Findings and Evaluation Report #01

Digital and social trends in re-use operations

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THE DIGITAL ERA OF SOCIAL ENTERPRISES

rreuse

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The project consortium, led by RREUSE, is composed of individual social enterprises as well as regional and national networks of social enterprises active in re-use, repair, and recycling from across the European Union, namely:

Partners:

- Re-Use Austria
- Ateliere Fără Frontiere (AFF, Romania)
- Humana Nova (Croatia)
- Branchevereniging Kringloopbedrijven Nederland (BKN, The Netherlands)
- Re-Use Deutschland (Germany)
- Kierrätyskeskus (Finland)

Associate partners:

- Asociación Española de Recuperadores de Economía Social y Solidaria (AERESS, Spain)
- ENVIE (France)
- Emmaus Europe

The preparation of this report has required the dedication, time and expertise of all partners of the DigiSocCirc project.

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Lead author:

- Frederick Ryan Wallace, frederick.ryanwallace@rreuse.org

Contributing authors:

- Simone Schirru, simone.schirru@rreuse.org
- Oscar Planells, oscar.planells@rreuse.org

RREUSE 26 Rue d'Edimbourg • 1050 Brussels, Belgium
+32 (0)2 894 46 14 • info@rreuse.org • www.rreuse.org

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1. Executive Summary

Digitalisation offers a key opportunity to enhance the efficiency, relevance and visibility of social enterprises. It is a trend that social enterprises active in re-use cannot ignore if they wish to continue to deliver their services in the circular economy and social inclusion. However, digitalisation of re-use operations comes with a number of challenges, such as lack of funding or access to it to invest in modernising their activities, reluctance to change the status quo or concerns about the impact on the workforce. At the same time, there is a lot of interest and initiatives to move to digital solutions and many social enterprises from the RREUSE network have been implementing concrete digital tools, including those developed by themselves, that can inspire the sector. RREUSE has identified digitalisation as a defining trend for the sector, which led to the publication of the report 'How social enterprises contribute to the digital transition' in 2021,[1] including best practice examples from the network.

Social enterprises employ and provide training to people from vulnerable groups distanced from the labour market. To facilitate their transition into the regular labour market, it is key that the skills and competences that they acquire are relevant and include digital skills. Training needs to be available and accessible to workers from all backgrounds, adapted to their capabilities and roles. To create local inclusive jobs in the circular economy, a balancing act must be found between automating operations with digital tools and maintaining manual jobs.

2. Introduction

The insights of this report are based on the **literature review** that the DigiSocCirc project consortium conducted at the beginning of the project and the input of project partners in the **in-person workshop** taking place in San Sebastian, Spain, on the 15th and 16th of November 2023.

This report aims to identify the different **trends** perceived in the digitalisation of sorting, collecting, logistics, and traceability of social enterprise re-use activities. Moreover, the partners of the DigiSocCirc project consortium evaluated the trends with regards to the **challenges and opportunities** associated with those emerging trends. Furthermore, a list of **recommendations** was developed to support the digitalisation of social enterprises. The recommendations are split into two sections. Firstly, **recommendations for other social enterprises** that have not yet digitalised their re-use operations. This section aims to highlight lessons learnt by social enterprises that have successfully digitalised their activities, sharing their experiences and insights with organisations that are transitioning to a digital setting. Secondly, **policy recommendations** were developed to determine what support social enterprises need to digitalise.

[1] RREUSE (2021) How social enterprises contribute to the digital transition (Available here)

3. Digital and social trends in re-use operations

This section aims to explore and highlight digital and social trends in re-use operations, as well as the challenges and opportunities related to the digitalisation of sorting, collecting, logistics, and traceability activities.

I. Collection

In re-use operations, collection can be defined as: *the process of gathering reusable items, which in most cases are donated by citizens or organisations.*

Digital and social trends in collection for re-use

The level of digitalisation implemented to collect items by social enterprises depends on the local context across different countries. It has been stressed that many organisations in the sector still collect items in the same format as they have done for the past twenty years, one of the reasons behind this is the lack of awareness of the digital possibilities. Therefore, there is a clear need to bridge the gap between digital experts and re-use experts.

However, several instances show that social enterprises are already accustomed to the use of technologies for their re-use activities. One noteworthy case is the use of online platforms to arrange appointments for picking up donations from households. This process enables the organisations to centralise all information about the collections in one place, optimise the collection process and smoothly communicate with the donors.

Some social enterprises install digital sensors in used textile containers. These sensors may show how full the containers are and other information such as humidity. By doing this, collection points can be emptied according to the capacity, avoiding unnecessary travel. As a whole, these digital tools optimise the collection of items and travel time.

Box 1. Volumetric sensors in the Netherlands

Several members of BKN (DigiSocCirc partner) work with the digital system provided by Mangostone, reducing the need for extensive travel to collect textiles. The hardware, a device with various sensors, is attached to the textile container and it continuously measures how full the container is. Simultaneously, it monitors factors such as temperature and humidity inside the container, enabling the monitoring of the quality of the collected textiles. The gathered data is then sent to the Mangostone app, which uses artificial intelligence (AI) to make predictions and calculations regarding when the container is sufficiently full for emptying. Besides calculation, predicting the textile flow is especially crucial. Before a driver reaches a container to empty it, additional textiles can be added, therefore the prediction of when a container gets filled is essential.

Collection of donations is an unpredictable process that depends on when and what people decide to donate. With the digitalisation of collection processes, social enterprises can optimise planning of pick-ups. By collecting various types of data, it is expected that it will be possible to predict the time needed for transportation or forecast logistic routes depending on past data with AI. This process can provide a more accurate and efficient collection process.

To optimise the collection of goods, it is crucial to have as much information about the items collected as possible. The main types of products that social enterprises tend to collect are textiles, furniture and electric and electronic equipment, among others. To easily collect these goods, there is the need for a Digital Product Passport (DPP) that would provide relevant information for re-use operators, such as material composition or disassembly, repair and maintenance guidance. That should ease and reduce the time required to identify the key elements of items in the collection process, before sorting. Furthermore, implementing a standardised QR code in each item - rather than on the product packaging - that provides key information could ease the communication between donor and collector.

Box 2. Facilitating the donation of pre-owned phones through Ecosystem

Ecosystem, the French extended producer responsibility (EPR) scheme for electric and electronic equipment, runs a campaign 'Je donne mon telephone' with a partner social enterprise Les Ateliers du Bocage (member of Emmaüs France). To donate mobile phones they no longer need, citizens can download and print a label to put on an envelope containing the phone. Collected phones are then sent to Ateliers du Bocage, specialised in their repair, which deletes all data and proceeds to prepare them for re-use or to recycle them according to their condition. Ateliers du Bocage employs 150 people, including work integration contracts. Since the launch of the platform, 33,000 phones have been collected through Ecosystem.

It is important to note that digital systems need to be accessible to workers across various positions of the collection process and take into account their backgrounds, which can include a lack of skills, language barriers, or mental and physical health issues. For this to happen, training needs to be provided to all users while the software and the tools themselves need to be user-friendly.

Challenges to the digitalisation of collection for re-use

The digitalisation of collection in re-use operations represents a significant cost and social enterprises do not tend to have the necessary capital or easy access to funding to digitalise their activities. The creation of online platforms, the instalments of sensors in the collection containers mentioned previously or the general application of AI tools require significant capital investment.

Therefore, it is challenging to develop large digital projects to the scale of mainstream businesses that tend to have the resources to digitalise their operations. Equally, social

enterprises invest a great part of their capacity to carry adaptive and inclusive employment for vulnerable groups. Growing competition in the sector with various types of actors entering the second-hand market and collecting used goods, including with large-scale digital tools and online platforms, make it challenging for social enterprises to mainstream the application of digital tools in their day-to-day activities at the same pace.

The shift towards digitalising collection operations of re-use items is also a challenge due to the novelty of the trend. Many social enterprises are grass-root actors that have maintained the same operational processes over the years and are not always aware of potential digitalisation opportunities.

Opportunities for digitalisation of collection for re-use

New online services can increase social enterprises' efficiency in collecting and make it easier for people to have door-to-door services available, ultimately optimising the collection process. However, there is a need to create connections between digital experts and the re-use field, to create meaningful partnerships. An opportunity is to collaborate with private businesses under Corporate Social Responsibility (CSR), where experts in the Information Technology sector can provide training on digital skills required for digitalising collection operations of social enterprises.

II. Sorting

In re-use operations, sorting can be defined as: *categorising and organising collected items based on their type, quality, or condition. It is an essential step in determining which items can be re-used, prepared for re-use, or recycled.*

Digital and social trends in sorting for re-use

Social enterprises employ various methods and approaches to digitalise sorting activities, most of these activities being in development. For example, social enterprises are beginning to use AI to optimise their sorting processes.

Box 3: Formació i Treball implements the Fibersort technology

Moda Re- and Formació i Treball have launched a pioneering project using a technology called Fibersort. This technology allows the precise identification of textile fibers. The initiative responds to a need, so far not met, of recycling operators, who had difficulties in recycling fibers from clothes that have already been used because they could not determine their composition. Clothes donated to re-use operators often do not have a composition label, as they have either been cut off or are ineligible due to washing. Thanks to Fibersort it will be possible to determine with high reliability whether the pieces are made with natural or synthetic fibers and their proportions, which allows for providing the material to recyclers.

AI can analyse pictures to identify characteristics of used items, therefore accelerating the sorting process. Some partners of the project use Google Lens to enable sorting and defining a price range for second-hand items based on pre-established criteria, which simplifies the decision-making process. Databases of objects on various websites on the internet can be used as a reference for setting a price range for the goods. This process is novel in the sector, nonetheless, AI will be an important component in sorting operations in the future. The digitalisation of sorting operations may, as a result, lead to diversification and a reconfiguration of tasks and roles. This may lead to job losses in some specific tasks while creating other jobs in others.

Box 4: A new digital strategy and AI to streamline sorting

In Flanders, Belgium, the organisations Kringwinkels, HERWIN, Made Design & Innovation and WAD - We Are Digital collaborated to develop a digital strategy for the Flemish network of re-use social enterprises Kringwinkel, with the idea to adapt to the market and customers' expectations. A key element in the strategy was the digitalisation of sorting operations. Kringwinkel is currently exploring how to use AI to streamline its sorting process. This will avoid repetitive tasks and help customers while browsing through the online shop by providing attribute filters (type, colour, size, …). A proof of concept is currently set up by ML2Grow at Kringwinkel Antwerpen.

Challenges for digitalisation of sorting for re-use

Although there are many developments in sorting with AI, manual sorting remains the most efficient format in most cases, which also makes it a very labour-intensive part of the value chain. Implementing AI and digital tools for sorting requires access to extensive data sets and special equipment. Social enterprises do not have the same capacity to invest in creating their own tools as private organisations may have and moreover, they are dealing with unique items. Individual social enterprises tend to be small organisations with limited resources and digital reach.

In the re-use sector, the attention and efforts to digitalise sorting are usually focused on textiles. Nonetheless, social enterprises work as well with furniture and electronics, among others, which are complex to sort and require manual labour. These require certification and specific skill sets from users to sort these items and therefore require investment in training employees. Nevertheless, other items such as books are easily identified with ISBN codes, which makes the digitalisation of sorting more feasible.

Opportunities for digitalisation of sorting for re-use

The use of AI provides the opportunity to retain knowledge within the organisations, as individuals in work integration programmes tend to work at social enterprises for a limited amount of time, in an ideal case leaving to work in the regular labour market. Furthermore,

digitalising sorting has the potential to make what in some cases can be perceived as an unattractive job, shift towards a prospective job base that is future-proof, thanks to the acquisition of digital skills in demand in the labour market.

Digital tools can support people in making better-informed decisions in a faster and more efficient format while sorting used items. For instance, products for re-use can be assigned a price range directly with the help of AI.

Sorting items with the help of digital tools can also allow a better understanding of the process bottlenecks and potentially optimise the workflows, even with the input of employees, for example by using Lean thinking. Moreover, the digitalisation of sorting can provide job opportunities for people who cannot do heavy manual labour.

Digitalisation of sorting processes can make it possible to collect data in a simpler and more efficient format. Consequently, the data collected can be shared with public authorities, leading to possible further recognition and funding opportunities to sustain and enhance the capabilities of social enterprises. The data can also allow for building powerful databases that will help further optimise and digitalise processes.

III. Logistics

The logistics of re-use operations can be defined as: *the movement and storage of reusable items. This encompasses transportation, warehousing, and distribution to ensure items are available where and when needed.*

Digital and social trends in logistics of re-use operations

Consumers are increasingly drawn to e-commerce, prompting social enterprises to adjust their logistical strategies to fit this changing environment.

These transformations require reorganising the logistics chains, starting with warehouses to make it possible to locate items rapidly and ship them efficiently. To accelerate the processing of items on their way through the supply chain and lower the step count per order, the automatisation of warehouses is a potential solution. This process can ease the overall logistics of e-commerce.

E-commerce also requires a system that assigns items to be either sold online or in a physical store, although the aim for the future is to enable selling items online and in physical stores simultaneously, all while updating stock amounts automatically.

Having a digital database of the complete stock would bring multiple benefits to second-hand operators, including a full overview of the stock flow - what objects come in, what is sold, for how much and when. One way of doing it is with the help of bar codes being attached to each product that also includes information about the category of product.

Shipping of online purchases is an important part of the logistics. Currently, social enterprises often use postal services to deliver goods to the end consumer. Nonetheless, alternative approaches are being developed that are more environmentally friendly. For instance, pickups of purchased items by consumers can be connected with donating unwanted items, e.g. by opening new collection locations and platforms for pickups. These options can be promoted through online platforms and their implementation can lower the carbon footprint while maintaining the manual labour work done by employees that retrieve and sort the items.

Box 5. Humana Nova implements an enterprise resource planning tool to monitor their operations.

The E-računi System is a digital tool that manages various business processes like finance, human resources, supply chain, manufacturing, and sales. It is used to monitor quantities of collected and re-used textiles, raw material stock, production supplies, and final products for sale. It facilitates digital invoicing and documentation related to textile waste management and sales, offering the advantage of cloud-based accessibility. Overall, it enables better coordination, reduces the amount of errors, improves transparency, and enhances the decision-making process.

Challenges for digitalisation of logistics of re-use operations

Selling second-hand items online can be challenging for social enterprises because unlike in traditional retail, each item is unique. They must strategically decide where to position each item sale—whether to display it in physical stores or online and where to store it in a warehouse for easy shipment upon purchase. This decision is made on a case-by-case basis based on the value and type of item. Moreover, e-commerce requires collaborating with commercial partners, such as delivery services, with different working styles to deliver the products to the consumers.

Another challenge is the expectation to match the speed of delivery that mainstream corporations have normalised, which is not always possible to replicate or be the most environmentally sustainable. Furthermore, social enterprises are concerned about how these tight timelines could affect the working conditions and health of their employees.

Overall, as the digitalisation of social enterprises is an ongoing process, there are instances where logistical operations lack coordination. It can be challenging to reach customers, although the enterprises know who their customers are, they may lack a centralised system to contact them. In many cases, social enterprises rely on donors to contact them periodically to make donations on a case-to-case basis. With the integration of a centralised system, it could be possible to reach the donors directly to ask whether there is the availability of items for donation.

Opportunities for digitalisation of logistics of re-use operations

The digitalisation of logistical operations and growing activities in e-commerce provide social enterprises with the possibility to expand their market share and reach a broader audience. This potential rise in demand would then prompt them to collaborate with commercial partners and research centres, implementing the same digital logistical systems that can optimise operations.

For example, reverse logistics, a system used by private retailers, provides the opportunity to make transport more efficient by making sure delivery trucks don't go back empty (e.g. individuals can make a donation when an item is delivered to their home). By incorporating a donation mechanism into the reverse logistics process, it is possible to foster a culture of giving back while streamlining operations.

IV. Traceability

The traceability of re-use operations can be defined as: *the ability to track the origin, history, and life cycle of reusable items. It involves maintaining records of where items come from, their condition, the processes followed to prepare them for re-use and their destination after re-use or preparation for re-use.*

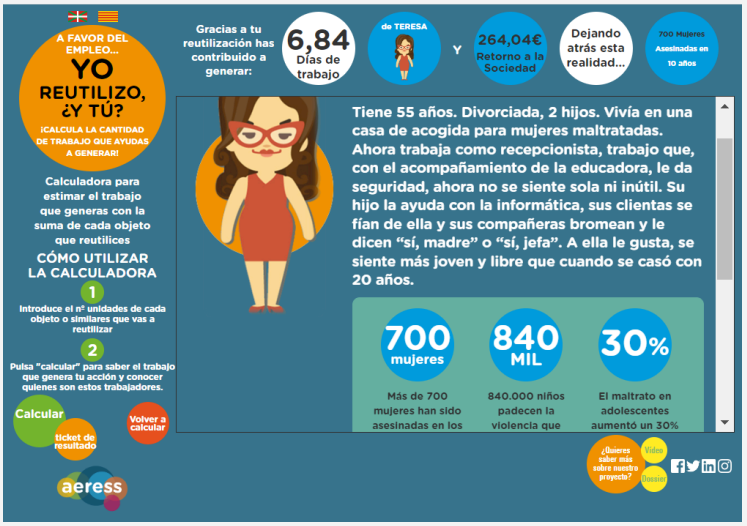
Digital and social trends in tracing re-use operations

Traceability systems can in many ways elevate the position of social enterprises by enhancing the visibility of their impact. While people in the sector know the importance of social enterprise activities and their impact, the end customer may not be aware of this. Therefore, showing the environmental and social dimensions can help communicate what social enterprises do to the wider audience. For this reason, there is a growing interest on behalf of social enterprises to trace their operations and quantify the impact on people and the environment.

Calculating and digitally sharing the impact of re-use operations through accessible and attractive tools can strengthen their position and help to illustrate the importance of waste prevention and employing individuals from diverse socioeconomic backgrounds. Thanks to the data and enhanced visibility, there is further interest in the work of social enterprises, which could create more opportunities to upskill and employ vulnerable individuals.

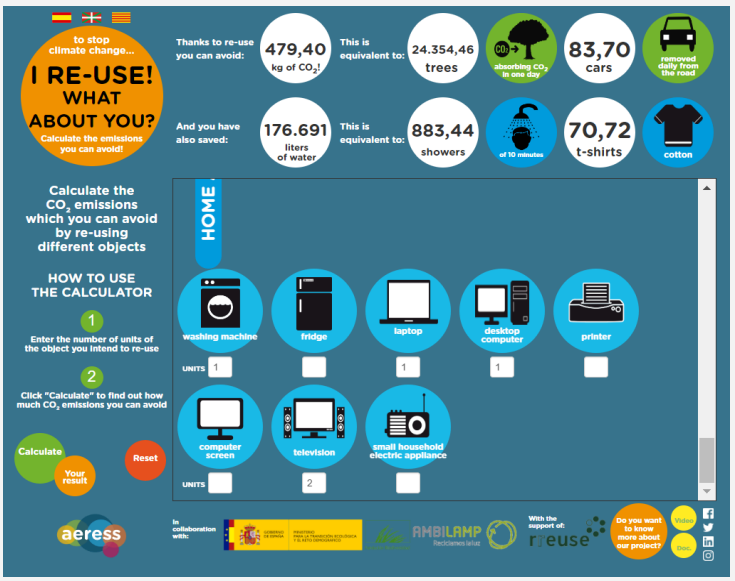
Box 6: AERESS Social and Environmental Calculator

AERESS (Spanish network of social enterprises active in the circular economy) estimates on their website the amount of work that can be generated for each item that customers re-use with a wide range of different objects, such as clothing, furniture, and electrical appliances. By doing this, it showcases the number of days of work provided, the amount of money returned to society and the profile of individuals that benefit from receiving such employment opportunities.



Source: https://aeress.org/calculadorasocial/

The second website of AERESS also provides another public tool in Spanish and English, used to quantify the environmental impact of re-using different objects, ranging from clothing, furniture, and electrical and electronic appliances. This is done through showcasing how many kg of CO2 emissions can be avoided and litres of water saved.



Source: https://aeress.org/reutilizayevitaco2/en/

There is an increasing interest from the wider public for transparency in the traceability of operations. The project consortium identified tools such as the measurement of CO2 emissions saved by re-use as a key way to demonstrate impact.

Moreover, the creation of a Digital Product Passport (DPP) has the potential to facilitate the identification and traceability of goods during collection and sorting, improving the re-use rate. However, Digital Product Passports should be designed to facilitate and promote processes in the re-use sector, and not be solely designed with the recycling sector in mind.[2] Furthermore, it should increase transparency on environmental and social impacts, helping prevent greenwashing as well as social washing and enhancing the visibility of the social economy sector.

Equally, the DPP must always be made available on products themselves, and not simply on their packaging, to properly inform consumers and make it accessible to repairers, re-use operators, and future users for the sake of sustainable consumption. The DPP can be a key tool to support market surveillance authorities and ensure the enforcement of product legislation.[3]

Additionally, the Extended Producer Responsibility (EPR) schemes, if implemented properly, could have the potential to fund traceability throughout the product value chain by ensuring that producers take responsibility for their product's environmental impact throughout their lifecycle. Nonetheless, for this to happen, the scheme must contain waste prevention measures and waste management performance targets, ensure eco-modulation to drive a better design of items that supports circularity, and introduce a re-use and repair fund that sustains re-use operations.[4] Moreover, social enterprises must be included in the EPR governance, to ensure the implementation of the previously mentioned points.

Challenges for digitalisation of tracing re-use operations

There are several challenges linked to the traceability of re-use operations. For instance, there is a lack of clarity and consensus on who should be responsible and provide the funding for monitoring activities. In several European countries, there is no clear legislation which states who is responsible for tracing re-usable items and how this should be done.

While the Digital Product Passport has the potential to ease the traceability of re-use operations, it is still uncertain how it will be designed and implemented. Moreover, this has often been framed as an instrument that contains only information on the impact of production or how to recycle goods.

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[2] Joint Position paper (2023) Joint Position of European Environmental Organisations on the Revision of the Directive on Waste from Electrical and Electronic Equipment (Available here)

[3] RREUSE (2022) Targeted stakeholder consultation based on the Staff Working Document "Scenarios towards co-creation of a transition pathway for a more resilient, sustainable and digital textiles ecosystem (Available here)

[4] Joint Position paper (2023) Joint statement on Extended Producer Responsibility for Textiles (Available here)

Furthermore, disparities in available information can occur due to producers' lack of transparency. The lack of harmonised information on products and legislation is a challenge to digitalise the traceability of re-use operations. That also has implications for the provision of training which would develop the skills needed for traceability. The diverse range of re-use operations lacks standardised practices for digital traceability. It is a significant cost to to train and equip the workforce with the skills, competencies and technical resources to trace the impact of re-use operations of social enterprises.

Opportunities for digitalisation of tracing re-use operations

Digitalisation offers a fundamental opportunity to showcase the impact and credibility of social enterprises. Quantifying CO2 emission savings and social impact is a field with a lot of potential for the sector. Having detailed impact data enables them to showcase it to the general public, authorities, partners and potential funders. For example, it allows to detail the concrete social and environmental benefits of purchasing re-used items on the customer receipt, helping them directly understand what difference they can make with their purchasing power.

The Digital Product Passport would be able to provide details on the weight and materials used for each good, which can be disclosed on the homepage website of the social enterprises. Additionally, this measure will require further transparency from the producers' providing key information on the items they produce. As a result, this could lead to the opportunity to establish collaborations between manufacturing brands and social enterprises with greater transparency on the products' origin and data.

Ultimately, the digital aspect of traceability can enable the possibility to trace where items are at any time and lessen the environmental burden of the activity by optimising efficiency.

4. Recommendations

a. Recommendations to social enterprises that want to digitalise their re-use operations.

This section aims to highlight lessons learnt by social enterprises that have successfully digitalised their re-use operations, sharing their experiences and insights with organisations that are transitioning to a digital setting. The recommendations are clustered into several different topics.

Data collection

- **Collect the data related to all your operations to quantify your impact**. This can help increase the credibility and showcase the impact of social enterprises which will help establish partnerships and educate the general public;
- **Consult with research institutions on what research studies can find solutions to knowledge gaps in the sector and showcase social enterprises' impact.** These collaborations can provide funding to digitalise and provide the opportunity to explore how to scale up re-use operations;
- **Implement an enterprise resource planning program** to enhance management, improve the monitoring of operations, and digitalise inventory accounting. This digital tool will help manage more efficiently business processes, such as finance, human resources, supply chain, manufacturing, and sales.

Networking

- **Develop (peer-to-peer) platforms to inform, exchange information, and share best practices, including with mainstream businesses and research institutions.** Hold regular and structured exchanges to discuss ongoing digital initiatives and their impact;
- **Become a member of network organisations**. Build synergies and cooperate with other social enterprises. Take the opportunity to learn from others, there is no need to start from scratch. This can be done together by sharing best practices and expertise;
- **Consider collaborating with research institutions through European-funded projects** to develop digital systems for re-use operations, using the expertise and capacity of national research institutes. These collaborations can help define common indicators and instruments for the digitalisation of the re-use sector as a whole.

Planning

- **Develop a timeline and goals you want to achieve that are specific, measurable, achievable and timebound.** The digitalisation of re-use operations is complex, resource intensive, and requires long-term planning;
- **Focus on scalable projects that are impactful.** It is important to conduct prior research and thoughtful consideration before implementing digital initiatives. Choosing digital systems and tools that align with the organisation's specific needs is crucial for long-term impact;
- **Dedicate time and effort to providing the means for employees to learn and develop digital skills**. The training must be personalised to the needs of the employees for it to be effective and inclusive. These can be done by engaging employees in discussions about their learning preferences, career aspirations, and current competency levels.

Partnerships

- **Find suitable partners among business companies that are aligned with your values and can support your mission**. Create bridges that can leverage connections to support the process of digitalising operations, including via private procurement opportunities and

Corporate Social Responsibility (CSR). The social aspect needs to remain at the core of the activities, not only focusing on the digital side.

b. Policy recommendations based on the findings

This section provides recommendations for policy interventions to support social enterprises' digitalisation of their re-use operations. The recommendations address both EU and national institutions.

The consortium partners recommend the following:

- **Facilitate education, training, and skills in the social economy by running learning exchanges between social enterprises, mainstream businesses, and research institutions.** Current EU initiatives like the Transition Pathway for the Proximity and Social Economy, the European Skills Agenda, the European Enterprise Network, the European Social Economy Regions (ESER), and the European Digital Innovation Hubs, should foresee public events across the EU designed for the social economy to network, co-operate, and share best practices on entrepreneurial and management skills to advance digitalisation in the green transition.

- **Make the best use of available funding at European, national, and regional levels.** The resources under the Cohesion Policy Funds, including the European Social Fund Plus (ESF+), InvestEU, the Recovery, and Resilience Facility and similar streams, should envision measures and initiatives designed to support the digital capabilities of social economy enterprises. This suggestion also aligns with the 2023 Council Recommendation on developing enabling framework conditions for the social economy (C/2023/1344; Point 14, j).[5]

- **Raise awareness of European and national-level funding and digitalisation opportunities.** The new entry point for the EU social economy - the Social Economy Gateway,[6] the 2023 European Year of Skills, and similar European and national fora should raise awareness of current opportunities to support social economy actors' digital upskilling and reskilling work. Among other things, such efforts contribute to meeting the target of the Action Plan for the European Pillar of Social Rights of at least 80% of those aged 16-74 who should have basic digital skills by 2030.

- **Strengthen the social economy business models as agents for the green and digital transitions.** When designing green and digital transition strategies, Member States and regions should engage with social enterprises to address needs in terms of digital uptake and promote adaptable and affordable technology solutions (e.g. digital commons and open source technologies).

[5] Council of the European Union (2023) Council recommendation on developing social economy framework conditions (Available here)
[6] European Commission (2023) Website: Social Economy Gateway Platform (Available here)

- **Integrate socio-economic and environmental considerations in digital policy design.** Digital policy interventions should foster human-centred digital solutions to enable social and environmental protection. Investments in digital tools for the circular economy should integrate social economy aspects, uphold the EU waste hierarchy[7] and benefit the re-use sector whenever possible, guaranteeing inclusive job creation and the extension of product life cycles.[8]

- **Provide guidelines for social impact measurement methodologies for the social economy that are proportionate, adaptable and inclusive.** Social enterprises have already adopted different tools to present their impact to the public, policy-makers and investors. On-going efforts to support the social impact measurement development in social enterprises under the EU Social Economy Action Plan should reflect social enterprises' needs and characteristics, especially for those that are smaller or with less capacity.

- **Adapt academic curricula to promote digitalisation in green social entrepreneurship.** According to the latest 2023 Eurobarometer, most young Europeans find it important to work for organisations with social or environmental goals.[9] However, few academic curricula focus on social and green entrepreneurship to match this interest and the topic of digitisation and tech for good is too often left untapped.

5. Conclusions

Achieving an equilibrium between digitalisation and manual processes will be essential for social enterprises when transitioning to a digital setting. This involves on the one hand preserving manual jobs while at the same time providing opportunities for employees to develop digital skills and competences relevant for the current and future job market. Social enterprises provide jobs and training opportunities to users from diverse socioeconomic backgrounds to integrate them in the labour market. Once they have acquired and developed a set of skills, this can enable them to find employment suited to the skills obtained. The training provided must be done in a format that is inclusive of the diverse workforce that social enterprises have, and maintaining the human force is a key component.

A key challenge for digitalisation is the implementation cost of digital tools. Individual social enterprises are typically small-scale organisations characterised by limited resources and constrained digital outreach. It is extremely beneficial to employ the economy of scale and develop common solutions, which is already the case in many national networks that are part of RREUSE. That said, it

[7] The waste hierarchy is a tool used in the evaluation of processes that protect the environment alongside resource and energy consumption from most favourable to least favourable actions. The EU Waste Hierarchy is enshrined in Article 4 of the EU Waste Framework Directive 2008/98/EC.
[8] RREUSE (2021), RREUSE (2021) Job creation by social enterprises in the re-use sector (Available here)
[9] European Commission (2023) Eurobarometer: Social entrepreneurship and youth (Available here). *A majority of young people find it 'very' or 'fairly important' that a potential employer has defined social goals (75%) or environmental goals (73%) for the company.*

can be challenging to develop large digital projects at the scale and with the speed of mainstream businesses. Increasing interest in re-use and repair from the private sector puts pressure on social enterprises to keep up and digitalise, which can be demanding next to their day-to-day activities and above all, social inclusion objectives. The role of umbrella organisations in this case is key, since they can help coordinate development of joint tools.

The use of AI provides the opportunity for social enterprises to retain knowledge within the organisations, as individuals in integration programmes tend to stay at social enterprises for a limited time, which is linked to the local social employment support structures in place. Digital tools can empower organisations by giving them the ability to create platforms to store information and data of goods and services.

To make the digitalisation of re-use operations more widespread, it's crucial to facilitate education, training, and skills within the social economy. This can be achieved by organising learning exchanges between social enterprises, mainstream businesses, and research institutions. The cooperation between these different actors is essential to strengthening the social economy business models as agents for the green and digital transitions. On the other hand, it provides opportunities for mainstream businesses to carry out their operations more sustainably. To support social enterprises, investments in digital tools for the circular economy must integrate social economy aspects, uphold the EU waste hierarchy[10] and benefit the re-use sector whenever possible, guaranteeing inclusive job creation.[11]

[10] The waste hierarchy is a tool used in the evaluation of processes that protect the environment alongside resource and energy consumption from most favourable to least favourable actions. The EU Waste Hierarchy is enshrined in Article 4 of the EU Waste Framework Directive 2008/98/EC.

[11] RREUSE (2021), RREUSE (2021), Job creation by social enterprises in the re-use sector (Available here)