AddTex

White paper with policy recommendations

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**Co-funded by
the European Union**
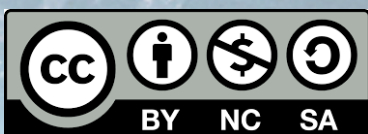
1. Introduction

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The deliverable **White paper with policy recommendations** includes the description, results and policy recommendations that came out through the workshops that have been organised by AddTex partners in Germany, Greece, Italy and Spain in September and October 2024.

The workshops aimed to establish a dialogue among industry, academia, policy-makers through interactive sessions focused on **skills, methodologies and opportunities for collaborations** with the final aim of drafting **key recommendations** to boost the green, digital and resilience in the industry.

After a brief presentation on how the workshops were conducted and presenting the overall KPIs reached, the report presents key findings of the discussion among the stakeholders and culminates with **10 policy recommendations for improving the textile industry through green, digital, and resilience strategies, emphasizing quadruple helix collaboration and skills enhancement.**

The AddTex project

Advanced textile materials are a thriving sub-sector in the textile and clothing ecosystem across Europe, based on high added value and differentiation as unique selling proposition. Innovation in this field is key in the resilience building of the EU textile sector and in ensuring its competitiveness, particularly in volatile, uncertain, complex and ambiguous (VUCA) environments, such as were presented through the COVID-19 pandemic.

The ADDTEX project main objective is to **support the resilience and sustainable GREEN, DIGITAL & SMART transition and advancement in the textile sector through innovative learning and training.** In this way, the project aims to strengthen and stimulate a sense of initiative and entrepreneurial attitudes, mindsets and skills in learners, educational staff and skilled workers, in line with the Green Deal and Entrepreneurship Competence Framework. The strength and expertise of established and developing industry clusters will continue to build competencies, support the textile sector growth and present opportunities for impact driven, sector-specific research.

The ADDTEX partners, coming from 12 European countries, generate an **engagement between industry representatives, higher education (HEI) and vocational education and training (VET) providers**, is an assertive way to achieve the project's goal.

2. Workshops summary

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Methodology

Workshops were organised based on guidelines prepared by CIAPE. In order to conduct the workshops, partners were free to choose among two different methdologies:

▶ **World Café Dialogue:** This method foresees tables with participants, who rotate between groups. This setup fosters dynamic conversations, allowing for the cross-fertilization of ideas and new connections. As participants engage in dialogue, a rich network of insights develops, culminating in a presentation of results and collective prioritization of key takeaways.

▶ **Single Roundtable:** In this approach, all participants sit together at one table, facilitating broader discussions. To ensure productive engagement, guidelines for effective brainstorming are presented, allowing each participant to express their views while maintaining one conversation at a time. A facilitator guides the dialogue, and a note-taker captures essential insights.

Workshops participants

Audience composition in the different workshops was influenced by the expertise and network of the partners. It is relevant to mention that thanks to the presence of partners who are active beyond the industry itself, it was possible to gather insights which are also transferable to other sectors.

1 **Germany:** 34 onsite and online participants

2 **Greece:** 10 online participants

3 **Italy:** 30 onsite participants

4 **Spain:** 37 on site participants

3. Workshops key results

▶ **What are the most important skills that students/workers should own to boost the green transition within the industry?**

To drive the green transition in industry, employees and career starters need a combination of technical expertise and essential personal qualities. Key knowledge areas include **renewable energy**, **energy-efficient technologies**, **eco-friendly materials**, **recycling**, and **environmental policies**—skills that allow for integrating sustainable practices into production and reducing ecological impact.

Critical skills involve **assessing sustainable versus conventional methods**, as understanding the environmental impact across the supply chain is crucial. Strong **analytical abilities**, a **sense of responsibility**, and the **ability to balance sustainability with cost-consciousness** are essential.

Soft skills, including **communication** and **teamwork**, are equally important for interdisciplinary collaboration. **Adaptability** and a **readiness to learn** are crucial, as green technologies and practices continue to evolve. Additionally, skills in **management**, **ethical leadership**, **creativity**, and **critical thinking** are key to navigating and promoting sustainable change.

▶ **What are the most important skills that students/workers should own to boost the digital transition within the industry?**

To drive digital transformation, employees need strong **digital literacy**, **data analysis** skills, and **familiarity with AI tools**. IT proficiency and cybersecurity awareness are essential for safe and efficient digital operations.

Key qualities include **adaptability** to evolving digital tools and **structured thinking** for integrating new processes. **Continuous learning** is crucial to keep pace with advancements, along with **creativity** and **project management** to lead digital initiatives.

▶ **What are the most important skills that students/workers should own to make the industry more resilient?**

To build industry resilience, employees need **adaptability**, **problem-solving**, and **innovation** skills, along with strong **risk management** and **flexibility** for shifting roles. A commitment to continuous improvement and sustainable practices, paired with technological know-how and cross-functional capabilities, enhances resilience.

Clear **communication**, **teamwork**, and technical expertise, especially from VET-trained workers, are essential for maintaining operations and meeting challenges. **Dedication**, **flexibility**, and **independence** empower employees to strengthen both personal and industry resilience.

Methodologies

▶ **What are the most relevant training methodologies/activities to train textile students in order for them to be able to play a role in making the industry greener, more digital and resilient?**

Effective training for textile students aiming to make the industry greener, more digital, and resilient relies on hands-on, collaborative methods. **Bootcamps**, **hackathons**, and **internships** provide real-world industry exposure, sparking innovation and problem-solving skills.

Design thinking and **learning-by-doing**, such as service projects and craft workshops, immerse students in sustainability challenges, while non-formal methods like **role play** and **storytelling** make learning engaging and collaborative.

Roles of different stakeholders

▶ **Why is the triple helix dialogue important to favor the twin transition and to make the industry more resilient? What are the most important actors in the textile value chain?**

The triple helix dialogue—connecting academia, industry, and government—is essential for advancing the twin transition towards a greener and digital textile industry while also building resilience. This collaboration allows each sector to share resources, expertise, and insights to address both current challenges and future needs. **Academia drives innovation and skills development; industry applies these advancements in real-world settings; and government facilitates funding, regulation, and policy alignment.**

In the textile value chain, key players include raw material suppliers, manufacturers, retailers, consumers, and environmental organizations. By fostering mutual understanding and aligning goals, **the triple helix approach ensures continuous adaptation to sustainability and digital demands**, helping the industry navigate transitions smoothly and anticipate shifts in technology and sustainability standards.

▶ **What is the role of VET providers and HEIs in boosting the twin transitions in the industry? How can educational providers foster resilience within the industry?**

Vocational education and training providers and higher education institutions play a pivotal role in driving the green and digital transitions in the industry while fostering resilience. To effectively contribute, they must **align their curricula with industry needs, ensuring that programs emphasize critical digital skills such as IT, artificial intelligence, and sustainability**.

Collaboration with companies is vital for a continuous exchange of knowledge, helping keep educational content relevant and practical.

By integrating **project-based learning** and community engagement, educational institutions enhance students' critical thinking and problem-solving abilities, equipping them to address real-world challenges.

Promoting a **holistic understanding of technological advancements and environmental considerations** ensures that future professionals can assess the broader impacts of their actions. Prioritizing **lifelong learning** and continuous skills development enables students and workers to adapt quickly to industry changes, reinforcing the sector's resilience and innovation capacity.

What is the role of the clusters in boosting the twin transitions in the industry? How can cluster foster resilience within the industry?

Clusters play a vital role in advancing the twin transitions in the textile industry by **fostering collaboration among businesses, research institutions, and local governments**. This cooperation enhances knowledge sharing and innovation, enabling stakeholders to engage in joint projects that support sustainability and digital transformation while also increasing social impact through community involvement.

Industry associations serve as essential intermediaries, providing **information** and **networking opportunities** that help companies navigate emerging innovations and trends. They facilitate **collaboration** with educational institutions on sustainability and digitalization projects.

These associations also advocate for industry interests in political discussions, influencing regulations related to green and digital transitions. They offer training, webinars, and hands-on projects to keep companies updated on technologies and legal requirements, driving innovation and resilience.

By raising awareness and engaging with educational institutions, industry associations prepare future specialists for upcoming challenges. Overall, **clusters and industry associations are crucial in strengthening resilience within the textile industry through knowledge exchange, market adaptation, and practical support**.

How can clusters be leveraged to promote collaboration among stakeholders? What public-private initiatives can be implemented?

Clusters can promote collaboration among stakeholders through various initiatives. Organizing events like speed dating sessions between cluster companies and other invited firms fosters **networking**, while themed workshops facilitate **knowledge exchange** on relevant topics.

Clusters can also help identify **funding opportunities** tailored to members' needs and assist in proposal preparation. Public funding and long-term planning are essential for sustaining these initiatives.

Public-private partnerships can fund shared training programs, community engagement projects, and platforms connecting sustainable producers with consumers. By conducting needs analyses, clusters ensure that initiatives are relevant, fostering empathy and understanding among stakeholders. These collaborative efforts enhance innovation and drive sustainability within the industry.

▶ **What policies need to be addressed to favor both the twin transition and resilience within the industry?**
To favor both the twin transition and resilience within the industry, policies should incentivize **sustainable practices and green technology investments**. Establishing frameworks for social pacts that outline stakeholder responsibilities can enhance collaboration. Regulations that promote knowledge sharing, support partnerships in sustainable production, and back community-based initiatives and educational programs are essential.

Decentralization is crucial, allowing policies to be tailored to regional needs. However, many regions may lack the human resources necessary to effectively implement these initiatives, highlighting the need for targeted support and capacity building.

Conclusion and follow up

▶ **What are our key findings? Summarise key priorities, concrete measure that be implemented for a greener, more digital and resilient textile industry.**
Key findings emphasize the importance of maintaining ongoing **triple helix dialogue** among stakeholders to facilitate information sharing and collaboration. Establishing more sessions for this purpose is crucial. Specific **funding calls** should be implemented to support companies in adopting new technologies, particularly in light of rising raw material and energy costs.

T**ransitioning to circular economies** is essential for the industry's survival. Public funding and long-term planning for decentralization are vital, as is addressing the need for qualified personnel to retain critical know-how. Priorities include developing interdisciplinary training programs focusing on sustainability, promoting ethical leadership, fostering community engagement, and investing in digital infrastructure for textile production to enhance resilience and sustainability in the sector.

▶ **What follow up actions can we plan to ensure the implementation of ideas generated during the dialogue?**
To ensure the effective implementation of ideas generated during the dialogue, several follow-up actions can be considered. First, forming **working groups** can help maintain accountability and track progress on initiatives, ensuring that ideas are translated into actionable steps. Launching **pilot projects** in sustainable textile production will provide practical avenues to test and refine these concepts in real-world settings.

Establishing **community partnerships** is essential for engaging stakeholders and fostering collaboration, creating a network of support that can drive innovation. Regular review forums will allow for the assessment of strategies and the incorporation of feedback from community members, ensuring that the initiatives remain relevant and effective.

Additionally, **raising awareness** through webinars and lectures in vocational education and training (VET) institutions can help disseminate crucial information, while organizing information days with various stakeholders will facilitate dialogue and knowledge exchange. Finally, holding more sessions similar to the initial dialogue will sustain momentum and encourage ongoing collaboration, reinforcing the commitment to a greener, more digital, and resilient textile industry.

How can we communicate the insights to all stakeholders at local, national and EU level?

▶ Our key findings emphasize t**he need for improved communication strategies to engage stakeholders at local, national, and EU levels**. We suggest hosting workshops with other EU clusters and enhancing email outreach to ensure stakeholders receive vital information.

Interest in expert-led events has grown, particularly post-COVID, indicating a demand for holistic multi-events. However, high production costs and entrance fees can hinder participation. Thus, leveraging global digital communication through social media and connecting with peers is crucial.

Targeted webinars, reports, and workshops can enhance engagement among industry stakeholders, while direct outreach to policymakers and local communities can facilitate insight dissemination. Using storytelling to illustrate our initiatives' impact can foster understanding, and promoting role models within the industry can inspire broader participation in sustainable practices.

4.10 Recommendations

Here are **10 policy recommendations** for improving the textile industry through green, digital, and resilience strategies, emphasizing quadruple helix collaboration and skills enhancement:

10 POLICY RECOMMENDATION

01. Incentivize Sustainable Practices
Implement financial incentives for companies adopting eco-friendly materials and processes to drive sustainability in textile production.

02. Support Collaborative R&D Initiatives
Create funding programs for joint research projects between industry, academia, and government to advance green technologies in textiles.

03. Establish Industry-Specific Training Funds
Allocate resources to develop specialized training programs that equip the workforce with skills in sustainable practices and digital innovation.

04. Promote Circular Economy Legislation
Introduce regulations that encourage recycling, waste reduction, and the use of sustainable materials in textile manufacturing.

05. Enhance Digital Infrastructure
Invest in digital infrastructure that supports data sharing and collaboration across the textile value chain to improve efficiency and innovation.

06. Facilitate Access to Knowledge Networks
Develop platforms that connect textile stakeholders with experts, resources, and best practices to foster continuous learning and collaboration.

07. Strengthen Regulatory Frameworks
Create clear guidelines that support the integration of sustainability and digital technologies while ensuring resilience within the textile sector.

08. Encourage Public-Private Partnerships
Promote initiatives that bring together public entities and private companies to jointly address challenges in the textile industry, especially in sustainability and technology.

09. Engage Local Communities in Policy Development
Involve community stakeholders in policymaking processes to ensure that initiatives reflect local needs and promote inclusive growth.

10. Monitor and Evaluate Policy Impact
Establish mechanisms to assess the effectiveness of policies aimed at enhancing sustainability and digitalization in the textile industry, allowing for continuous improvement.