Innovative Common Methodology for Reuse and Recycling

Report from UPNOWASTE WP2 Activity 3

UPNOWASTE

UPcycling: New life for Old items to reduce WASTE

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Executive summary

The report presents a common methodology for recycling/reusing different materials so that it can be applied in upcycling cafés. Recycling/reuse will focus on materials and techniques that do not require industrial equipment.

The common methodology was developed with the contribution of all partners and responds to the activities planned by the UpNoWaste Project in relation to the final part of the second work package.

Introduction

The report was based on an analysis of the reuse/recycling of different materials, carried out by all project partners, and on a comparison of their findings in order to identify a common methodology.

The report therefore includes examples of Good Practices for reuse/recycle of different materials, an analysis of all the stages involved in the reuse/recycling of any material, the search for a common methodology that could be applied in upcycling cafés, and the target audience.

Findings of Comparison of reuse/recycle of various materials

The comparison between the various methodologies was carried out by analysing the report 'Innovative methodologies for sustainable materials - Comparative Analysis' and giving practical examples as Best Practices of methodologies for the reuse/recycling of six types of materials, in order to find a common methodology.

Examples of methodologies of existing processes of reuse and recycle of different materials

Best Practice Example #1: Paper

Country	Hungary
Type of material	Paper
Organization / Institution / Association	TREBAG SZELLEMI TULAJDON- ES PROJEKTMENEDZSER KFT (TREBAG)
Title / Name of the activity	Papety – Handmade Paper Workshop in Etyek
Abstract	Papety is a creative workshop in Etyek, Hungary, where participants can learn the art of traditional paper-making (paper-pulping) and create their own recycled paper sheets. The workshop promotes sustainability by encouraging participants to bring their own waste paper materials, which they transform into personalized notebooks and stationery.
Keywords	paper upcycling, handmade paper, recycled materials, creative workshop, sustainability, paper pulp, craft
Objectives	To raise awareness of paper waste and demonstrate practical ways to reuse it. To teach participants traditional handmade paper-making techniques. To inspire creativity and promote environmentally conscious crafting. To support the circular economy by turning waste into useful, aesthetic products.
Methodology	The workshop guides participants through the process of: 1. Preparing recycled paper pulp from collected waste paper. 2. Using traditional paper frames and molds to shape new paper sheets. 3. Drying and pressing the sheets for a smooth finish. 4. Binding the sheets into notebooks or other

	paper products.
Technological requirements / Tools needed	• Paper molds and frames (for pulp shaping) • Paper press or rolling tools • Pulp mixing tools (blender or hand mixer) • Drying racks or flat surfaces • Optional: decorative materials (flowers, colored threads, etc.)
Why is this reuse/ recycle action considered good practice?	Papety's workshop is a strong example of good practice because it not only reduces paper waste but also educates participants about the environmental impact of disposable materials. By engaging people in hands-on creative work, it fosters a personal connection to sustainability and empowers them to incorporate upcycling into their daily lives. Additionally, the workshop contributes to local community engagement and supports slow, thoughtful consumption over mass production.
Additional information (website, contact, references, etc.)	Website: https://papety.hu/pages/workshop Location: Etyek, Hungary Contact: info@papety.hu

Best Practice Example #2: Paper

Country	Hungary
Type of material	Paper
Organization / Institution / Association	TREBAG SZELLEMI TULAJDON- ES PROJEKTMENEDZSER KFT (TREBAG)
Title / Name of the activity	Decoupage Art – DecoTü Creative Workshop
Abstract	DecoTü is a creative workshop that specializes in decoupage, a technique involving decorating objects with paper cutouts. They utilize various paper materials, including recycled ones, to embellish items like furniture, ceramics, and glassware, giving them a renewed aesthetic appeal

Keywords	decoupage, paper decoration, recycled paper art, upcycled home decor, creative reuse
Objectives	To breathe new life into old or plain objects using paper art. To promote the use of recycled paper in decorative arts. To encourage sustainable and creative practices in home decoration.
Methodology	• Selecting suitable objects for decoration (e.g., boxes, bottles). • Choosing and preparing paper designs, often from recycled sources. • Applying paper cutouts to objects using special adhesives and sealants. • Finishing with protective coatings for durability.
Technological requirements / Tools needed	• Paper materials (e.g., napkins, magazines). • Scissors, brushes, and decoupage glue. • Sealants or varnishes for finishing.
Why is this reuse/ recycle action considered good practice?	DecoTü's approach demonstrates how recycled paper can be artistically repurposed to enhance everyday items, promoting sustainability and creativity. It offers an accessible way for individuals to engage in upcycling and personalize their surroundings.
Additional information (website, contact, references, etc.)	Website: https://decotu.hu/kornyezetbarat-opciok/

Best Practice Example #3: Wood

Country	Italy
Type of material	Wood
Organization / Institution / Association	Università delle LiberEtà del FVG – ETS (ULE)
Title / Name of the activity	"Creative Wood Reuse Workshop" of Legambiente
Abstract	Legambiente promotes participatory workshops on creative wood reuse, often as part of environmental

	education or urban regeneration projects. These workshops involve citizens, schools, and local communities in transforming waste wood (pallets, discarded furniture, crates) into street furniture, benches, planters, and furnishings for public spaces. .
Keywords	Creative reuse of wood
Objectives	The aim of these workshops is to: - Promote a culture of reuse and reduce wood waste. - Encourage active participation and social inclusion through shared workshops. - Enhance the manual and creative skills of local residents. - Improve the quality of urban spaces through sustainable interventions. .
Methodology	"Creative reuse" is achieved through: - Collection of reclaimed wood from markets, construction sites, and local businesses, checking its health and condition. - Technical training for participants on safety techniques, woodworking, and finishing with natural products. -Participatory design, with co-design sessions to create functional objects and enhance local creativity. - Practical workshop, where participants, guided by expert craftsmen, create objects for public spaces or institutions. - Return to the community with inaugurations and awareness-raising events on the importance of reuse and the circular economy.
Technological requirements / Tools needed	1. Hand tools and power tools (saws, drills, sanders). 2. Natural finishing materials (linseed oil, beeswax). 3. Personal protective equipment (gloves, goggles, masks).
Why is this reuse/ recycle action considered good	This reuse initiative is a good practice because:

practice?	-The activity produces real, functional objects (benches, planters, street furniture) that can be integrated into public spaces, improving the urban environment and the quality of life of the communities involved. -The project actively involves citizens of all ages, schools, associations, and disadvantaged groups, promoting social inclusion and intergenerational exchange, which are key aspects of community best practices. - It uses wood waste that would otherwise be destined for disposal, reducing waste and environmental impact and contributing to a circular economy model. -The methodology is clear, easy to adopt, and adaptable to different territorial contexts, even with limited resources, promoting the dissemination and multiplication of the model. -The workshop values creativity and local traditions, creating a sense of belonging and responsibility towards the territory.
Additional information (website, contact, references, etc.)	https://www.legambiente.it

Best Practice Example #4: Wood

Country	Italy
Type of material	Wood
Organization/Institution/ Association	Università delle LiberEtà del FVG – ETS (ULE)
Title / Name of the activity	Reclaimed wood in Repair Cafés – "L'Officina del Riuso" (The Reuse Workshop)
Abstract	Some Italian Repair Cafés (e.g., Turin, Varese, Bergamo) include among their activities the upcycling of wood from discarded furniture, shutters, and old doors to create furniture for the neighborhood (benches, bulletin boards, shelves) and/or objects for the home or public

	spaces (bicycle racks, planters).
Keywords	Sustainability and waste reduction
Objectives	The aim of these Italian repair cafés is to: - provide environmental education, active citizenship, social inclusion, and informal learning - reduce waste, promote craftsmanship, stimulate creativity, and encourage independence
Methodology	- Collection and selection of discarded movable materials, pallets, crates, fixtures, carpentry scraps. - Analysis and diagnosis of the object - Decision on the course of action Three methodological options: 1. Functional repair 2. Creative reuse (upcycling) 3. Disassembly for reuse of components. - Documentation and traceability - Return and sharing
Technological requirements / Tools needed	Basic hand tools • Hammer, pliers • Screwdrivers (flat and Phillips) • Wood files and rasps • Hand saw (straight or back saw) • Square and ruler • Clamps to hold pieces in place Portable power tools • Drill/screwdriver with wood bits • Orbital or belt sander • Jigsaw (for curved cuts or small pieces) Materials and consumables • Screws, nails, wooden dowels • Fine and coarse sandpaper • Vinyl glue for woodworking • Natural dyes, impregnating agents, oils, or beeswax for eco-friendly finishes • Pieces of reclaimed wood (old furniture, pallets, beams, boards) Personal protective equipment (PPE) • Work gloves • Dust mask • Safety goggles • Non-slip mat for workbench

Why is this reuse/ recycle action considered good practice?	This activity is a best practice because: -It reduces waste production by reusing wooden objects destined for landfill. -It promotes a culture of repair, countering planned obsolescence. Knowledge is passed down from generation to generation (e.g., retirees teaching young people).
Additional information (website, contact, references, etc.)	https://www.repaircafe.org/en/

Best Practice Example #5: Metals

Country	France
Type of material	Metal
Organization / Institution / Association	Itinéraires: Direction Europe (ITINÉRAIRES)
Title / Name of the activity	Débrouille Cie: *Working with recycled metal: between finesse and robustness*
Abstract	The association recycles scrap metal to give it a second life. It offers workshops to build hanging mobiles and light sculptures, to create jewellery from cans, buttons, decorative elements, to make small figurines, animals, totems and photophores, lights made of wire mesh or textured paintings with metallic reliefs.
Keywords	metal upcycling, participative workshop, fight waste, ecology
Objectives	To increase participants' knowledge by: ● Handling metal with precision and safety ● Reuse sharp materials safely ● Assembling parts without glue, working on structures ● Awaken the eye to the textures and reflections

	of metal To raise awareness about: • Reduction of metal waste • Consideration of durability and recycling of long-life materials • Creation without industrial machinery
Methodology	Workshops are transforming aluminium and use modelling techniques. The methodology used covers: 1. Secure cutting with shears or hand tools 2. Shaping (folding, hammering, embossing) 3. Assembling with wire, textile thread or rivets 4. Drilling to create volumes, suspensions or ornaments 5. Natural patina of the metal or colouring by adding materials (paint, fabric, plastic)
Technological requirements / Tools needed	The idea of the association is to offer techniques that are easily replicable at home. Therefore, no technical material is needed.
Why is this reuse/ recycle action considered good practice?	Not a lot of upcycling workshops target metal waste and Débrouille is one of the main stakeholders dealing with this issue in Paris. Its trainers are experienced and advocate for reuse of material offering them a second life.
Additional information (website, contact, references, etc.)	https://www.debrouille.com/ Contact: info@debrouille.com

Best Practice Example #6: Metals

Country	France
Type of material	Metals
Organization / Institution / Association	Itinéraires: Direction Europe (ITINÉRAIRES)
Title / Name of the activity	Projet Métal, vos grammes en font des tonnes !
Abstract	Projet Métal brings together manufacturers, local authorities and national decision-makers committed to

	the collection and recycling of small, everyday aluminum and steel packaging (aluminum coffee capsules, lids, fresh cheese and chocolate packaging, small cans, etc.).
Keywords	Metal recycling, household waste, awareness raising, selective waste sorting
Objectives	• Equip France's sorting centres with devices for sorting small metal packaging • Enable citizens to dispose of their used small metal packaging in the sorting bin • Improve metal packaging recycling
Methodology	Projet Métal guides citizens in the disposal and recycling of metal wastes in France by providing practical information and techniques. For instance, in the project website, it is possible to find information about how household metal waste sorting centres work and why bit is important to recycle it.
Technological requirements / Tools needed	Projet Métal collects, sorts and recycles small aluminium and steel packaging (or packaging made partly of aluminium and steel) that is smaller than a yoghurt pot: aluminium coffee capsules, lids, fresh cheese packaging, aluminium foil, small cans, small tubes and so on.
Why is this reuse/ recycle action considered good practice?	Since 2014, Projet Métal achieved the following goals: • 2 French people out of 3 who can throw their small metal packaging directly into the sorting bin with the assurance that it will be recycled. • 6,800 tonnes of small aluminium packaging recycled by 2023 • 65 sorting centers equipped in France
Additional information (website, contact, references, etc.)	https://www.projetmetal.fr/

Best Practice Example #7: Textiles

Country	Slovenia
Type of material	Textiles
Organization / Institution / Association	Zavod GEA, zavod za psihosocialno svetovanja in socialne inovacije (GEA)
Title / Name of the activity	Resyntex Pilot Plant (IOS Ltd.)
Abstract	Resyntex is a Slovenian pilot plant operated by IOS Ltd. to chemically recycle diverse textile waste streams—cotton, wool, PET, PA, and blends—transforming them into feedstock for new fibres or green polymers. It's part of wider efforts to close the loop on textiles using advanced recycling technologies (SRIP - Krožno gospodarstvo).
Keywords	Chemical recycling, textile blends, pilot plant, PET depolymerization, feedstock
Objectives	• Convert non-wearable textile waste into new raw materials • Validate processes that can scale into market-ready technology for chemical recycling • Integrate textile and plastic recycling through PET depolymerization
Methodology	• Collection of textile waste and mixed feedstock • Chemical treatment (e.g., depolymerization of PET and related components) • Process optimization for cellulose and mixed-fiber recycling • Pilot-scale trials, with transitions toward broader waste types (plastic, paper) (SRIP - Krožno gospodarstvo)
Technological	• Chemical reactors for depolymerization

requirements / Tools needed	• Material separation/pretreatment systems • Analytical labs to measure output quality and purity • Research capabilities to refine processes for diverse waste types (SRIP - Krožno gospodarstvo)
Why is this reuse/ recycle action considered good practice?	• Tackles complex blended textile waste using a scalable chemical pathway • Bridges the gap between lab research and commercial deployment • Enables recovery of value across diverse waste streams—cotton, polyester, wool
Additional information (website, contact, references, etc.)	• Initiative: Part of Slovenia's SRIP Circular Economy ecosystem (SRIP - Krožno gospodarstvo) References: Resyn

Best Practice Example #8: Textiles

Country	Slovenia
Type of material	Textiles
Organization / Institution / Association	Zavod GEA, zavod za psihosocialno svetovanja in socialne inovacije (GEA)
Title / Name of the activity	Knof – Stara Šola Reuse Boutiques & Circular Lab
Abstract	Knof, a social enterprise founded in 2011, operates six "Stara Šola" reuse boutiques across Slovenia. They accept donated clothes, rigorously sort and refurbish them, and resell them as quality second-hand items. Expanding beyond retail, they've established a "Circular Lab" in Krško that combines coworking, sewing and carpentry workshops, and prototyping space to turn textile waste into new-value products (texfash.com,

	BETI Textile Industry).
Keywords	Textile reuse, social enterprise, upcycling, circular lab, Krško, Knof
Objectives	• Prolong the lifespan of clothing • Create social and green jobs for disadvantaged groups • Shift public perception of second-hand from "poor person's clothes" to a desirable, sustainable choice
Methodology	• Collection: Donations from locals • Sorting: Vetting for quality and upcycling potential • Retail: Selling curated items through six boutiques • Prototyping: Using workshops (sewing, carpentry) in the Circular Lab to develop new products from textile waste
Technological requirements / Tools needed	• Sorting facilities for quality assessment • Sewing machines, workshop tools, small-scale manufacturing equipment • Dedicated space (~3,000 m^2) for lab and workshop operations (texfash.com)
Why is this reuse/ recycle action considered good practice?	• Integrates social impact (employment for marginalized groups) with environmental goals • Offers a real-life circular model—from donation to retail to upcycling • Shifts cultural mindset around second-hand clothing while maintaining economic sustainability
Additional information (website, contact, references, etc.)	• Website: Explained via TexFash article and Knof's own communications (texfash.com) • Contact: Director Mojca Žganec Metelko (through Knof) • References: Knof reuse boutiques; Circular Lab initiative in Krško (texfash.com)

Best Practice Example #9: Glass

Country	Türkiye
Type of material	Glass
Organization / Institution / Association	Reglasstic
Title / Name of the activity	Artistic Upcycling of Waste Glass by Reglasstic
Abstract	An Istanbul-based initiative that transforms discarded glass bottles into elegant, functional home and kitchen décor items, combining sustainability with design and avoiding plastic packaging.
Keywords	Glass upcycling, Reglasstic, waste glass, home décor, sustainability, Türkiye
Objectives	• To creatively repurpose waste glass into aesthetic and functional products • To reduce plastic usage, and promote environmentally responsible design.
Methodology	Collection of waste glass bottles, cleaning, creative redesign into décor items, artisanal production, and eco-friendly packaging.
Technological requirements / Tools needed	Glass cleaning and preparation tools, artisan craft tools (cutting, shaping, polishing), packaging supplies (plastic-free).
Why is this reuse/ recycle action considered good practice?	It turns discarded glass into high-value, sustainable products, eliminates plastic packaging, and fosters both waste reduction and eco-conscious design culture.
Additional information (website, contact, references, etc.)	Reglasstic – Transforming Waste Glass into Sustainable Products

Best Practice Example #10: Glass

Country	Türkiye
Type of material	Glass
Organization/Institution/ Association	Şişecam Cam Ambalaj (Şişecam Glass Packaging)
Title / Name of the activity	Cam Yeniden Cam (Glass Again Glass)
Abstract	"Cam Yeniden Cam" is a nationwide environmental awareness and recycling initiative by Şişecam, one of the world's largest glass manufacturers. The project aims to promote the separation and reuse of glass waste through a combination of education, public engagement, and extensive infrastructure support. Through collaborations with municipalities, NGOs, and schools, Şişecam has installed thousands of glass recycling bins and conducted creative workshops for children to cultivate a culture of sustainability.
Keywords	Glass recycling, reuse, circular economy, sustainability, environmental education, community engagement
Objectives	• Promote the recycling of glass packaging across Türkiye. • Educate children and the general public about the importance of glass reuse. • Increase the rate of source-separated glass waste collection. • Reduce environmental impact by preventing glass from entering landfills.
Methodology	Deployment of 19,000 specialized recycling bins across 175 municipalities. Organization of educational programs in schools, including creative workshops like "Cam Kurtaran Kahramanlar" (Glass-Saving Heroes), which allow children to upcycle glass containers. Partnering with art and youth festivals (e.g., İstanbul Children and Youth Art Biennial) to showcase artistic reuse. Use of visual and storytelling techniques to encourage behavioral change regarding glass recycling.
Technological	Colored and specially designed recycling bins for glass-

requirements / Tools needed	only collection. Simple tools and materials for upcycling workshops (e.g., paint, markers, adhesives). Transportation and sorting infrastructure to collect and reprocess separated glass waste.
Why is this reuse/ recycle action considered good practice?	This project is a best practice because of its scale, measurable environmental impact, and strong educational component. Over 30,000 students have participated in workshops, and nearly 794,000 tons of glass have been diverted from landfills. The project combines civic engagement, art, and sustainability, and is supported by Turkey's leading glass producer, ensuring technical capacity and long-term viability. It also significantly reduces CO_2 emissions—equivalent to removing nearly 286,000 cars from the road.
Additional information (website, contact, references, etc.)	Project page: Cam Yeniden Cam

Best Practice Example #11: Electronics

Country	Ireland
Type of material	Electronics
Organization / Institution / Association	Unofficial Media and Training Limited (UMT)
Title / Name of the activity	Camara Education
Abstract	Camara Education is an Irish-founded non-profit organisation dedicated to bridging the digital divide by refurbishing donated computers and sending them to schools in Sub-Saharan Africa. Through integrating technology into education, Camara aims to empower students with digital skills that are needed for the modern world, while simultaneously promoting sustainable practices through electronics reuse.
Keywords	Digital inclusion, computer refurbishment, sustainable education, electronics recycling, Sub-Saharan Africa,

	digital literacy, educational technology.
Objectives	• To enhance educational outcomes by providing access to technology in under-resourced schools. • To promote digital literacy among students and teachers in Sub-Saharan Africa. • To reduce electronic waste through the refurbishment and reuse of computers. • To establish sustainable educational infrastructures supported by technology.
Methodology	1. Camara partners with organisations and individuals to collect used computers. 2. Collected devices undergo secure data wiping and are refurbished to ensure functionality. 3. Refurbished computers are shipped to educational institutions in countries like Ethiopia, Kenya, Tanzania, and Zambia. 4. Teachers receive training to effectively integrate technology into their teaching methodologies. 5. Ongoing technical support and maintenance are provided to ensure the longevity and effectiveness of the technology in educational settings.
Technological requirements / Tools needed	• Used computers and IT equipment for refurbishment. • Secure data erasure tools to protect donor information. • Educational software tailored to the curricula of recipient schools. • Logistical infrastructure for shipping equipment. • Training materials and resources for teacher education programmes.
Why is this reuse/ recycle action considered good practice?	Camara Education provides and example of an innovative approach to electronics reuse by aligning environmental sustainability with educational development. In diverting functional electronics from landfills and repurposing them for educational use, Camara addresses both e-waste concerns and the digital divide. Their model not only extends the lifecycle of electronic devices but also promotes community development and equity through education, making it a replicable and impactful practice.

Additional information (website, contact, references, etc.)	Website: https://camara.org/

Best Practice Example #12: Electronics

Country	Ireland
Type of material	Electronics
Organization / Institution / Association	Unofficial Media and Training Limited (UMT)
Title / Name of the activity	Fastrack into Information Technology (FIT) Consumer Electronics project
Abstract	The FIT Consumer Electronics Project is an innovative initiative in Ireland aimed at addressing the shortage of skilled Consumer Electronics Service and Repair Technicians. Funded by the Circular Economy Innovation Grant and led by FIT in collaboration with WEEE Ireland, the project focuses on developing a structured training programme emphasising preventive maintenance, repair, and reuse of consumer electronics. Through introducing the Circular Economy Skillset Initiatives (CESI), the project promotes a more circular and sustainable economy. The pilot phase of the project ran from August 2023 to April 2024.
Keywords	Consumer electronics, repair training, circular economy, skill development, WEEE Ireland, FIT, sustainability, technician shortage, preventive maintenance, reuse.
Objectives	• To develop and implement Ireland's first dedicated training programme for Consumer Electronics Service and Repair Technicians. • To address the national shortage of skilled technicians in the consumer electronics repair sector. • To promote repair and reuse activities within the consumer electronics sector, supporting a circular economy. • To establish a curriculum that aligns with

	industry needs and receives official QQI (Quality and Qualifications Ireland) validation.
Methodology	1. Establishment of a Steering Committee and Sub Steering Committee comprising industry champions and independent operators to drive the programme. 2. Conducting research to identify the expertise lacking in the sector and determining the competences required for Consumer Electronics Repair & Reuse. 3. Designing a course curriculum on 'Consumer Electronics Repair' based on the findings from the Skills Needs Analysis. 4. Executing a pilot Consumer Electronics Service Technician training course, seeking official QQI validation in collaboration with a specific Education and Training Board (ETB).
Technological requirements / Tools needed	1. Facilities equipped for hands-on training in electronics repair. 2. Access to consumer electronic devices for practical training. 3. Tools and equipment necessary for electronics diagnostics and repair. 4. Educational materials and resources aligned with the developed curriculum. 5. Collaboration with industry partners to provide insights and potential work placements
Why is this reuse/ recycle action considered good practice?	This initiative is considered a good practice examples because it addresses the skills gap in the electronics repair sector, thereby promoting the principles of a circular economy. In focusing on preventive maintenance and repair, the project extends the lifespan of consumer electronics, reducing electronic waste. The collaboration between FIT and WEEE Ireland ensures that the training programme is industry-relevant and supports national sustainability goals.
Additional information (website, contact, references, etc.)	Reference: https://www.weeeireland.ie/close-the-loop-initiatives/fastrack-into-information-technology-fit-consumer-electronics-project-2023/ Website: https://fit.ie/

Best Practice Example #13: Plastic

Country	Italy
Type of material	Plastic
Organization/Institution/ Association	Università delle LiberEtà del FVG – ETS (ULE)
Title / Name of the activity	Creative plastic reuse workshops
Abstract	This practice involves educational and community workshops where waste plastic (bottles, containers, etc.) is collected and transformed manually into useful or decorative objects, without the use of machinery. It is widespread in many environmental education contexts.
Keywords	Creative reuse
Objectives	The objectives of these workshops are: -To promote environmental awareness and a culture of reuse among citizens and students. -To reduce the amount of plastic sent to landfill or incineration. -To stimulate creativity and manual skills through practical activities.
Methodology	-Collection and sorting of clean, separated plastic. -Manual cleaning and preparation of materials. -Cutting, assembly, and decoration with scissors, eco-friendly glue, adhesive tape, wire, or string. -Creation of objects such as vases, pen holders, bags, decorations, woven plastic fabrics, and educational games. -Raising awareness through training sessions and discussions.
Technological requirements / Tools needed	Scissors, craft knife, hot glue or eco-friendly glue, adhesive tape, wire, markers, and non-toxic paints.
Why is this reuse/ recycle action considered good practice?	Creative plastic reuse workshops are a good practice because they combine environmental sustainability, social empowerment, and concrete replicability, in line

	with European priorities. They represent an effective, accessible, and engaging way to promote the circular economy in communities. .
Additional information (website, contact, references, etc.)	https://plasticfreeonlus.it

Best Practice Example #14: Plastic

Country	Italy
Type of material	Plastic
Organization/Institution/ Association	Università delle LiberEtà del FVG – ETS (ULE)
Title / Name of the activity	Network for the exchange and reuse of household plastic materials
Abstract	This exchange network consists of a local network of citizens who exchange or collect waste plastic materials for direct reuse, without any mechanical processing, only through manual or craft activities.
Keywords	Direct reuse
Objectives	-Avoid the production of new plastic items by reducing demand for raw materials. -Promote solidarity and collaboration among citizens. -Stimulate forms of circular economy at the local level.
Methodology	-Creation of collection points in shops, markets, or community centres. -Direct exchange or "markets" for reusable plastic items, such as containers, pots, boxes, and toys. -Organization of regular meetings with demonstrations of manual reuse techniques (e.g., bottle weaving, making decorative objects). Promotion of awareness campaigns on creative reuse.

Technological requirements / Tools needed	No mechanical means: use of hands, scissors, glue, string, fabric for assembly and decoration.
Why is this reuse/ recycle action considered good practice?	The network for exchanging and reusing household plastic is a good practice because: -it activates the community in a sustainable and collaborative process, -it creates connections between citizens, schools, artisans, and recycling centres, -it promotes waste reduction and a culture of reuse in a replicable, accessible, and socially innovative way.
Additional information (website, contact, references, etc.)	Similar models have been documented in reality as Transition Towns or local solidarity economy projects in Italy and Europe. Example: "Plastic reuse and exchange network" active in some self-managed communities in Trentino and Tuscany. Information available on Transition Italia websites: https://transitionitalia.net

A proposed common methodology for reuse/recycle of any material

Objectives

- Promote creative reuse and upcycling of any materials (e.g., wood, textiles, metals, plastics, paper) to reduce landfill waste.
- Support local, community-driven initiatives like Upcycling Cafés.
- Foster environmental sustainability and circular economy principles.
- Encourage social inclusion and intergenerational engagement through hands-on activities.
- Provide low-cost, replicable models for green entrepreneurship.
- Develop participants' practical skills in sustainable design, reuse, and repair.

Target group

- **Adult learners**, especially:
    - Unemployed individuals
    - Older adults
    - People from disadvantaged backgrounds
- **Trainers and facilitators** in adult learning settings
    - Local communities and civic organizations
- **Municipalities**, NGOs, and environmental organizations
    - Creative practitioners and educators
- **Citizens of all ages** to promote intergenerational learning

Fundamental Pillars and EU priorities

- **Inclusiveness**: everyone can participate and contribute.
- **Active learning**: learning by doing, together.
- **Creative reuse**: seeing the hidden potential in discarded materials.

Phases of the reuse and recycle common process

Phase 1: Awareness-raising and collection of materials

- Introductory workshops on upcycling and sustainability
- Mapping of locally available waste materials (e.g., wood offcuts, textiles, scrap metal, old furniture, etc.)
- Community engagement campaigns to encourage donations of reusable

materials

- Partnerships with municipalities or NGOs for material sourcing

Phase 2: Analysis and design of the products

- Creative brainstorming sessions to generate upcycling ideas
- Sorting and evaluating collected materials for usability
- Co-design activities involving sketches and prototype development
- Exploration of aesthetic, functional, and environmental criteria

Phase 3: Design and implementation of the workshop

- Formation of mixed-ability groups based on interests and skills
- Use of safe, shared tools (e.g., sewing machines, sanders, heat guns)
- Hands-on creation of upcycled items (e.g., garments, furniture, decorative art)
- Emphasis on learning traditional skills and crafts

Phase 4: Documenting and sharing

- Photographic and video documentation of activities and products
- Exhibitions, fairs, or showcases to display finished upcycled products
- Online platforms or social media to promote awareness and outcomes
- Sharing stories of participants' experiences

Phase 5: Evaluation, valorisation and follow-up

The collected best practices from various countries demonstrate a strong commitment

to promoting reuse and recycling across diverse materials, including metals, paper, electronics, wood, plastic, textiles, and glass. These initiatives highlight innovative approaches, community engagement, and the integration of circular economy principles. Key strengths include:

- ***Diverse Material Focus*:** Each partner addressed specific materials, ensuring comprehensive coverage of reuse/recycling possibilities.
- ***Community and Educational Impact:*** Many practices emphasized workshops, training, and awareness campaigns, fostering public participation and skill development.
- ***Innovative Methodologies:*** From creative upcycling workshops to advanced chemical recycling, the methodologies showcased adaptability and scalability.
- ***Environmental and Social Benefits:*** Projects not only reduced waste but also created jobs, supported marginalized groups, and promoted sustainable consumption.

Follow-up Actions:

- ***Compile a Common Methodology***: Exploit the methodologies to create a common guide for upcycling applicable across materials and regions.
- ***Disseminate Findings***: Share the best practices through workshops, reports, and online platforms to inspire broader adoption.
- ***Encourage Collaboration***: Foster partnerships between organizations to replicate successful models and address gaps in waste management.
- ***Monitor and Evaluate***: Establish metrics to assess the impact of implemented practices and identify areas for improvement.

These efforts will further advance the project's goals of waste reduction and sustainability, empowering communities to contribute actively to a circular economy.

Resources and Tools

Physical Resources

- Accessible, safe, and inclusive workshop spaces
- Donated or recovered materials (wood, textiles, plastics, paper, metal)
- Basic tools for crafting, sewing, woodworking, and electronics repair
- Safety gear and ventilation systems

Technical Tools

- Hand and power tools: drills, saws, heat guns, sewing machines, etc.
- Creative tools: stencils, design software (optional), adhesives, paint
- Equipment for documentation: cameras, phones, tripods

Human Resources

- Trainers with skills in upcycling techniques
- Volunteers or local artists for mentorship
- Facilitators for group coordination and support

Digital/Print Resources

- Templates and guides for upcycling projects
- Instructional posters or manuals
- Access to upcycling case studies and best practices

Conclusions

Guidelines for upcycling various materials will be developed based on an analysis of best practices in the reuse/recycling of various materials and the common methodology derived from this analysis.

The analysis of good practices has highlighted how recycling/reuse activities actively involve citizens of all ages, schools, associations and disadvantaged groups, promoting social inclusion and intergenerational exchange, which are fundamental aspects of best community practices.

In fact, involving people in practical creative activities fosters the development of a personal connection with sustainability and encourages them to integrate recycling/reuse into their daily lives.

The creation of a common methodology for the reuse/recycling of various materials will be the first step towards the implementation of "upcycling cafés", which will be developed using the Repair Cafés methodology, contributing to the involvement of the local community and supporting slow and conscious consumption as opposed to mass production.

UPNOWASTE

UPcycling: New life for Old items to reduce WASTE

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