FROM WASTE TO NEW VALUE

Interreg CENTRAL EUROPE

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SYMCRAFT

One solution to recover waste for new product/service Solution n. 1 (D.3.1.1.)



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The content of this document is based on the results of work carried out by the SYMCRAFT project partners and by the companies, artisans, researchers, intermediary organisations and other stakeholders involved in the project activities. This work included the development and testing of project-specific artificial-intelligence-supported tools used to assist selected tasks such as structuring information, identifying potential matches, supporting idea generation and developing product concepts, digital twins or feasibility studies. AI-supported outputs were treated as working inputs and were reviewed, contextualised and, where applicable, validated by the responsible project partners and participating stakeholders. The authors and project partners remain responsible for the final content, conclusions and recommendations presented in this document.

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1. EXECUTIVE SUMMARY

The Solution n.1 presents the Assessment of the Pilot n 1 as a practical guideline addressed to chambers of commerce, technology transfer agencies, business support organizations and other intermediaries that assist artisans, craft SMEs and manufacturing industries from the textile, agro-food and wood & furniture sectors in developing eco-business models based on the reuse and recycling of industrial waste and by-products.

Solution n.1 transforms the experience gained during Pilot Action 1 by SYMCRAFT partners across eight countries — Austria, Croatia, Czech Republic, Germany, Hungary, Italy, Slovakia and Slovenia. Following a common methodology partners engaged industrial waste suppliers and craft/artisan enterprises through informational campaigns, cross-value-chain Co-Creation Workshops, bilateral follow-up calls and joint validation sessions, generating more than forty documented showcases of concrete industrial symbiosis collaboration across the three target supply chains.

The guideline includes:

1. Building partnerships in the partner regions (involving 20 SMEs or industrial enterprises/facilities per region) and establishing tandem collaborations between the skilled crafts sector and industry at the local level for product development (**181 Companies involved)**.

2. Conducting co-creation workshops for joint development at the local level to identify the specific needs and technical competencies of the participating local SMEs (**18 co-creation workshops carried out)**.

3. Holding transnational meetings for each of the three sectors to exchange knowledge and define measures and monitoring tools **(More than three transnational meetings took place).**

4. Developing 40 prototypes/digital twins or feasibility studies (depending on time, resources, and available expertise) as the outcome of five selected collaborations per pilot area (More than 40 collaborations are established).

The transnational workshops, co-creation workshops, and the work on and with the partnerships and transnational exchange demonstrate that there are numerous opportunities for waste reduction and a circular economy. In these processes representatives from government agencies, chambers of commerce and industry, chambers of skilled crafts, economic development agencies, and ministries were also involved. Representatives from science and research were also included in many events. Several topics repeatedly emerged and discussed at the events:

- Access to materials
- Marketing and sales
- Models of collaboration
- Price pressure
- Staffing and succession planning
- Legal and bureaucratic hurdles

In addition, there are specific requirements in the sectors. For example food safety regulations, which imposes significant restrictions and difficulties regarding cooperation.

2. ABBREVIATIONS

Abbreviation	Definition
AP / ASP	Associated Partner / Associated Partner organisation
CE	Circular economy
D	Deliverable
D.2.4.1	Pilot Action n.3 report
D.3.1.1	One solution to recover waste for new product/service (Solution n. 1)
EU	European Union
GPT Tool	SYMCRAFT GPT Tool on Legal Elements and Cooperation Agreements
IAGF	Institute for Applied Research for Skilled Crafts and Trades
IP	Intellectual property
PA	Pilot Action
PA1 / PA2 / PA3	Pilot Action n.1 / Pilot Action n.2 / Pilot Action n.3
PPs	Project partners
SME	Small and medium-sized enterprise
SOPK	Slovak Chamber of Commerce and Industry
WP	Work Package

3. INTRODUCTION AND OBJECTIVES

3.1 Background and scope

SYMCRAFT responds to the need to connect industrial symbiosis with craft-based creativity and circular-economy practice. Within the project, Pilot Action n.1 focused on increase cooperation between industry and the handicraft sector to reuse/recycle industrial waste through informational campaigns, cross-value-chain Co-Creation Workshops, bilateral follow-up calls and joint validation sessions, generating more than forty documented showcases of concrete industrial symbiosis collaboration across the three target supply chains: Agro-food, Textile and Wood & Furniture.

This document presents an assessment of Pilot Action n.1 in the form of "One solution to recover waste for new product/service (Solution n. 1)". The Solution consists of a practical guideline for intermediary organisations supporting industrial companies and artisans in identifying reusable industrial waste, establishing suitable partnerships and developing new products, prototypes, digital twins or feasibility studies. It is supported by selected showcases from the implementation of Pilot Action 1.

The solution includes practical suggestions for uptake by project partners and associated partners. It also provides a safe and realistic formalisation pathway.

3.2 Objectives of Solution n.1

The objectives of the Pilot Action n.1 assessed in this document are to:

- ✓ identify industrial waste streams
- ✓ identify artisans
- ✓ establish collaborations
- ✓ organise co-creation workshops
- ✓ develop prototypes
- ✓ provide recommendations for uptake by project partners, associated partners and stakeholder networks during WP3 and after the project ends.

This is directly supported by the Pilot Action 1 report, which outlines establishing partnerships, co-creation workshops, transnational exchanges and development of around 40 prototypes or feasibility studies.

Using a common methodology, all partners work in parallel on the tasks, thereby helping to link the zero-waste processes of industry with the creativity and reuse potential of artisans

3.3 Link to Pilot Actions n.2 and n.3

Solution n.1 is directly connected to the previous SYMCRAFT Pilot Actions. Pilot Action n.1 identified residual materials, reuse opportunities, prototypes and cooperation cases. Pilot Action n.2 developed the eco-business-model perspective behind those cases. Pilot Action n.3 translated the technical and business-model experience into agreement models that clarify how material transfer and practical collaboration can be organised.

This connection is important for sustainability. Circular reuse does not become stable only because a prototype works or because a business model appears promising. It also requires an agreement logic that makes responsibilities, safety, legal status and practical implementation transparent for all parties.

4. METHODOLOGY USED

4.1 Common criteria

For the purpose of the common methodology of SYMCRAFT were set up common criterias which were applied in all Pilots starting with Pilot 1.

Table 1: Criteria matrix

Type	Description
Target groups	• Industrial companies generating waste/side products • SMEs using the side product as a input for their activity (artisans, SMEs) • Others (BSO, CC, Policy makers)
Sectors	• Agro-food • Textile • Wood & Furniture
Development level of Circularity symbiosis	• Prototype • Feasibility study • Digital twin

4.2 Transnational and sector-based approach

The methodology combined a common transnational structure with sector-specific and national adaptation. It included partner input, discussions, stakeholder engagement, partner review and consolidation of evidence.

Table 2: Sector-based working groups under Pilot Action n.

SYMCRAFT partners	Main focus
PP05-WPRED; PP09-B&S; PP10-UIL	Agro-food residual materials, hygiene and storage questions, traceability, by-product/waste classification, non-food and regulated uses, and practical cooperation formats for small-scale actors.
PP03-JHK; PP04-SOPK; PP07-TPLJ; PP08-IAGF; PP11-TZH	Textile residual materials, sorting and quality, small and irregular material flows, design/IP/branding, product safety, and use by craft, design and creative actors.
LP01-t2i; PP02-FCF; PP06-HAMAG-BICRO	Wood offcuts, veneer, panels, furniture components and mixed manufacturing residues, including quality, liability, logistics, material transfer and design-oriented reuse.

4.3 Local and transnational activities and symbiosis development

The SYMCRAFT methodology aims to go beyond minimal cooperation and promote genuine collaboration, in which players from industry and trade not only share resources or exchange materials, but also actively participate in the joint development of new solutions, value chains, and market offerings. One of the specific tasks was to establish contacts between SMEs and industrial companies with appropriate data collection. To cope with this task, a set of tools was used in a pragmatic sequence. The description below shows application of different tools in sequence of the 4 steps:

Table 3: Description of the steps and tools

Step n.	Objective	Tools description
1	Establishment of partnerships in the partner regions (involving 20 SMEs or industrial companies/Institutions per region)	List of companies and institutions involved with a description of the companies/Institutions (SME, industry, other), the material/offer (offer, request, cooperation
2	Local Activities -Co-Creation Workshops	List of co-creation workshops and Template co-creation workshops for describing the joint development of partnerships at the local level, identifying specific needs and technical skills of the participating SMEs
3	Transnational meetings per sector (Agri-Food, Textiles, Wood&Furniture)	Template for transnational meetings for describing the workshops, knowledge exchange, and defining measures
4	Development of 40 prototypes/digital twins or feasibility studies (5 per region)	List of collaborations with explanation of whether prototypes/digital twins or feasibility studies

A common methodology, used by all partners, focused on linking the zero-waste processes of industry with the creativity and reuse potential of artisans.

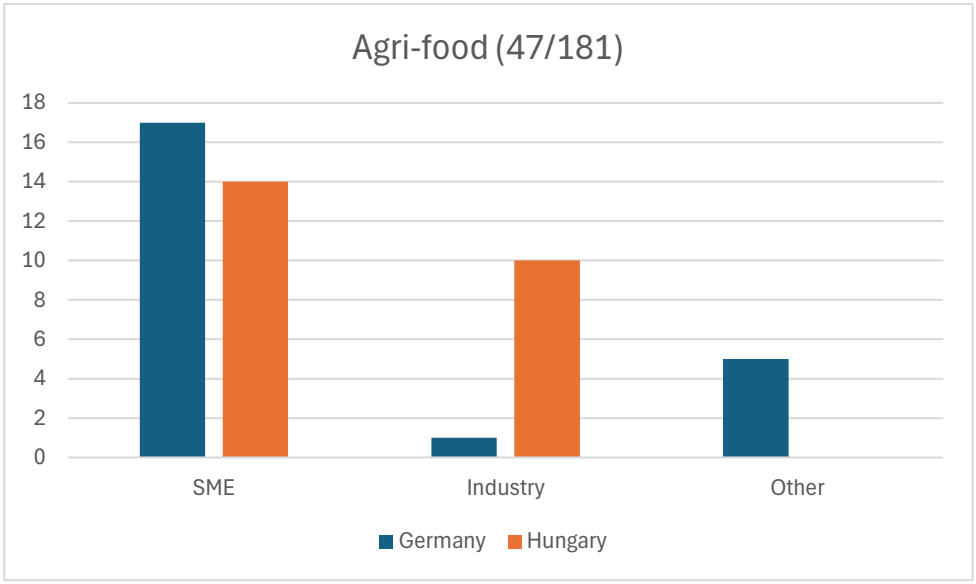
The validation logic is aligned with the WP3 assessment process, including partner and associated-partner feedback collected during WP3 exchanges and, where applicable, interim and final evaluation committee meetings.

5. RESULTS OF IMPLEMENTATION

This chapter presents the solutions for Pilot Action 1: The establishment of the partnerships, the local activities and the transnational meetings.

5.1 Establishing partnerships between SMEs and artisans

In the first run of the project all local networks were established or further developed with companies/Institutions who are relevant to the three sectors covered by SYMCRAFT (Agri-Food, Textiles, Wood&Furniture). There were in total 181 stakeholders recorded, mostly from the small and medium-sized enterprise sector (according to the EU definition), but mainly offered industrially produced waste materials (except in the agricultural sector). Below are the overviews of the three sectors.



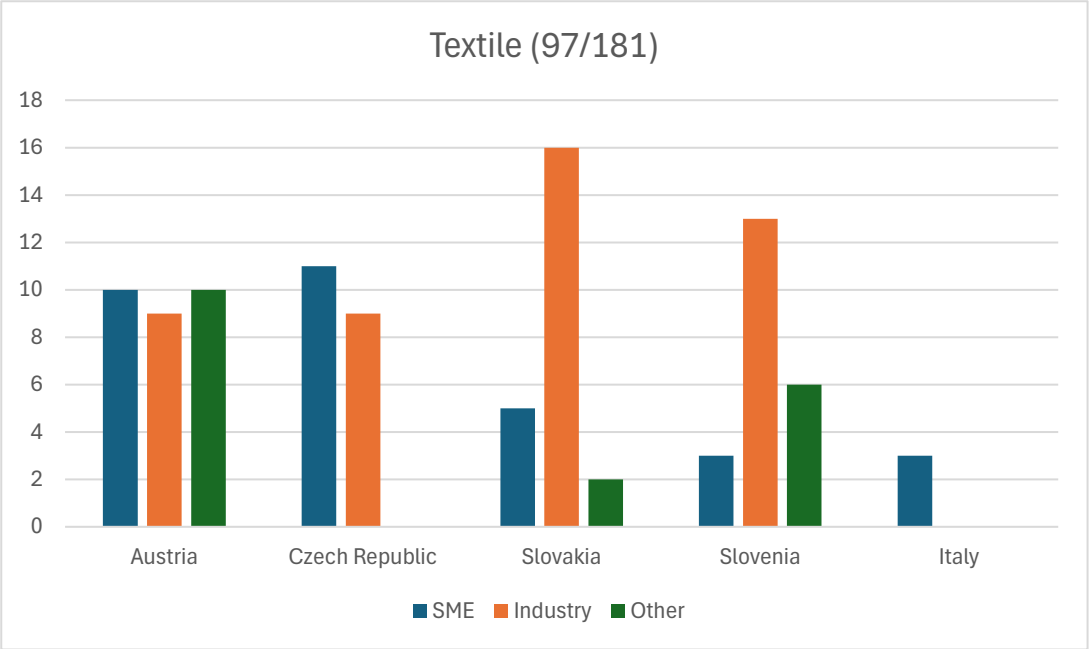
Figures 1: Overview about the companies/institutions from the Agri-Food-sector,
Others: Research institute, NGO, state owned enterprise

In the **Agri-Food sector** 47 companies participated from 181 the total number. In this sector participants identified divers waste materials offered / requested listed in this short example:

- Fibers obtained from fermented residues in agricultural biogas plants
- Fiber and straw residues from the agricultural production of flax, hemp, grain etc.
- Residues from food production

  - Cherry pits, pumpkin seeds, etc.
  - Pomace from apple juice production
  - Spent grain
  - Egg shells
- Sheepwool, horse manure, horsehair
- Coffee grounds

Some companies offered engineering services such as consulting, partner search, machine development etc.

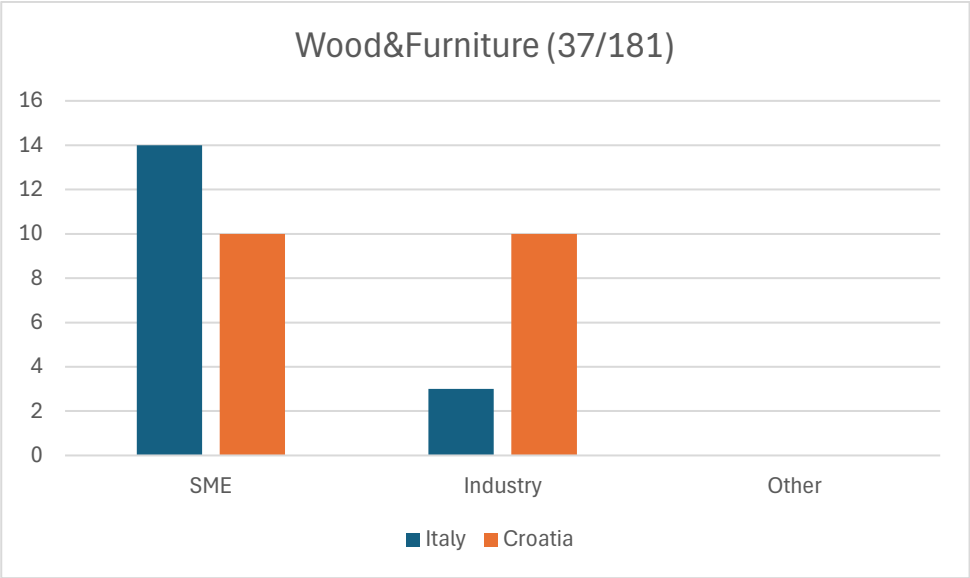


Figures 2: Overview about the partners from the Textile-sector,
Others: Research institute, NGO, individuals, wool producers

The most of the SYMCRAFT-companies/institutions- 97 of the 181 - were from the **Textile sector**. In this sector participants identified divers waste materials offered / requested listed in this short example:

- Residual materials from textile production, both from natural and synthetic fibers
- Wool residues or cotton from agricultural production
- Residues from the recycling of used textiles and leather goods

Some companies, mostly individuals, offered design or technical development services, for example.



Figures 3: Overview about the partners from the Wood & Furniture-sector

The **Wood & Furniture sector** is represented by 37 of the 181 companies/Institutions. Examples of waste materials offered or requested include In this sector participants identified divers waste materials offered / requested listed in this short example:

- Solid wood off cuts and end pieces, irregular wood fragments,
- Wood veneer scraps, sawdust, wood shavings, wood dust,
- Particle board, MDF and plywood off cuts, defective or obsolete boards,
- Tree bark, branches and twigs,
- Wooden pallets, crates and other protective wooden packaging elements, but also textile.
- Marble powder, glass, glass fragments, ceramic bottom ash
- Used industrial gloves

Some companies offered design or technical development services for producing high-quality furniture for work, hospitality and residential spaces.

5.2 Local activities, co-creation workshops

Local activities represent important activities were the co-creation workshops, all of which took place in person.

The co-creation workshops at the local level served the following purposes:

- to provide information about the SYMCRAFT project
- to define residual materials and generate ideas for new products
- to establish and strengthen potential partnerships between the owners of the residual materials and potential users
- to identify the specific needs and technical capabilities of the partners involved

Short overview of all co-creation workshops is in the table below:

Table 4: Co-creation workshops overview

Sector	Country	Nr of workshops	Nr of participants
Agri food	DE, HU	7	317
Textile	AT, CZ, SI, SK	7	171
Wood & Furniture	HR, IT	2	80

Full detailed overview of all co-creation workshops is in the Annex 1.

Agri-food sector

In the Agri-food sector were involved two countries (Hungary and Germany) that carried out 7 co-creation workshops. Participants focused on the development and industrial scaling of value chains from organic waste from agriculture. Some workshops focused on: "From waste to high-quality product: Ensuring that the most valuable materials do not end up in the trash." The other workshops were dominated by representatives of agricultural businesses and product processors. However, employees from regional authorities and ministries were also present (industry, science, chamber of commerce etc.).



Figures 4: Presentation of biogas fibers in Braunschweig (DE-5)

Textile sector

In the Textile sector engaged four countries in which 7 co-creation workshops took place. The workshop participants came from a wide range of economic sectors, for example:

- Agricultural businesses (sheep farmers)
- Manufacturers of textiles and leather (natural and/or synthetic fibers, shoe manufacturers)
- Designers of new products
- Government officials, representatives of associations

The presentations and open discussions focused on key SYMCRAFT topics, including sustainable textile production, the role of craftsmanship within circular economies, upcycling strategies, and the accessibility of industrial production waste.

Discussions revealed considerable interest in the creative reuse of textile waste and highlighted its potential for developing new products. At the same time, material availability was identified as a key challenge. Production waste is often not visible to artists and designers, nor is it recognized as a potential resource. Even when individual creatives proactively approach companies, the communication and logistics involved in small and irregular quantities of waste materials can be unattractive to production companies. Therefore, the idea of a centralized collection and distribution structure for production waste was suggested and discussed several times as a possible solution.



Figures 5: Co-Creation workshop 03.12.2025, Technology Park Ljubljana (SI-2)

Wood&Furniture

One of the two workshops in the sector of Wood&Furniture held at the Faculty of Forestry and Wood Technology in Zagreb brought together representatives of large manufacturing companies, designers, artisans, and other relevant stakeholders with the aim of exploring ways to transform industrial material residues into valuable resources. The focus of the event was on product design development and the identification of potential collaborative business models grounded in circular economy principles.

The second workshop was held in Italy. The "Da scarto a risorsa" co-creation workshop took place in Treviso on 3 November 2025, involving over 50 participants including SMEs, artisans and designers. The event fostered matchmaking and co-design activities to explore innovative reuse of industrial waste within the SYMCRAFT project framework.



Figures 6: Co-Creation workshop Wood&Furniture, 03.11.2025, Treviso (IT-1).

5.3 Transnational meetings

Transnational meetings have taken place and continue to take place in all three sectors, even every two months in the textile sector. The following table provides an overview of these events.

Table 5: Transnational meetings overview

Area	Date, Time	Location	Participants	Content short
AT PP08+PP11, Textile	series started in June 2025 and is still ongoing, every two months	online	PP08-IAGF, PP07-TPLJ, PP04-SOPK, PP03-JHK; PP11-TZH	The discussions focused on the regulatory, material, and practical aspects of textile waste and the circular economy. In parallel, the challenges of accessing production waste were discussed, such as limited transparency regarding available materials, logistical constraints, and communication gaps between industry and creative professionals.
HU PP05, Agri-Food	24.11.2025 (13:00-15:00) 28.07.2026 (10:00-11.30)	online	8 (incl. PP09, PP10, AP)	Present and discuss the outcomes of local co-creation workshops and the experiences with stakeholder involvement in the two countries, in order to advance in the identification of viable industry–craft collaborations. There were discussed also practical aspects and development of collaborations.
IT LP01+PP02, Furniture	03.11.2026 (14:00 - 19:00)	Piazza delle Istituzioni, 34, 31100 Treviso TV	>50 (including supplier companies, craft enterprises, designers and facilitators)	The workshop was designed to foster structured collaboration between SMEs, artisans and designers, with the aim of identifying concrete opportunities for the reuse and valorisation of industrial waste within a circular economy framework.

5.4 Practical result logic

The implementation Pilot Action 1 established a network of contacts to facilitate ongoing communication and cooperation between industrial companies and artisans. It also generated valuable information on the availability and demand for industrial waste streams, together with their potential for conversion into new handicraft products. The pilot action laid the foundation for fostering industrial symbiosis and served as the basis for the development of the support tools and methodologies implemented through Pilot Actions 2 and 3.

Practical Tip: Before organising a co-creation workshop:

✓ prepare waste catalogue
✓ prepare artisan database
✓ define expected products
✓ involve technology experts
✓ invite policy stakeholders

6. SUMMARISATION OF FINDINGS

6.1 General findings

The main topics in the local workshops and other actions were the following:

1. Regarding the industrial players: available residual materials, by-product management in practice, circular practices they are applying, openness and possibilities to cooperate with SMEs/artisans.
2. Regarding artisans: what and how they are producing, material needs they could utilize, circular and cooperation practices/experiences in the past.
3. Common points: pros and cons regarding possible cooperations

Lesson learned from the workshops:

1. The events offer the opportunity to make new contacts and collaborate with other industry experts.
2. The opportunity to exchange experiences and gain inspiration for innovative and circular projects.
3. An overview of current legislative changes and their impact on your business.
4. Tools to transform waste into a valuable resource and thus contribute to reducing environmental impact.
5. The events offer the chance to make the respective sector more sustainable and generate new innovations.

The ideas and suggestions on common platform development:

- The idea of a centralized collection and distribution structure for production waste as a potential solution;
- Establishing a platform for material exchange, particularly for production residues, to better connect industry with designers and craftspeople;

- Utilizing public or targeted tenders to provide creatives with access to surplus materials;
- Material donations (organized via platforms) or symbolic pricing models as effective instruments for promoting circular economy practices;
- The legal possibilities and obstacles to procuring residual materials should also be identified.

The ideas and suggestions on **organization and opportunities for collaboration**. Many participants emphasized that it is every company's natural goal to manage residues, by-products, and waste as effectively as possible. The first step is avoidance, the second is reuse within the company. Seeking solutions outside the company is only the third approach.

The ideas and suggestions on collaboration models. The event demonstrated significant potential for pilot collaborations, limited-edition product runs, and socially beneficial projects. The following ideas for forms of collaboration were discussed:

- Bottom-up models, in which designers and craftspeople publicly communicate their material needs, thus enabling more efficient communication with industry.
- To establish new clusters or strengthen existing centers, with a greater focus on networking between industry and creative professionals.
- Participants frequently expressed strong interest in collaborative models where designers develop products that can be integrated into existing industrial technologies.
- As a practical next step, factory visits and on-site exchanges were suggested.
- Exchanges between suppliers and craftspeople, which can identify specific technical requirements and skills needed by local SMEs. These include material processing techniques, quality and safety regulations, logistical considerations, and the compatibility between industrial waste streams and artisanal production.

Other **general problems** that were raised by frequently included:

- Intense price pressure from manufacturers in low-wage countries. This has led to a long-term decline in, for example, traditional clothing production and employment. To remain competitive, companies must focus on specialization, high-quality products, niche markets, and technologically advanced textiles, but this transformation requires investment and strategic repositioning.
- Human capital issues: There is a shortage of skilled workers, especially those with technical and digital skills. As production becomes increasingly automated and digitized, companies need employees with knowledge of advanced machinery, information systems, and sustainable production methods. However, due to the industry's traditional image, it can be difficult to attract younger generations to careers in sectors such as the textile industry.

In addition to the aspects mentioned by all sectors, there were also a number of specific topics.

6.2 Sector specific findings

Specific topics for all sectors

- current legal and regulatory framework does not provide sufficient incentives for the sharing of industrial waste, highlighting the need for potential policy adjustments.

Specific topics in the sector Agri-Food:

There are a number of other networking opportunities/examples in this area:

- Using the services of consultants and consulting firms can improve companies' situations, also in conjunction with applying for financial support for worthwhile projects.
- For example, the Saxon Economic Development Agency offers a wide range of support services such as business angels, financing, and partnership assistance.
- Initiating cross-sector partnerships, such as between the catering and packaging industries, is crucial. This is the only way to establish secure supply and trade relationships.
- The looking for partners to exchange the residual materials

It's more difficult to reach and involve larger industrial companies. This workshop format is probably not particularly suitable for them. However, this is industry-specific; the agricultural and food sector is a more challenging field in this respect, while the textile industry offers much more scope for collaboration.

Further risks in the agricultural and food industry:

- There is a very strict legal environment, including food safety regulations, which imposes significant restrictions and difficulties regarding cooperation. This is especially true when human consumption is the ultimate goal of a new product idea.
- Differences between supply and demand in terms of quantity: There can be large discrepancies between the amount of residual materials generated (during a specific period – harvest time) and the quantity that the artisan needs and can utilize. It is uncertain whether this is profitable for both parties.
- Logistics-related problems, transportation: Materials must be transported and stored, etc.
- Consistency issues ((the quality of agricultural products varies depending on the year and location)
- Many activities focus on plant-based products. Residues of animal origin are subject to additional hygiene requirements, which sometimes make alternative uses difficult or impossible.
- Often, residual materials are used for energy recovery.
- Smaller and medium-sized businesses often have more problems implementing useful solutions for recycling than larger ones.
- Residual materials in the agri-food sector are a very sensitive area for companies. Questionnaires like those designed in Symcraft partially address this sensitive area. Data protection and data security play a crucial role for companies in this context. Therefore, some of the information requested in Symcraft will only be available in a limited or anonymized form from the companies' perspective.

Specific topics in the sector Textile:

The following statements were made regarding the textile industry:

- Designers and craftspeople need suitable workspaces and machinery. Even in artisanal and small-batch production, access to specialized equipment is often essential and can involve considerable costs. In this context, shared workshops and collective production infrastructures were discussed as relevant support models.
- Craftspeople and designers showed more motivation for eco-design and innovation using residual materials than companies in the textile industry.
- Another conclusion is that professional workshop facilitation is crucial for the successful development of innovative prototypes, ensuring that participants demonstrate interest and motivation for collaborating on innovative ideas and prototypes using residual materials from the textile industry.
- One of the main problems is environmental sustainability. The amount of textile waste is increasing, while systems for separate collection, reuse, and recycling are still underdeveloped. At the same time, textile production contributes to environmental pollution through water consumption, chemical use, and microplastic pollution. New European Union regulations regarding the circular economy and extended producer responsibility are causing additional compliance costs and require companies to adapt their production and product design processes.
- Another important issue, for example in the Slovenian textile industry, is its structure. The Slovenian textile sector is dominated by small and medium-sized enterprises (SMEs), which often lack the financial strength and scale to compete globally. Limited investment capacity restricts opportunities for research, development, and technological modernization. While cooperation between companies and research institutions is improving, it is still insufficient to drive strong innovation, particularly in higher-value segments such as technical and smart textiles.
- Consumer behavior influences the development of the industry. The dominance of fast fashion leads to high consumption of inexpensive, short-lived garments, which continues to decline demand for durable, locally produced textiles, despite growing awareness of sustainability.
- Challenges facing the Slovenian textile industry include a weak circular economy and environmental impact, limited scale and innovation capacity, intense global competition, a shortage of skilled workers, and consumption habits shaped by fast fashion. Long-term competitiveness will depend on digital transformation, sustainable production models, innovations in technical textiles, and greater integration into European value chains.

In summary, it can be stated that artisans and designers played a central role, supporting the development of potential new products by transforming industrial constraints into feasible and creative concepts. Working in mixed groups, participants used the digital and AI-based tool SYMCRAFT to develop initial ideas and micro-concepts based on real-world materials, industrial quantities, and production limitations.

At the same time, the workshops enabled the identification of recurring industry-specific challenges, such as regulatory issues and questions of waste classification, material variability, scalability limits, and the alignment of industrial supply volumes with artisanal production capacities. These insights provided valuable input for the subsequent phases of the SYMCRAFT project, including prototyping, business model development, and legal assessment of selected collaborations.

Overall, the workshop demonstrated the effectiveness of co-creation methods in bridging the gap between industry and artisanal practices, while simultaneously delivering concrete knowledge and actionable results for promoting circular economy practices at the local and sectoral levels.

The key findings and insights are:

- Clear identification of the specific technical requirements and capabilities that local SMEs need, particularly in the areas of material treatment, conversion processes, and compliance.
- Confirmation of the strategic role of artisans in transforming industrial waste into high-quality, design-oriented products.
- Development of numerous potential new products and reuse concepts based on real-world materials and industrial constraints.
- Identification of critical issues across various sectors, including logistics, regulatory aspects, material variability, and scalability challenges.

Key recommendations include:

- Supporting SMEs in recording and classifying reusable waste streams;
- Strengthening technical cooperation between suppliers and tradespeople;
- Early consideration of regulatory and legal aspects in the cooperation process;

Integrating digital and AI-based tools and checklists to improve partner matching and concept development.

7. EXAMPLES OF SHOWCASES

SYMBOL LEGEND

Agri-Food Textile Wood & Furniture
Feasibility Prototype Digital Twin

Table 6: Numerical overview of retained names-anonymised showcases

Sector	No.	Country distribution
Agri-Food	2	Germany 1; Hungary 1
Textile	7	Austria 2; Czech Republic 2; Slovenia 2; Slovakia 1
Wood & Furniture	3	Italy 2; Croatia 1
TOTAL	12	Eight partner countries

7.1 Agri – food sector

Table 7: Overview of selected showcases in the Agri-Food sector

Company Pair Nr.	Showcase	Actors (names anonymised)	Stage od fevelopment
DE-1	MAGAVERDE - Fibers from digestate to paper products	Industrial biomaterial supplier (SME) + Research and paper-making partner	P
HU-1	coffee ground, mushrooms growing block	Café-sector material supplier (SME) + Mushroom-growing craft enterprise (SME)	P

GERMANY | AGRI-FOOD / BIOMATERIALS

MAGAVERDE - Fibers from digestate to paper products

PAIR	COUNTRY	
DE-1 / DEU-3	Germany	P Prototype



Figure 7: Biogas digestate fibers move from residue to mulch and packaging paper.

SHOWCASE NARRATIVE

Cleaned fibres from digestate become a secondary raw material for paper. An industrial material supplier coordinates fibre quality, coatings and technical partners; research and paper-making organisations support the route from technical-scale production toward commercial machinery. The source portfolio reports earlier proof production and testing of mulch and packaging paper. It also reports a potential dry-fibre stream of 1,000-3,000 tonnes per year and an indicative supplier price of EUR 300-400 per tonne; both figures remain dated source claims and must be revalidated before external use.

HUNGARY | AGRI-FOOD

Coffee-ground mushroom growing block

PAIR	COUNTRY	
HU-1 / HUN-3	Hungary	P Prototype



Figure 8: A café residue supports local food production and a home-growing service

SHOWCASE NARRATIVE

A café operator separates fresh coffee grounds and supplies them to a small mushroom-growing enterprise. After controlled collection and sterilisation, the grounds become part of a mushroom substrate. Pilot 1 documents a 2.8 kg prototype block with an indicative mix of 25% straw, 55% water, 15% coffee grounds and 5% mushroom spawn, together with a pressure-sterilisation step. Photographs show the block and successful fruiting, making the transformation easy to understand.

7.2 Textile sector

Table 8: Overview of selected showcases in the Textile sector

Company Pair Nr.	Showcase	Actors (names anonymised)	Stage of development
AT-1	weaving selvedges (cotton) to decorative material	Textile manufacturer + Textile design specialist	P
AT-2	Linen, Cotton (scraps)	Textile manufacturer + Craft-based fashion producer	P
CZ-4	Backpacks and bags made from tarpaulins, fabric with a polyester (PES) core coated with a layer of PVC	Technical-textile supplier + Circular social enterprise	P
CZ-5	Jute products - tablecloth, small bags for vegetable (jute coffee bags)	Coffee-sector material supplier + Circular craft enterprise	F
SI-1	Post consumer material - used working clothes from an industrial workwear supplier, Working uniforms or children clothes	Textile material suppliers + Sustainable-fashion designer	P
SI-2	Wool residual from cutting sheep; wool sitting pad	Livestock-breeders' organisation + Group of local craft makers	F
SK-3	woven fabric edges - Hand woven carpets	Home and hotel textile manufacturer + Hand-weaving micro-enterprise	F

AUSTRIA | TEXTILE

Weaving selvedges into tactile interior textiles

PAIR	COUNTRY	
AT-1 / AUT-2	Austria	P Prototype



Figure 9: Detail images of wool-reach weaving selvedges.

SHOWCASE NARRATIVE

Wool-rich weaving selvedges from an industrial textile producer are narrow, irregular residues with strong tactile and colour qualities. Textile design specialists tested ways to felt these edges into coherent surfaces. Pilot 1 records two routes: machine-supported felting for reproducible production and individual handcrafting for one-off pieces. It shows material samples and finished rug-like prototypes, combining industrial repeatability with visible craft authorship.

AUSTRIA | TEXTILE

Summer caps from linen and cotton offcuts

PAIR	COUNTRY	
AT-2 / AUT-1	Austria	P Prototype



Figure 10: Small high-quality woven remnants become a limited seasonal collection

SHOWCASE NARRATIVE

A textile manufacturer supplies linen and cotton offcuts that are too small or irregular for the original production to a craft-based fashion producer. Pilot 1 shows rapid prototypes and a clear product direction. The value lies in intelligent pattern placement, colour combination and limited-series craftsmanship rather than a generic claim that waste becomes fashion.

CZECH REPUBLIC | TEXTILE

Tarpaulin backpacks and bags

PAIR	COUNTRY	
CZ-4 / CZE-4	Czech Republic	P Prototype



Figure 11: Durable advertising and technical textiles return as unique everyday products

SHOWCASE NARRATIVE

An industrial supplier provides discarded tarpaulins, banners and technical advertising textiles to a circular social enterprise that cleans, sorts and sews the material into backpacks and bags. The feedstock is strong, flexible and water-resistant; its previous print and colour make every piece visibly unique. Pilot 1 shows finished products and records that several backpacks, shoulder bags and accessories had already been produced while the partners worked on a more regular material supply.

CZECH REPUBLIC | TEXTILE / PACKAGING

Jute household products from used coffee sacks

PAIR	COUNTRY	
CZ-5 / CZE-5	Czech Republic	F Feasibility



Figure 12: A recognisable transport textile becomes household and produce accessories

SHOWCASE NARRATIVE

An industrial coffee-sector supplier and a circular craft enterprise collaborate around used jute sacks that have completed their original transport function. Pilot 1 identifies tablecloths and small produce bags and documents the cooperation. Printed sack graphics can become part of each object's identity, but the source material is currently shown more clearly than the finished range. The case should remain in development until a coherent set and its preparation process are photographed.

SLOVENIA | TEXTILE

The Space Between - a small-batch denim collection

PAIR	COUNTRY	
SI-1 / SLO-1	Slovenia	P Prototype



Figure 13: Production offcuts and selected post-consumer textiles become distinctive garments and accessories

SHOWCASE NARRATIVE

Solution 1 connects textile sources with a Slovenian sustainable-fashion designer. Within the SYMCRAFT project it extends the collaboration to additional textile producers and craft actors, bringing together denim production leftovers, selected used workwear and deadstock textiles. The partners explored the material directly at a production site, supported by matchmaking, a site visit and business-model mentoring. The small-batch concept turns the irregular feedstock into one-off or limited-series garments and accessories; the photographed denim jacket provides tangible prototype evidence. The showcase is strong as a design and collaboration story, while the wider collection, repeatable material specification and market results still need to be documented.

SLOVENIA | TEXTILE

Local-wool sitting pads, products and craft services

PAIR	COUNTRY	
SI-2 / SLO-3	Slovenia	P Prototype



Figure 14: Coarse local wool connects sheep breeders, craft makers and place-based services

SHOWCASE NARRATIVE

Solution 1 links a local livestock-breeders' organisation with a group of craft makers. The input is local wool, including coarse fractions that can be difficult to sell through conventional textile channels. Pilot 1 documents partner engagement, co-creation activity and a feasibility plan for a wool sitting pad. The case demonstrates how an intermediary can connect a fragmented agricultural material stream with makers who grade, clean, felt and shape it into useful objects while preserving a recognisable local origin story. Within the SYMCRAFT project it broadens the opportunity to a family of products and services, including sitting pads, caps, gloves, pullovers and craft workshops. Before publication, the partners should document wool grade, washing/scouring, felt density, dimensions, hygiene treatment, durability, care, production capacity, pricing and sales channels.

SLOVAKIA | TEXTILE

Hand-woven carpets from cotton scraps

PAIR	COUNTRY	
SK-3 / SVK-3	Slovakia	F Feasibility



Figure 15: Industrial cotton and knitted scraps return as durable craft products

SHOWCASE NARRATIVE

This selected showcase records cooperation between a Slovak manufacturer of home and hotel textiles and a small hand-weaving business. The material stream consists of 100% cotton scraps, knitted-fabric scraps and related production leftovers. The collaboration deck shows the craft process and identifies a feasibility and business-model phase. The story presents a traceable transformation, preserves traditional weaving skill and creates a route for small or irregular material lots.

7.3 Wood – furniture sector

Table 9: Overview of selected showcases in the Wood & Furniture sector

Company Pair Nr.	Showcase	Actors (names anonymised)	Stage of development
IT-1	Wood offcuts, veneer scraps	Furniture manufacturer + Artisan stationery producer	F
IT-3	Marble powder, glass fragments, ceramic bottom ash	Mineral and ceramic material suppliers + Design-surface development partner	P
HR-3	solid wood offcuts and end pieces, irregular wood fragments etc. to candle holder	FSC-certified furniture manufacturer + Woodworking and product-design enterprise	F

ITALY | WOOD & FURNITURE

Wood Stories premium stationery

PAIR	COUNTRY	
IT-1 / ITA-1	Italy	F Feasibility



Figure 16: Furniture offcuts and veneer sheets become high-value notebooks and gifts.

SHOWCASE NARRATIVE

A furniture manufacturer generates solid-wood offcuts and thin veneer sheets that retain the finish and design quality of the original material. An artisan paper and stationery producer can integrate those small lots into premium notebooks, covers and compact design objects. The collaboration gives fragmented residues a recognisable product language and a traceable connection to Italian furniture design. Pilot 1 includes an attractive concept visual, while commercial work remains at feasibility-plan stage.

ITALY | WOOD, FURNITURE & SURFACES

Composite tiles from mineral residues

PAIR	COUNTRY	
IT-3 / ITA-3	Italy	P Prototype



Figure 17: Marble, glass and ceramic residues become a new design-surface platform

SHOWCASE NARRATIVE

Solution 1 connects three industrial and craft-sector actors around marble powder, glass fragments and ceramic residues. The partners contribute complementary material streams and processing skills for a new surface material. Pilot 1 documents the collaboration and a visible sample while the business model remains under development. The showcase is a material platform rather than a single craft object: repeatable waste qualification, formulation and surface finishing could support multiple applications.

CROATIA | WOOD & FURNITURE

Decorative candleholders from FSC-certified wood offcuts

PAIR	COUNTRY	
HR-3 / CRO-3	Croatia	F Feasibility

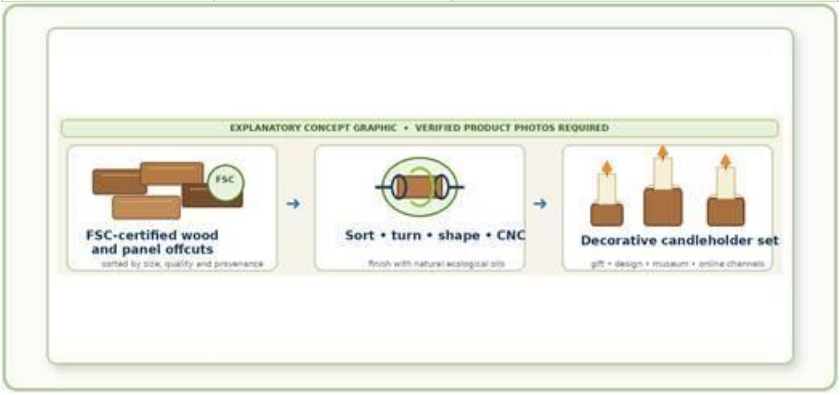


Figure 18: Certified furniture offcuts become a traceable, small-format gift collection

SHOWCASE NARRATIVE

Solution 1 records a collaboration between an FSC-certified furniture manufacturer and a small woodworking and product-design enterprise. The manufacturer can separate solid-wood and panel offcuts that retain usable surface quality and documented provenance. The craft enterprise can turn these small, irregular pieces into a coordinated candleholder set through woodturning, manual shaping and selected machine operations. A natural-oil finish preserves the grain and strengthens the material story. The collaboration demonstrates a practical route from traceable industrial residue to a compact Croatian craft product; however, the lack of verified final-product photography keeps the showcase at feasibility stage.

8. RECOMMENDATIONS

The transnational workshops, co-creation workshops, and the work on and with the partnerships and transnational exchange demonstrate that there are numerous opportunities for waste reduction and a circular economy. While the motivation to reduce waste, for example textile waste, is increasing—particularly due to the EU's stricter EPR obligations—actual progress continues to be hampered by practical obstacles: uneven stakeholder engagement and, above all, a lack of transparency and complex logistics for small, irregular waste streams. Therefore, it is unlikely that partnerships will form spontaneously, and intermediaries (project partners) become a crucial success factor in translating regulatory pressure into practical collaborations between industry and artisans/designers.

Several topics repeatedly emerged and discussed at the events:

- Access to materials
- Marketing and sales
- Models of collaboration
- Price pressure
- Staffing and succession planning
- Legal, hygiene, and bureaucratic hurdles

At first, It became clear in all project areas that access to **materials** is a key challenge. Suggestions were made in the various formats and sectors to address this:

- Idea of a centralized collection and distribution structure for production waste (residual material exchange)
- Establishing a platform for material exchange, especially for production residues, to better connect industry with designers and craftspeople
- Utilizing public or targeted tenders to enable creatives to access surplus materials
- Material donations (organized via platforms) or symbolic pricing models as effective instruments for promoting circular economy practices
- This also involves identifying the legal opportunities and obstacles to procuring residual materials

In all sectors and at many events, **questions regarding sales and marketing** were raised. Several aspects came to the fore:

- The establishment of a viable business model is necessary (e.g., sales and marketing). Concerns were raised that these requirements could be difficult for small, independent craft businesses to meet. The limited number of best-practice examples in the textile sector, where handcrafted products made from industrial waste materials are successfully manufactured and marketed, was seen as confirmation of this challenge.
- Open questions identified included sales and market access, particularly regarding whether products developed by designers can be integrated into the sales or advertising channels of large manufacturers.

Another important topic was **organization and opportunities for collaboration**. Many participants emphasized that it is every company's natural ambition to manage the issue of residues, by-products, and waste as effectively as possible. The first step is avoidance, the second step is reuse within the company (internally). Seeking solutions outside the company is only the next step. The following points were also addressed:

- The event demonstrated significant potential for pilot collaborations, limited-edition product series, and socially beneficial projects. The following ideas for forms of collaboration were discussed:
- Bottom-up models, in which designers and craftspeople publicly communicate their material needs, thus enabling more efficient communication with industry.
- Establishing new clusters or strengthening existing centers, with a greater focus on networking between industry and creative professionals.
- Participants frequently expressed great interest in collaborative models where designers develop products that can be integrated into existing industrial technologies.
- As a practical next step, factory visits and on-site exchanges were suggested.

Other general problems that were raised by many participants included:

- Intense **price pressure** from manufacturers in low-wage countries. This has led to a long-term decline in traditional clothing production and employment, for example. To remain competitive, companies must focus on specialization, high-quality products, niche markets, and technologically advanced textiles, but this transformation requires investment and strategic repositioning.
- **Human capital issues**: There is a shortage of skilled workers, particularly those with technical and digital skills. As production becomes increasingly automated and digitized, companies need employees with knowledge of advanced machinery, information systems, and sustainable production methods. However, due to the industry's traditional image, it can be difficult to attract younger generations to careers in sectors like the textile industry.

In addition to the aspects mentioned by all sectors, there were also a number of specific topics.

Specific topics in the sector Agri-Food:

There are a number of other networking opportunities/examples in this area:

- Using the services of consultants and consulting firms can improve companies' situations, also in conjunction with applying for financial support for worthwhile projects.
- For example, the Saxon Economic Development Agency offers a wide range of support services such as business angels, financing, and partnership assistance.
- Initiating cross-sector partnerships, such as between the catering and packaging industries, is crucial. This is the only way to establish secure supply and trade relationships.
- Waste Exchanges

Further risks in the agricultural and food industry:

- There is a very strict legal environment, including food safety regulations, which imposes significant restrictions and difficulties regarding cooperation. This is especially true when human consumption is the ultimate goal of a new product idea.
- Differences between supply and demand in terms of quantity: There can be large discrepancies between the amount of residual materials generated (during a specific period – harvest time) and the quantity that the artisan needs and can utilize. It is uncertain whether this is profitable for both parties.
- Logistics-related problems, transportation: Materials must be transported and stored, etc.
- Consistency issues
- Many activities focus on plant-based products. Residues of animal origin are subject to additional hygiene requirements, which sometimes make alternative uses difficult or impossible.

- Often, residual materials are used for energy recovery.
- Smaller and medium-sized businesses often have more problems implementing useful solutions for recycling than larger ones.
- Residual materials in the Agri-Food sector are a very sensitive area for companies. Questionnaires like those designed in Symcraft partially address this sensitive area. Data protection and data security play a crucial role for companies in this context. Therefore, some of the information requested in Symcraft will only be available in a limited or anonymized form from the companies' perspective.

Specific Problem Situations in the Textile Sector

- The involved partners identified that engagement was difficult and different for each project area. Some partners had more problems engaging the industry companies, some partners were struggling to get artisans involved.
- The interest to find solutions for the textile waste was there however, as in 2025 the EU Waste Framework Directive (Directive 2008/98/EC) was amended with an additional Mandatory Extended Producer Responsibility (EPR) for Textiles. This means that producers of textile materials must bear the costs of collection, sorting, recycling, and reporting for the waste associated with their products.
- At the same time it was found in all project areas that access to materials emerged as a key challenge. Production waste is rarely visible or recognized by artisans and designers as a potential resource. Even when creatives reach out to companies proactively, the communication and logistics required to handle small, irregular waste streams are often perceived as too time-consuming and inefficient for production firms to take on.

Therefore, the role of the project partners as intermediaries cannot be neglected. The intermediaries are essential to overcome the obstacle of accessing the waste material of the industry companies in order to help establish cooperations between the industry companies and artisans.

9. CONCLUSIONS

Craftspeople and designers play a central role in this phase, as well as throughout the entire project, supporting the development of potential new products by translating industrial constraints into feasible and creative concepts. The workshops facilitated the identification of recurring industry-specific challenges, such as regulatory issues and waste classification, material variability, scalability limits, and the alignment of industrial supply volumes with artisanal production capacities. These insights provided valuable input for subsequent phases of the SYMCRAFT project, including prototyping, business model development, and legal assessment of selected collaborations. Overall, the workshops demonstrated the effectiveness of co-creation methods in bridging the gap between industry and craft, while simultaneously providing concrete knowledge and actionable results for promoting circular economy practices at the local and sectoral levels.

5 summarisation massages:

- Industrial waste is a resource.
- Artisans are innovation partners.
- Intermediaries create industrial symbiosis.

- Circular products generate local value.
- SYMCRAFT methodology is transferable.

10. ANNEXES

The following annexes form an integral part of Solution n.1 and document:

- Annex 1: Co creation workshops list
- Annex 2: Overview of companies and materials of collaborations
- Annex 3: Replication Guideline

10.1 Annex 1: Co creation workshops list

Table 10: Co-creation workshops in the Agri-Food sector

Area	Number	Date, Time, Duration	Location	Title	Participants
DE PP09+PP10	DE-1	17. 06.2025, 10:00 - 18:00 (8 h)	Fraunhofer IKTS, Winterbergstraße 28, 01277 Dresden	3. AbonoCARE-Conference	79
DE PP09+PP10	DE-2	13.08.2025, 10:30 - 16:00 (5,5 h)	FUSE GmbH, 04442 Zwenkau, OT Mausitz Nr. 14, Littdorf	9. AgrarTreffen - Fiber crop harvest 2025	86
DE PP09+PP10	DE-3	08.09.2025, 15:00 - 18:00 (3h)	Leipziger Str. 81, 04178 Leipzig, b&s	Co-creation workshop mushrooms	6
DE PP09+PP10	DE-4	10.09.2025, 9:00 - 11:30 (2,5 h)	Limbach-Oberfrohna	Co-creation Workshop - hemp with Valere GmbH,	8
DE PP09+PP10	DE-5	16.09.2025, 10.00 – 16.30 (6,5 h)	Johann Heinrich von Thünen-Instituts in Braunschweig (Bundesallee 50, 38116 Braunschweig		95
DE PP09+PP10	DE-6	03.12.2025, 9:30 - 14:00 (4,5h)	Kluge GmbH, Am Wasserwerk 8-10, 02699 Königswartha	Co-creation workshop: Use of bio-based residues and natural fiber-based circular economy	18
HU PP05	HU-1	05.11.2025 (9:00-14:00)	Vasvár	SYMCRAFT - Co-creation workshop	25

Table 11: Co-creation workshops in the Textile-sector

Area	Number	Date, Time, Duration	Location	Title	Participants
AT PP08+PP11	AT-1 till 3	18.07 - 20.07 2025	Textile Center Haslach, Haslach an der Mühl	ETN summer jumble	48

Area	Number	Date, Time, Duration	Location	Title	Participants
CZ PP03	CZ-1	24.09.2025, 10.30 - 17.30 (7 h)	Vavi - Knoflík Company, Pod Hrabicemi, 385 01, Vimperk	Textile waste exchange	25
SI PP07	SI-1	17.11.25 from 12.00 to 17.30 (5,5 h)	Center Rog, Ljubljana	The first SYMCRAFT workshop	ca. 20
SI PP07	SI-2	3.12.2025 from 16.00 to 18.00 (2 h)	Technology Park Ljubljana	The follow up SYMCRAFT workshop	ca. 15
SI PP07	SI-3	21.1.2026 from 12.00 to 17.30 (5,5 h)	Center Rog, Ljubljana	The second SYMCRAFT workshop	ca. 20
SK PP04	SK-1	21.11.2025, 17.00 - 20.00 (3h)	Moravské Lieskové	Zero-Waste Pattern Making with Lenka Kriva	18, mainly creative people
SK PP04	SK-2	11.12.2025, 9.00-11.00 (2 h)	Trenčín	HIDDEN TREASURES OF OUR COMPANIES	20

Table 12: Co-creation workshops in the Wood & Furniture sector

Area	Number	Date, Time, Duration	Location	Title	Participants
HR PP06	HR-1	15.01.2026, all day event	Faculty of Forestry and Wood Technology in Zagreb	Workshop/Product design/Business model development	ca. 30
IT LP01+PP02	IT-1	03/11/2026 till 14.00 to 19.00	Piazza delle Istituzioni, 34, 31100 Treviso TV	Da scarto a risorsa	50

10.2 Annex 2: Overview of companies and materials of collaborations

Table 13: Overview of companies and materials of collaborations

The table covers all collaborations recorded in Pilot Action 1. For this public register, a completed Eco-Business Model Canvas prepared in Pilot Action 2 is treated as a limited feasibility study. Cases without evidence of a more advanced output are therefore classified as Feasibility Study. F denotes Feasibility Study, P denotes Prototype (including cases reported as Pilot in the source documents), and DT denotes Digital Twin.

Sector	Company Pair Nr.	Residual material / application	Stage
	DE-1	MAGAVERDE - Fibers from digestate to paper products	P
	DE-2	hemp leafs, hemp shives, Natural fiber, dust, organic or conventional (hemp-leafline - feedproduction)	F
	DE-3	several substrates with biological standards (Coffee grounds, grain husks, brewer's grains, straw, and so on)	F
	DE-4	HGM - fibres from digestate to peat substitute products	P
	DE-5	Hempdust for energy	F
	HU-1	coffee ground, mushrooms growing block	P
	HU-2	pumpkin seed pulp / cake (leftover after pressing), Bakery product with pumpkin seed press cake	P
	HU-3	leftover straw, Bagged straw mulch	P
	HU-4	fruit peels - Cherry pit pillow	F
	HU-5	leftover wool felt - Do it yourself - animal package	F
	AT-1	weaving selvedges (cotton) to decorative material	P
	AT-2	Linen, Cotton (scraps)	P
	AT-3	weaving selvedges (cotton)	F
	AT-4	motorcycle garments, weaving selvedges (cotton, linen)	F
	AT-5	weaving selvedges (linen)	F
	CZ-1	travel sport jacket "Som s Tebou", Thermal waterproof, Polyester (PES) - the main component	DT
	CZ-2	most commonly cotton, cotton-polyester blends (small textile offcuts and scraps)	P
	CZ-3	shirts and their remnants, shirting fabric, materials necessary for shirt production, lace, buttons, sleeves, denim, and more	P
	CZ-4	Backpacks and bags made from tarpaulins, fabric with a polyester (PES) core coated with a layer of PVC	P
	CZ-5	Jute products - tablecloth, small bags for vegetable (jute coffee bags)	F
	SI-1	Post consumer material - used working clothes from an industrial workwear supplier, working uniforms, industrial denim residual	P
	SI-2	Wool residual from cutting sheep, the wool sitting pad	P
	SI-3	Residual felt from crafted slippers and industry, Mobile sustainable textile workshop	F
	SI-4	Wool residual from cutting sheep, Facade insulation from the recycled textile and residual/strong wool	F
	SI-5	Post consumer mixed material collected, upcycling of post-consumer clothes	F

Sector	Company Pair Nr.	Residual material / application	Stage
	SK-1	leftovers of ropes from shipbuilding industry - Art works	DT
	SK-2	residual textile, leather - Zero waste bags deadstock textile	DT
	SK-3	woven fabric edges - Hand woven carpets	F
	SK-4	various fabric scraps, waste pieces of thread, scraps from socks, Fashion and accessories	F
	SK-5	textile scraps, Textile toys	F
	HR-1	Leftover wood, like solid wood offcuts and end pieces, irregular wood fragments, wood veneer scraps and other to wooden flower vase	F
	HR-2	laser-cut laminated wood (plywood) to sculptural fruit bowl	F
	HR-3	solid wood offcuts and end pieces, irregular wood fragments etc. to candle holder	F
	HR-4	Leftover wood materials to lace on wood	F
	HR-5	Leftover wood or thicker cut veneer to Jar of honey	F
	IT-1	Wood offcuts, veneer scraps	F
	IT-2	wood offcuts, used industrial gloves, glass, Hand to bag	F
	IT-3	Marble powder, glass fragments, ceramic bottom ash	P
	IT-4	Nylon and polycarbonate scraps, Random light	F
	IT-5	Wood processing residues	F
	TOTAL	**40 recorded collaborations: 10 Agri-Food; 20 Textile; 10 Wood & Furniture**	

10.3 Annex 3: Replication Guideline

Link to: Replication Guideline for Solution n.1