevent waste production.

Through the manipulation and re-use of waste materials and creativity, children create toys, decorations, and have a lot of fun, all the while learning to live respecting the environment.

2020 was a difficult year, which introduced new rules in our daily life. Consequently, we also learned many new words: masks, social distancing, sanitiser, lockdown. This complex situation made us stop for months.

The lockdown forced us to learn, or at least improve, the use of technology, and this got us thinking: why not use technology to our advantage, so that children are not left alone?

Thanks to the collaboration with the Foundation of the paediatric Salesi Hospital in Ancona, we decided to launch a new section of video tutorials to entertain children, both inpatients and out. Costess Società Cooperativa is encharged to support Ludoteca Riù.



The first videos were shot in our kitchens and dining rooms, with our mobile phones and only with materials available at home.

In order to improve our work, the contribution of Marche Region through the grant for the project Ludoteca 2.0 region was fundamental and really supportive, providing us with a large amount of equipment suitable for a more interactive update

Resources needed

Marche Region finances the Ludoteca.2.0 project with a grant of 3.000,00 € for each of the five Playgrounds Riù of the Region, for a total of 15.000,00 € of funding provided. The contribution was fundamental, providing a large amount of equipment suitable for a more interactive update.

Evidence of success

The aim of the Ludoteca 2.0 project is to enable the Ludoteche Riù to improve the quality of their services, broaden the target group, and reach an increasing number of citizens with their activities.

Therefore, this will mean an increase in demand for the Playground's services and, consequently, an increase in work for the educators employed.

Potential for learning or transfer

The Ludoteca 2.0 project is relevant because it can be easily replicated in other situations. In addition, the use of software, programs and social platforms makes it easy to access in other regions of Europe.

Green employment at the Old Blue Company (Hungary)

This good practice is a Hungarian example of green employment by re-using jeans, canvas and sponge.

Old Blue was founded in 2014 to re-use jeans and denim, textile, shading canvas and sponge. The company manufactures a wide range of products from small everyday items to furniture and carpets.

The founder of Old Blue is committed to environmental protection and re-use. He saw the waste generated from the fashion industry and the significant pollution coming from jeans production as a problem, so he started to promote re-use.

This company works with 6 permanent and 5 temporary employees. Most colleagues (cutters, sewers) are subcontractors or outside workers. Full-time employees work in the shop and the office (operation, customer service, finance, administration). There are tailors, warehouse workers, and drivers among the part-time and temporary workers. These people were either unemployed before finding this job or had another low salary job. Old Blue trained them for smaller subtasks.







Resources needed

Human, technical and financial resources are needed for the operation. The company works with 11 employees and requires operation building, warehouse, machinery and vehicles. Old Blue has a shop and a showroom, as well.

Evidence of success

The success factors are as follows: 7 years of operation; 250 tons of jeans re-used so far; 300 tons of sponge re-used so far; increasing sales; increasing number of cooperating partners; the amount of textile waste decreased significantly; increasing number of employees.

Potential for learning or transfer

We consider this initiative potentially interesting to learn from, because in addition to conveying the re-use approach, the company produces spectacular products and approachforming in this way. The impact of the

company's activities on the local economy is also significant, which is achieved through employment on the one hand and through economic activity on the other. In terms of jobs, workers with special needs are given a special role.

Green Dot Cyprus collecting and managing packaging waste (Cyprus)

Green Dot Cyprus is the first Collective
Compliance System for Packaging and
Packaging Waste in Cyprus.

Green Dot Cyprus was established as a nonprofit organisation, on the initiative of the local industry and the Cyprus Chamber of Commerce and Industry (CCCI) as an umbrella organisation. Today, its shareholders include



enterprises responsible for packaging, the CCCI, packaging manufacturers, and distributors. The organization cooperates with the majority of enterprises operating in Cyprus and manages the packaging in order to give legal cover to its members.

The organization has demonstrated significant results, which are highly appreciated and recognised both nationally and at the European level for the quality of its work and especially for its contribution to public awareness on environmental issues.

Green Dot Cyprus collects and manages three packaging streams, PMD, Paper and Glass. More information is available at www.greendot.com.cy, or through the application 'ReCYcling CY' for mobile phones and tablets.

Resources needed

- Sub-contractors (private entities and NGOs)
- Members and Shareholders of the Organisation
- Structures and equipment (e.g. Green Point, collection trucks and services, Collection bins etc.). Financial: revenue from the sale of material, fees charged on Members and Shareholders of the Organisation etc

Evidence of success

Significant International Awards:

 2nd place at European level in the category 'Supporting the Development of Green Market & Resource Efficiency' at European Enterprise Promotion Awards of EU, 2013 Distinction among the 10 best European companies in the category 'Environmental & Corporate Sustainability' at European Business Awards 2014/2015

Potential for learning or transfer

Green Dot Cyprus has demonstrated significant results up to now. These results are highly appreciated and recognised both at the national and the European level for the quality of its work and especially for its contribution to public awareness on environmental issues.

A successful social organisation with a clear vision, mission, and values can be adapted and implemented in other Regions.

Anakyklos Perivallontiki closing the loop on textile waste (Cyprus)

Anakyklos Perivalontiki is a clothing, general fabric and fabric-related material recycling non-profit environmental organisation.



Anakyklos Perivallontiki is a non-profit environmental organisation founded in July 2010 aiming to actively contribute towards a clean, healthy and sustainable environment and engage in community/solidarity action. Anakyklos Perivalontiki is a clothing, general fabric and fabric-related material recycling company. Though its primary goal is environmental sustainability, it also has broader





social and ecological aims via the recycling of fabrics, apparel, etc.

The revenue part of the business derives from two things. Firstly from the sale of selected second-hand clothes in its 4 charity shops located in Cyprus - 4 main cities. Secondly, the exporting of apparel and material to be resold or recycled and used as raw material abroad.

Resources needed

- Sub-contractors -350 Key partners (public sector, local authorities - municipalities and communities, private companies, schools, NGOs etc)
- Structures and equipment (e.g. collection banks, equipment to prepare the textiles, services, etc.)
- Shops: Run of 5 Solidarity Shop

Evidence of success

 "Organized Group with Significant Environmental Activity", Green Dot Cyprus 4th Environmental Awards, 2014.

- The European Commission recognition of Anakyklos as "the first true social enterprise

 its aim is to reduce landfill waste and to provide affordable textiles/clothes to the market." (European Commission, 2014: 2) in Cyprus.
- Best social enterprise of Cyprus and a social and solidarity best practice by Susy, the international sustainable and solidarity economy network.

Potential for learning or transfer

A successful social enterprise with a simple, understandable and adaptable concept.



Holistic Waste Management

Program - Municipality of

Aglantzia (Cyprus)

The HWM Program provides the public with increased recycling opportunities as waste that can now be separated and recycled increases significantly.



With the implementation of the new "Holistic Waste Management" program, the municipality aims to achieve the transformation of waste into valuable raw materials, as most waste is recycled.

At the same time, the fixed, annual waste collection fee charged to every citizen today is abolished and the municipality introduces a variable payment method. The charge is relative only on to the amount of mixed waste that is not diverted to recycle streams. Citizens can significantly reduce the waste management cost implementing the *Limit – Reuse – Recycle – Save* philosophy.

The Holistic Waste Management Program of the Municipality includes Seven "Streams" as follows:

- Composting: The home composting bin is provided free of charge by the Municipality to any citizen who has a garden and is interested.
- PMD: The special PMD transparent bag is available in many outlets (supermarket kiosks, etc.) and its costs are similar to conventional waste bags.).

- Paper Recycling: The special brown bag is available in many outlets (supermarket kiosks, etc.) and its cost is similar to conventional garbage bags.
- Glass Recycling.
- Bulky items: use of the "Green Point" by citizens which is free of charge.
- Green Recycling: Citizens can buy the special paper bags for €1.50 at the defined sales points.
- Residual Waste: The Municipality now charges the collection of waste only through the charge of this bag.

Resources needed

- Municipal Services
- Sub-contractors (private entities and NGOs)
- Structures and equipment (e.g. Green Point, collection trucks and services, specific bins etc.)
- Budgetary details to be available within the 1st semester of 2021.

Evidence of success

Key stakeholders, students and citizens have embraced the initiative from the very beginning.

More information (quantities, budgetary, reduction, re-use) will be available within the 1st semester of 2021.

Key success Factors:

- Awareness raising for citizens
- Present information in a simple and interesting way



Potential for learning or transfer

Re-use has the highest priority in the European waste hierarchy. The Holistic Waste Management Program – Municipality of Aglantzia (Nicosia) is a simple, understandable and an adaptable concept which can be built by other local or regional authorities.

LitterGo – People, Environment and Purpose (Denmark)

LitterGo is a socio-economic company working for sustainability, creating jobs through cleaning and recycling tasks.

LitterGo create jobs for people on the edge of the job market. LitterGo work on construction sites with clean-up tasks, sorting plastic and construction waste for recycling.

LitterGo combine passion with pragmatics setting movement behind the UN's World Goals with concrete actions. LitterGo work for:

- Meaningful employment
- Recycling that pay off
- A clean city and better environment

LitterGo provides services within:

- Sorting recycling of construction waste.
 LitterGo receives waste for sorting into recyclable fractions and focuses on CO2-saving measures.
- Building service cleaning up, sweeping, vacuum cleaning and performing of interim measures.
- Waste Control removing casual and orphan waste.

Resources needed

- 5000 hours management, networking
- 35.000 EUR in tools, workspace and equipment

Evidence of success

- Hands-on knowledge handling a challenging staff group
- Hands-on services (knowledge), logistics and a tool base (physically tools)





- 24 customers
- 10 employees (part-time)
- A widely founded network

Potential for learning or transfer

Recyclable fractions are documented, valued in environmental as well as economic effects. As we're identifying critical factors, we develop economically sustainable logistics. Or we clarify under which circumstances sustainability can be obtained.

GENTRÆ (REEWOOD): towards circular timber (Denmark)

GENTRÆ is a circular concept ensuring timber from building sites to be sorted out of the waste stream and sold in building markets as an alternative product.

The construction sector generates almost half of the world's waste. At the same time, there is a shortage of raw materials, which makes the building sector dependent on circular economy for a sustainable future. However, using re-used building materials is not a possibility for contractors, as re-used materials are not available in large-scale retail sale. This is why, in 2019 Solum A/S (a Danish waste management company) has together with Stark (the largest building material supplier in the Nordics) and Golder (an environmental

consultant), in close cooperation with five of the market leading contractors developed GENTRÆ.

This concept ensures that timber from temporary construction measures can be sold in Danish building markets as a natural alternative to new timber products. Without GENTRÆ up to 50.000 tons of wood would be disposed of by incineration every year in Denmark. Every ton of construction timber that is re-used saves a total of 45 kg of CO2-eq.

By making re-used building materials available alongside conventional building materials, they become an attractive and natural choice for constructors and artisans, thereby contributing to a paradigm shift towards increased circularity in the building sector. By branding and introducing this first re-used building material in large-scale retail sale, we have gained documented knowledge of the cost, quantity, quality, logistics, market and legislation of a re-used product, thereby paving the way for other re-used building materials.

Resources needed

Project phase: 1 milion DKK was granted by the Circular Construction Challenge for the development of the prototype, data collection and documentation. Handling cost were mainly covered by the income from collection and sales of materials and self-financing of the hours dedicated by project partners



Evidence of success

GENTRÆ was in February 2019 selected as the winner of the Circular Construction Challenge by Realdania, a Danish association. The Circular Construction Challenge addressed the global problem of waste overload, mass consumption and increasing resource use and called for innovators to help solve the problem by reducing waste in the built environment. In October 2019 the GENTRÆ concept was presented at the annual ISWA conference in Bilbao, Spain. see video: https://solum.dk/case-stories.html

Potential for learning or transfer

Re-use has the highest priority in the European waste hierarchy. However, re-use (action or practice of using an item, whether for its original purpose) does not exist on a large scale. GENTRÆ is a simple and easily understandable concept and circular business model. It has been successfully built with cooperation across the value chain, making a real difference, with expansion possibilities.

Book Rescuers (Hungary)

This good practice aims to save unwanted or old books and make the joy of reading available to everyone.



The idea was born in 2013 when two private persons wanted to make the joy of reading available to everyone and save old and unused books. They started to collect books from libraries. households. schools. private collections and they tried to find a proper way to sell themBooksellingng began on special vehicles, redesigned Transylvanian carts. Books coming from donations or mass purchases at a low price (7 books = 1 EUR); On the carts, books are sold at unit price (1 book = 1 EUR). In this way, books (whether fiction, language book, storybook, compulsory reading, or entertaining literature) that cost hundreds of euros in bookstores become available to everyone. Old books don't end up in the trash either

Local municipalities support and encourage this initiative by trying to involve public institutions into the various operations and by providing public places to install the carts.







Resources needed

Human, technical and monetary resources are necessary for all operations. They have 75 employees, they need places for book selection and book storage, lockable carts for book sales, place for remodelling and repairing old carts, and they need money for salaries, operation and improvement activities.

Evidence of success

The pieces of evidence of success are: 1) seven successful operation years; 2) 12 permanent carts in Hungarian cities; 3) several temporary carts fitting festivals and holiday activities; 4) 75 employees; 5) 10,000 selected books per day; 6) 50,000 books re-used every day.

Potential for learning or transfer

The key success factors of good practice are the following: 1) well placed, designer carts, attractive, high-quality service; 2) carefully selected, quality books at a low price; 3) increasingly open approach to book re-use; 4) collaborations of involved actors (NGOs, citizens, schools, libraries, municipalities); 5) municipalities' support;

Re-use of natural stone materials from demolition following the 2016 earthquake (Italy)

Re-using natural stones and bricks to respect and enhance the identity of the territory, subject to historical heritage and landscape protection.



In the Marche Region, following the earthquake of 2016, serious damage was caused to the historical and artistic heritage. There is now great interest in rebuilding historic villages and the renovation of valuable buildings using energy-efficient technologies and, above all, reusing natural stones and bricks to respect and enhance the territory's identity, subject to historical landscape protection.

The practice was developed through specific procedures set up by the implementing party and the Ministry of Cultural Heritage (MIBAC). Operationally, specialised operators supported the concessionaire. As far as all the other materials are concerned, both affective and salvage, the activities of demolition, securing and controlled dismantling have implemented all the necessary actions to recover, set aside and catalogue everything possible for re-use. Different documentation signed by the owners accompanies each practice of rubble removal, relating declarations of presence and the possibility of recovery assets. By Decree of the Actuator of the 2016 Earthquake, COSMARI, a public company comprising 55 municipalities in the province of Macerata with a population of around 340,000





inhabitants, was entrusted with the Service Concession for the collection of rubble and material resulting from the collapse of buildings and demolition activities from the area of the 87 municipalities in 3 different provinces. The beneficiarie were local public administrations, SMEs, and citizens.

Resources needed

Cosmari proceeds to make specific monthly financial reports to Marche Region from about € 40.000,00 (max) to about €7.000,00 (Jan 2021 - minimum) to reimburse the cost of mechanical equipment, labour, and transportation of pallets.

Evidence of success

- Reducing the resource and energy impact of rebuilding.
- Less need to source raw materials.
- Reduce the impacts of transporting materials (part of the selected elements is left on the site, as requested by the owners).
- Keep the characteristics and traits of the sites ensuring visual identity and respecting the normative on protection of cultural heritage and landscape.

- Maximise re-use.
- Minimise recycling and landfill.

Difficulties encountered

We have not considered rubbles as waste. The re-use of natural construction stones in planning a selective demolition project and a deconstruction project is a priority. Landfilling all the material is not sustainable, but minimizing recycling and maximising re-use is.

Potential for learning or transfer

The area affected by the 2016 earthquake is made up of small villages with buildings made with natural stones (NS) of local extraction. There is a historical and cultural link between the buildings, the use (and REUSE) of NS and the lithology present in the area (limestone, sandstone, travertine, river pebbles, etc.) belonging to buildings no longer in use. Law already preserves ornamental stones. The re-use of NS and materials resulting from "selective demolition" (bricks, tiles, natural wood beams) be specifically provided "deconstruction" project. So the sense of reusing NS should be extended to all NS and materials that constitute the soul of the places.



The concept is to separate materials by design (as much as possible before demolition) to exclude them immediately from the attribution of a waste code not consider them as waste. This could be part of a planning perspective. The sense is to consider the re-use project before the demolition.

Campaign *Lavabile è sano* – Washable is healthy (Italy)

It is estimated that in Italy disposable nappies correspond to more than 10% of waste sent to landfill. Using washable diapers can help solve this problem.



Disposable nappy needs about 500 years to decompose in landfill;

- 1 child = 5 nappies / day
- 1 year = 1825 nappies
- 3 years = 5475 nappies
- Nappy weight = approx. 250 g

5475 nappies X 250 g = 1368.75 g = 1.3 tons of waste and 1 ton of CO2 emissions produced during the first 3 years of the child's life.

According to many studies over the last 20-30 years, the moment in which children reach sphincter control has been delayed (passing from an average of 18-24 months to 30-36 months of age). It has been hypothesised that the high absorbency capacity of sodium used in disposable diapers determines the lack of wet feeling in the child and that this could be the cause of a delay in the abandonment of the nappy. The project is implemented both through the initiative of the nurseries themselves and through the interest of the municipal administrations. The nurseries use washable nappies provided by the Coop. Stella del Mattino, instead of disposable nappies. The nappies are collected and returned by the same cooperative. The cooperative is equipped with its own ISO 14065 certified laundry. The local health authority authorises the process of sanitising diapers. Meetings dedicated to families are organised to encourage them to continue at home the experience started at school. The use of washable nappies with natural fibres (cotton) reduces redness and





irritation of the baby's skin. The main stakeholders in this project are: municipalities, private and public nurseries, and families.

Resources needed

ATA Rifiuti develops the project as part of its institutional activity without further specific funding measures. Stella del Mattino has benefited from funding from a banking foundation, mainly destined to set up the laundry and communication initiatives.

Evidence of success

4 Municipalities involved (Jesi, Senigallia, Ancona, Camerano).

Environmental goals:

- Reduction of waste produced and sent to landfill;
- Reduction of Co2 emissions generated by production and transport of disposable nappies;
- Reduction of costs for disposal of nonrecyclable waste;
- Raising public awareness of re-use.

Health goals:

- Protection of child's health through the use of nafibresfibers (cotton);
- Anticipation of children's autonomy concerning their physiological needs.

Potential for learning or transfer

One first similar project was developed in the municipality of Bologna and ATArifiuti and Coop. Stella del mattino then adapted and personalised it in the province of Ancona. The project is therefore easily replicable. The laundry follows sanitisation protocols recognised by the health authority and can be easily replicated with basic industrial washing machines and dryers. The creation of a complete supply chain of washable nappies using this project format (rental, supply, washing) is an added value that can generate local employment and the involvement of disadvantaged workers.

RapacinOnline: re-use of computers for students with few resources (Spain)

In this project, computers were re-used to benefit students with few resources therefore experiencing the digital gap.

The project consists of creating a network made up of the public administration, municipal companies, schools, non-profit organisations and families.

In this way, those citizens who have computer equipment in good working order, but which are in disuse because they have been replaced by other more modern and current equipment, donated it at collection points, such as the Reusapp Space in Gijón, CAS or regional technology centers. Subsequently, the non-profit Association, Hacedores & Makers, altruistically, proceeds to review the



equipment, erase hard drives and leave them working.

The equipment is then temporarily transferred (during a school year) to schools that have previously requested it for delivery to students who cannot afford to purchase equipment for different reasons.

In this way it is achieved, not only to avoid and prevent the generation of electronic waste through its re-use, but also to minimise the technological gap existing in today's society, as well as to ensure that students can follow the school rhythm in those cases in which to the current situation regarding COVID-19, it is necessary to carry out part of the classes electronically.

To date, the collection campaign has been framed within the European Waste Prevention Week, having made EMULSA a strong commitment to communication and information.

A web platform has been created with information about the complete process and the collection points so that the project can continue permanently

Resources needed

- Web page with information about the donation process and collection points.
 Places where collection take place.
- Operators who are in charge of collecting and taking data for accurate traceability.
- A company that performs inventory, equipment review, data erasure and equipment reconditioning.

Evidence of success

214 computer equipment (laptops, CPU, printers, monitors, tablets, etc.) were collected With all these individual elements, we were able to fix 69 complete computers (1 complete computer= monitor, CPU, printer, keyboard and mouse).

All these 69 complete computers were donated to 8 different public schools. Each one of them was subsequently handed over to a student with economical needs.

Difficulties encountered

The greatest challenge for the continuity of the project is to find a means of financing to be able to have a company that is in charge of carrying out the reconditioning of the donated equipment and trazability.

Potential for learning or transfer

The project is easy to replicate in other regions, not requiring a high amount of money to get it started.

Likewise, on the one hand, the objectives of the circular economy are combined, avoiding that said computer equipment ends up being waste, while having a high social component, since it seeks that possible vulnerable groups can have the necessary tools to have access to non-face-to-face training, something that due to the current situation of COVID-19 occurs more and more frequently.



La Ricicletta preparing for re-use abandoned bikes (Italy)

La Ricicletta (LR) recovers, re-uses and refurbishes the numerous bicycles, or parts of them, abandoned throughout the city of Ferrara, Italy.

In 2002, social cooperative II Germoglio launched LR, a social enterprise employing \approx 200 people in Ferrara. Ferrara, considered the capital of biking in Italy, saw increasing levels of abandoned bicycles throughout the city's courtyards and streets. From there the idea of recovering, repairing and re-using the numerous bikes (or parts of them) emerged.

LR works through collection or donation of used bikes, working to repair, recover, refurbish and re-use them to ultimately offer rental and sale services. Cooperation with the municipality provides extra bikes after clearing operations carried out by the municipality at the main train station, parking lots, public areas or even private buildings. LR also collaborates with the local Tourist Board and with important hotels in the city to ensure a wide outreach.

The collection (for free) and delivery of bicycles is provided in any area of the city of Ferrara and its province. Citizens receive a 5€ voucher per donated bike.

LR also focuses on a social dimension by creating jobs and training to reintegrate disadvantaged populations into the labour market. Employees involved are highly trained and specialised educators and mechanics.

For instance, LR cooperates with the prison of Ferrara where a worksop was installed. 3 inmates are responsible for the "preparation for re-use" of bikes. Some basic cleaning and refurbishement operations are carried out while the final assembling is done in the LR workshop by specialised technicians.

Resources needed

Il Germoglio takes care of administration and accountancy. Turnover ≈ €120.000/year Staff: 6 trainees (receiving stipends), 2 technicians and 1 trainer with social care skills. Recently, LR changed to a more central location able to accommodate numerous different services, operations and clients.

Evidence of success

LR refurbishes, re-uses and sells around 150 bikes every year. The bikes are sold with a "carnet" where all repair operations are reported. This helps keep track of repairs and the history of each bike.

Citizen donations are growing and the municipality is promoting a new mobility plan focusing on slow transport.

Rental services are also on a rise because
Ferrara is an increasingly popular tourist
destination. The rental service is free for
schools from anywhere in Italy.







Difficulties encountered

- Affording an operating space to accommodate all bikes + allow for a repair atelier hosting 10 people + client space
- Competition with lowcost bikes made in Asia impacts the bike sales
- Complexity of repair: spare parts aren't "standard" (pedals, handlebars,...)
- Seasonal business (March-October)

Potential for learning or transfer

The transferability and replicability of this initiative is relatively easy, especially where the land is flat and where the use of bikes is popular and well developed.

At the moment, La Ricicletta does not use ebikes since the demand is still not very high in Ferrara. E-bikes require the recruitment of specialised technicians to ensure the bikes are in perfect condition and extremely safe for rental and/or sale purposes. Several services can be replicable in similar contexts. La Ricicletta is currently engaged in talks with various shop owners in Ferrara to develop a delivery service of goods using re-used/refurbished cargo bikes.ert opinion

Bitubeton and tiles: old concrete becomes part of new roads (Denmark)

Sand and gravel have become scarce materials in Denmark. Therefore, Kredsløb has developed new asphalt and recycled concrete methods.

The content of the gravel pits is a limited resource, and in a densely populated country like Denmark, it becomes progressively more difficult to find places to extract raw materials.



The consequences may be that the materials of the future for infrastructure must be sourced from abroad. Something that will be both expensive, cumbersome and cause a great climate impact.

Kredsløb works with the long-term solutions together with the construction company Arkil experimenting with recycled concrete as a replacement for grav-el when the asphalt is to be produced.

The idea is called Bitubeton. A contraction of bitumen - an oil product that is to bind the asphalt together - and concrete(beton).

Kredsløb is also involved in another project using old concrete to make new tiles, together with IBF Beton.

The concrete is crushed, cleaned and sorted into sizes, after which they are used in the new tiles. The sustainable tiles were initially laid on a test section in Lisbjerg. The sustainable sidewalk tiles can be recycled over and over again.

Resources needed

Grained re-used concrete from recycling stations mixed together with bitumen is necessary. Normally only 10-15 % re-used concrete can enter in asphalt production but by using Bituen the number increases to 90% re-used concrete.

Evidence of success

The asphalt have been tested at various sites in Aarhus.

The recycling station RE-USE in Aarhus is paved with the new climate-friendly asphalt, and it is about to be tested for whether it can withstand the massive pressure from heavy traffic.

The tile production is in the start up phase, where the tiles are tested at various sites in Aarhus. The objective is that IBF Beton will start up production of re - tiles made of recycled concrete.

Potential for learning or transfer

The new product are pretty easy to produce and Kredsløb together with Arkil and IBF Beton have a great expectation in expanding the production and sees the new ways of making concrete and asphalt as essential alternatives to the conventional technologies

ReFashion Week: promoting second-hand clothes (U.S.A.)

The ReFashion Week in New York City (NYC) challenges citizens to imagine a world in which fashion is made, consumed and shared sustainably.

Annually, NYC's textile waste is \approx 200,000T - equivalent to the entire height of the Empire State Building. By keeping 200,000T of textiles out of landfills, energy can be saved and





greenhouse gas emissions reduced by 461,388 metric tonnes.

DonateNYC and The Sanitation Foundation set up the ReFashion Week. Both entitites are part of the Department of Sanitation of New York (DSNY). ReFashion Week aims to challenge NY residents to imagine a world in which fashion is made, consumed and shared through re-use. The entire week is dedicated to clothing swaps, styling competitions, mending/upcycling workshops, a Fashion Show and more. It raises awareness on the environmental issues brought by textile waste in the fashion industry. It demonstrates how second-hand clothing can produce runwaycaliber looks all the while reducing waste. The entities involved have gently-used pieces that look new, feel current, are budget-friendly, sustainable and fashionable.

To put this idea into action, the founding entities call upon citizens to donate used/unwanted clothing/textiles. Citizens can do so by requesting a home pick-up, using the

drop-off bins throughout the city, searching for second-hand shops on the DonateNYC App or browsing the NYC Textile Map for takeback programs and other donation points. Thrift stylists are then selected to create competing looks, for which expert judges will choose 1 winning stylist + 1 winning designer during the final Fashion Show.

Resources needed

Four employees at DSNY plan the opening/closing events, design assets, coordinate and promote events.

The Sanitation Foundation (non-profit org. of DSNY) has 2 employees supporting public-private partnerships and sponsorship of the week, as well as fundraising.

Evidence of success

Last year's events were such a success. The momentum to reduce textile waste around the City and throughout the fashion industry encouraged finding ways to execute it despite the challenges.



- Attendance: 4,000 attendees across 20 events
- Press coverage in 13 national + local outlets including CBS, NBC, Fox5
- 500,000+ social media impressions
- Increased participation and donations
- Waste Diverted: 2.5 tons of clothing swapped, mended, or otherwise rescued from landfill

Difficulties encountered

During COVID, bringing everything online is a challenge. Currently, ReFashion Week is utilising several tech platforms put on a virtual week of events that is both unique and compelling.

Potential for learning or transfer

Firstly, this practice was established by a public authority as DonateNYC is a programme of the Department of Sanitation of New York, which serves to "lead by example". Public administrations across Europe can replicate this practice.

The ReFashion Week succeeds in bringing together various actors such as businesses, residents and non-profits to challenge, throughusee and second hand, the waste created by fast fashion industries. It sparks conversations between the three actors to develop creative and comprehensive solutions to reduce textile waste. The partnerships incentivise actors to establish and promote circular and sustainable alternatives.

In addition, this initiative is very current/trendy as it emulates the worldwide popular fashion weeks that take place in big EU cities such as Milan or Paris. It can therefore attract and interest wide-ranging entities, sectors and actors, enthusiastic to contribute to the "hype" of the (sustainable) fashion sector.

New ways to encourage innovation and re-use (Lithuania)

Waste Management Centre of Klaipėda Region is always looking new ways to encourage innovation and re-use. Original decisions an ideas help to implement it.

Implementation of projects concerning innovation in waste reduction and re-use in Klaipėda, Lithuania Having started implementing the project 2LIFES, Waste Management Centre of Klaipeda Region (hereinafter referred to as WMCKR) employed innovative means to encourage circular economy. In 2019, waste management sites were equipped with points for exchanging items, which also led to an increased awareness in the local press, radio and social networks. As a consequence of an active communication campaign, item exchange rate in Klaipėda has increased dramatically.

Moreover, an app for Android users has been launched this year. It helps people to upload and exchange their items free of charge.



In addition, the app displays different areas or business establishments where unnecessary items can be fixed instead of throwing them out to a landfill. We're planning to implement an idea, which is already showing results in Germany, and have a once-in-a-month car boot sale in Klaipėda. The sale would be provided free of charge, however, various restrictions due to COVID-19 pandemic prevent it at the moment. The main aspect of a car boot sale is that people gather in one of the designated locations on weekends, put the items that they no longer need into the car boot and exchange them while communicating. experiences and listening to the radio. A car boot sale helps to reduce the amount of waste and encourages re-use of items that for some people seem no longer useful.

Resources needed

Since we're planning to raise awareness about the project by using different means of communication i.e. local press, radio stations and social networks, we require 25-35 K euros of annual funding to prepare, post content and advertise the project on social networks.

Evidence of success

We're seeing an increasing number of radio broadcasts and posts on social networks as well as items exchange in Klaipėda region, which is growing dramatically as our posts reach engagement numbers as high as 100 thousand users per month, which is more than 1.5 million every year. Both posts on social networks and radio broadcasts perform a socio-educational

function i.e. encourages recycling and exchanging items. This way the popularity of circular economy is highly increasing in our country.

Difficulties encountered

The main difficulty is COVID-19 pandemic and people's habits to throw items out instead of exchanging them. The reachability of older audience is also a concern since it's listening to specific (religious) radio stations and don't use social networks due to the lack of technological knowledge.

Potential for learning or transfer

The potential of this project is that it contributes to reducing waste and harm to the environment, which is one of the main strategic approaches of the European Commission. It also improves people's information literacy and forms the approach to waste management with the principles of circle economy in mind.

"Projet Valoriste" – Waste Valoriser Training Programme (Belgium)

In Belgium, there is an officially recognised training programme, the 're-usableoriser', focused on giving value to waste materials and re-usable products.



Waste prevention, re-use and repair activities are key in the transition to a circular economy and require workers with a specific set of skills and know-how. Through a particular training programme, 'Waste Valorisers' deal with varying incoming waste streams such as textiles, furniture, electronics and more. They are taught to recognise the value of waste materials and products and to distribute them towards the appropriate re-use or recycling streams.

However, while the Waste Valoriser profession always existed, it was not officially recognised and valued by the Belgian authorities. Therefore, RESSOURCES, the Belgian federation of social and circular enterprises, implemented this training programme and strongly advocated for its official recognition. The job and training programme is now legally recognised by the Belgian regions of Brussels and Wallonia. The

operator running the training programme is 'Mission Locale de Forest' (MLF).

Social and circular enterprises active in reuse and repair provide training and job opportunities to people distant from the labour market all the while giving a second life to items. It creates opportunities for individuals to reinsert themselvers into the labour market by working in a collective environment promoting integration through socialisation and team work.

Resources needed

Ressources has set up the training programme with other regional stakeholders. 1 project coordinator = 35.000 €

Although the subsidy covers other elements.

Mission Locale de Forest is the operator running the training programme.





Evidence of success

MLF organised 2 training sessions: one in 2018 and one in 2020. +/- 30 participants took parts in both sessions. Half of the participants took the exams and passed. Ressources estimated the potential of valorisation jobs of 250 to 450 additional FTEs by 2020. It is too early to consider the training programme a success or a failure. Because the goals have not been met, the MLF decided not to run the programme in 2021.

Difficulties encountered

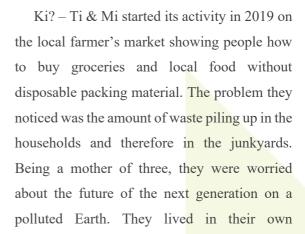
Still too new - hard to highlight relevance of the programme using conventional indicators (% of participants getting a job or % participants enrolling in studies). Difficult to convince participants and Ressources members to consider 'official' certification as the logical step forward.

Potential for learning or transfer

- It allows an underqualified public to see their knowledge and skills officially recognised.
- During the job recognition process, training course standards have to be drafted. These standards give re-use centres a frame to reorientate their practices.
- It is a great opportunity to collaborate with organisations in other sectors.

Ki? – Ti & Mi: eco-conscious approaches in everyday life (Hungary)

Two young mothers working to raise awareness, educate children and inspire people to find eco-conscious approaches and focuse on zero waste living.



households aiming zero waste, and they wanted

to share ideas with others.

After the first successful initiatives on the farmer's market, they got invitations to schools to show this lifestyle to children. They believe that by reaching children aged 6-14 they can affect their parents, too. Their activities promoting re-use include: 1) regular events on the farmer's market with various activities; 2) education in schools; 3) Zero Waste Breakfast; 4) regular programme on a regional broadcast; 5) social media running a Facebook page with ~2500 followers and an Instagram site.

opinion



Resources needed

Resources needod: 1) human resources: 2 founders and volunteers; cooperation of municipalitre-usableools and event organisers; 2) technical resources: place, reusable tools and articles, visual aid; 3) monetary resources: material and human costs.

Evidence of success

Evidence of succes: 1) Plastic waste reduction: in the farmer's market the usage of plastic bags dropped by 80%; 2) People reached: more than 1000 children in school performances and thousands of local residents in events; more than 100.000 listeners in radio; 3) re-use implemented in events: recups and mugs instead of disposables, textile bags instead of one-way plastics; 4) Community development: a group of more than 20 entrepreneurs, artisans and mediaworkers as a basis of the next events.

Potential for learning or transfer

Key success factors: 1) cooperation with municipalities; 2) good relationships with local NGOs like the farmer's market; 3) feedback from partners.

The green local government in Úrhida (Hungary)

This good practice is about re-use activities regarding packaging of a small Hungarian local government, Úrhida.



Úrhida is a dead-end village in Central-Transdanubia, 10 km away from Székesfehérvár. Educational level of population is higher than the average of Hungarian villages due to the social structure of immigrants, residents are more open to vary local initiatives including green actions.

Local government launched some activities in the last 3 yearsre-usablece the amount of waste, these are the following: 1) RE-CUP (reusable plastic cup with village logo) introduced on the village festival held in 2017, used in further events since the first implementation; 2) Instead of disposable plastic cups, school kitchen mugs and glasses are used at kindergarten events; 3) An information board was placed in the kindergarten on the harmful effects of disposable packaging materials; 4) The primary school's yard is decorated with furniture made of re-used wooden pallets, playground equipment and plant pots made of car tyres; 5) The municipality bought a highefficiency branch shredder which is available for all residents, People can rent the machine at a discount, realising shared usage instead of personal buying.



Resources needed

- Human resource: representatives of the municipality, schools and kindergarten, local inhabitants and volunteers
- Technical resources: a place and re-usable materials
- Monetary resources: material and communication costs were covered by local funds.

Evidence of success

Evidence of success: 1) Plastic waste reduction; 2) Number of involved stakeholders (10-15 persons and organisations per year); 3) Number of involved residents (250 persons per year); 4) Community development; 5) Improving quality of life;

Potential for learning or transfer

Key succes factors are the following: 1) Openness for these green local initiatives; 2) Willingness for cooperation; 3) Good relationships with local NGOs;

Ludoteca "Riù" raising awareness among the youngest (Italy)

Raise awareness among children, teens and teachers, on creative re-use of waste materials and to stimulate a more responsible attitude towards objects and goods.

The Ludoteca "Riù" provides training services for children and schools, and constitutes a first real laboratory of training for a new education focused on environmental sustainability.

The project aims to promote and to raise awareness of children and students about waste prevention and re-use.

This is part of a broader objective to encourage behavioural change of children and adults towards a behaviour which is more compatible with the environment in which they live.

Attention is paid to the possibility of reducing waste production, including through a re-use culture, as well as to correct separate collection of waste for recycling.

Resources needed

The Region co-finances the annual programming of activities, indicating for each year a common theme to be developed:

- 2017 and 2018: food waste
- 2019 and 2020: prevention of plastic waste in the env. And sea.

The Regional Waste Management Plan has also been essential, providing an average of €160.000,00 per year of regional funds.

Evidence of success

 Annually about 9000 children from preschools, primary and secondary schools of the Marche Region participate in at least one Ludoteca RIU' laboratory.





- Annually at least 6000 families participate in a demonstration organised by the Ludoteca RIU' in the 5 provinces.
- Annually at least 250 teachers are trained and helped in didactic projects of Ludoteca RIU'. Active participation from cultural and recreational associations, social centres, churches, municipalities, local trade associations, and companies

Difficulties encountered

The novelty, the public management that eased relations with scholastic institutions, the free participation, the cooperation of local volunteer association and social centres and, finally, the presence of well-prepared operators that are competent in environmental sustainability

Potential for learning or transfer

One fundamental lesson of this experience is the need to increase the contacts with local and regional companies.

In addition, the duration of the impact on the behaviour of pupils, teachers and parents could be measured by follow-up surveys.

If the beneficial impacts are quantified, this would allow to calculate the total potential impact of the training provided in terms of waste avoided as well as in terms of CO2 emissions reductions. Even if it might only allow a rough approximation, it could nonetheless be useful in terms of communication.



The re-use centre of the Municipality of Serra de Conti (Italy)

The re-usablentre is a place where each citizen can go and leave or collect reusable good. Is based next to the Center of Serra de' Conti.

The activity involves four Municipalities: Serra de' Conti, Arcevia, Barbara and Montecarotto. The center, called *L'Alligatore*, is managed by the Municipality with the help of some volunteers (pensioners, etc.). The majority of the objects are eventually re-used. These re-used items account for more than 2% of the total waste generated, and this trend is in constant growth.

The Reuse center does not require payment for withdrawn goods. Because it serves as an exchange on site it does not require particular accounting documents. Only for statistical purpose, weighing (of everything, without distinction of typology) is carried out. No critical issues are reported in the management of the center.

The practice aims at a reduction of waste production.

The main stakeholders are the citizens of the municipalities.

Since the Reuse Center has no separate staff it makes use of the staff of the collection center that involves more than one person per shift. The staff in charge of control the entire environmental center is contracted by the Municipality. There are also Auser volunteers (voluntary association for social promotion).

It is important that the volunteers belong to an association to guarantee their coordination and insurance coverage.

Resources needed

For the establishment of the Center for separately collected fractions, including the Reuse Center of € 500.000 was spent, €80.000 for brick masonry also hosting the Offices. It is not possible to quantify separately the management costs of the RC. The presence of staff in is essential.

Evidence of success

- A substantial decrease in waste was noted.
- Around 7.000 € a year are saved, considering the average cost of about 180 €/ton for the disposal (collection and disposal).
- About 12.000 inhabitants have been involved in this action

Potential for learning or transfer

The practice is particularly important for those public administrations that intend to reduce the amount of waste and, at the same time, act on the ethical and social sense of the people.

An important element is of course the free access of the center which does not provide for payments.

The possibility of transferring the good practice in different areas of our region is also



due to the fact that guidelines have been issued for the management of re-use centers.

Be Circular Be Brussels (Belgium)

The "Be Circular Be Brussels" project aims to introduce and develop the circular economy, including re-use practices, in the Brussels region.

Launched by the Government of the Brussels Region, the project "Be Circular Be Brussels" (BCBB) ensures that environmental protection represents a source of economic opportunities and job creation for all the people of Brussels. The project seeks to stimulate an economy that is low in carbon, prioritises repair, re-use and recycling and meets the citizens' needs.

Part of the wider "Regional Programme for a Circular Economy", BCBB focuses on 4 sectors: food, 3R re-use/repair/recycling), new bussiness models and construction. The construction sector and the entire building stock are essential driving forces for transitioning to a circular economy and creating local jobs, representing an important potential for re-use and innovation.

Every year within the construction field, the Brussels Government launches calls for proposals inviting private or public actors to put forward their initiatives/projects supporting durable activities. The objective is to avoid

demolition where possible, and promote the reuse of building materials and components. Selected actors then benefit from financial help ($\approx €30.000/\text{project}$), extra visibility and specific assistance in business support services at regional level.

BCBB provides a holistic vision to circular construction by involving various ministerial competences (environment, economy, employment, training and waste management), different regional and municipal authorities as well as private and public actors.

Resources needed

The overarching "Regional Programme for a Circular Economy" is composed of 111 measures and a total budget of €13 million/year.

BCBB receives a total of €1,5 million/year to be distributed across the 4 sectors. The construction programme receives ≈ €250,000/ year and counts 2 full time employees.

Evidence of success

- Increasing awareness and incentivising building companies and managers to re-use more
- Development of a collaborative platform to locate/give equipment, materials and services between construction companies
- Increasing cooperation between public and private actors
- Numerous initiatives and tools exist or are still under development to promote re-use



Difficulties encountered

- Lack of guarantees of re-used materials: studies on dismounted-remounted re-usable pending
- Need storage space for materials
- Cost of the workforce using re-usable materials
- Inadequate security and energy regulations for re-use.
- Taxes are identical whether using re-used or new materials.

Potential for learning or transfer

This circular project is unique in the sense that it is promoted by a regional public authority. In a bid to transition from a linear to a circular economy, the Brussels Government seeks to lead by example and provides strong incentives for a wide range of private and public actors to re-use more, avoid extraction of new natural resources and create more local jobs. Re-using existing local materials, transforming them to extend their lifespan, and pooling resources are all practices that will help the construction sector achieve a circular economy. This kind of circular programme promoted by public authorities involving many different actors is replicable across EU regions.

The Waste and Heating Aarhus Visiting Service (Denmark)

The visiting service at Waste and Heating Aarhus offers courses focusing on waste, recycling, energy, district heating, sustainability and resources.



The visiting service at Waste and Heating Aarhus offers courses focusing on waste, recycling, energy, district heating, sustainability and resources, and receives visits from children, young adults and adults at authentic locations such as incinerators and recycling stations. In addition, the Visitor Service visits schools and youth education as well as participates in civic-focused events. The Visitor Service is in direct contact with approximately 10,000 people each year.

At REUSE (our recycling centre which focuses on direct recycling) we receive 40-50 school classes every year from the 4th to 8th grade for a free course on recycling, innovation and redesign. Students learn about direct recycling, resource circuits and prevention through dialogic teaching. They are then guided through an innovation process that initiates creative thoughts on how to redesign discarded products. In the containers at REUSE, they select some effects that they want to turn into new usable things, and they prepare a work plan for how they will implement the project. Back at school, they work on the craft process and complete the product in collaboration with their Craft & Design teacher.



Resources needed

The visiting service at Waste and Heating
Aarhus is funded by the Municipallity of
Aarhus

Evidence of success

The Visitor Service is in direct contact with approximately 10,000 people each year. REUSE (the recycling centre which focuses on direct recycling) receives 40-50 school classes every year from the 4th to 8th grade.

Potential for learning or transfer

The hands on phillosophy of the courses developed by Waste and Heating Aarhus has made them suitable for replication to other municipallities and contexts.

REUSE: a new site to promote reuse and prevent waste (Denmark)

REUSE in Aarhus is a new thought recycling site. Here citizens can collect and handover things for free, as an example of Circular Economy in action. Other citizens can then collect these things for free. At REUSE, things get a new life and thus avoid becoming trash.



The recycling items that the citizens hand in are set up in specially designed containers and sorted on different categories, e.g. "the living room", or "the bedroom". We made sure to cover the area, so citizens can walk around between the containers without getting wet from rain. Citizens can borrow a cargo bike to carry large goods home. REUSE is open most days, including weekends and holidays. REUSE receives approx. two tons of recyclables form the six other recycling stations in Aarhus all which have set up REUSE containers, where citizens can drop of their used goods.





Approx. 90% of recyclables that are coming in will be put out at the REUSE centre. Of this, 90% again leaves REUSE with one of our 300 daily visitors.

Resources needed

The City Council of Aarhus has granted 300.000 Euro annualy for the REUSE project.

Evidence of success

40 % of the citizens in Aarhus know about the REUSE recycling station. Daily REUSE receives more than 2 tonnes of goods that get a new life. The things have been donated by the citizens themselves. REUSE receives more than 300 visitors daily.

Potential for learning or transfer

REUSE has become famous nationally as well as internationally, because there is potential in replicating and adapting the simple concept into other places and context.

National Reuse Month (Ireland)

In 2016, the three Irish Regional Waste Authorities, representing all 31 local authorities, established Ireland's "National Reuse Month".

"National Reuse Month" was set up in 2016 by the three Irish Regional Waste Authorities, namely Eastern-Midlands Waste Management Region, Southern Waste Region and Connacht Ulster Waste Region. Taking place in October of every year, the aim is to inspire and provide people with skills and tools to re-use more at home, at work and at play. Throughout the country, the public, community groups and

businesses are invited to hold and attend community-based workshops, events and information points in a multitude of areas from managing food waste and upcycling everything to fashion and furniture.

In addition to events, there are online resources about re-use available and an upcycling competition is run annually in parallel with the National Reuse Month. Re-use is about valuing our stuff, by using and re-using it for as long and as often as possible. This avoids the need to extract raw materials, manufacture and distribute new stuff, and avoids waste thereby cutting down on greenhouse gas emissions.

This campaign is targeted at a generation that grew up in a consumer culture that didn't consider where things came from or went to after their use. It intends to edcuate and raise awareness on the environmental consequences of using up primary resources and dumping waste.

Resources needed

The campaign is managed alternatively inhouse by the Regional Authorities or externally by partners engaged by the



Authorities through a request for Tender (<€25,000). Small amounts are also made available to NGOs, community groups and others to run events or projects that complement the campaign.

 Initiative to focus on re-use for an entire month through practical and diverse events that are held throughout the country (accessible) and community based

Evidence of success

The campaign demonstrates how a nationwide cooperation between local authorities, communities, businesses, NGOs and social enterprises can work effectively to promote reuse.

Multicultural and intergenerational, it provides the tools and knowledge on re-using "at home, at work and at play" to a large span of the population, positively impacting the entire country.

The campaign has won the hearts of many as participation increases every year and ranges from many different sectors.

Difficulties encountered

- Engaging those not normally interested in re-use - this is particularly challenging in 2020 with all the online events taking place due to the COVID-19 pandemic.
- Raising the profile of the campaign.

Potential for learning or transfer

- Engagement from local authorities across entire country through Regional Authority structure.
- Branding
- Toolkits and videos

Helsinki Metropolitan Area Reuse Centre (Finland)

The Finnish re-use centre works with the Helsinki Region Environmental Services Authority to provide expert lessons for students, residents and educators.

The re-use centre, Pääkaupunkiseudun Kierrätyskeskus (PK), is a non-profit social enterprise operating 9 re-use shops in the Helsinki Metropolitan Area (Finland). An essential part of its activities focus on Environmental Education.

PK cooperates with the Helsinki Region Environmental Services Authority (HSY) to provide expert lessons for students ranging from kindergarten to high school, for residents, educators and broader working communities.

Every 3 years, HSY puts out a call for tenders to provide training and educational services for schools and residents. PK has succeeded every year.

The topics of these educational classes focus on leading sustainable lifestyles through effective waste reduction and management as well as sustainable consumption through re-use



and repair. PK offers courses on home waste management, sorting, water consumption and composting well tailor-made as environmental management training companies, organisations and other public authorities, with the possibility of obtaining an official certificate. For instance, PK organised handcrafting workshops as teambuilding sessions for companies and public authorities, including the Finnish Ministry of Education. While environmental advice is free for residents, music performances, guided crafts, environmental games and specific workshops are subject to a fee as they require trained teams and solid pedagogical expertise.

Resources needed

10 employees in training and education activities and \approx 20 gig employees. The total cost of training acre-usable \approx \notin 400000/year.

 \approx 60% is financed by HSY purchases,

≈25% of costs are covered by the sales of reusable goods within PK's re-use shops and the rest comes from project financing.

Evidence of success

Training courses and other educational activities reach more than 65 000 people/year. The number of events/participants are growing every year. Based on the amount of employees and customers, PK is the largest and oldest environmental school offering activities for children and young people in Finland. PK is therefore valuable/helpful in educating and raising awareness for various population groups

from public administrations, companies and organisations to students and everyday citizens.

Difficulties encountered

- Labourious/expensive to keep up with changing trends + produce high quality teaching content/learning materials.
- More funding is required to promote environmental awareness through tools and platforms.
- End users have needs but very little resources, meaning funding has to come from elsewhere.

Potential for learning or transfer

This best practice showcases the great positive impact that comes from cooperation between public authorities and third sector entities. It clearly demonstrates how strong relations between regional public authorities and social actors can bring about solid awareness and quality education services and training.

This tendering process put out by a regional public administration aiming to improve circular and re-use practices through education, training and overall awareness raising can be replicated by other public authorities across EU regions. Schools do not always have the money to benefit from quality support themselves, so the fact that a regional environmental authority provides such a service is of paramount importance. In turn, this allows for more environmentally conscious populations, SMEs



and authorities focusing on re-use practices requiring less natural resource extraction.

Les Petits Riens: promoting re-use while helping vulnerable individuals (Belgium)

Since 1937, social enterprise Les Petits Riens helps vulnerable populations find shelters and jobs in collection, sorting, re-use, repair and second-hand sales.

In the 1930s, Father Froidure created playgrounds for disadvantaged children and organised clothing and furniture collections to help working-class families in Brussels. In 1937, Father Froidure created a "united habitat" for men without resources or housing. Through social housing and the collection, sorting and reselling of second-hand objects, jobs were also created, giving birth to Les Petits Riens (LPR).

With a pioneering business model based on collecting, sorting, selling and donations of second-hand items, LPR centres its social actions on access to housing and the labour market for disadvantaged people.

LPR's 3 main pillars are poverty reduction, environmental benefits and work integration. On a yearly average, LPR collect 8.000 tons of material, with textiles representing 80% of the total volume. The remaining 20% of the collections consist of furniture, household

items, electric and electronics appliances, books, toys,... The preparation for re-use re-use activities are done via bin collections for textiles, collection at home for bulky and household items or direct donations. There are approximately 640 textile collection bins, 63 drop-off points and 27 shops selling second-hand goods (24 in Brussels and 3 in Wallonia). Once collected, the bins are brought to a sophisticated sorting centre in which only 15% of what is collected can be sold in the shops. 40% is sent for export, 28% is recycled and 17% will have to be disposed of through incineration and at a cost.

Resources needed

LPR decided to merge the 3 collection/sorting plants into a single facility. Mostly financed by LPR with partial support from the Brussels Region, this investment cost €10.9M. In 2019, there were 325 employees, 535 following an integration program and 297 volunteers.

Evidence of success

With over 600 textile collection points, 8.000 tons of material collected every year, 27 shops, 300+ employees, 300 volunteers and training opportunities, Les Petits Riens is a major actor of the waste management sector in Brussels. In addition to the 12,4 million sales turnover, LPR receive yearly donations of \approx €1 million and €3.3 million in subsidies.

Cooperation with famous brands such as H&M, Zara and other supermarket chains/retailers enable them to expand their operations in new areas.





Difficulties encountered

Some of the challenges encountered: low margins when working with re-use or prepared for re-use materials, the quality of items collected is going down (mainly textiles / furniture), increasingly high cost for the disposal of material which cannot be resold, need to raise awareness among citizens, etc.

Potential for learning or transfer

Compared to other entities in the Flanders region for example, the Brussels model and the aids received for helping unemployed or disadvantaged people are much less generous. Thus, there is a higher degree of replicability in other contexts, both national and European level.

However, the big investments made by LPR in recent years to centralise all activities in a single, modern and accessible plant are outside the reach of most re-use centres. The reputation built over so many years allowed them to gather financial resources from different actors and build trust withing the banks.

In addition, as far as the collection of textiles is concerned, LPR work in a quasi monopoly context. They don't have to pay the region or the municipalities to place containers which helps fight back private competitors.

LPR are members of RESSOURCES (network of social enterprises working on reuse), allowing for members to exchange valuable information across different regions.

EMULSA collaboration models with entities that manage second-hand shops (Spain)

Through agreements with different entities, the aim is to reduce the generation of waste and increase the re-use of objects susceptible to a second life.



EMULSA has drawn up different agreements with private companies, non-profit organisations and social insertion companies, allowing for social and green employment to be promoted as well as the reduction of waste generation and the increase in recycling and reuse of objects susceptible to a second life.

Second-hand clothes.

Through an agreement with Caritas-Koopera, 68 containers have been installed on public roads for the deposit and collection of clothes. As a complement to this collection, Caritas has installed a second-hand clothing store in one of the most commercial streets of the city in which the design, decoration and distribution by colors play a very important role for the perception of the customer, giving the feeling of being inside an ordinary clothing store.

Furniture.

In 2018, an agreement was signed with EMAUS by which a specific collection, directly within citizens' homes, of furniture or belonging that were in good enough condition to be used by other people. EMULSA is in charge of the telephone service and the allocation of days and hours for collection. EMAUS is in charge of the home collection of the goods and their subsequent sale in its own stores. With the economic benefits following the sales, EMAUS supports the project of labor insertion of people at risk of social exclusion.

Resources needed

- 68 street containers for used clothes.
- Collector trucks.
- Stores and warehouses

Evidence of success

• Second-hand clothes: 935.462 kg (2021)

• Furniture: 53.115 kg (2021)

Difficulties encountered

Textile still represents more than 10% of total from residual waste. It is expected to install more specific containers for the collection of used clothing. Inefficiencies detected in the collection of furniture due to the picaresque citizen.

Potential for learning or transfer

Waste management is a challenge facing all European regions in the coming years. A way must be sought to reduce waste generation without affecting the citizen's quality of life or compromising the economy of the regions.

Better and more sustainable waste management is possible. In this management, the re-use of objects, goods and products plays an important role.

Likewise, reaching agreements with social entities combines this objective of environmental sustainability with other social objectives of insertion of certain groups at risk of exclusion.



Re-use space and re-use app (Spain)

Mobile application where citizens can acquire objects, that other citizens no longer need, for free and that are donated and collected at the Civic Amenity Sites.



Reusapp: in one of its Civic Amenity Site, EMULSA has set up a space where citizens, with EMULSA's permission, can drop off the unwanted objects that are still in good condition to be used by another person. These objects are uploaded by EMULSA to a free mobile app where people can pick them up without any cost. The majority of the objects are electric an electronic devices, childcare materials and toys that are in an adequate state and susceptible to be re-used.

The main goal of this project is to achieve the 50% of re-use and recycling set by the European Union for the year 2020.

An issue that arose was that there have been many robberies in the area where the objects are stored and that only objects in good condition were accepted.

There were also some miscommunication issues with citizens.

The contest where the practice was introduced was the Strategic Business Plan of EMULSA and the Municipal Waste Management Plan.

By the implementation of these practices, EMULSA improved the communication with citizens, increased the re-use percentage and promoted the circular economy in the town of Gijón. The main stakeholders and beneficiaries are the citizens.

Resources needed

22,500 euros to update the app and adapt an existing space for the temporary storage of the objects that are later exchanged







Evidence of success

In four years, 2.992 items exchanged 15.810 kg of materials destined to be re-used instead of landfilled, incinerated or prematurely recycled.

Difficulties encountered

- Expand facilities
- Include objets exchange with repairing needs, not only good conditions objets

Potential for learning or transfer

European directive waste management establishes the need to increase the percentages of objects destined for re-use and recycling above 50%. Likewise, the established hierarchy prioritises re-use over other options such as recycling, valorisation or disposal. The implementation of specific and simple measures to achieve these objectives, focused among other things on reducing the global consumption of raw materials and achieving greater sustainability, undoubtedly be a task shared by all the regions and countries of the European Union.

Giving, not only receiving: the Reverse Advent initiative (Hungary)

The Reverse Advent is a local initiative with the main purpose of giving something, instead of receiving, during the Advent Period.

During December 2019, the Central Transdanubian Regional Innovation Agency implemented the Reverse Advent initiative in cooperation with a local NGO, called Ki? -Ti & Mi. The essence of the Reverse Advent initiative is that instead of receiving something every day, like a normal advent calendar, we give something each day.

On the 1st of December we open an empty box and then for 24 days we put something in there each day. Then we give the package to a family that couldn't afford Christmas presents.

Therefore, instead of buying presents, we give our own things away, all the while involving children in the activity. The re-use approach implies that all items get a second life,





therefore diverting waste from landfill, incineration, and premature recycling.

Resources needed

This initiative doesn't require financial resources.

Evidence of success

- Number of donator families (10 families in 2019).
- Number of families supported (10 families in 2019).
- Number of re-used pieces (clothes, toys, books...) (240 in 2019).
- Increasing social responsibility.
- Strengthening environmentally conscious consumption.

Potential for learning or transfer

This initiative can be easily replicated thanks to its elementary nature and reduced price. During an important period of the year, we can start paying attention to ourselves, our relationships, our environment, and social inequalities. An important aspect is that children are involved to create these Advent Boxes, therefore giving new lifes to unused clothes, like toys, and books.

In addition to social relevance and awareness raising, an important aspect of this good practice is the second-hand approach. A waste-free environment can be achieved by shaping circular consumption patterns.



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