



FASCINATE

D3.4 REPORT OF CONCLUSIONS OF THE NEW VALUE CHAINS SEMINAR | **Fascinate**

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EXECUTIVE SUMMARY

This document provides the conclusions of the seminar organized with the aim to discuss about possible value chain to be developed by combining services, products, technologies and other resources from SMEs and other cluster members.

Cross sectoral cooperation between fashion/textile/footwear and technological companies from the digital economy is a core element of the FASCINATE approach, as it opens a wide-range of collaborations to explore the development of a new products and services.

The sum of the companies' expertise in the fashion industry and technology and the interaction between the textile and digital worlds should lead to the emergence of a series of efforts in which the digital environment helps the textile industry address its problems and needs, such as cost optimization, reducing operating expenses, and sustainability.

In this sense, the alliance with technology clusters will help them progress towards Industry 4.0, going far beyond implementing e-commerce since they will be able to incorporate elements such as tracking or stock optimization in this international sales process through technology such as blockchain or artificial intelligence.

The technology clusters, meanwhile, have been working for a long time to identify business opportunities in leading industries such as the textile and fashion industry and potentially boost demand for technology. The Fascinate project is thus strategic for both industries.

This report describes the online workshop performed in Barcelona focused on identifying these needs, seeing what technology can provide them and how, and creating new value chains based on circularity and sustainability.

1 About Fascinate

The SUSTAINABLE FASHION ALLIANCE FOR INTERNATIONAL MARKETS (Fascinate) is an 18-month project financed by the COSME programme of the European Commission. It aims to support the internationalization of EU textile and fashion SME clusters that are working towards the development of circularity and sustainability in these industries. Besides the textile and fashion industry, this partnership will also seek a cross-sectoral collaboration with the technology (digitalization) and footwear sectors.

The project contributes directly to the overall objective of the COSME programme, by fostering the creation and development of a European Strategic Cluster Partnership – Going International (ESCP-4i) in the textile/fashion sector and related industries (footwear and technology) based on circular economy and sustainability principles, which is oriented towards increased internationalization and strengthened sustainability of European SMEs.

The **Specific Objectives** of the project are:

- To build a **European clusters and companies network collaboration (the ESCP-4i)**, related to the development of circularity and sustainability, in the fashion, textile and footwear industries.
- To promote **new European value chains incorporating cross-sectoral cooperation** between fashion/textile, footwear, and technology, by means of cooperation, exchange of knowledge and good practices among the members of the project consortium.
- To build a **joint internationalization strategy** for sustainable fashion brands and companies in Europe, geared towards markets outside of the EU interested in sustainable fashion products (to consolidate shared objectives and define a relevant action plan for the participating clusters and the companies they represented).

2 DELIVERABLE OBJECTIVES

2.1 Objectives

The overall objective of the new value chain seminar between digital and fashion, footwear and textile companies is the identification of five new value chains, addressing the problems and needs of the textile and fashion industry, using digital technologies as key enablers, and with special focus on sustainability and circular economy. The final objective is to promote the internationalization of the industry leveraging on the new value chains identified.

The workshop was designed to allow the participation of more than 40 European SMEs and the five European Clusters of the project. Due to the situation of pandemic it was decided to be held online, using Zoom for audio communication and MURAL as a tool for a collaborative workshop.

It was structured in 3 main parts, the first one focused on identifying the main challenges of the textile and fashion industry, the enabling technologies and the impact on sustainability and circularity. The second part was focused on generating ideas related to new value chains facing these challenges, and finally the prioritization and selection of the top 5 value chains.

2.2 Execution

On Tuesday, March 16, 2021 the workshop was held in a virtual format with the following agenda:

16:00 h	Welcome and workshop introduction (10')
16:10 h	Inspiring talks (40') - Roots for Sustainability by Raimon Puigjaner - Textile & Fashion chains by David García Uslé - Digitization as leverage for internationalization by Pep Lluís De la Rosa
16:50 h	Intro to MURAL (5')
16:55 h	Brainstorming of challenges (45') Working in 4 groups
17:40 h	New Value Chains identification (40')
18:20 h	Prioritization and selection of 4 ideas (20')
18:40 h	Ideas sharing and selection of top 5 (40')
19:20 h	Closing (10')
19:30 h	End of workshop

After some opening remarks, Raimon Puigjaner from [Roots for sustainability](#) talked about “The business success equation change”, David García Uslé, general manager of MODACC about “Textile & fashion value chains” and Pep Lluís de la Rosa from [Centre Easy Innova](#) about “Digitization as leverage for internationalization”. With all these inputs participants were ready for an interesting working session about market analysis, innovation and digital solutions in order to identify new value chains for their industry.

Workshop was structured in the following way:



The goal of the workshop was to get 5 new value chains in which the digital environment helps the textile industry address its problems and needs, in alignment with sustainability trends and fostering a circular economy.

This was the starting point for our first exercise with all the participants:



2.2.1 Brainstorming of challenges

Before it had the participants starting to generate ideas about new value chains, they wanted to set the stage with an exercise that would allow them to think more easily about where these new value chains could be needed. Therefore participants were asked to identify potential challenges within the following territories of interest:

- Fashion industry problems and gaps
- New technologies and digitization
- Sustainability and circular economy

Each of the participants first thought about possible challenges individually and then shared them with the group to inspire others to add additional challenges that come to mind when listening to other people. The duplicates were eliminated and combined the challenges that expressed something similar.

Below is the list of all the generated challenges per topic (in Annex 1 you can see a picture of all the post-it notes).

Result of the exercise “Brainstorming of challenges”

Fashion industry problems and gaps

- Overproduction
- Leftover fabrics
- Stocks
- A lot of seasoned collections
- Lack of knowledge on life cycle assessment
- Lack of transparency (origin, manufacturing process, ...)
- Lack of collaboration
- Lack of understanding on environmental impact
- Lack of variety of recycled materials
- Transparency and traceability
- Sizes
- Value chain gaps (new resources, new skills, technology, industry, ...)
- New value chains (intersectoral approach)
- Digital skills
- Regulation and trade
- Decentralized supply chain
- Post consumer textile waste management
- Waste of materials
- New bio-based resources
- Slow fashion price competition vs. fast fashion
- Design for performance
- The established procedures for years are getting in the way of adopting new business models

New technologies and digitization

- Digital transformation
- Virtualization
- Need for training on digital solutions
- 5G
- Augmented reality
- Artificial Intelligence
- 3D Printing
- Sublimation printing
- Blockchain
- Data Management
- Big data (data management)
- Increased use of data collection
- Transparency label with all the suppliers in the supply chain
- Lack of data on material fractions (collection & sorting)
- Label for sustainability
- Lack of Recycled fabrics
- Difficulty to incorporate the fabric touch in digital textile processes
- Sorting technologies lacking
- Investment needed for increased automation
- Can be difficult to implement or expensive
- Change management processes needed
- Resistance to change
- Skills to work on those new technologies

- Virtual body measurements
- Development of digital samples in B2B

Sustainability and circular economy

- Production abroad
- Local production
- Massive production
- Excessive or over production vs. real needs
- International transport
- Track back systems
- Chemicals
- Greenwashing
- Consumer behaviour
- Knowledge
- Transparency
- Fair play
- Infant labour
- Textiles bought as a service instead of as a product
- Lack of thorough circularity and sustainability agenda in education curriculum
- Understanding well the sustainable concept (not only environment)
- Lack of skills in design to sustainability and circularity
- EU waste regulation as a barrier to use them as resources
- MTM & MTO Business model

The participants came up with a lot of challenges in all three areas. The most challenges were identified in the area of new technologies and digitization. The participants commented on the resistance that a lot of people still have to embrace new technologies and that there exists a real need for training on a lot of new technologies, such as blockchain, big data management or artificial intelligence. A lot of seasoned collections

Some of the clear gaps most of the participants recognized were the overproduction with unsold stocks or a lot of seasoned collections. This leads to waste of materials as well as post consumer textile waste management.

As far as sustainability and circular economy are concerned, a lot of participants discussed the massive production, often abroad and done by infants, that offers opportunities for smaller, often local producers, to take advantage of the consumers becoming more and more conscious about the environmental problems and waste of energy related to productions in Asia or other foreign markets.

Most participants also wished for better transparency and traceability.

2.2.2 New value chains generation

After the first exercise of identifying possible challenges, the participants then thought about potential new value chains that can address these challenges. We encouraged them to think about applications of

- New products and services
- New processes and operations
- New business models

Both teams came up with a lot of interesting ideas, which we will list next (please refer also to Annex 2 to see the corresponding post-it notes):

Group A

These are the ideas group A came up with:

- Leasing models becoming part of the norm (memberships might need to be cheaper & lease more clothing per month)
- Repair needs to have a comeback in the broader sense (a movement of mending does already exist), repair was big in 1940's and much before
- Products easy to disassemble e.g. dissolving thread, zippers, buttons
- Designing through customization with guidance with expert design (consumers don't always know what they need)
- Creating demand for recycled fibres - not overreacting though & recycling textile products with value
- Living/testing labs & pop-shops for consumers in order to educate them and creating awareness
- Mainstream brands should embrace take back systems
- Mono materiality should be more in focus in order to make the end of use phase easier
- Change business model (go away from seasoning model), made to measure and made to order process
- Sustainable digital label (where is it produced, who is the producer, who is the designer, type of material, etc.)
- Fair price (cost vs. sales price, price meets quality)
- Create university or technical school courses addressing new technologies used in the fashion industry
- Train workers to the new technologies
- Give young people (designers, creatos...) credit
- Clothing libraries
- Vertical integration
- Development of digital samples in B2B relations
- Textiles buyed as a service instead of as a product
- Development of supporting tools for designers incorporating circularity aspects (design for circularity)
- Tools support in blockchain to transparency (digital product passport)
- Development of a common agenda / roadmap on sustainability and digitalization for EU textile and clothing sector (by the Clusters)

Group A came up with a lot of new ideas along the value chain. This goes from creating clothing libraries or installing take-back systems to offering customization, especially in design, using new materials such as recycled fibres or producing in mono materiality mode up to leasing models or the comeback of repair services. But also living or testing labs

should enhance the customer experience as well as the possibility to disassemble almost all parts of any clothing item. As far as new business are concerned, the group came up with models such as made-to-measure or made-to-order, comparable with the just-in-time concept from the computer manufacturers. Last but not least, this group also had ideas around sustainability with a digital label or a digital product passport, which would increase the transparency of the textile industry.

Group B

These were the ideas group B came up with:

- Print on demand clothes from recycled fabrics (sublimation printing)
- 1:1 Label: Establish a certified label for companies comparing what's produced and what's sold. 2:1 means a company is overproducing, therefore not sustainable. Penalty for wrongdoers and a brand equity for welldoers
- Have a "pollution footprint" in each garment or a sort of compulsory social passport for each garment produced
- Implement something similar like calories in food industry
- Online platform for renting luxury garments
- Government fundings and favourable policies for fashion onshoring
- On demand production
- Building partnerships instead of a vertical relationships
- Customized (Microfactory)
- Sharing platforms
- Recycling solutions
- Large scale education projects in school and government advertisement
- Digital skills and literacy (adoption of digital technologies)
- Building skills on design for performance (design for sustainability, design for circularity, ...)
- Platform to support digital transformation to go international in a virtual way
- Digitization of all the production process to control and optimize the production
- Unified standard/ ranking on sustainable products/ inputs
- International ranking for sustainable companies
- Traceability and transparency (Textile ID)
- Open marketplace for stock fabrics, remaining rolls of textiles, garments, or even semi produced goods. Give a use to material that would not be ever sold as it is (check Queen of Raw)
- Reducing, reusing, recycling solutions (3R Concept)
- Upcycling old clothes with embroidery, prints, etc.
- Post consumer textile waste (collection, sorting, destination-reuse, recycling,)
- New business models (e-business)
- Collaborative work along the value chain
- Cross-sectoral value chains building (link with agro, forestry, ICT,)
- Communications with all the chain agents to build a real circular economy, and cross sectoral
- Virtualisation of textiles

Group B identified many ideas around sustainability: circularity of recycled fabrics, penalties for over production (1:1 vs 2:1 label), and the “social passport”, like a “pollution footprint” for each garment produced. Also, traceability and transparency (Textile ID) and international rankings for sustainable companies.

In the area of competitiveness, it was suggested to build partnerships instead of vertical relationships, cross-sectoral value chains alliances (link with agro, forestry, ICT, ...), and asking governments for favourable policies for fashion onshoring. It was also highlighted the value of on demand production and customization, requiring both of them specific technologies and investment.

In terms of education and promotion the industry needs large scale education projects in the school together with strong government advertisement, to make sure that all the investments done have impact on the final consumer.

On the other hand, companies require digital skills to facilitate adoption of digital technologies, and skills on design for performance (design for sustainability, design for circularity, ...).

2.2.3 Prioritization

After both teams had come up with their 20+ ideas around new value chains, we asked them to chose the 5 most relevant ideas in order to prioritize them in a matrix, where we measured up the importance of value creation and its viability or easiness of implementation (please consult Annex 2 for more details of this exercise).

And these were the results of prioritization for both of the teams:

Group A

- Tools support in blockchain to transparency (digital product passport)
- Change business model (go away from seasoning model), made to measure and made to order process
- Development of supporting tools for designers incorporating circularity aspects (design for circularity)
- Create university or technical school courses addressing new technologies used in the fashion industry
- Living/testing labs & pop-shops for consumers in order to educate them and creating awareness

Group B

- Have a “pollution footprint” in each garment or a sort of compulsory social passport for each garment produced
- On demand production
- Reducing, reusing, recycling solutions (3R Concept)
- Platform to support digital transformation to go international in a virtual way

- Cross-sectoral value chains building (link with agro, forestry, ICT,)

The next step was now to put all these 10 ideas into the same matrix and have both teams discuss and vote the 5 most relevant ones.

2.2.4 Ideas selection

The best ideas are normally the ones in the quadrant, that shows the highest value creation and the most ease of implementation. Nevertheless, we had intense discussions about which ideas to prioritize in which ways, with people advocating for ideas such as a digital product passport, whereas others favoured ideas such as the 3D concept. We also discussed very extensively the ideas that implied going away from a seasoning model and therefore a change in the business model towards a made-to-measure and made-to-order process.

As usual, there were pros and cons for several ideas and we decided to give every participant three votes to come to a conclusion which have to be the ideas that will help the textile industry help address its problems and needs (please also see annex 4 for the selected ideas).

The results of the voting session were as follows:

4 votes

- Tools support in blockchain to transparency (digital product passport)
- Create university or technical school courses addressing new technologies used in the fashion industry
- Have a "pollution footprint" in each garment or a sort of compulsory social passport for each garment produced
- Platform to support digital transformation to go international in a virtual way

3 votes

- Change business model (go away from seasoning model), made to measure and made to order process
- Reducing, reusing, recycling solutions (3R Concept)

2 votes

- Cross-sectoral value chains building (link with agro, forestry, ICT,)

1 vote

- Development of supporting tools for designers incorporating circularity aspects (design for circularity)
- Living/testing labs & pop-shops for consumers in order to educate them and creating awareness

At the end, we merged the ideas about the digital product passport with the social passport for each garment produced, which allowed us to claim winners all the ideas that received more votes.

Although one of the most voted options was *Create university or technical school courses addressing new technologies used in the fashion industry*, all partners agreed that although training is very necessary to focus on the new paradigm of the sector, around digitalisation and the circular economy, was far from the objectives of the FASCINATE project. Therefore, it was considered to include the next most voted option: *Cross-sectoral value chains building (link with agro, forestry, ICT,)*

3 Conclusions

Both teams together generated 50 ideas around the concept of new value chains. Not to our surprise, a lot of ideas were mentioned in both teams, which shows an alignment of their thinking process and priorities.

There is a growing trend to change the **business model from simply selling a product to selling an integral service**. Such a service could include clothing libraries or leasing models, where there is no need to buy clothing anymore or taking back systems for any bought item, which allows disassembling all parts and recycling them.

Another interesting point is the one of the **creation of a digital product passport** for every garment, that allows to track information such as where it is produced, who is the producer, who is the designer, type of material used or a "pollution footprint". This not only makes every item more traceable but adds more transparency and aspects about sustainability.

The principle of **reducing waste, reusing and recycling resources and products** is often called the "3Rs." During the workshop it became obvious that this trend is something both teams want to see implemented into their strategies. Reducing for them means choosing to use things with care to reduce the amount of waste generated. Reusing involves the repeated use of items or parts of items which still have usable aspects. Recycling means the use of waste itself as resources. Waste minimization can be achieved in an efficient way by focusing primarily on the first of the 3Rs, "reduce," followed by "reuse" and then "recycle."

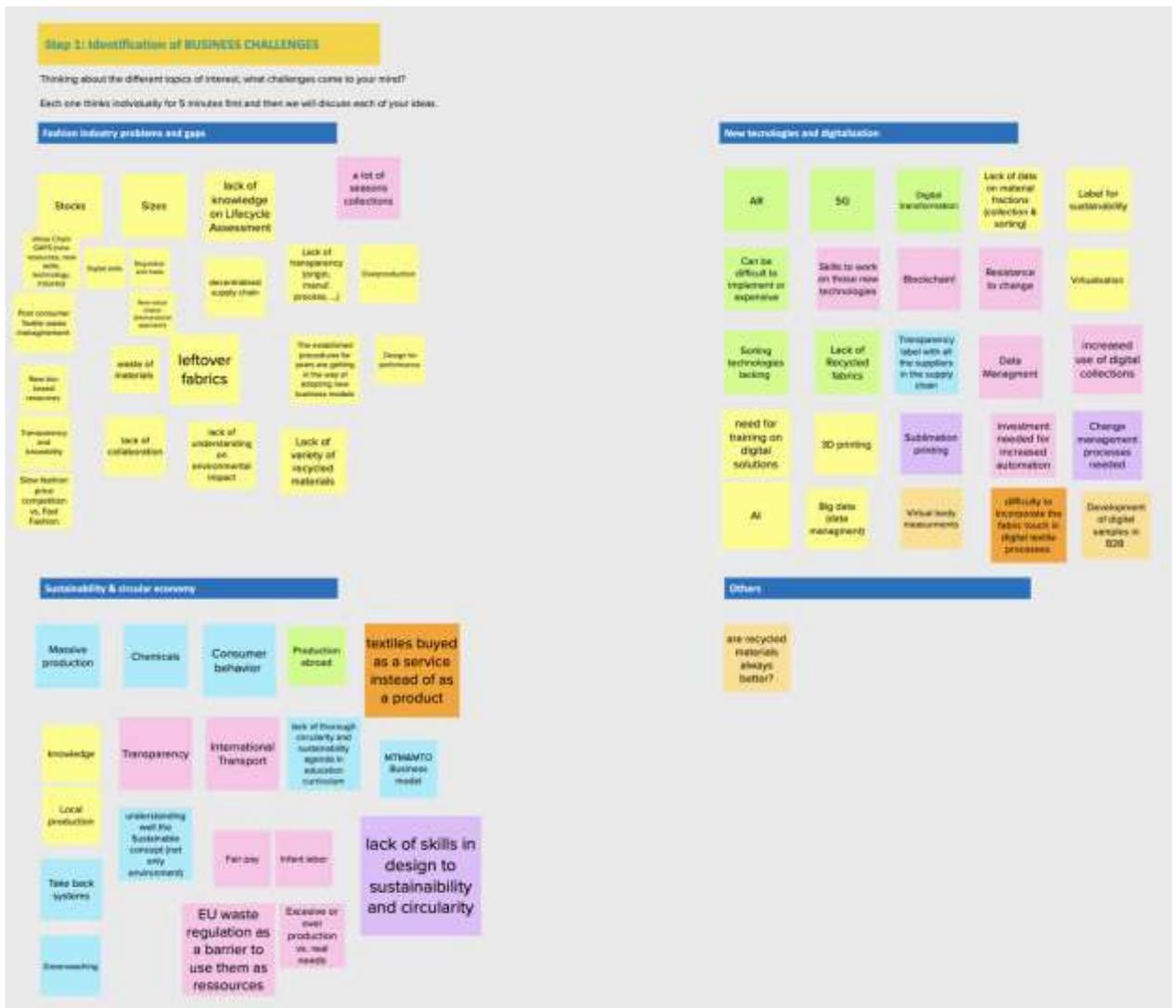
One of things that both groups repeated in various occasions is the clear need **for training in new technologies** and the **creation of a platform to support digital transformation** when internationalizing the business in a virtual way. They even mentioned the idea to create an University to teach stakeholders of the textile industry how to apply new technologies such as 5G, AI, AR, ... into their daily business.

Finally, **cross-sectoral value chains building (link with agro, forestry, ICT)** opens the possibility of diversifying products and businesses to other sectors, thanks, for example, to the recovery of textile waste for the agricultural or construction sector, or by developing new textile products to be used in other sectors. all this always working in cooperation with clusters and industries outside the textile sector.

4 Annexes

Annex 1

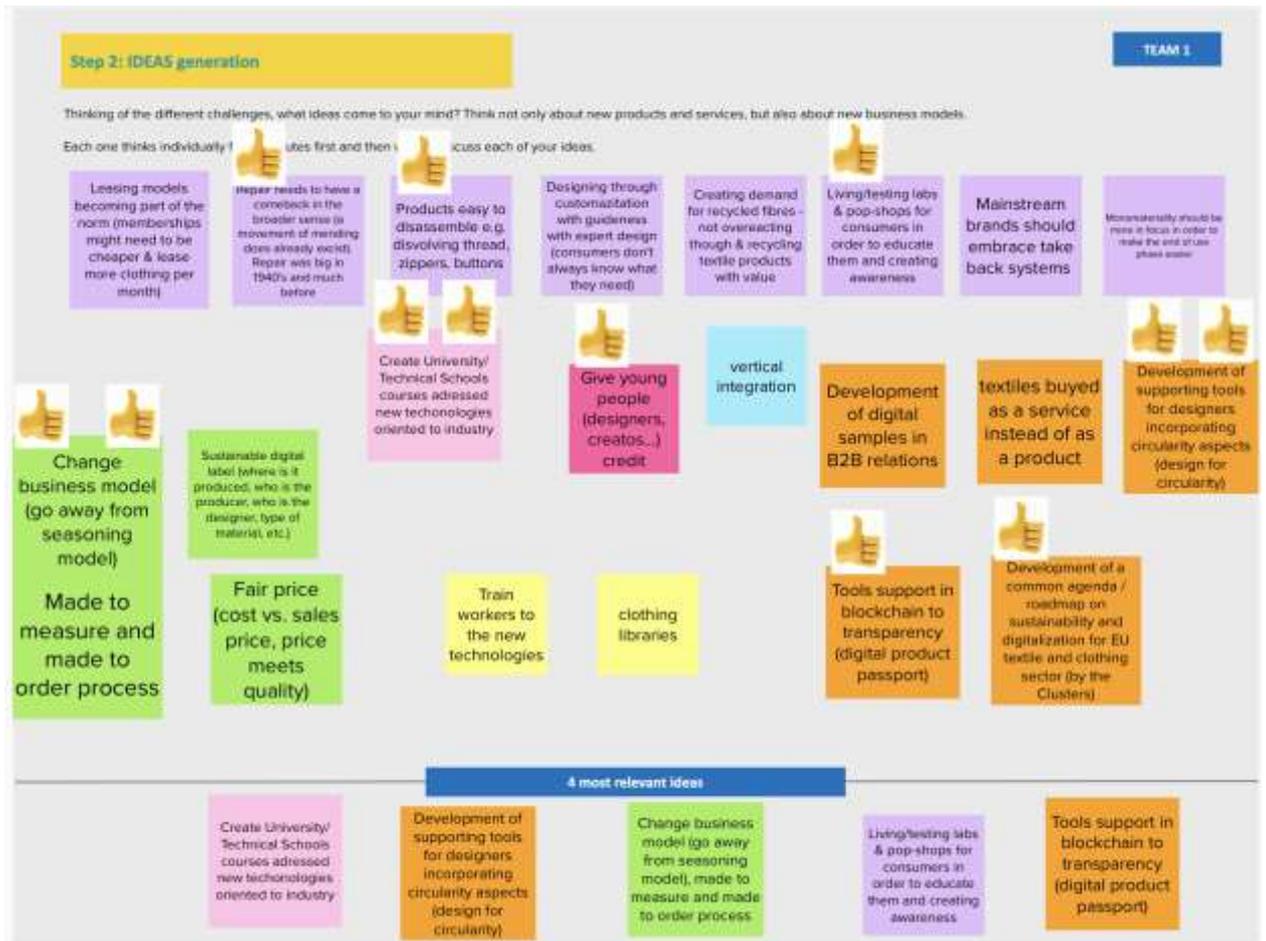
Brainstorming challenges



Annex 2

New value chains generation

Group A



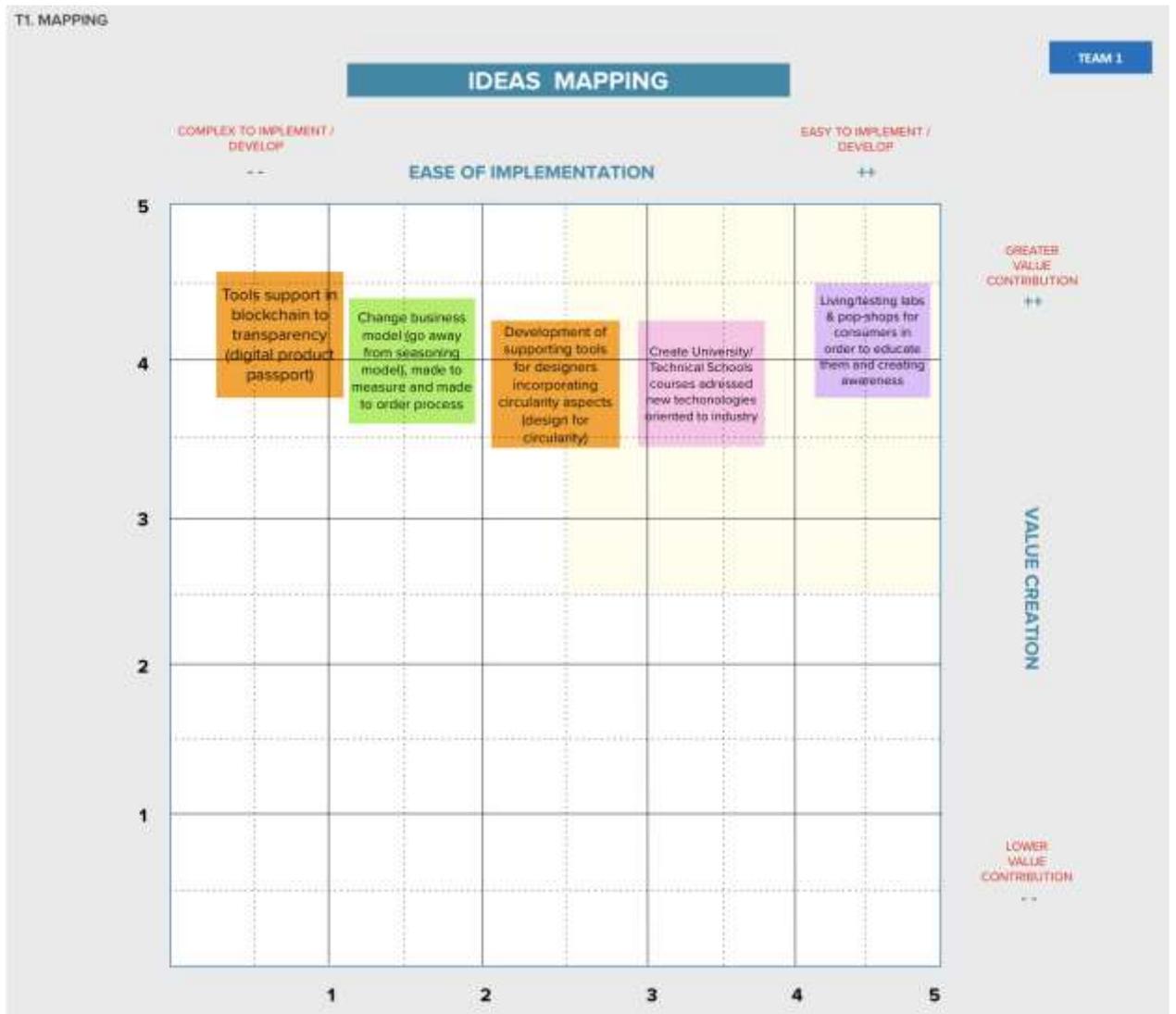
Group B



Annex 3

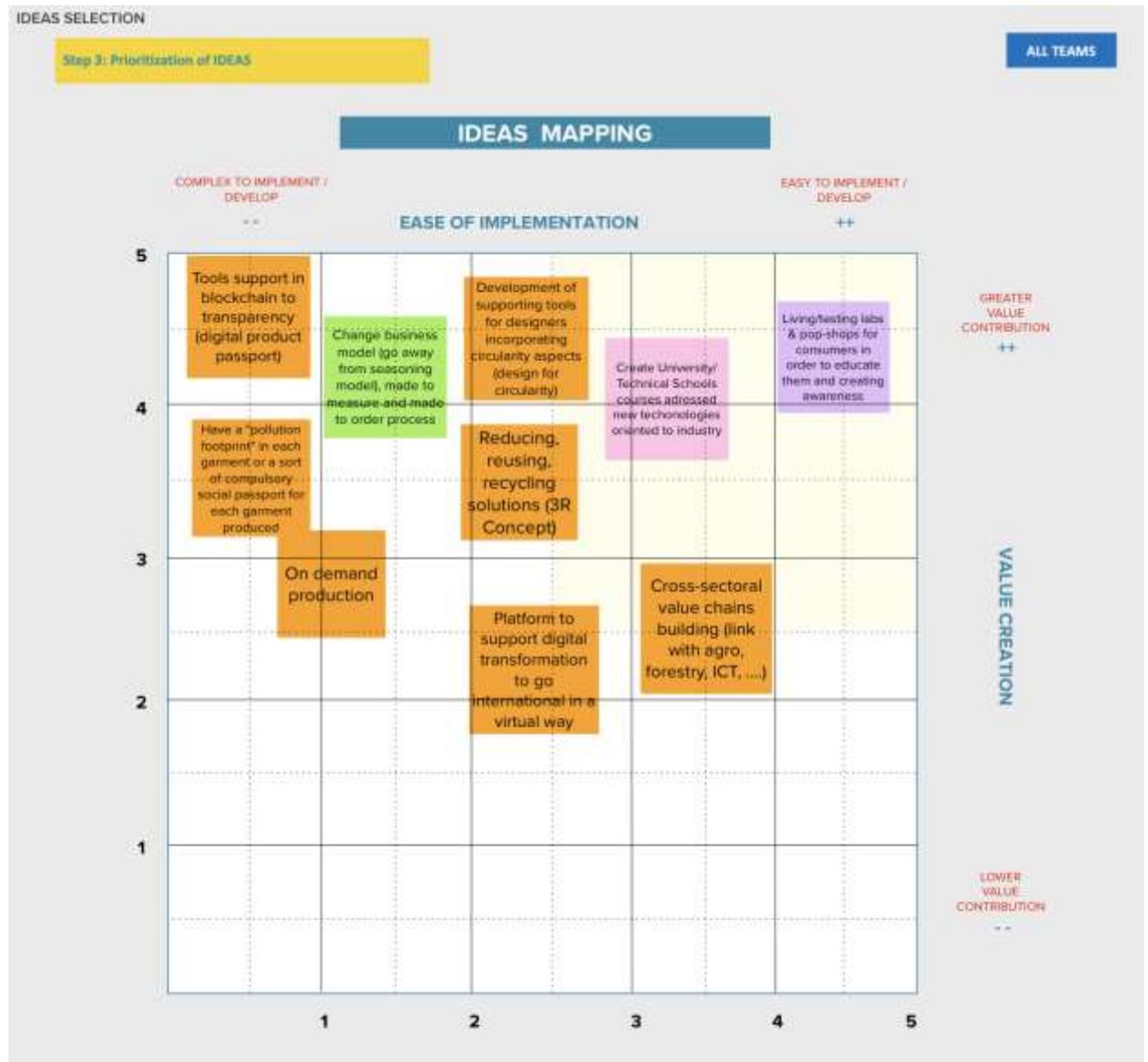
Prioritization

Group A



Annex 4

Ideas selection



SELECTED IDEAS	
VALUE CHAIN 1	<p>Tools support in blockchain to transparency (digital product passport)</p> <p>Have a "pollution footprint" in each garment or a sort of compulsory social passport for each garment produced</p>
VALUE CHAIN 2	<p>Create University/ Technical Schools courses adressed new technologies oriented to industry</p>
VALUE CHAIN 3	<p>Platform to support digital transformation to go international in a virtual way</p>
VALUE CHAIN 4	<p>Change business model (go away from seasoning model), made to measure and made to order process</p>
VALUE CHAIN 5	<p>Reducing, reusing, recycling solutions (3R Concept)</p>