

# D2.6. Collaborations Map



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Research group  
Fashion & Technology



## D2.6. Collaborations Map

### Transitions Project

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## REVISION HISTORY

Version n°	Date	Description	Contributors
V0	10/03/2023	Collaborations map	Giulia Francioni (NTT), Enrico Venturini (NTT), Laura Rognone (CITTA STUDI), Paola Fontana (CITTA STUDI), Nelly Hayek (BORÅS STAD) Lidia Morcillo (MODACC) Helen Milne (Noof)
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V3	03/04/2024	Final formatting	Daniela Betancourth (Elisava)

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## Executive summary

This document provides a visualization on collaboration needs and strategies in the industry analyzed out of the conducted project research with European stakeholders from textile and fashion sectors. The aim of this report is to present the current and future collaboration trends among these actors in order to give them new information about types and areas in which to find new opportunities of interaction. The areas that are analyzed are as follow; types of collaboration, motivation for collaboration, main barriers to set collaborations, activities that promote collaboration and areas of interest for collaboration.

The final Collaborations Mapping will be disseminated and published in the website.

## About Transitions

TRANSITIONS (Erasmus + Project) is a strategic alliance for innovation formed by research and technological centers, Vocational Education and Training (VET), Higher Education Institutions (HEI), public policy actors, SMEs, and other sectoral organizations from Spain, Italy, The Netherlands, and Sweden. The aim is to nurture the textile and fashion transition to a 4.0 system and a circular economy by developing new learning methods, tools, and practices to help students, young designers, and professionals to face real challenges.

The objective is to create collaborative and real work-based training where the different actors in the value chain work on how to take advantage of technology to generate new value proposals and new business models within a circular economy.

Transitions propose a multidisciplinary pedagogical approach based on transition design theories and emerging disciplines and practices at the intersection of textile, biology, and digital fabrication.

General objectives:

- To foster new, innovative and multidisciplinary approaches to teaching and learning, fostering innovation in education design and delivery, teaching methods, assessment techniques, learning environments and developing new skills;
- facilitating the flow and co-creation of knowledge between higher education and vocational education and training, research, the public sector and the business sector.

Specifically, TRANSITIONS will:

- Create a modular training program based on Industry 4.0 for a T&F new circular system.
- Set up innovation-focused training modules based on real practice and challenges (Transition Labs) to skill, reskill and upskill students and professionals.
- Develop new ways to generate innovation in textile and design processes, production and commercialization.

# Deliverable objective

## a. Objective

The main objective of **Deliverable 2.6 Collaboration map** is to provide to the stakeholders of Textile and Fashion sectors an analysis of the opportunities of collaboration that are driven from the circular and digital transition change in the industry. Those results come from the survey launched by TRANSITIONS project with the participation of 158 institutions across 15 countries.

# Collaborations map

The aim of *D2.6 Collaborations map* is to identify which are the main opportunities of collaboration between VETs (Vocational Education and Training), HEIs (Higher Education Institution), researchers and professionals in the textile and fashion sectors.

## a. Methodology

In order to analyze which can be the possible opportunities of collaboration between VETs, HEIs, researchers and professionals, the TRANSITIONS project launched a survey in December 2022, which was closed in March 2023. The objective of the survey was both to investigate the needs, challenges and difficulties of Professionals, VETs and HEIs to push towards a circular economy transition (Deliverable 2.2) and to identify present and future collaborations between these actors (Deliverable 2.6).

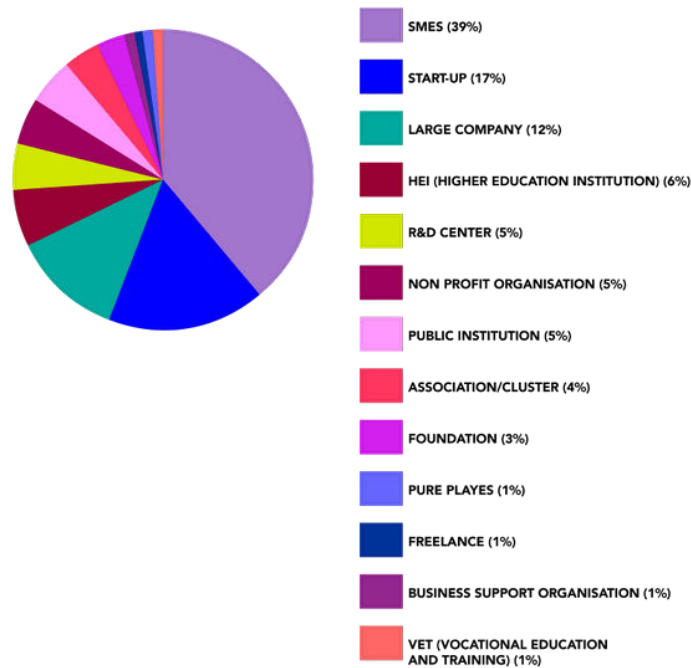
A specific tool serving the scope was designed by NTT, with the support of the other specialist partners active in the VET and HEI for textile and fashion. The result of the discussion is a survey analyzing the following main areas:

- Needs of the sector for the future transition
- Challenges of the sector for the future
- Legislation related to the transition
- Organization of training offer for the transition
- Capabilities and tools for the transition
- Collaboration focus

In particular, the main target audience for this investigation was: o SMEs from the fashion sector and other cross-sectoral areas; o Fashion start-ups; o Fashion textile design students; o Young designers; o Universities and researchers in fashion and textile design; o High Education Institutions (HEI); o VET providers in fashion and textile design; o Knowledge Institutions; o Cluster organizations from the fashion and textile industries and the sectors interconnected in the TRANSITIONS project (circular economy, environmental and digital); o Technological centers; o Fashion networks and professional associations; o All the specialists in design and training development in fashion and textile.



Below the type of institutions who completed the survey are reported:



The 158 responses gained through the survey and presented in both reports represent the perspective predominantly of VET, HEI and Professionals of T&F sector of six European countries: Italy, Spain, Sweden, the Netherlands, France, Germany. Albeit to a lesser extent, responses have also been gathered from other European and non-European countries (Australia, Austria, China, Finland, Iceland, Mexico, United Kingdom, and United States).

To produce the “collaboration map report”, the results of two specific section of the survey were took into consideration: opportunities of collaboration between vet/hei/research/professional and possible future opportunities of collaboration between vet/hei/research/professional

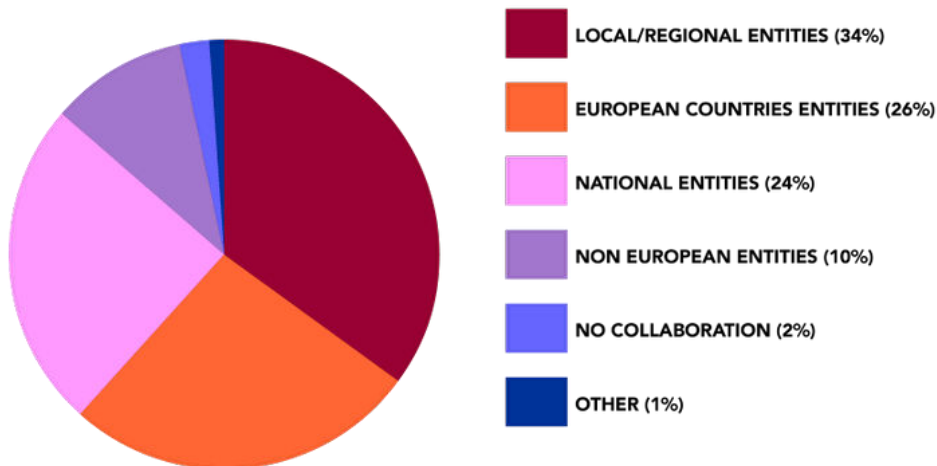
## Visual analysis for collaborations

The results of the survey that are going to be shown in this publication are focused on the parts of the survey related to collaboration opportunities. The survey covers different areas to define the collaboration already settled and those which can emerge among the actors previously mentioned. What was aimed at researching with the survey responses were the types of collaboration, the motivations that drive these entities to seek new partnerships and opportunities, any barriers that may hinder the creation of new collaborations. In addition, TRANTISIONS project aimed to investigate which are the collaboration activities that professionals, VET, HEI, consider as most interesting for developing new partnership opportunities.

Finally, the report will include two maps: the first shows the chosen top trend areas for future collaboration in circular transition chosen by all stockholders that took part in the survey. The second one will show the area but on a country level. In this map are shown the main areas of collaboration of the four countries part of the project: Spain, Italy, The Netherlands, Sweden.

## a. Types of collaborations

The first question to be analyzed addressed in the survey, concerns the type of collaboration respondents currently have or had in the past with other VET/ HEI/ Researcher/ Professional.



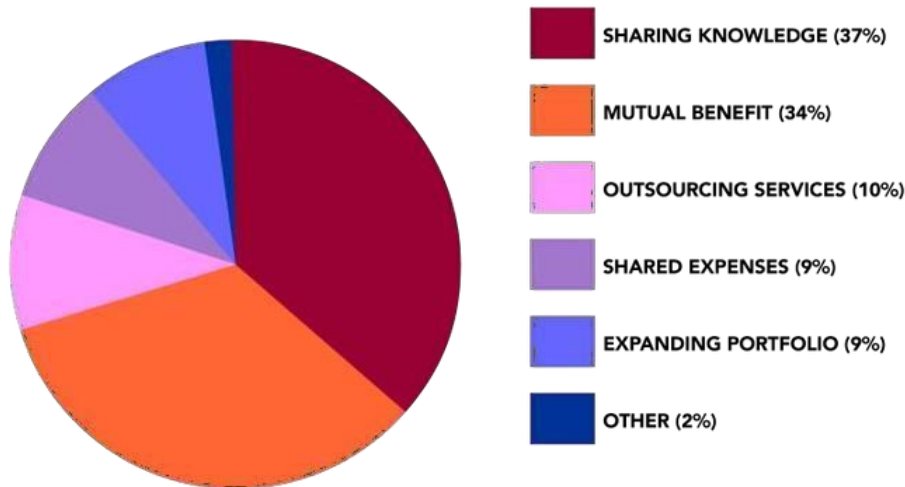
The results show us that collaborations with geographically close entities represent the most frequent type of collaboration (34%). This makes us realize how territoriality can be a key element in choosing partners to collaborate with.

However, it is important to point out that collaborations with entities from the same nation (24%) or European Union countries (26%) are also common. This is a very important finding, because it shows us that cross-border collaborations occur almost as frequently as within-country collaborations in the textile and fashion sector. Instead, collaborations with non-EU member states are chosen less frequently (10%).

A strong point to be considered for the future collaborations in the area of training for T&F is the strength embedded in potentiating cross-border collaboration, between different regions and different countries. This would surely add value and new knowledge into one ecosystem, normally working within the local boundaries. The increase in cross-border cooperation would allow for more learners mobility. Finally, among the respondents to the survey, only 2% answered that they currently have no current collaboration among those previously mentioned. This is certainly a significant figure, as it shows us that textile and fashion organizations have an open and sharing approach towards the idea of collaborating and developing together new ideas.

## b. Motivation for collaborations

The second question addressed in terms of collaborations in the survey concerns the motivation for respondents to have and seek collaborations with other VET/HEI/Researchers/Professionals.



Among the main reasons that lead stakeholders from textile and fashion sector to set national and cross-border collaboration, there is the desire to share knowledge and expertise (37%). This trend is also confirmed by the numerous responses to the 'mutual benefits' choice (34%), as knowledge sharing is certainly among the reciprocal benefits. In addition, among the "mutual benefits" that can result in setting collaboration there is also the possibility to expand markets, access to resources, and interdisciplinary learning.

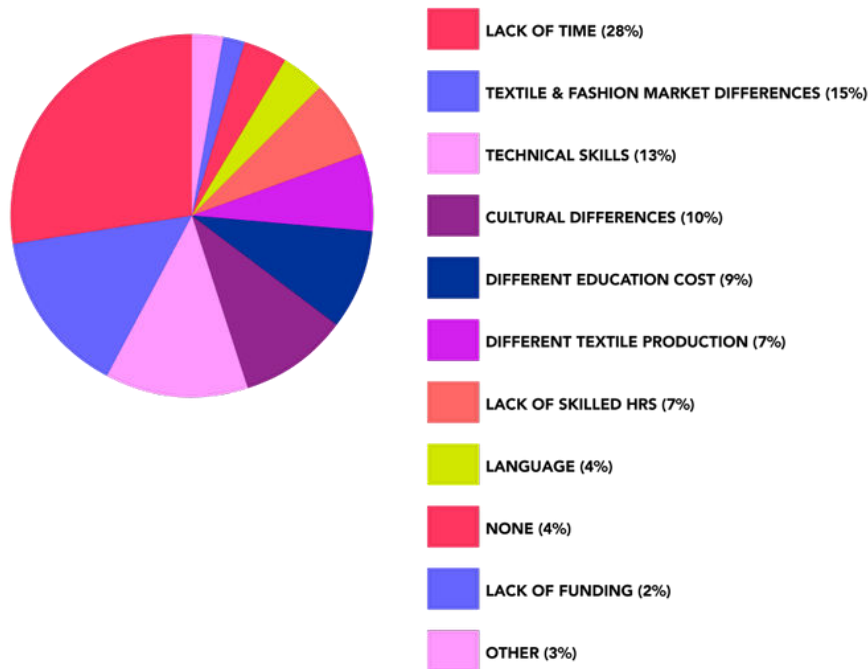
It is very relevant considering the gap between the first two results and the following ones. This displays a convinced preference of T&F operators that the collaboration is essential to grow own skills and knowledge, generating many opportunities for the business and the personal profile upgrade. The most value is given to knowledge and science-based content, and this has to be assumed as a positive asset for the sector. T&F has always been a sector based on research of different nature: technological, design, style, socio-economic and more. The trend for the future is in the direction of a reinforcement of this trend, able to maintain the gap in terms of quality and style supremacy of Europe over other continents in terms of textile and fashion products offered to the final markets.

However, the creation of collaborations is also dictated by a need to share not only knowledge, but also share expenses among the different parties involved in the collaboration. If we consider, for example, the opportunities offered by European projects, numerous entities have the opportunity to receive funding and at the same time sharing and developing ideas, knowledge, best practices, etc., providing benefit to their own activities and business, the other partners and the entire community.

Finally, outsourcing services and expanding Portfolio answers are given a similar importance weight in terms of motivations driving collaboration changes within the companies; those refer to the externalization of services and production needs with other stakeholders and the need to diversify the products and services that are delivered to the final customers.

### c. Main barriers to set collaborations

It was also included in the collaborations analysis the assessment for the main barriers impacting collaboration outcomes across the respondent institutions. Among the most important stoppers, Lack of time and Market differences have been the answers with higher impact on barriers assessment.

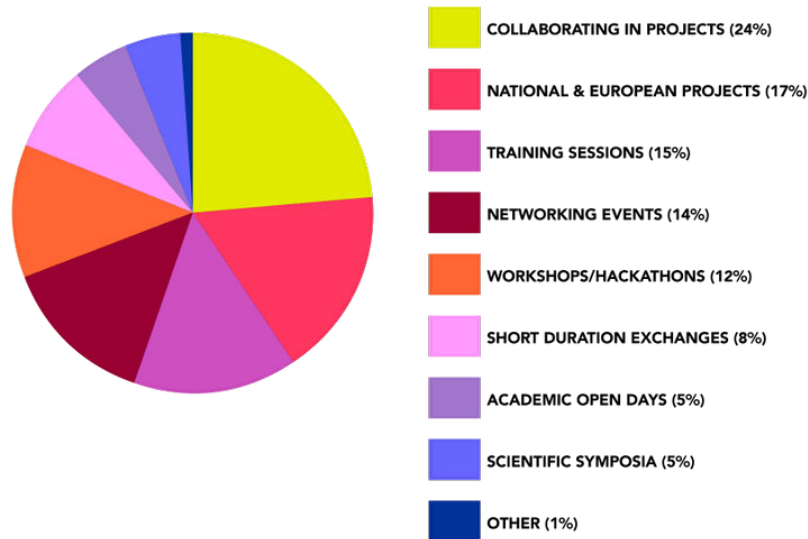


To what refers to lack of time, this would be correlated with the following section which refers to specific networking activities which would require higher time devoted to investment actions, such as missions or workshops and other networking events. Also resulting in industry insights knowledge acquisition within the company. Moreover, many years of experience in this sector confirm the main barrier for collaborations: T&F companies (SMEs in particular) are focused on daily production, and dedicate minimum amount of time to grow operators’ skills and create new opportunities. It is commonly believed that getting out of the daily routine is a “waste of time”. Education should work hard on this point in the future, to allow for a change of approach and reinforce the belief that “thinking out of the box” is of extreme value for the sustainability and the competitiveness of the sector and their operators. Transitions+ project will try to include this pedagogical aspect in the design of the new curricula for the training of next profile facing the sector transition.

Furthermore, industry differences in approaches by textile and fashion market actors, seem to play a crucial role in bringing closer opportunities for collaboration among institutions. Finally, hard skills in the industry required for the circular and digital textile and fashion transition are identified to be key in facilitating collaboration opportunities. This need contributes to validate the aim of the Transitions Project. But being different does not necessarily means collaboration not possible, it is actually the other way round! What can be noted instead is that the lack of some technical specific skills can often obstacle the dialogue with a potential partner, because of the fear of not being able enough. Technical skills are to be still considered a strong asset for the operators of this sector in Europe, hence they should be put on top topics of the new training profiles.

### d. Activities of collaboration

In this section, activities that enhance collaboration across industry partners are rated in importance based on the interest that generate across partners. The most voted answer relied on project-based interactions, while following answers share a similar importance rate, those being: national and European projects participation, training sessions participation and networking events attendance.



The first category answers contribute with an understanding that project participation is of great value for T&F actors, not necessarily an equal partner participation, as national and EU projects mostly do, but also interacting in project implementation with a small role. Collaborations for joint development of technology-based solutions or business growth are still the preferred thematic areas. Projects represent one of the key possibilities to face the upcoming transitions of the sector, and they should preferably be collaborative. One player has since old times few chances to reach the result easily, joining forces is key to improve skills and stay at the forefront of the technology horizon.

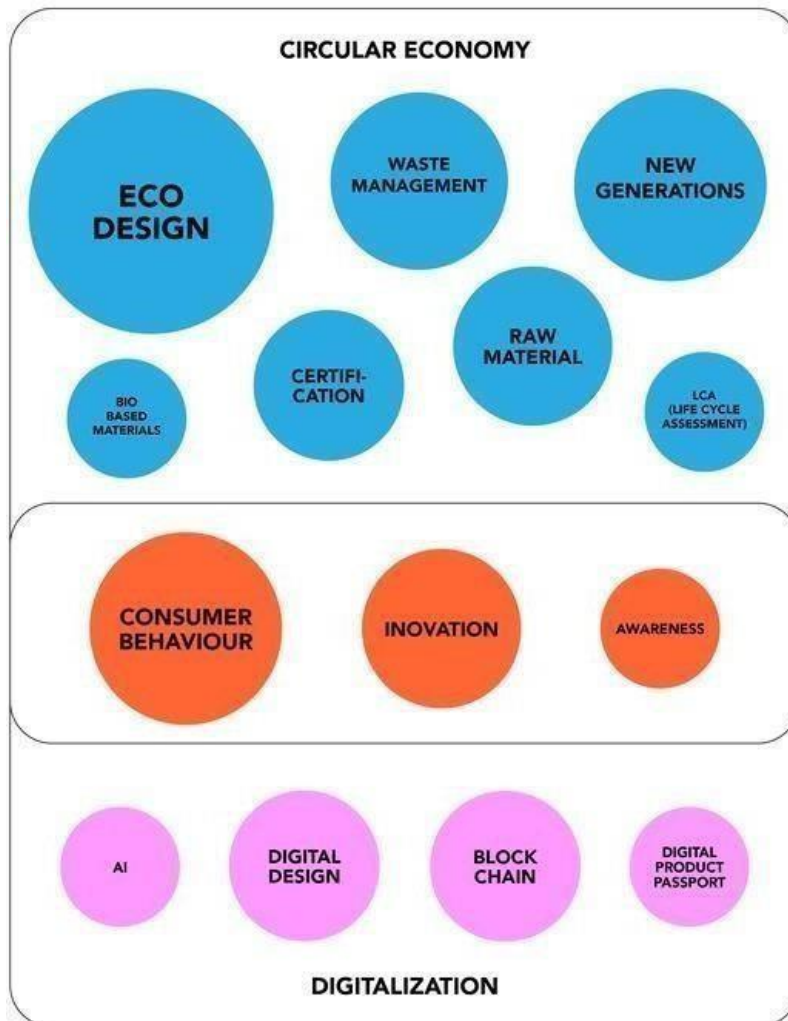
It is also to be said that the investments needed by T&F actors (enterprises in particular) to meet the transition requirements relate with technologies like AI or recycling, biochemistry or data analysis through algorithms. These kind of investments are often possible only if a team work is organized, where different actors, with different skills, sizes and background join to reach a common result. Collaborative projects can really make the difference to face the next sector transition.

Secondly, when training sessions are analyzed more in depth, typology and duration can take place in various forms of activity types. Analyzing the results from Mapping Market and Professional needs (D.2.2) Deliverable, the importance of practical and theoretical combination is of one of the most important industry demands; taking forms of work simulations and laboratories, among others. Fast training options are also some of the most required characteristics; being 1 to 3 months sessions the most preferred duration, together with short term sessions and intensive training days. Finally, coaching, apprenticeship and mentorship programs are some of the most preferred industry- related training approaches of interest from the respondent's side.

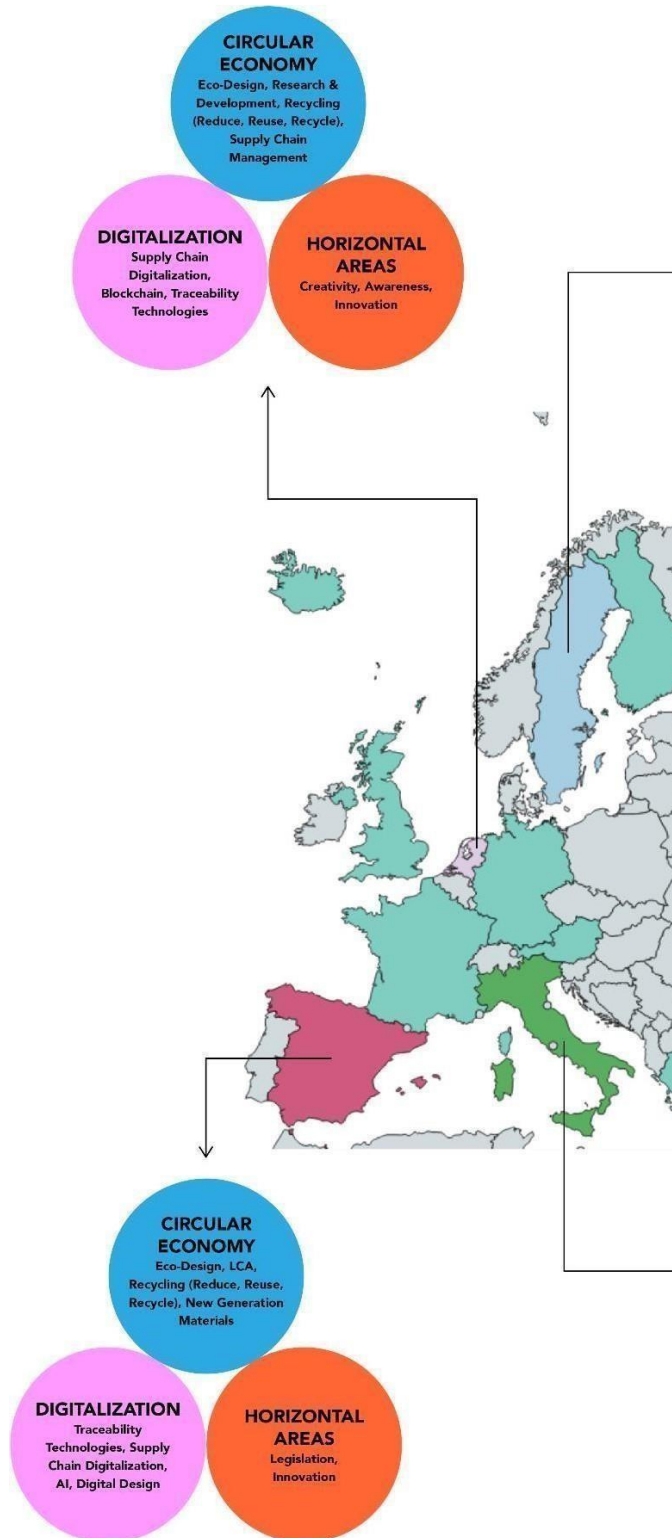
Finally, networking events, which are also highly rated in importance, confront with the most important identified barrier, which is the lack of time, placing the need for investing in this field as one of the considerations to emerge from this analysis.

**e. Areas of collaboration’s interest**

In the following section, areas of interest for future collaboration within the circular and digital transition are identified and rated according to its given importance according to the survey results.



In the following country mapping, the previous areas of interest are prioritized according to the regional importance given by the respondents coming from the project partner countries, coloring in light green the other major countries respondents from the survey which are not partner members from the project Transition partners.



Finally, a recount on the number of respondents assessing the different thematic areas of collaboration's interests is shared and clustered by country placement. Each section corresponds to the number of institutions in each country assessing the given area as one of their top priority's interests of collaboration. Other areas of interest have been added base on the open questions assessment



Circular economy				
	Spain	Italy	The Netherlands	Sweden
Waste management		3		1
Certification	1	1		
LCA	2		2	
Bio-based materials		1	2	
New Generation Materials	3	1	2	1
Sustainable raw materials		2	2	1
Recycling (Reduce, Reuse, Recycle)	9	7	5	3
R&D	4	8	3	
Eco-design	6	3	4	1
Supply chain management	2	2	5	
Others	New product development; Garment durability standards; efficiency	Sustainability, definition of cycle costs, environmental aspects and management, sustainability, circular economy, fashion and textile production,	Diversity, Sustainability in practice; Regenerative design (encompasses all); 21st century crafts, Harmonization; local knowledge, Scaling research projects with industry partners	Benchmarking, fiber management, energy solutions



<b>Digitalization</b>				
	<b>Spain</b>	<b>Italy</b>	<b>The Netherlands</b>	<b>Sweden</b>
AI	4			
Digital design	1		1	
Block chain		1	2	
Traceability technologies	1		2	
Supply chain digitalization	5		2	
Digital product passport				1
Others	Open research, a DB of processes, Stock management, digitalization general	technological upgrade, digitalization,	21st century crafts, agile production, digital production, Fashion tech, Digitalization	
<b>Horizontal areas</b>				
	<b>Spain</b>	<b>Italy</b>	<b>The Netherlands</b>	<b>Sweden</b>
Consumer behavior		1		
Legislation	1		1	
Innovation	2	1	5	1
Creativity		1	4	
Awareness		1	5	
others		Technical expertise; Recovery of local traditions		Transparency

Feedback summary TRANSITIONS partners on D.2.6			
Feedback areas	Strengths	Weaknesses / Improvement needs	Action taken
Graphics		Formatting and Graphics in project format (ELISAVA)	ELISAVA took care of the formatting and graphics of the deliverable
Content		Analysis of the survey results (NTT, BORAS, CITTA' STUDI, NOoF, MODACC)  Grammar (ELISAVA)	NTT, BORAS, CITTA' STUDI, NOoF, MODACC analyzed the survey results at a country level.  ELISAVA conducted the grammar revision.