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1. EXECUTIVE SUMMARY

This deliverable provides a public summary of the key actions and results achieved by RegioGreenTex, an Interregional Innovation Investments Instrument (I3) project supporting the transition towards a more circular and sustainable European textile ecosystem. It consolidates outcomes achieved across the work packages, with a focus on the implementation of the project's investment portfolio, the progress made towards market deployment, and the remaining barriers that still limit wider scale-up. The report also presents an overview of budget implementation, including compliance with the requirement to allocate at least 70% of the EU grant to SMEs, reflecting the project's strong investment-driven approach and its practical support to company-level innovation.

RegioGreenTex brought together a diverse quadruple-helix consortium of industry, research and technology organisations, public authorities, and innovation support actors. The project maintained strong engagement throughout its full duration, with all SMEs remaining active until the end of implementation, demonstrating both the relevance of the initiative and the robustness of its governance and support structures. All planned deliverables and milestones were achieved, supported by consistent project management and sound financial monitoring. Regular reporting cycles and structured coordination ensured timely follow-up, clear decision-making, and alignment with contractual requirements.

A central output of the project is the RegioGreenTex Digital Tool, developed to strengthen interregional collaboration through matchmaking, communication, and access to training and knowledge resources. Built on the Ellie.Connect platform, the tool was progressively expanded during the project to integrate complementary instruments and resources developed across work packages, including self-assessment functions, training packages, mapping tools, and exploitation support materials. It is designed to remain available beyond the project's lifetime as a practical entry point for SMEs and ecosystem actors seeking guidance, connections, and capacity-building opportunities.

Beyond digital infrastructure, RegioGreenTex leaves a strong legacy highlighting strong innovation ambition across the portfolio, with many solutions expected to reach commercialisation in the short to medium term. At the same time, results point to persistent gaps in investment preparedness and access to finance, underlining the need for continued support beyond the pilot stage.

The project implemented a portfolio of 25 innovative pilot actions delivered by 26 SMEs, generating practical results across the textile value chain in areas such as

sorting and recycling, low-impact processing, recycled-content materials and digital solutions to support circularity. The Innovation Radar assessment confirmed a strong innovation profile, with most outcomes focused on new products, services and processes, and a generally high level of novelty, although a significant share of SMEs still reported challenges in converting innovation into paying customers. Market readiness indicators were nevertheless positive, with most pilots expected to reach commercialisation within one to three years, and many already close to market deployment. To strengthen exploitation prospects, SMEs were supported to develop lean business models, pitches and business plan elements structured through a Business Model Canvas approach, helping clarify value propositions, customer segments, routes to market and cost drivers; however, the results also highlighted that financing preparedness remains a key gap, with only a limited number of SMEs having identified investors or funding instruments to support scale-up beyond the pilot phase.

The report concludes with lessons learned and an analysis of remaining bottlenecks that hinder scale-up, including gaps in sorting and recycling capacity, inconsistent feedstock quality, complex certification procedures, regulatory fragmentation, limited market pull, and skills shortages. Building on this evidence, the report sets out policy recommendations aimed at enabling circularity through harmonised standards, investment in infrastructure, SME support measures, regulatory simplification, skills development, market stimulation, stronger digital data frameworks, and enhanced cross-regional collaboration. Overall, RegioGreenTex demonstrates that coordinated interregional investment can deliver tangible progress towards textile circularity, while also clarifying the enabling conditions still needed to accelerate uptake and achieve systemic change.

Much more information can be found by reviewing the RegioGreenTex public deliverables, accessible from the dedicated project page on the EURATEX website: <https://euratex.eu/projects-initiatives/regiogreentex/>

The project has also produced a rich legacy of materials, that can be found on the RegioGreenTex Digital Tool: <https://regiogreentex.eu/>

2. REGIOGREENTEX ACHIEVEMENTS

○ 2.1 Consortium

RegioGreenTex is a quadruple helix initiative supported by a diverse consortium bringing together industry, research and technology organisations, public authorities, and innovation support actors. Throughout the project, all partners contributed in a meaningful way, combining complementary expertise and close cooperation across regions to deliver strong results. Importantly, all SMEs remained engaged for the full duration of the implementation, which is a notable achievement given that innovation projects often face company dropouts due to changing priorities or market conditions. One company, Vividye, adjusted its direction during the project; however, with targeted support from the partners responsible for SME guidance, it was able to build on the progress already made and ensure continuity towards tangible outcomes.

○ 2.2 Deliverables

All planned deliverables for the RegioGreenTex project have been completed on time, and the final period review report is in preparation as the project is now closed. All deliverables have been submitted to the European Commission and are either approved or pending review. Throughout the project, work packages and task leaders have been focused on shaping each deliverable so that the project's results and achievements are presented clearly and with the necessary context. Every deliverable was coordinated by a designated partner, responsible for consolidating contributions from several partners and, where relevant, drawing on results from different work packages. This approach provided the flexibility needed to capture new developments and interregional collaboration efforts in an efficient and coherent manner.

All quality reviews have been carried out as foreseen. To reinforce quality assurance, two additional partners were appointed to review each deliverable, helping to strengthen the content, improve clarity, and minimise the risk of inconsistencies or errors. Overall, the drafting and review process progressed smoothly, with any minor adjustments managed effectively to ensure alignment with the project timeline and reporting requirements.

○ 2.3 Milestones

The project has successfully reached all its key milestones, marking significant progress in the execution of activities. These milestones represented critical points in the project's timeline, confirming that the project has been able to achieve the intended outcomes and surpass expectations. The timely achievement of these milestones reflects the consortium's coordinated efforts and the effective management of resources.

○ 2.4 Project Governance

The work carried out under this work package ensured that the project was supported by solid and well-functioning management structures throughout its lifetime. Clear governance bodies were defined at the outset, with partnership rules formally agreed and documented in the consortium agreement. Practical management arrangements were also put in place early on, including a complete staff and contact list, as well as reliable communication channels connecting all partners, which helped to maintain coordination and continuity across the consortium.

From an operational perspective, the Project Management Committee played a central role in steering implementation. Regular monthly management meetings took place, ensuring consistent follow up, timely decision making, and the ability to address challenges in a structured manner. When issues arose that required additional attention, extra meetings were convened with work package leaders, either collectively or on a bilateral basis, enabling effective problem solving and crisis management when needed.

○ 2.5 Financial Control and Reporting

Under Task 7.2, strong financial control and reporting practices were maintained throughout the project to ensure sound budget implementation and full compliance with contractual obligations. All partners submitted their financial monitoring information every six months to EURATEX, allowing expenditures and resource allocation to be tracked in a timely and consistent manner across the consortium. This regular reporting cycle supported the early identification of deviations and ensured that corrective action could be taken whenever needed. The task also covered oversight of the redistribution process, including the monitoring of allocations and related follow up with partners, while maintaining clear communication with the European Commission to ensure transparency and the smooth handling of all financial reporting requirements.

○ 2.6 Budget Use

At the time of writing of this deliverable, the project timeline has ended and the project budget has been fully spent, the financial reporting is ongoing for all partners and the expectation is that all reports will come in on time. Throughout the project implementation EURATEX, as coordinator, ensured strict compliance with the 70% rule. At least 70% of the EU grant, and in most cases a significantly higher share, was allocated to small and medium-sized enterprises (SMEs), reflecting the project's strong focus on supporting company level investment and deployment.

Budget monitoring was carried out consistently over the course of the project, with partners managing their resources effectively and in line with the planned activities. Where adjustments were needed, these were addressed in a timely manner to ensure that spending remained aligned with project objectives and contractual requirements. By the end of the implementation period, budget consumption across the consortium was balanced and fully aligned with the project's delivery, enabling the planned actions to be completed smoothly and with results that exceeded expectations.

○ 2.7 Data management and IPR

A password protected Google Drive shared space was established to support the efficient exchange of documents and day to day coordination across the consortium. The structure was designed with different access levels to balance transparency and confidentiality, ensuring that partners could easily find and share the information relevant to their roles. A consortium wide area was created to host key project documentation, including deliverables submitted to the European Commission and core reference documents. Dedicated folders were also set up for specific groups, including regional clusters, work package leaders, and activity based teams, with selective access to ensure that confidential or business sensitive information, particularly data shared by SMEs, was only available to the appropriate recipients. Finally, individual partner folders were created for each organisation's internal team use, enabling the secure storage of financial documentation.

As part of the data management work, Upwell also coordinated the preparation of an Intellectual Property Rights guide, developed with the support of an external consultant. The guide provided practical advice, clear definitions, and shared reference points to help partners navigate key IPR concepts and make informed decisions when developing and exchanging project outputs. It was compiled as an integral element of the Data Management deliverable and circulated within the consortium to support a consistent approach to ownership, use rights, and the handling of knowledge and results generated during the project.

○ 2.8 Results

The project has now been completed, with pilot activities having been implemented smoothly and in line with the planned timeline. Noteworthy results include several companies investing additional resources beyond their initial commitments, often supported through the RegioGreenTex budget. This additional investment helped accelerate implementation and contributed to results that, in many cases, went well beyond the initial expectations and planned targets.

3. DIGITAL TOOL

The RegioGreenTex Digital Tool has been developed to enhance the Circular Textile ecosystem by facilitating matchmaking, knowledge exchange, and training opportunities among consortium partners from various regions. This tool was first built on a copy of the existing Ellie.connect platform. The RegioGreenTex Digital tool was intended as a testing space for new functionalities and services and in the first iteration it was built exclusively for the consortium partners and developed during the whole project in collaboration with several organisations. At the end of the project, the improved and expanded Digital tool was integrated again in its expanded new version into the Ellie.connect commercial platform. This process allowed Ariadne Innovation, one of the SMEs in the consortium, to develop the tool as one of the innovative pilot projects of RegioGreenTex.

The RegioGreenTex Digital Tool provides a dedicated digital environment for matchmaking, communication and open innovation within the RegioGreenTex community. The tool facilitates the identification of SME needs and connects them with relevant partners, experts, and training opportunities across regions, thereby strengthening interregional collaboration and cross-fertilization. After its initial launch, the digital tool was continuously expanded and optimized along the duration of the project to include complementary instruments developed within different work packages in the project, such as: Taxonomy, Self-Assessment Tool (SAT), Circular Economy Quiz, Training Packages, RGT Infrastructure Database, Exploitation Tool box, Mapping & Gap Analysis Tool, and documents/guides to help companies.

○ 3.1 Key Features and Functions

1. **Matchmaking and Communication:** The tool serves as a communication & matchmaking solution for consortium members, capturing the needs and challenges of different SMEs and matching them with relevant coaches, experts, and courses across regions.
2. **Knowledge Exchange and Training Opportunities:** The tool provides access to training content and opportunities, supporting SMEs in finding relevant educational resources to enhance their capabilities.
3. **Introduction of New Concepts:** Through this digital tool, newly developed content and other project concepts, such as the Self-Assessment Tool coordinated by EuraMaterials, are introduced to consortium partners.
4. **Structured Taxonomy:** The structure of the tool is based on the taxonomy developed in WP1, ensuring consistent classification and organization of content. This

taxonomy is applied/will be applied across different implementations and content on the tool, including the classification of training materials from Wageningen University & Research (WUR), the needs and solutions identified through the Self-Assessment Tool (SAT), and solutions from the Interactive Waste Decision Tree.

4. LEGACY TOOLS AND GUIDES

The RegioGreenTex public landing page will remain after the end of the project and offer SMEs the RegioGreenTex Digital Tool as the backbone of this ecosystem. Built on and extending the existing Ellie.Connect platform, it provides a dedicated digital environment for matchmaking, communication and open innovation within the RegioGreenTex community. The tool facilitates the identification of SME needs and connects them with relevant partners, experts, and training opportunities across regions, thereby strengthening interregional collaboration and cross-fertilization. After its initial launch, the digital tool was continuously expanded and optimized along the duration of the project to include complementary instruments developed within different work packages in the project.

○ 4.1 Exploitation Toolbox

The Exploitation Toolbox compiles ideas, opportunities, practices to be implemented by European textile SMEs to develop circular products and services and strengthen their process to access the market. It provides advice to perform market viability, define brand identities, prove the positive environmental and social impact of companies' practices, promote and communicate their values and successes, improve sales, and measure progress.

Perform market viability: Market viability can be assessed using various methods. The relevance of each method depends on the specific needs of the SME: Is the SME looking for a general overview of its position, taking into account internal and external influences? Is it searching for a market advantage compared to competitors and seeking a better understanding of its customers? Or does it need a comprehensive overview of its unique value proposition? The tools listed in the document allow the companies to address these questions: SWOT and PEST analysis, competitors mapping, Business Model Canvas, Market Research Surveys, Customer Personas, and Blue Ocean Strategy Tools.

Define brand identities and build strong communication: Engaging methodologies can help develop strong brand communication by shaping multiple facets of brand identity, translating values and purpose consistently across all communication channels, crafting clear and effective messages, and ultimately creating a pathway that turns attention into action. The toolbox gathered the most relevant methods to reach these goals: Brand Identity Prism, 7Cs, and AIDA model.

Prove impact with labels and certifications: Sustainable benefits must be verified or certified, which is why labels and certifications are essential for highlighting sustainable products. Claims lacking specific impact metrics or recognized labels may be perceived as greenwashing. To assist SMEs in effectively communicating their sustainable value

proposition, the toolbox includes a list of relevant labels and certifications, including well-known global options (such as Oeko-Tex Standard 100) as well as national possibilities (such as Grüner Knopf). It includes the geographical scale and value creation step which it addresses, as well as a link to the relevant website to gain more insight or start the process.

Acquisition channels: SMEs often use social networks, particularly LinkedIn, as a communication channel to promote their products. Very few are using the press, having trouble in measuring the profitability of this channel. However, specialized media outlets, though few, can have a significant impact on reaching B2B customers. These media outlets also share their articles on their own website and social media, engaging a broad community of stakeholders and enhancing the SME overall social network presence. Therefore, offering a list of relevant European media outlets, focused on textiles, sustainability, or circular economy, could be highly beneficial. The sheets available in the toolbox are related to generalist environment Press and the textile professional press, including the geographical scale, and type of media.

Improve sales: Trade shows are a particularly relevant distribution channel for the B2B market across the textile value chain. However, their effectiveness can vary, and the high costs involved may pose a risk, especially if not tailored to the needs of SME customers. Therefore, listing relevant trade shows and fairs, focused on the textile industry is crucial. The list includes the most relevant fairs, as well as their market focus and location.

Measure KPIs: KPIs are essential for monitoring the progress and effectiveness of strategies implemented to achieve the previously outlined objectives. The KPIs provided in the toolbox have been specifically chosen for their relevance to SMEs developing sustainable products, and include frequently used (such as Market penetration rate) and less-frequently used (such as Customer lifetime value) indicators from which companies can choose the most pertinent.

○ 4.2 Textile Circularity Guide

This guide aims to highlight the challenges and opportunities of textile circularity, offering principles for transforming waste into valuable resources and strengthening regional European value chains. The guide is made for organisations and groups involved in managing textile waste. These include local authorities, companies that sort textile waste, businesses that sell second-hand items, and manufacturers that produce waste and/or make use of waste, such as spinners, weavers, knitters, dyers and printers, finishers and garment manufacturers.

○ 4.3 From Rags to Regulations

The goal of this document is to help textile companies navigate waste legislation on the EU-level and, where applicable, also on the Flemish level. It provides practical steps on how to comply with various pieces of legislation and explains concepts such as end-of-waste, environmental permits, registrations and waste transports.

Many textile companies want to focus on circular and sustainable entrepreneurship and for this purpose they start pilot projects for discarded textiles or textile residues. They start activities such as collection, sorting, reusing, repairing, dismantling and recycling. However, often they don't realize they are dealing with products and materials that fall under the waste legislation. This guide was created to help companies on a European and regional level.

As this guide was developed by OVAM, the competent authority for waste legislation in the Flemish Region, the regional perspective presented focuses specifically on Flemish legislation. Organisations operating in other regions or Member States may encounter similar procedures, and the document therefore includes a list of the competent authorities across the EU. The guide was also shared through the Hubs' activities with members of the EEN (Enterprise Europe Network) Textile Sector Group throughout Europe, enabling organisations in other countries to use it as a template for producing equivalent guidance aligned with their own national and regional legislation.

An important section of the guide addresses waste transports, for which the underlying regulation was revised in 2024 and will apply from May 2026. While references to the forthcoming rules are already included, a further update will be required as the implementation date approaches.

5. REGIONAL HUBS

WP5 was centred around 5 regional hub ecosystems across the EU. The primary objective of this work package was to develop for each Hub a blueprint including an investment strategy (this work has been described in D5.3). Another task was to make a public document (published as deliverable D5.4) about the market readiness of the SMEs operating within these regional textile hub ecosystems. This document is based on an assessment of their business and investment plans. To this end, pilot concepts at the regional hub ecosystem level were executed in WP5 and within this WP they transitioned from a roadmap (relative deliverable - D5.1) to an first concept (deliverable - D5.2) to a business case and investment plan. This approach showed to be crucial serving also as a model for other regions to follow and also providing them with practical examples to emulate. Within each hub, specific value circle projects were defined. Amongst other partners, WP leader Oost NL supported these projects by providing options for knowledge sharing and other support from different hubs and regions. In all five Greentex Hubs, partners achieved clear results both in strengthening regional hub ecosystems and providing practical support for SMEs to move from strategy to implementation and, ultimately, to investment readiness.

In the inception phase, the Hub Leaders established a shared roadmap and common terms of reference for the five regional hubs. This created a coherent strategic framework across the work package while still respecting the different smart specialisation priorities of each hub. Looking for interregional connections this group also jointly mapped similarities and differences across their ecosystems and carried out a structured gap identification exercise to pinpoint missing technologies, knowledge, infrastructure, and market connections. This resulted in a consolidated and validated overview of where hubs could complement each other and where additional support could come from regions not hosting a hub.

The following phase focused on converting the functionalities and related actions from roadmaps into concrete pilot activities within each hub ecosystem. The joint activities / events had a strong emphasis on widening involvement and improving value-chain integration. The pilots addressed practical bottlenecks that SMEs face when scaling circular solutions, such as feedstock access, sorting, recycling capacity and market uptake. A key achievement was the tangible interregional collaboration generated through workshops, open-access hub meetings and targeted matchmaking, connecting SMEs with technology providers, clusters, and public authorities. This helped SMEs access complementary expertise and infrastructure beyond their own region, strengthened interregional value chains, and de-risked innovation deployment by embedding local actions into a wider European ecosystem. The work also supported replication by building a cooperation strategy to link hubs with regions outside the five core hubs, so that successful approaches can be transferred and integrated into broader regional strategies.

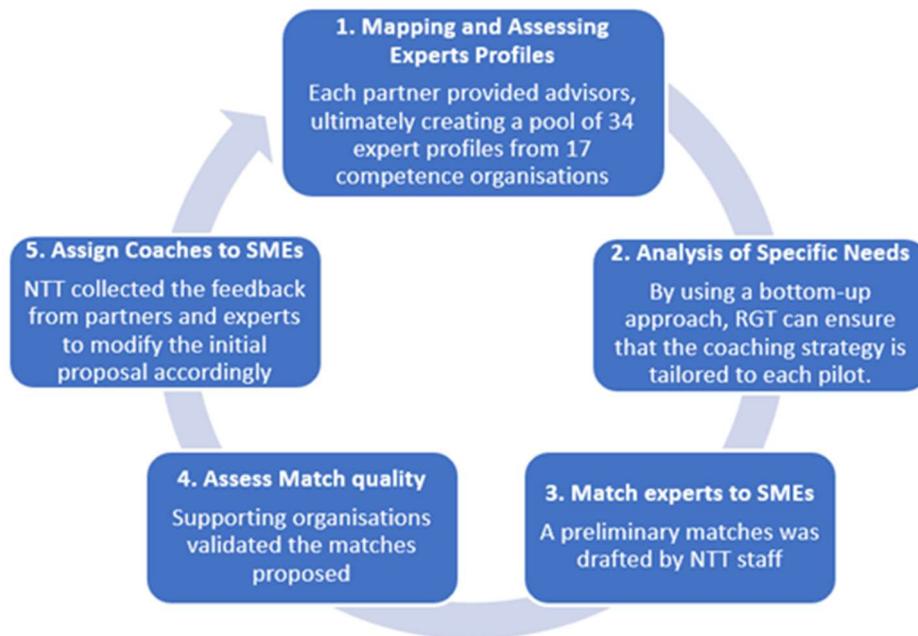
Finally, the focus moved decisively to how a blueprint of a Greentex hub looks like, how the 5 Greentex Hubs could and should be funded after the end of the project and towards the assessment of the investment readiness and market deployment of the RGT SME business plans. Referring to this last point, SMEs were supported to strengthen their business cases through peer review, coaching and pitching support, sharpening their market positioning, and clarifying their financing needs and scaling pathways. One of the key findings was that many SMEs that aim to make modest changes in their business plan can advance through relatively modest investments, often supported through subsidies, while SMEs developing breakthrough recycling technologies typically require larger and more complex blended finance solutions combining public funding with private capital.

6. ADVISORY SERVICES TO THE PORTFOLIO OF THE SME PROJECTS

Over the course of the RegioGreenTex project, WP4 (led by Next Technology Tecnotessile, NTT) delivered a tailored coaching and advisory programme to help partner SMEs implement their pilot projects successfully, with a strong focus on technical performance, business viability and long-term impact. Building on a bottom-up approach, the programme started by collecting detailed information on each SME's needs and ambitions, allowing the consortium to gain a clear picture of the challenges faced across the different RGT regions. This understanding was used to shape customised coaching pathways that supported SMEs not only in the practical delivery of their pilots, but also in strengthening the internal capacity needed to maintain and scale the results beyond the project lifetime.

The coaching programme combined technical guidance with support on managerial and commercial aspects, helping SMEs to progress their solutions towards higher technology readiness and to navigate the requirements of green and digital transition. A structured advisory methodology was developed to translate each SME's needs into a concrete support plan, including the definition of timelines and measurable KPIs. This process was closely linked to the development of the project's pilot portfolio, ensuring coherence between investment priorities and the real implementation conditions on the ground. The approach also promoted a more integrated regional ecosystem by fostering cross-regional exchanges and encouraging collaboration between SMEs and experts from different countries.

To ensure a high level of relevance and flexibility, the project mobilised a pool of 34 experts with complementary profiles across the textile value chain. Each SME benefited from dedicated advisory time, combining targeted coaching from the most suitable expert profiles with additional support on circularity-related topics. A matching matrix was developed to connect SME needs with expert competences, while allowing the support to evolve as pilots progressed and new requirements emerged. As a result, RegioGreenTex delivered a coherent and practical coaching model that helped SMEs accelerate innovation uptake, strengthen their sustainability performance and contribute to the development of a more connected and resilient textile ecosystem across the RGT regions.



○ 6.1 Green advisory support for SMEs

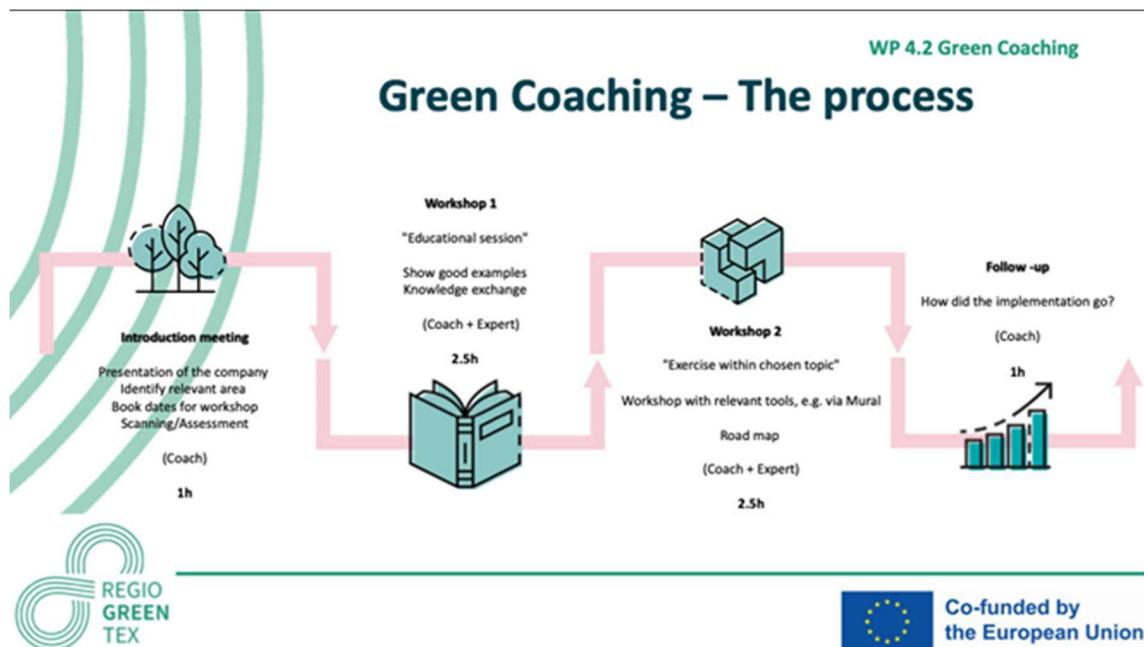
Within RegioGreenTex, the green coaching offer was established under Task 4.2 as a practical support mechanism to help partner SMEs make tangible progress towards greener and more circular business models. Led by RISE (Research Institutes of Sweden), the task was designed to respond directly to the needs expressed by SMEs and to translate the broader objectives of the project into hands-on guidance that companies could apply in their day-to-day operations. The focus was on enabling SMEs to “go green” in a concrete and achievable way, while strengthening their capacity to manage key transition topics such as circularity, environmental performance and sustainable innovation.

To build this support in a structured manner, the project combined shared learning opportunities with tailored company-level guidance. A first pillar of the approach was the delivery of a webinar series on “going green” topics, developed in line with the priorities identified by SMEs and the evolving challenges in the textile ecosystem. The sessions covered areas such as digitalisation and AI as enablers for sustainability, chemicals reduction and methods for measuring environmental impacts, offering a common knowledge base and practical insights that companies could immediately relate to their own pilots. Importantly, the webinars were promoted beyond the consortium, allowing actors from the wider regional ecosystems to participate and reinforcing the project’s ambition to trigger broader change in the RGT territories.

Alongside the trainings, the project introduced a 1-to-1 green coaching format to support SMEs more directly and help them move from awareness to implementation. This coaching was delivered by two RISE innovation management experts with extensive experience in guiding companies through sustainability transitions. SMEs were offered a clear four-step journey, starting with an introduction meeting and continuing through two focused workshops, followed by a final summary and closing session. This format

was created to help SMEs identify where they stood, explore practical pathways for improvement and define concrete next steps that could be integrated into their business and pilot development plans.

By the end of the project, the green coaching had become an accessible and flexible support offer that encouraged SMEs to actively engage with circularity and environmental performance, at their own pace and according to their specific context. The initiative aimed to strengthen SMEs' ability to make informed sustainability choices, build internal knowledge and embed greener practices into their innovation processes. At the same time, it contributed to the wider RegioGreenTex objective of reinforcing regional ecosystems by opening the learning programme to external actors and creating additional opportunities for in-person engagement during project meetings, ensuring that the green transition was supported not only at company level but also across the broader textile community.



○ 6.2 SME support for the exploitation of pilot results

The objective of this activity was to maximise the exploitation of pilot results by creating concrete market opportunities for RegioGreenTex SMEs and engaging new stakeholders. To support this, two complementary tools were developed: lean canvas business models for each pilot and dedicated pilot pitches.

The lean canvas business models helped SMEs identify key areas for improvement, such as their unique value proposition, and supported them in defining the most suitable pathways to market with the help of coaches and cluster support. They also helped SMEs integrate pilot outcomes into their wider business activities by highlighting synergies and potential gaps in how pilots were positioned within existing products and services.

In parallel, pilot pitches were developed to help SMEs present their pilots more effectively to target audiences, including investors, clients and business partners, while sharpening

the focus on the main impacts and added value. By the end of the process, SMEs had produced 13 lean canvas models and 9 pilot pitches, which were further refined with support from regional organisations and coaches to become business plan outlines, which although they are not always fully fledged plans, are a useful tool for the SMEs growth and development.

○ **6.3 Support for SMEs after RegioGreenTex - Beyond phase**

The Beyond Phase of WP 3 looked at how the unique mix of competences and experience collected in the RegioGreenTex consortium could continue to support SMEs after the formal end of activities. In this context, the non-SME partners examined their competencies in a structured way and considered how these strengths could be channelled into longer term support, whether through technical expertise, access to networks, tailored advisory services, or continued participation in collaborative initiatives. The resulting overview, shared with SMEs directly as it is not a public document, provides a realistic picture of the capacities available within the consortium and explains how these can be mobilised so that SMEs can continue to benefit from the project's outcomes over time.

○ **6.4 Technical support example: Recycled Wool Yarn**

This section describes as an example of technical support to SMEs focusing on the development of recycled wool yarns that can approach the quality level and performance of virgin wool. The report documents the objectives, technical approach, and experimental results obtained during the pilot, with the broader ambition of supporting circular production models by increasing the use of recycled fibres in high value textile applications. As this is not a public document, it was shared specifically with the work package leaders to inform coordination, technical alignment, and follow up actions within the project.

The pilot aimed to develop recycled wool yarns with properties as close as possible to virgin wool, while identifying the main factors limiting quality and process stability. A structured approach combined fibre characterisation, virtual blending simulations, and validation at both laboratory and production scale, supported by knitting tests to assess real performance and highlight critical issues early. This work generated practical evidence on how short fibre length affects spinnability and yarn regularity, and how processing and blending choices can improve downstream manufacturability.

Results showed that recycled fibres from post-industrial wool waste had suitable fineness, around 20 microns, but were constrained by a short fibre length distribution, which increased the risk of defects during spinning. Simulations and testing confirmed that fully recycled blends remained the most problematic, while adding a limited share of virgin wool improved average fibre length and reduced ultra-short fibres, although uniformity still depended on the mixing ratio. Overall, the pilot identified a high-recycled-content blend with a small proportion of virgin wool as the most viable outcome, offering

the best balance between circularity ambitions and industrial feasibility, and supporting a more integrated value chain approach to scaling recycled wool applications.

7. IMPLEMENTATION OF THE PORTFOLIO OF INVESTMENT PROJECTS

ATEVAL was responsible for monitoring the 25 pilots implemented within the RegioGreenTex project, maintaining close and continuous contact with the participating companies throughout the entire implementation process. This ongoing follow-up ensured proper coordination, provided support when needed, and helped track progress, challenges, and results during the execution of the pilots. Citeve, as WP leader, supervised the entire pilot implementation and coordinated the different tasks.

Through the 25 pilots implemented by 26 innovative SMEs, RegioGreenTex delivered practical solutions for waste reduction, resource optimisation and product innovation, combining technology development with new business models and strong stakeholder engagement. The pilots helped de-risk investments in circular solutions and demonstrated how coordinated collaboration across the value chain can accelerate the shift towards more sustainable textile production in Europe.

Among the outcomes of the 25 innovative pilots are digital tools to support circularity. These included Ariadne Innovation's roadmap for a circular digital solution in Flanders, Belgium, Katty Fashion's 3D prototyping tool in North-East Romania, which reduced development time and waste, and Mai Bine's waste-minimisation software, also in North-East Romania, which was tested in real production settings.

Circular sorting and preparation solutions were also among the innovations developed and improved. RTT in the North-East Netherlands used infrared-based fibre detection in municipal collection systems and reported significant reductions in textile waste, while ECOSO in Flanders, Belgium expanded its sorting capacity and repair services, reducing waste and creating new jobs in the region.

The project also achieved strong results in recycling and material innovation. SaXcell in North-East Netherlands scaled up its cellulose pulp reactor and increased yarn production. Recyc'Elit in Rhône-Alpes, France improved chemical recycling yields and delivered major energy and emissions savings. SASIA in Norte, Portugal showed that its mechanical recycling approach was technically viable and well received by the market.

Industrial process innovations helped lower environmental impacts. Marini Industrie in Tuscany, Italy used APP pre-treatment to reduce water use, dye consumption and processing time. Tintex in Norte, Portugal introduced recycled process water into dyeing. Rovitex in Rhône-Alpes, France developed glueless ultrasonic lamination, which cut energy use and reduced waste.

Several pilots also developed textiles and materials with high percentages of recycled content. These included certified recycled filaments, recycled fire-retardant and cut-resistant yarns, and decorative fabrics that meet strict certification requirements.

Even after the end of the pilots, companies are involved and committed: the pilots sometimes provide a strong basis for further investment in sorting infrastructure, fibre-to-fibre recycling, low-impact dyeing and finishing, and digital design and production

tools, while also pointing to the importance of market readiness and awareness for emerging innovations. Overall, RegioGreenTex leaves a portfolio of validated solutions, industrial know-how and collaboration practices that can support the textile sector's longer-term shift to a more circular and environmentally responsible future.

○ **7.1 Brochure for SMEs: From Regions to a Circular Europe**

The brochure was originally produced to support companies in their exploitation activities, and the project SMEs can still use it with this functionality. It also serves as a clear introduction to the RegioGreenTex pilots and their main outcomes.

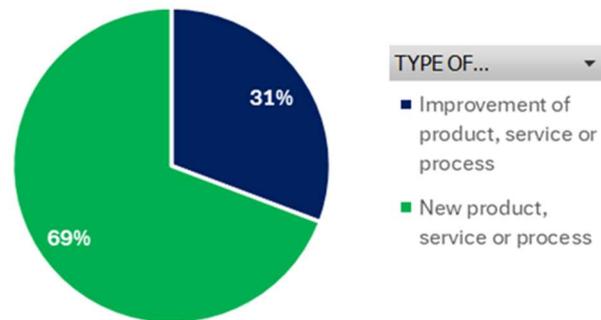
The publicly available brochure (Regiogreentex.eu) presents the RegioGreenTex pilot results in a consistent format that makes them easy to compare. Each pilot includes information on its scope, achievements, challenges, impacts, key contacts, and a short quote. The brochure shows progress across the textile value chain, from recycling and manufacturing to finishing, sorting, and design. It covers the textile-to-textile regeneration of complex polyester, bringing it back to monomers and yarn through a validated pilot and a pre-industrial demonstrator. It also describes factory-ready digital printing workflows, with defined capacity targets and a planned life cycle assessment. It highlights low-impact colour routes that are linked to an end-to-end traceability web app. It presents ultrasonic lamination that removes the need for glue and reduces energy use and waste. It includes plasma-assisted finishing that improves performance while lowering water and chemical consumption. It reports on upgraded sorting supported by NIR and data digitisation, connected to Extended Producer Responsibility. Finally, it features design-stage waste reduction through 3D workflows and planning tools. Across all cases, the brochure summarises technical milestones, early environmental signals such as water, chemicals and CO₂, and the next steps towards scaling up. Taken together, these results show that circular solutions are moving forward as integrated capabilities, rather than remaining as isolated demonstrations.

For exploitation, the document functions as a ready-to-use tool to introduce the company to new potential partners or investors. Its consistent structure lets readers benchmark TRL/IRL, operational readiness, and scale-up paths at a glance; capacity numbers, pre-industrial plants and planned flagship facilities indicate timelines and risk profiles; traceability tools and digitised sorting data support compliant claims and EPR-aligned procurement; and the presence of contacts enables immediate matchmaking for replication, co-development and offtake. In short, the brochure is both a results catalogue for company dissemination and a deal-flow map that lowers due-diligence friction and shortens time from pilot to market adoption across Europe.

8. CONTRIBUTING TO AN EU CIRCULAR ECONOMY: MARKET READINESS ASSESSMENT

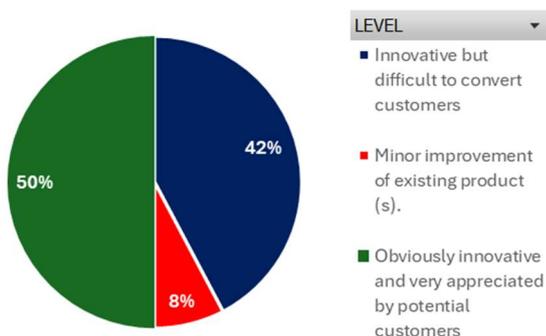
○ 8.1 Innovation radar outcomes

The results show that the majority of **innovations developed** within the project focused on creating new products, services, or processes, which represent 69% of all reported innovations. This indicates a strong drive toward novel solutions and technological breakthroughs. Meanwhile, 31% of the innovations were



aimed at the improvement of existing products, services, or processes, demonstrating a complementary effort to enhance current capabilities and increase efficiency. Together, these outcomes reflect a balanced innovation strategy that combines exploration of new opportunities with the optimisation of established approaches.

○ 8.2 Innovation level



The distribution shows that the concept of the pilots is widely perceived as genuinely innovative, with half of respondents viewing it as “obviously innovative and very appreciated by potential customers.” This indicates strong positive sentiment toward its novelty and perceived value. At the same time, 42% consider it innovative but difficult to convert into paying customers, suggesting that while the idea is

strong, market adoption or commercialization may present challenges. Only a small share (8%) sees it as merely a minor improvement over existing products, reinforcing that the offering stands out as substantially new rather than incremental. Overall, the innovation level is viewed as high, but practical barriers to customer conversion remain an important consideration.

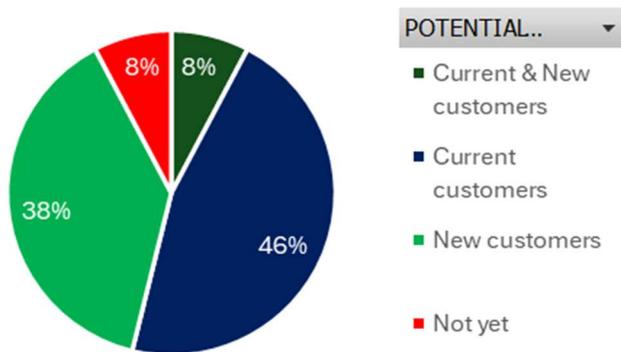
Looking at the exploitation plan

The exploitation plan reflects a strong emphasis on commercialization, with 88% indicating that the solution is intended to be introduced as new to the market. This suggests a clear strategic focus on bringing an innovative offering into commercial use, signalling confidence in its market potential and readiness for deployment. Only 12% report no exploitation planned, highlighting that the vast majority see a concrete path toward market introduction rather than treating the solution as a conceptual or purely

exploratory effort. Overall, the data points to a well-defined and proactive exploitation strategy centred on market entry.

○ 8.3 Potential customers

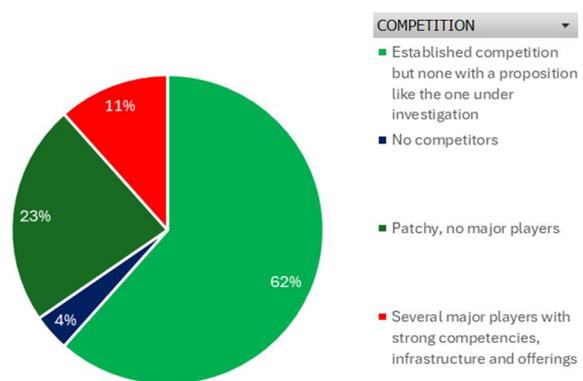
The data on potential customers shows a strong focus on leveraging the existing customer base, with 46% identifying current customers as the main target group. At the same time, a substantial share (38%)



sees the opportunity to reach new customers, indicating meaningful market-expansion potential. Only a small portion (8%) expects to engage both current and new customers simultaneously, while another 8% notes that potential customers have not yet been identified. Overall, the results suggest a balanced but

primarily retention-oriented customer strategy, complemented by clear prospects for attracting new users as the offering develops.

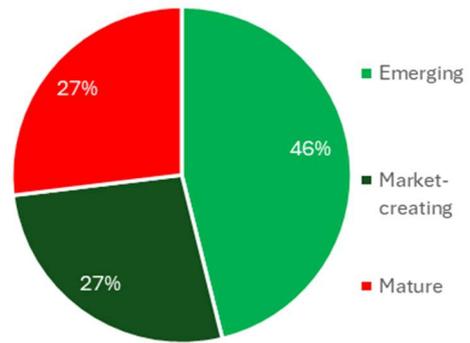
The competitive landscape appears favourable for differentiation, with 62% indicating that while established competitors exist, none offer a proposition comparable to the one under investigation. This suggests a strong opportunity to stand out despite an active market. An additional 23% describe the competition as patchy with no major players, further reinforcing the potential to position the solution as a leading option. Only a small share (11%) reports the presence of several major players with strong offerings, and just 4% perceive no competitors at all. Overall, the data points to a market where competition exists but leaves significant room for a distinctive and potentially leading value proposition.



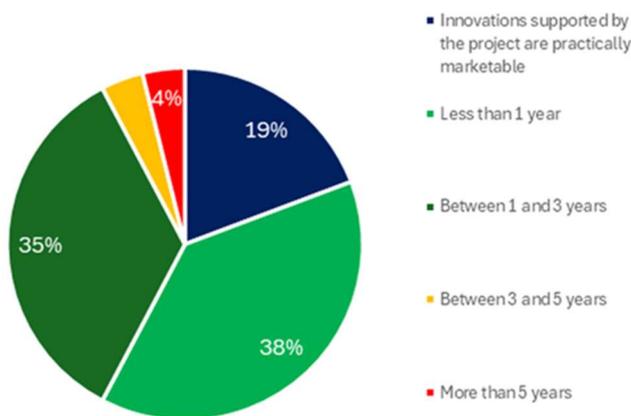
○ 8.4 The Market

The market assessment indicates a landscape with substantial growth potential, as 46% describe it as emerging—suggesting evolving demand and space for new entrants to shape the field. Additionally, 27% view it as market-creating, highlighting opportunities to introduce entirely new solutions or redefine existing boundaries. Another 27%

consider the market mature, implying that while parts of the space may be well-established, there is still significant room for innovation and expansion. Overall, the results portray a dynamic environment where both emerging and transformative opportunities dominate, supported by a smaller but meaningful mature segment.



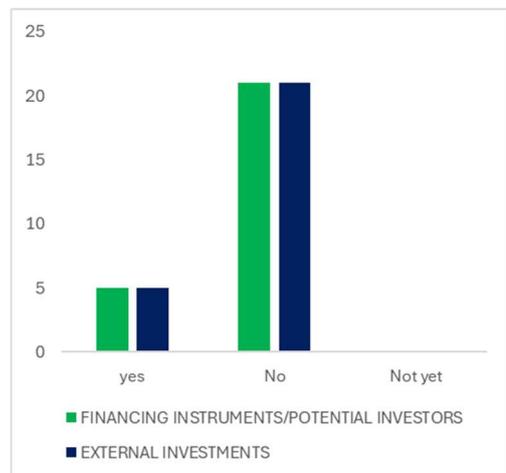
The timeline for commercialization reflects a generally short- to medium-term path to market. A combined 57% expect commercialization in under a year (38%) or note that innovations supported by the project are practically marketable (19%), indicating strong momentum and a near-term readiness for deployment. Another 35% anticipate reaching the market



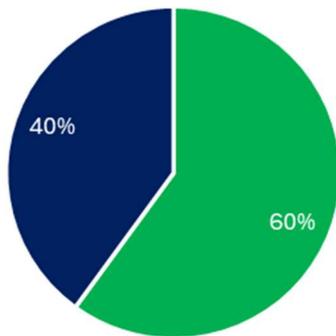
within one to three years, suggesting that for many, only moderate development or scaling steps remain. Longer timelines are rare, with just 4% each estimating three to five years or more than five years before commercialization. Overall, the data shows a high level of market readiness, with most respondents expecting rapid or relatively swift commercialization.

8.5 Financial considerations

The results indicate limited readiness in terms of financing and investment engagement. Only 5 respondents report having identified financing instruments or potential investors, while 21 have not, pointing to a significant gap in securing the financial pathways needed to advance the offering. The same pattern appears for external investments: just 5 indicate they have secured or identified such investments, compared with 21 who have not. Overall, the data suggests that while other aspects of the project may be progressing, investment preparedness remains underdeveloped, highlighting a need for stronger financial planning and investor outreach.



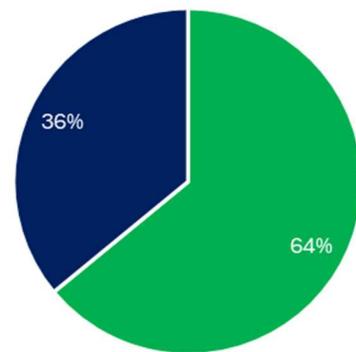
○ **8.6 Investments performed over 30% of the project budget**



■ Yes ■ No

The responses show a clear recognition of financial needs as the project moves forward. A majority (60%) indicate that additional funding is required, suggesting that current resources are not fully sufficient to reach the next stages of development or commercialization. At the same time, 40% report no need for further funding, implying that a substantial minority feel adequately financed.

In parallel, 64% state that more than 30% of their available resources have already been invested, highlighting a strong existing financial commitment. The remaining 36% have invested less than this threshold, indicating more conservative resource allocation. Overall, the data reflects significant ongoing investment coupled with a notable need for further financial support to ensure continued progress.



■ Yes ■ No

9. BUSINESS PLANS FOR THE INVESTMENT PORTFOLIO

○ 9.1. The RegioGreenTex Approach

This chapter provides an overview of the status of key elements of the business plans of the RegioGreenTex SMEs according to the training provided within the project. The results are based on self-reported inputs and reflect different maturity levels of the innovation pilots; therefore, completeness varies across SMEs and some Business Model Canvas elements remain indicative.

When considering the best way to present the SMEs' business plans to move forward with their innovation, the task leaders and the consortium has collected and consolidated the information in the form of Business Model Canvas outputs. This approach was chosen to ensure a clear and comparable overview across the portfolio of SMEs, while focusing on the main drivers that determine commercial potential and, ultimately, the perspective for a return on investment. While it does not require the development of a full blown business plan per pilot project, the canvas format captures the core elements underpinning business viability, including the customer segments addressed, the value proposition, routes to market, revenue streams, and the cost structure, allowing a concise but structured assessment of each innovation's pathway to commercialisation. Furthermore, several KPIs have been included to inspire SME's development and exploitation. Not all elements have been developed to the same extent. For some companies, all topics and KPIs were equally clear and well thought out, while for most companies different aspects have been completed as a function of the pilot advancement and success levels.

The content presented in this chapter is grounded in the work carried out by the SMEs throughout the project. Beneficiaries have participated in dedicated workshops and training sessions, responded to targeted questionnaires, and produced extensive technical reports describing their pilots and innovation results. However, these technical deliverables include a significant level of trade secrets and confidential business information, particularly relating to proprietary processes, material formulations, industrial know-how, and commercially sensitive strategic data. For this reason, and in line with the need to protect SMEs' competitive position, the chapter provides a summary of the business planning results rather than disclosing full business plans or detailed confidential documentation.

○ 9.2 Business Models

This section presents the business model format that was used to coach RegioGreenTex SMEs to develop their business plans. A business model overview document helps the companies clearly define and test their business ideas on one page. It focuses on the key

elements mentioned in table 1, enabling management to identify assumptions and validate them quickly. This visual format supports clear communication with stakeholders, helps set priorities and keeps teams aligned. The model allows companies to adapt their strategies as they grow.

Together, this overview provides a visual snapshot of how innovative companies in the textile sector are shaping sustainable and circular business models. The key pattern is interregional collaboration within the value chain. Most businesses operate in a B2B environment, partnering with brands, manufacturers, and recyclers. Channels such as trade fairs, LinkedIn, and direct partnerships are mentioned frequently, showing that networking and visibility remain crucial for market development.

<p>Top 3 Problems 2</p> <p>What are the main preoccupations of your clients? Their main difficulties, which your pilot is meant to solve</p> <p>What are the current existing alternatives? (=competition)</p>	<p>Solutions – Top 3 features 4</p> <p>What are the solutions for the customers' problems that build your UVP?</p>	<p>Unique Value Proposition (UVP) 3</p> <p>How do you solve the customer's problems? What are the benefits expected from your solution by your customer? Why does your client choose your solution? What makes you different, relevant?</p>	<p>Unfair advantage 10</p> <p>What sets your solution apart from the competitors? What is unique, hard to replicate?</p>	<p>Customer segments 1</p> <p>Distinguish between buyers and users Identify the strongest customer segments (drivers, early adopters)</p>
<p>Cost structure 7</p> <p>Which are the necessary costs to implement your solution? Fixed and variable costs</p>		<p>Revenue streams 6</p> <p>How and when do the buyers pay? How many potential clients? Different pricing for your customer segments? Is the price fixed, or not? If not, what makes it variable?</p>		
<p>Social foresight 8</p> <p>What are the main social impacts that could affect your model? Social changes, cultural evolutions, technological evolutions...</p>		<p>Environmental foresight 8</p> <p>What are the main environmental impacts that could affect your model? Resources, climate, energy, regulations...</p>		
<p>Social impacts 8</p> <p>What are your positive and negative social impacts?</p>		<p>Environmental impacts 8</p> <p>What are your positive and negative environmental impacts?</p>		

Table 1: Business model for RegioGreenTex SMEs.

In terms of business models, many companies target niche or premium markets. They experiment with models such as product leasing (Quest Studio P44), licensing (Recyc'elit P26), or consulting alongside production (Tintex P20). While the innovative business models do have some success, the canvases also reveal challenges: revenue models are often still evolving, and cost structures, especially for R&D, energy and machinery, have a high impact, restricting margins and sometimes market appeal. This means that while

pilots are successful in delivering innovative solutions and technologies, the circular business models proposed for the value chain are far from being established.

The business model approach adopted in RegioGreenTex has clearly helped partner SMEs clarify their value and strategy, but it also revealed that for many SMEs defining clear figures was challenging. Some were hesitant to share them even though confidentiality measures are in place, while others were unsure which metrics should be prioritised. However, it should be noted that establishing precise KPIs prior to developing a full business strategy is inherently complex and that this was not the main focus during the implementation of the SME pilots within RegioGreenTex.

Nevertheless, the next logical step for the SMEs in their growth trajectory will be to validate assumptions with market data and continue to build stronger, more measurable business models for sustainable growth, defining their focus and strategy as they move forward with the innovation development and relative exploitation.

○ **9.3 Business canvas results**

This section provides details about the SMEs responses in the main categories of the business canvas model used to structure the companies' thinking about their pilot exploitation and future development. The results are presented as an aggregate in order to provide the general information while respecting the companies' confidentiality.

○ **9.4 Problems: the main issues addressed in the pilots**

The pilots address three main problems faced by the textile value chain. First, brands and manufacturers are under growing pressure to deliver more sustainable products, while ensuring that quality and performance remain at the level expected by customers. Second, companies need to keep up with fast changing end consumer expectations while at the same time complying with new rules. At the same time, many processes currently in use still rely on resource intensive production routes that lack transparency and traceability. Third, the sector is struggling with the increasing volume of textile waste, both pre consumer and post-consumer, which is often downcycled, exported, landfilled, or incinerated, especially when materials are complex and hard to recycle, such as PET based textiles.

At the same time, the market is challenged by high costs, limited availability of clean and uncontaminated waste streams, and the need to prove that recycled outputs can match technical requirements such as fibre length, tenacity, and consistency. Many organisations also face uncertainty linked to energy consumption, regulatory changes affecting demand and pricing, and concerns about greenwashing. This combination

makes it difficult to scale solutions that are both compliant and economically viable, while competing with cheaper alternatives from outside Europe.

○ 9.5 Solutions: the main features offered by the pilots

The RegioGreenTex pilots propose different kinds of solutions that share a core set of values and are built around the same three core features: sustainability, performance, and innovation. Some of the solutions proposed support circularity by transforming industrial and post-consumer textile waste into new valuable raw materials, including improved quality fibres, recycled slivers and dyestuff solutions derived from waste. This approach reduces dependence on virgin raw materials, supports fibre to fibre recycling pathways, and helps companies respond to end of life challenges by offering alternatives to disposal routes such as incineration, especially for difficult textile compositions.

Beyond sustainability, many pilots are run by industrial companies and thus focus on delivering outputs that meet real industrial needs. Pilot scale development allows the consortium to test and demonstrate measurable fibre characteristics, ensure reproducibility, and improve production rate and quality standards. Some pilots also focus on innovative processing approaches, such as controlled attachment and removability, waterless or low chemical routes, and scalable manufacturing solutions, while aiming to keep lead times short and provide full-service solutions that are competitive with conventional products.

○ 9.6 Social foresight and impact

The project pilots are positioned in a context where consumers are becoming more sensitive to textile waste and more demanding about sustainability claims, while companies and public buyers increasingly require certified recycled products. This shift is likely to drive further interest in recycled fibres, recycled fabrics and waste based dyestuff, as the pilots' solutions respond directly to both environmental concerns and regulatory expectations. Over time, partner companies estimate that social pressure will continue to influence purchasing behaviour, pushing brands to prove that their sustainability actions are real and not only linked to marketing.

At the same time, the project partners anticipate that changes in consumer habits, such as better separation and collection of used textiles, will be necessary to secure enough recyclable material streams. The consortium also recognises that building trust will depend on traceability, transparency, and compliance, especially in a landscape where greenwashing risks are increasingly scrutinised. These social trends support the need for practical demonstrators that show circularity in action and help normalise recycled content products in mainstream markets. Several pilot projects have a strong potential to create and maintain employment, especially through local sorting activities, dismantling, logistics and new recycling based manufacturing routes. By developing the

regional value-chain based ecosystems around textile waste collection and transformation, these pilots support job creation while also strengthening cooperation between companies, social sector actors and local communities. In particular, sorting and recycling activities can open opportunities for inclusive workplaces and skills development, allowing people who have struggled to find employment reconnect with meaningful work.

Furthermore, some pilots contribute to better working conditions by supporting processes that reduce dust production and by promoting worker training for new recycling technologies. Demonstrators and pilot activities also help raise awareness among end users, showing that purchasing recycled and circular products can support social value alongside environmental value. By linking circular economy solutions with local employment and skills, these pilots strengthen the social dimension of the transition.

○ 9.7 Environmental foresight and impact

The RegioGreenTex project operates in a policy and market environment where EU legislation, including reporting and sustainability requirements such as CSRD (Corporate Sustainability Reporting Directive), is pushing companies towards lower impact production and better resource management. Water scarcity, limits on exporting textile waste and restrictions on landfill and incineration are expected to become stronger drivers for recycling solutions. At the same time, energy prices and energy intensive processes remain a concern, and regulatory changes can influence both demand and price levels for recycled materials.

Looking ahead, many SMEs anticipate increasing competition for clean recyclable feedstock, since scaling circular solutions depends on having enough uncontaminated textiles available for processing. They also recognise that the environmental performance of recycling technologies will be judged not only by recycled content, but also by their overall footprint, including energy consumption, water use, chemical use, and the ability to replace virgin materials. This makes continuous optimisation and reliable measurement central to the long term success of the approach.

The project contributes directly to reducing the environmental footprint of the textile industry by giving waste textiles a second life and lowering the demand for virgin raw materials. By focusing on recycling pathways and waste based dyestuff solutions, some pilots in particular support lower raw material consumption, reduced water use and reduced resource extraction. Pilots also address waste management challenges by decreasing landfilling and incineration, particularly for complex textile streams that currently have limited recycling options.

In addition, the project supports cleaner processing routes by reducing the use of chemicals and water, and by aiming for better process efficiency and lower energy

consumption. Pilots' approach to circularity also reduces negative impacts linked to exporting waste outside Europe, helping shift towards local value creation and more responsible management of textile waste streams. Over time, these outcomes can translate into measurable reductions in carbon footprint and wider improvements in environmental performance across the value chain.

○ 9.8 Key metrics

The project pilots track progress through technical, environmental, and operational indicators that demonstrate both feasibility and impact. On the technical side, the physical characteristics of fibres, such as length and tenacity, are measured and compared to prove that recycled outputs meet quality requirements. Production rate, defect reduction and recycled content targets, for example achieving yarns with around 50 percent recycled content and potentially higher levels up to 70 percent, are also key metrics used to assess scalability and market readiness.

From an impact perspective, the project pilots monitor reductions in resource use, including lower water consumption, reduced chemical use and improved energy efficiency. Environmental indicators such as carbon footprint and CO₂ related outcomes are relevant, alongside process indicators such as the number of items sorted, leased or sold, and the volume of waste diverted from disposal routes. Social indicators, including job creation and training activities, complement these metrics by capturing the broader value of the transition to circular textile production.

○ 9.9 Unfair advantage

The project pilot initiatives benefit from strong know-how and specialised processes that are difficult to replicate, particularly where pilot scale facilities, or where patented solutions or unique combinations of textile treatments are involved. This includes advanced approaches to removing prints from textiles, innovative recycling technologies, and expertise developed through working with small batch production and fast response capabilities. These strengths allow the project to deliver high adaptability, versatility, and reproducibility, which are crucial for meeting customer expectations and compliance requirements.

Another advantage of the innovative pilot development lies in the project's ability to provide a full service offer that connects multiple steps of the value chain, from sourcing and sorting to processing and final output performance validation. By combining traceability, recycled content, quality assurance and scalability, the project pilots can offer solutions that respond directly to both market needs and upcoming regulations. This positioning is further strengthened by the project's focus on local sourcing and European production, which supports resilience, credibility, and a stronger alignment with sustainability driven procurement.

10. LESSONS LEARNED

The pilots implemented under RegioGreenTex project provide valuable insights into good ways to advance circularity and innovation in the textile sector. These lessons are crucial for understanding how to effectively transition towards a more sustainable and circular economy.

Beyond Technology: The experience with the projects highlights the importance of coordination and integration. Technological innovation is a critical component of advancing circularity, but it is not sufficient on its own. Successful outcomes depend on strong coordination among regional actors, such as manufacturers, recyclers, technology providers, and public authorities. And a clear integration across the interregional value chain is essential to ensure that processes are aligned and that each step, from waste collection to recycling and product development, works seamlessly. Early alignment of operational processes helps avoid inefficiencies and ensures that all stakeholders are working towards shared goals.

Market Interest vs. Practical Challenges: There is significant market interest in sustainable textile solutions, driven by growing consumer and industry awareness of environmental issues.

However, scaling these solutions requires addressing practical challenges, such as:

- Securing stable feedstock streams: Ensuring a consistent supply of textile waste for recycling is critical but often difficult due to fragmented collection systems;
- Ensuring product quality: Recycled materials must meet high-quality standards to be competitive with virgin materials;
- Building trust among industrial partners: Collaboration and transparency are key to fostering trust and long-term partnerships.

Defining Commercialization Pathways Early: Many innovative solutions face hurdles in transitioning from pilot projects to full-scale commercialization.

- Funding and investment readiness are common barriers, as circular economy projects often require significant upfront investment;
- Customer adoption can also be challenging, as businesses and consumers may be hesitant to switch to new products or processes.

To address these challenges, commercialization pathways must be defined early in the project lifecycle. This includes identifying potential markets, securing funding, and developing strategies to engage customers.

○ 10.1 The Role of Regional Collaboration and Stakeholder Engagement

The pilots confirmed that regional collaboration is a cornerstone of success. By bringing together diverse stakeholders, regions can leverage local expertise, resources, and networks to drive innovation.

- Continuous stakeholder engagement ensures that all parties remain aligned and committed to the project's goals;
- Realistic planning for market uptake is essential to bridge the gap between innovative concepts and viable solutions. This includes setting achievable milestones, anticipating challenges, and adapting strategies as needed.

The RegioGreenTex pilots highlight that advancing circularity in the textile sector requires a holistic approach. While technological innovation is important, it must be supported by strong coordination, practical problem-solving, and strategic planning. By fostering regional collaboration, engaging stakeholders, and addressing commercialization challenges, the textile industry can transform innovative ideas into scalable, sustainable solutions that contribute to a circular economy. These lessons provide a roadmap for future initiatives aiming to make the textile sector more environmentally friendly and economically viable.

○ 10.2 Progress Made

One of the most notable positive aspects of the project evaluation is the considerable progress made in key performance indicators across multiple projects. The analysis performed highlights that 24 projects (over 92%) have already demonstrated progress in supply chain collaboration, showcasing strong engagement among stakeholders, including SMEs, research institutions, and industry leaders.

Similarly, 18 projects have reported advancements in innovation and research, confirming that the initiative is fostering technological advancements, sustainable material development, and process improvements in the textile industry. The progress in this area is essential for creating long-term solutions that align with circular economy principles.

Although many projects are still in development, 18 projects have already reported measurable environmental benefits during their implementation. These include reductions in textile waste, improved recycling methods, and enhanced resource efficiency, demonstrating the project's commitment to sustainability.

In addition to environmental improvements, 16 projects have made significant contributions to social impact, including job creation, workforce training, and better working conditions in the textile industry. Several projects have also emphasized community engagement and awareness initiatives to promote sustainable practices among industry professionals and consumers.

The evaluation shows that 18 projects have successfully improved textile manufacturing processes, leading to increased efficiency, waste reduction, and the adoption of more sustainable production methods. These advancements play a crucial role in supporting circular economy practices and ensuring that textiles are produced with minimal environmental impact.

Many projects have focused on optimizing sorting and recycling methods, developing new fabric blends with recycled materials, and implementing cutting-edge technologies to enhance textile durability and functionality. These efforts contribute to the long-term transformation of the industry. Even for projects that have not yet met all performance indicators, the evaluation suggests that most are currently in the process of assessment or are expected to show significant progress in later stages.

This indicates that the full impact of the initiative will become more apparent as projects continue to develop and expand.

Several projects have already achieved key milestones and are now working towards industrial scaling and commercialization, which could lead to broader adoption of sustainable textile practices across the European market.

○ 10.3 Challenges ahead

Because of the status of their development, for some projects it is still difficult to determine the commercial viability and potential for large-scale market adoption.

While it is still too early to properly assess the market impact of the innovative pilots, 19 of the 25 projects have reported positive market expansion results, while only 2 projects have indicated no progress at all, and some of the others are still in a phase where their progress cannot be properly assessed. This uncertainty makes it challenging to evaluate the long-term economic benefits of the initiative.

Some projects have already reported environmental benefits, and even more of them are working on obtaining environmental certifications to have a comprehensive initiative and ensure a positive final impact. Similarly, due to the phase projects are currently involved in, it is not yet possible to collect data about the reductions in carbon emissions, energy savings, or improved resource efficiency. A more comprehensive evaluation will be possible at a later stage involving further advancement of the projects.

Some tangible improvements in the textile value chain are clearly demonstrated, and many more will no doubt be discovered in the next steps; this progression is a natural part of the innovation process, it also means that the innovation's full potential has yet to be realized.

A real concern remains the slow pace of adoption of some new sustainable technologies due to resistance from industry partners, high production costs, and technical challenges related to scalability.

11. REGIOGREENTEX CONNECTIONS TO POLICY

The RegioGreenTex project maintained throughout the implementation of the project a strong connection with EU and regional political institutions through different tools and initiatives. First and foremost, the Mirror Group, a dedicated group of regional policy makers uniting the 11 regions of the project, was established at the start of RegioGreenTex and were involved in regular meeting throughout the life of the project. Secondly, several multistakeholder events and initiatives were organised to collect feedback and lessons learned from the project partners and other stakeholders. This rich array of information has been transformed into feedback for policy makers that can be found below in the form of recommendations and a list of bottlenecks that inhibit the textile industry in Europe from reaching its full potential.

○ 11.1 Bottlenecks and policy recommendations

In the course of the project duration, the consortium has organised a number of structured exchanges in order to elicit feedback from project partners and stakeholders. Such exchange opportunities spanned different formats and occurred in different moments during the project, including consortium meetings, thematic workshops, and in-depth analytical studies. These activities were complemented by targeted discussions with regional policy makers from the Mirror Group, which includes all regions involved in the project. Taken together, they provided a comprehensive overview of the challenges and opportunities linked to the development of a circular textile industry at regional level.

Through this process, partners and stakeholders identified specific bottlenecks that continue to impede the implementation of circular approaches, ranging from regulatory and financial constraints to gaps in infrastructure and skills. On the basis of this evidence, the consortium elaborated a series of policy recommendations to support EU policy makers, as well as regional and national authorities in designing and refining measures that can foster innovation, investment and collaboration across the textile value chain.

The RegioGreenTex project has already supported a wide range of interregional innovation investments, fostering collaboration across regions, and accelerating the transition towards textile circularity. These initiatives demonstrate that concrete progress is being made in addressing some of the key challenges, yet a number of bottlenecks still remain. The recommendations presented in this report aim to provide clear guidance for future investments and policy measures, ensuring that the momentum built so far can be sustained and scaled up in order to make circularity in the textile sector a tangible reality.

The sections below present, first, the main bottlenecks identified during this work, and second, the corresponding recommendations formulated for policy makers to address them.

12. BOTTLENECKS TO A CIRCULAR TEXTILE INDUSTRY

○ 12.1 Core Production Gaps

- Lack of high-capacity, accurate sorting systems, especially by fibre type and color;
- Absence of industrial-scale methods for removing trims (e.g., buttons, labels);
- Inconsistency and poor quality of recycled feedstock (e.g., too many blends), hindering process efficiency;
- Scarcity of sorted raw materials suitable for recycling;
- Limited spinning capacity in the EU (more capacity exists in neighbouring countries);
- Existing machinery is often incompatible with mechanically recycled fibres;
- Shortage of skilled labour in recycling, sorting, and circular design processes.

○ 12.2 Support System Gaps

- Burdensome and costly procedures for testing and third-party certification;
- Different understanding in eco-design, LCA (life cycle assessment), and circular business models due to a lack of harmonised eco-design requirements and LCA methodology (e.g., legally binding);
- Gaps in data infrastructure: difficulty tracing hazardous materials and assessing circular performance;
- Low innovation uptake in upcycling and recycling technologies;
- Fragmented or underfunded digital tools for traceability and value chain coordination pending the roll-out of the Digital Product Passport (DPP).

○ 12.3 Policy and Regulatory Gaps

- Fragmented regulations and lack of harmonised EU-wide standards for recycled content;
- Complex and burdensome certification and compliance processes, especially for SMEs;
- Regulatory misalignment across borders impedes material flows and innovation scale-up;
- Lack of incentives (tax, grants, etc.) to adopt or invest in circular models;
- Absence of a long-term, consistent policy vision for circularity (e.g., shifting targets);
- Lack of harmonisation and poor enforcement in key criteria.

○ **12.4 Market and Investment Gaps**

- Weak demand and market pull for recycled or upcycled textiles;
- Price disadvantage of recycled fibres compared to virgin alternatives: since used textiles mainly come from the consumer market (and 85% are manufactured in low-cost countries), local sourcing strategies are missing or not viable;
- Difficulties in accessing finance for circular pilots and scale-up investments;
- Low ROI expectations deter risk-taking in circular innovation.

○ **12.5 Consumer and Engagement Gaps**

- Low public awareness of the environmental benefits of circular textiles;
- Lack of education and incentives around repair, reuse, and take-back schemes;
- Poor visibility of circular alternatives in mainstream retail environments.

13. POLICY RECOMMENDATIONS TO ENABLE CIRCULARITY

○ 13.1 Harmonised Standards and Certification

- Establish clear, EU-wide standards for recycled textiles and circular design;
- EU policy should include clear reuse targets at national and sectoral levels, similar to existing recycling targets (for example: % of textiles sold that should be reused to incentivise consumers) to reinforce the EU Waste Hierarchy prioritization of reuse above recycling. This will facilitate the transition towards higher quality, more durable products, and reduce over-production;
- Build on the on-going work on the DPP at technical and contents level to ensure traceability (transparent and respectful of business confidentiality) and data verification and build trust across the market;
- Streamline customs and market surveillance procedures to avoid import/export distortions;
- Complete the PFAS-specific regulatory framework to ensure a harmonised EU-wide framework for PFAS in textiles under REACH and the Eco-design for Sustainable Products Regulation (ESPR) as opposed to fragmented national legislations;
- Chemical transparency via the DPP: disclosure of chemical information relevant to show compliance with REACH legislation (namely SVHC) and support market surveillance (including PFAS and flame-retardants);
- Develop standards for adding key information (e.g., composition data) to textile labels to ensure consistency and clarity.

○ 13.2 Investment in Infrastructure and Technology

- Fund scalable infrastructure for textile sorting, recycling, and upcycling across regions;
- De-risk investment in breakthrough technologies (e.g., NIR/hyperspectral sorting, AI-driven classification).
- Support open R&D and collaborative innovation to accelerate development and deployment;
- Fund pilot facilities for safe detoxification and material recovery from textiles containing PFAS or other Substances of Concern;
- Support safe sorting and decontamination technologies: R&D for detection, separation, and neutralisation technologies.

○ **13.3 Support for SMEs and Circular Business Models**

- Offer tax breaks, grants, and simplified funding access for SMEs transitioning to circularity;
- Encourage business model innovation through financial incentives (e.g., lower VAT on circular products);
- Provide coordinated support services to help SMEs meet regulatory and technical requirements and to identify, substitute or eliminate hazardous substances from their processes.

○ **13.4 Regulatory Alignment and Simplification**

- Harmonise eco-design and waste management laws, notably the end-of-waste criteria, and ensure consistent application across EU Member States and regions;
- Reduce administrative burdens associated with regulatory compliance, especially for smaller players.

○ **13.5 Skills, Training, and Workforce Development**

- Invest in upskilling the workforce for roles in repair, sorting, recycling, and eco-design, in particular design for multiple lifecycles and recyclability;
- Develop curricula and training programmes aligned with regional value chain needs;
- Integrate chemical safety and substitution into training, especially for designers, recyclers and textile engineers.

○ **13.6 Market Stimulation and Consumer Awareness**

- Promote circular consumption through awareness campaigns and labelling schemes, for example, encourage labelling systems that highlight "reuse history" of a garment (number of cycles, repairs, etc.);
- Create criteria for green public procurement which award higher scores for recycled and reused fibres;
- Support the demand of reused and recycled textiles in mainstream markets;
- Encourage behavioural change via incentives (e.g. discounts for repairs or returns).

○ **13.7 Digitalisation and Data Infrastructure**

- Establish interoperability standards for traceability platforms, and also more broadly across the textile value chain, to ensure data exchange across different proprietary systems: define common taxonomies and data formats across the

value chain, require open APIs for traceability platforms, align with international standards;

- Support the creation of EU-wide platforms for traceability and life cycle monitoring;
- Develop digital matchmaking tools for waste suppliers, recyclers, and manufacturers;
- Centralise data on textile waste streams to inform policy and investment decisions;
- Make data transparent, meaningful, and accessible to end-users to build trust and engagement.

○ **13.8 Foster Cross-Regional and Cross-Sector Collaboration**

- Facilitate partnerships between advanced and emerging regions to bridge capacity gaps;
- Support interregional innovation networks and value chain matchmaking across the EU;
- Encourage technology transfer and knowledge sharing to build cohesive ecosystems.

14. CONCLUSIONS

Although encouraging progress has been achieved (including in the RegioGreenTex project), and continues to be driven by innovative companies, many of which are SMEs, the journey towards full textile circularity is far from complete. These businesses are proving their capacity to experiment with new business models, technologies, and materials, yet their efforts alone cannot overcome the systemic barriers that remain. Policy therefore plays a decisive role, both in removing obstacles and in creating the right framework conditions that allow innovation to flourish and scale across Europe.

The I3 instrument has proven to be an excellent starting point in this direction, helping to bridge interregional gaps and mobilise investment for projects such as RGT, de-risking innovative projects for partner SMEs. Building on this success, the consortium calls for an expansion of funding and support under similar schemes, to maintain momentum and strengthen Europe's capacity to lead the transition towards a circular textile value chain. Greater continuity and predictability in financing will empower regions and businesses to take risks and invest confidently in circular solutions.

Finally, regional administrations hold a crucial responsibility in this collective endeavour. They are well placed to adapt measures to local circumstances while aligning with shared European objectives. The RegioGreenTex consortium has proven through the Mirror Group that these administrations are ready to cooperate across borders, learn from one another and take joint ownership of the circular transition. By working together, regions can amplify their impact, accelerate progress, and demonstrate that circularity in the textile sector is not only possible but achievable through coordinated action.