



D.2.3.1 SUMMARY REPORT OF PROOF OF CONCEPT (POC) – B2C ACTIVITIES

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PreVEnting and
ReDucing the
tExtiles waste mountain
in the MED area



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1. Purpose and concept

The objective of the Proof of Concept *Business to Consumers* has been to actively involve citizens in processes of improvement and advancement of textile production, bringing fresh and innovative ideas to industries, while increasing awareness on the advantages of a sustainable chain. The PoC was composed of two activities: the living labs, implemented in Italy, Greece and Spain, and the communication campaign, produced in Bulgaria, Greece, Italy, North Macedonia, Portugal, Slovenia and Spain.



2. Living Labs

The basic methodology for the development of the Living Lab has foreseen the involvement of both consumers and companies through the following steps:

a. Target group definition

Identification of a specific and clearly defined target group (university students, members of citizen committees, and other relevant stakeholder groups).

b. Initial consumer survey

Distribution of a first questionnaire aimed at assessing consumers' perceptions of the textile industry, as well as their level of awareness of key issues related to the sector's environmental and social impacts.

c. Targeted training in sustainable textiles

Analysis of the survey results to identify prevailing perceptions and knowledge gaps. Based on these findings, tailored training sessions were developed to address the most critical gaps related to sustainable textile production and consumption.

d. Study visits and experiential learning

Organization of guided visits to relevant facilities:

- Textile production plants, to understand production processes, resource use, and associated environmental challenges.
- Waste treatment facilities, to explore how textile waste is managed and where it ultimately ends up.
- Reuse and recycling cooperatives to showcase alternative pathways to conventional textile waste disposal.
- Schools and design institutes, fostering closer links between academic research and industrial practice.

e. Follow-up survey and feedback collection

Implementation of a second survey to evaluate changes in participants' perceptions and awareness. Feedback, suggestions, and ideas are gathered to improve the visibility and recognition of sustainability within the textile value chain and to strengthen consumer awareness of available alternatives.

f. Final event

Organization of a concluding event to present survey results, exchange experiences and feedback, and share key findings and recommendations emerging from the Living Lab process.

In total, in the 3 countries, 12 meetings were organized and 500 people were involved.

2.1 Living lab in Greece

The majority of participants came from the fields of design, fashion, drawing, and production.

The first meeting had an introductory character and included a presentation and workshop on the social impact of our consumer choices in the textile sector. Participants then joined workshops focused on textile reuse.

The second meeting was structured around site visits to a clothing workshop and a textile recycling facility.

Table 1 Living Lab activities in Greece

Activity title	Living Lab – Where fashion meet sustainability
Thursday, 8 May 2025, 17:00 – 21:30	Workshops, documentary screening, and discussion: presentation and workshop on the social impact of our consumer choices in the textile sector. Participants then split into two parallel workshops focused on textile reuse. The day concluded with the screening of a short film about fast fashion, followed by a discussion. 38 participants
Friday, 9 May 2025, 09:00 – 16:00	Study visits and workshops: site visits to a clothing workshop and a textile recycling facility. Participants were divided into smaller groups for each visit, received guided tours, and had the opportunity to ask questions. The day concluded with two hands-on workshops focused on textile repair. 29 participants
Feedback	Engagement was high in both the hands-on activities and the educational components of the program. At the end of the event, all attendees received certificates of participation.



Figure 1 Workshop in Greece on textile repair



2.2 Living lab in Italy

1 online meeting, 4 in-person meetings and 2 study visits were implemented in Italy.

The living labs were mainly addressed to students of higher education institutions specialized in fashion and academy of design, who shared new and innovative projects. The training sessions were organized with technicians on environmental sustainability in the textile sector, and the study visits were conducted in industries and in the Fine Art Academy.

Creativity, eco-design, waste management, recycling and the circular economy fostered new connections and opened up interesting prospects in the field of green jobs.

Table 2 Living Lab activities in Italy

Date	Meeting	Participants
Wednesday, 21 May 2025	"The required skills for the sustainable transition of the textile sector"	In person meeting with 90 people
Wednesday, 22 October 2025	Environmental sustainability of textile sector, by Regional Agency of Environmental Protection	In person meeting with 90 high school students
Friday, 24 October 2025	Environmental sustainability of textile sector, by Regional Agency of Environmental Protection	In person meeting with 50 high school students
Friday, 14 November 2025	Study visit inside artisanal knitwear	Students visit industries on PMI day
Wednesday, 19 November 2025	Environmental sustainability of textile sector, by Regional Agency of Environmental Protection	University students
Friday, 21 November 2025	Study visit to the textile company Ti Style IT	high school students specializing in fashion studies
Wednesday, 17 December 2025	"Sustainable textiles among creativity, fashion and design"	In person meeting at ABA among students and professionals in the textile sector, visit the academy.



Figure 2 Study visit in Italy in artisanal knitwear

2.3 Living lab in Spain

The first event was attended by degree courses related to clothing production and fashion design, among other disciplines.

In a round table discussion with organizations linked to consumption, textile recycling, and education, the topic of the circular textile economy was addressed from different perspectives.

The second event was a charitable initiative focused on the reuse of women's clothing, also promoting sisterhood, solidarity, and sustainability.

During their meetings, participants exchange garments at symbolic prices, promoting responsible consumption, and reflecting on the environmental impact of the textile sector. Items that are not exchanged are donated to the NGO Madre Coraje, which collects and reuses textiles.

Table 3 Living Lab activities in Spain

Date	Meeting	Participants
Wednesday, 8 October 2025	Future Living Lab: Weaving the circular economy	In person, meeting with more than 100 fashion students for a talk and workshop.
Wednesday, 18 February 2026	Innovative textile collection systems and public awareness: the case of Armario Circular	The in person meeting brought together more than 100 people, mostly students from the University of Malaga, and focused on the Armario Circular initiative, a voluntary free clothing exchange activity held every Wednesday at the

Faculty of Psychology and
Speech Therapy.



Figure 3 Charitable initiative focused on the reuse of women's clothing in Spain

2.4 Analyses of the surveys

The questions were designed to understand how much consumers consider the environmental impact of the entire textile supply chain. The entire questionnaires are in Annex 1 and 2 of the deliverable.

2.4.1 Generic data

396 people from Italy, Greece and Spain, answered the questionnaire: 242 in Italy (61,1%), 79 in Spain (19,9%) and 75 in Greece (18,9%).



Figure 4 Number of answers per country

The overall sample is statistically significant; however, the predominance of responses from Italy clearly skews the analysis toward this country.

79,5% of respondents live in urban areas, while 18,4% in rural areas. The Spanish sample

consists entirely of people who come from urban areas. The Greece sample consists mostly of people who came from urban areas, with few people who came from rural areas. The Italian sample shows consistent percentages of people who came from rural areas, as shown in Figure 5.

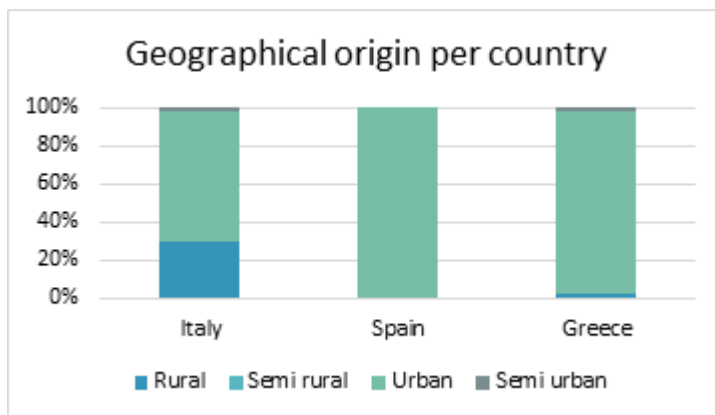


Figure 5 Geographical origin of respondents per country

Geographical origin could influence the habits of consumers.

In fact, different territorial areas can have social, cultural and economic impacts that spill over into consumer habits.

The age group distribution is also representative, covering all the categories considered, although it is heterogeneous, with most respondents from 46 to 60 years.

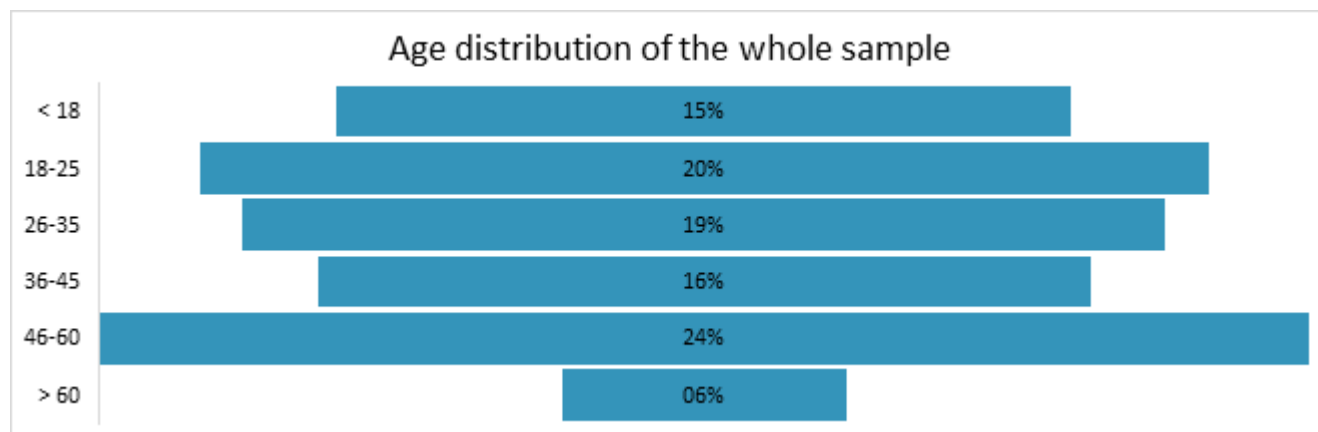


Figure 6 Age distribution of the whole sample (Italy, Greece and Spain)

There are differences between the 3 countries: in Italy young people under the age of 25 prevail; in Greece young people between 26 and 35; while in Spain the age rises and that between 46 and 60 prevails. A reason could be the different stakeholders involved, and targets identified as the best interlocutors for the specific activity in that territory.

2.4.2 Consumers' habits

The questions posed serve to understand how much consumers consider the impact that the entire textile products chain has on the environment.

We first asked how much sustainability weighs on their purchases. About 42,4% answered

that they pay little attention or nothing to sustainability buying textile products.

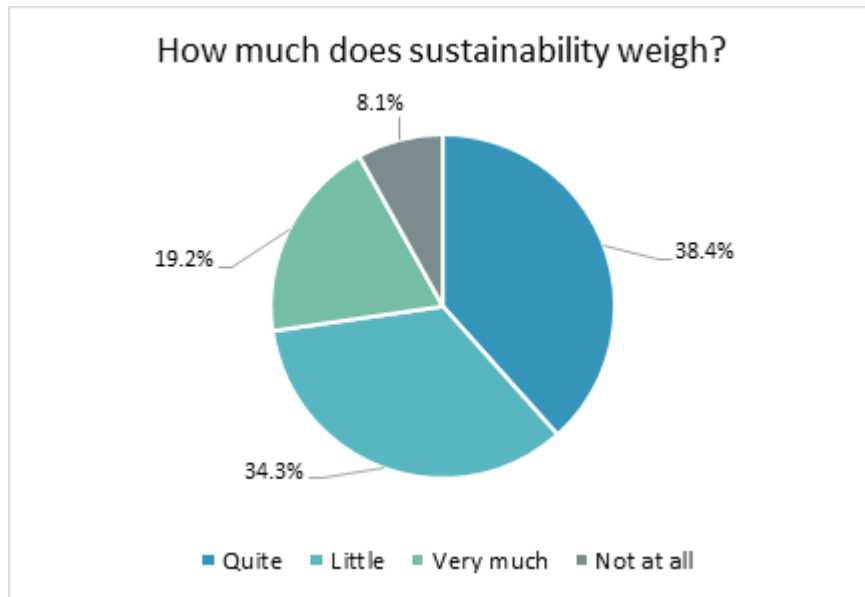


Figure 7 How much sustainability weighs in your clothing purchases?

In the 3 countries, a substantial number of respondents said that she/he is not interested in the sustainability of the sector.

Differences are noted between the responses in the 3 countries. As the graph below shows, in Italy and Greece nearly half of respondents say they are quite sustainability-conscious when purchasing textiles. In Spain, on the other hand, around 65% of respondents say they pay little attention to sustainability while purchasing textile products.

In Greece, there is the largest percentage (35%) of respondents who say that sustainability weighs heavily in their textile purchases, while in Spain there is the largest percentage (11.4%) of respondents who say the opposite: sustainability has no weight in their textile purchases.

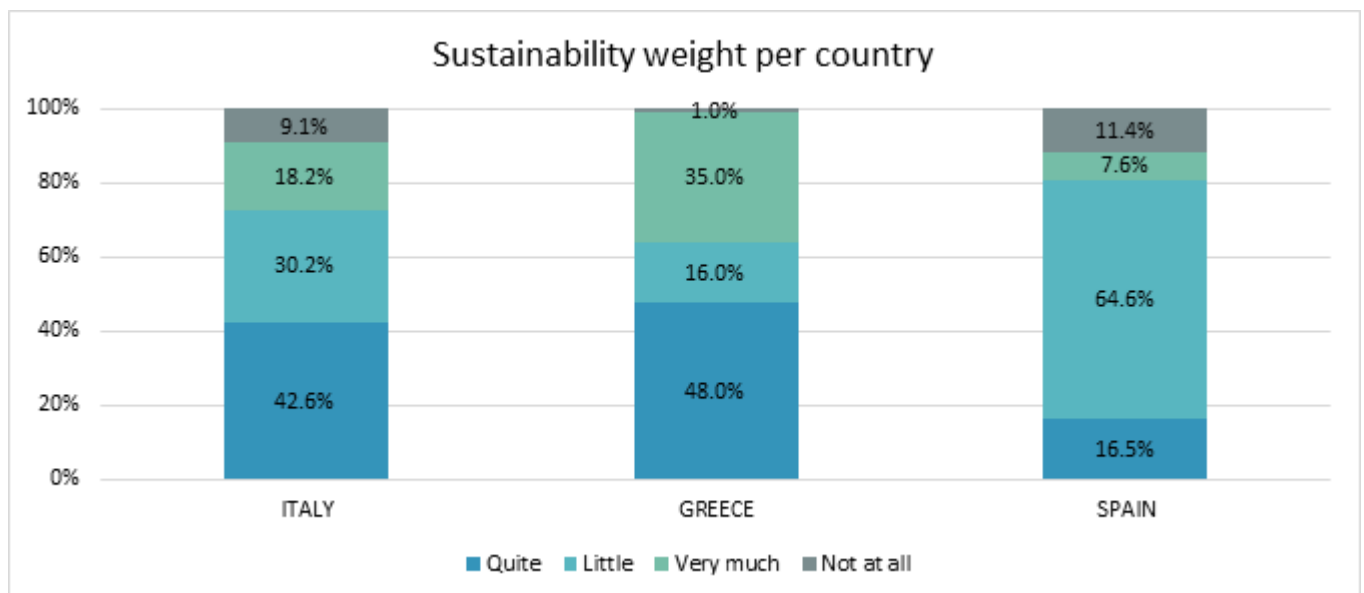


Figure 8 How much sustainability weighs in your clothing purchases per country

Consumers often do not prioritize sustainability in the textile industry, maybe because it is perceived as expensive, complex, and in conflict with other important factors such as fashion and price. Moreover, the fast fashion system encourages overconsumption, and the average consumer is often unaware of the environmental impact of their purchases.

The first question on habits concerns the reasons why new textiles and clothing products are purchased. The main reason was for replacing old clothes, followed by the need to have clothes for special occasions, to follow fashion trends, for changing sizes and to take advantage of promotions.



Figure 9 Which are your reasons to acquire new textile items?

There does not appear to be a clear correlation between age range and the reasons for buying new textile items. However, it is noted that among young people under the age of 25, the highest percentages of respondents say they buy new clothes for special occasions and to follow the latest trends.

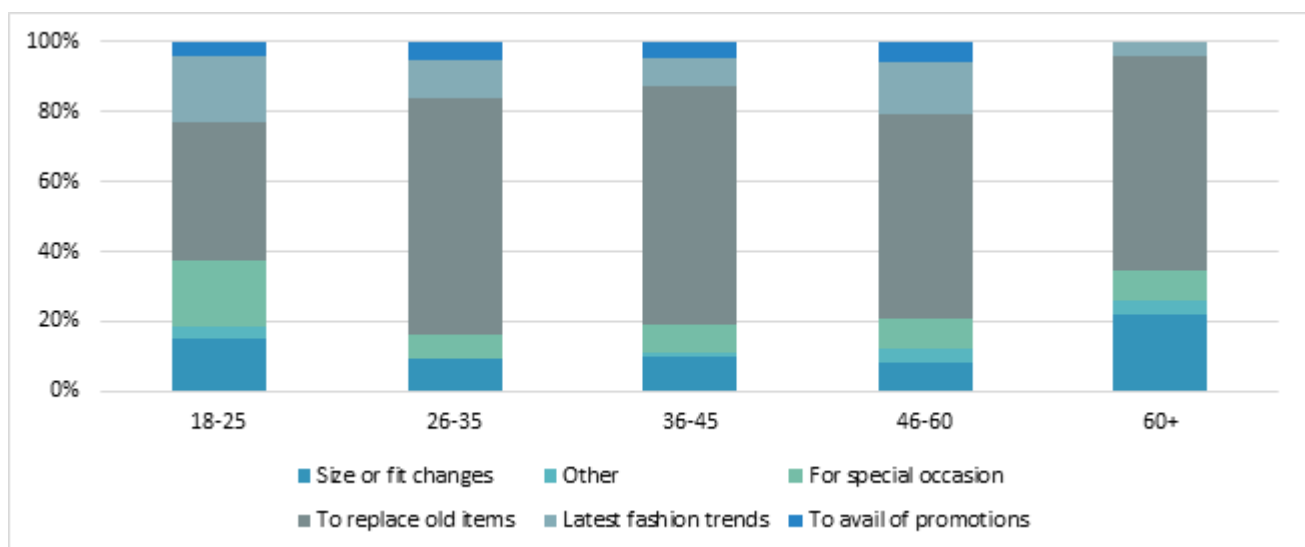


Figure 10 Correlation between age range and reasons to buy new textile items

According to the latest Eurostat data available [1], our clothes mostly come from China, Bangladesh, Turkey, India, and Cambodia, with China providing over 30% of extra-EU imports, highlighting Asia's dominance in supplying the European market with apparel.

74,7% of the respondents say they know where their clothes and textiles come from: in Italy 74,8% say they know it, in Greece 69%, and Spain 45,6%. 25,4% of respondents (1/3 of them) do not know where the textile comes from.

The majority (38,5%) of the respondents' state that their textile products come from southeast Asian countries (in accordance with the Eurostat data), as shown in the graph below.

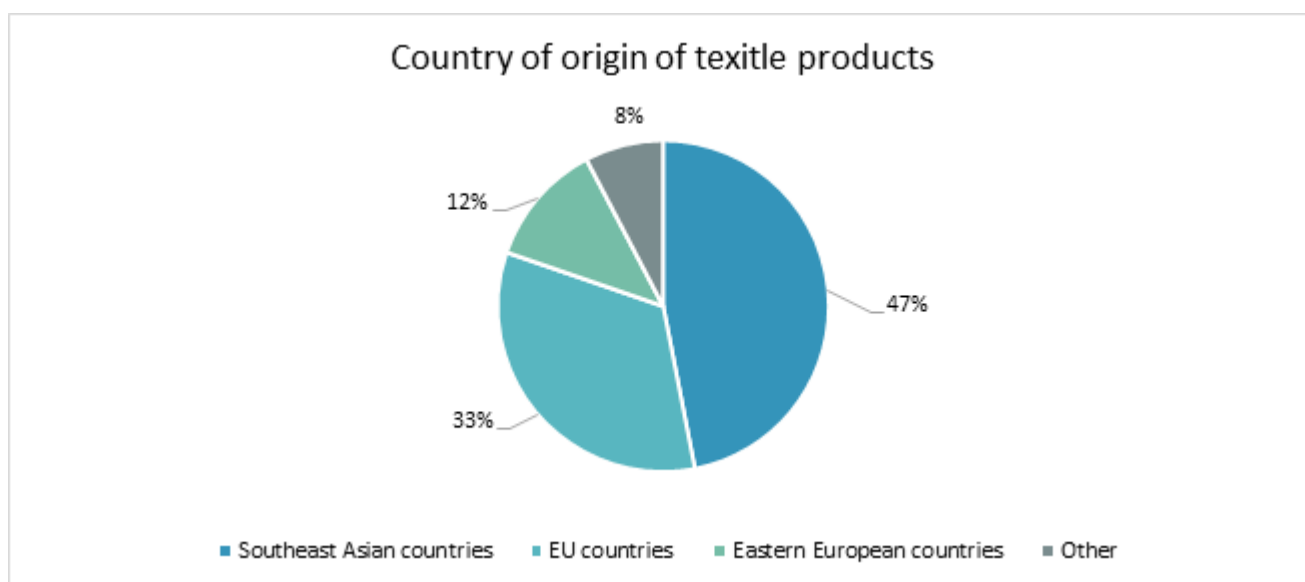


Figure 11 Where do your clothes come mainly from?

The differences between Italy, Greece and Spain are evident. In the latter, approximately half (45,6%) of the interviewees say they do not know where the textile products they buy come from, while the same percentage of interviewees (45,6%) say that the clothes they buy come from Southeast Asian countries; in Greece (41,3%) and Italy (39,7%) textile products mainly originate in European countries and the percentages of those who say they don't know drop to 29,3% and 17,4% respectively.

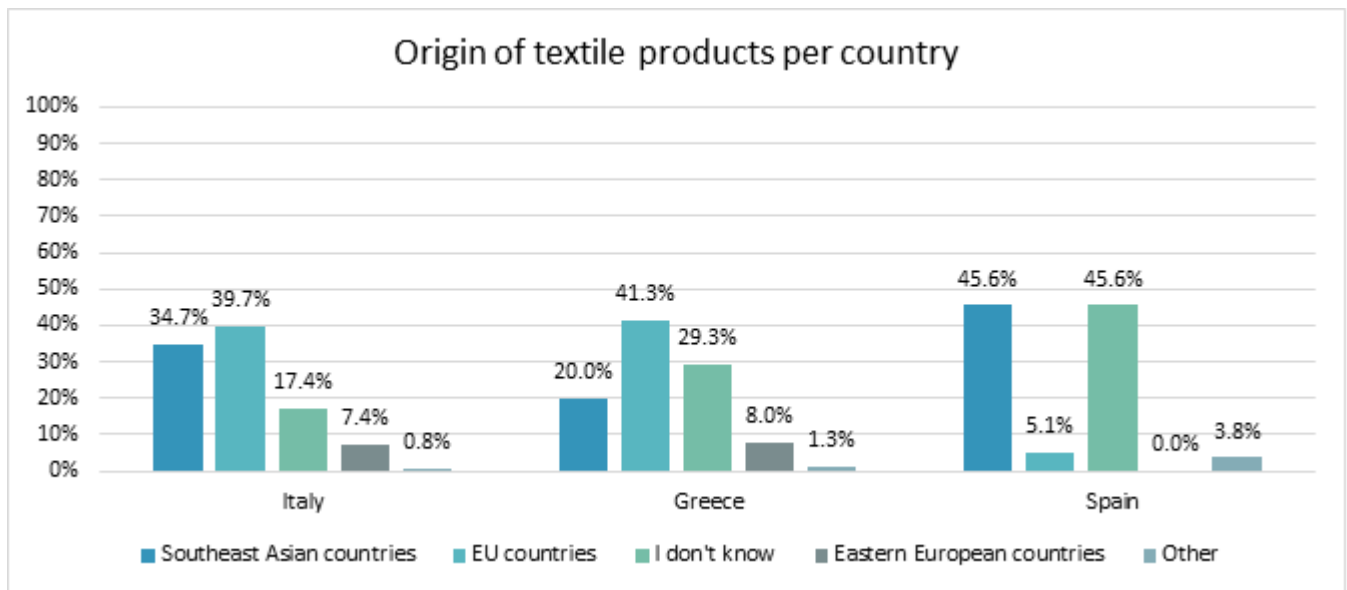


Figure 12 Where do your clothes come mainly from per country

The most used place to buy clothes and textiles turns out to be the supermarket or shopping centers; immediately after we find brand stores.

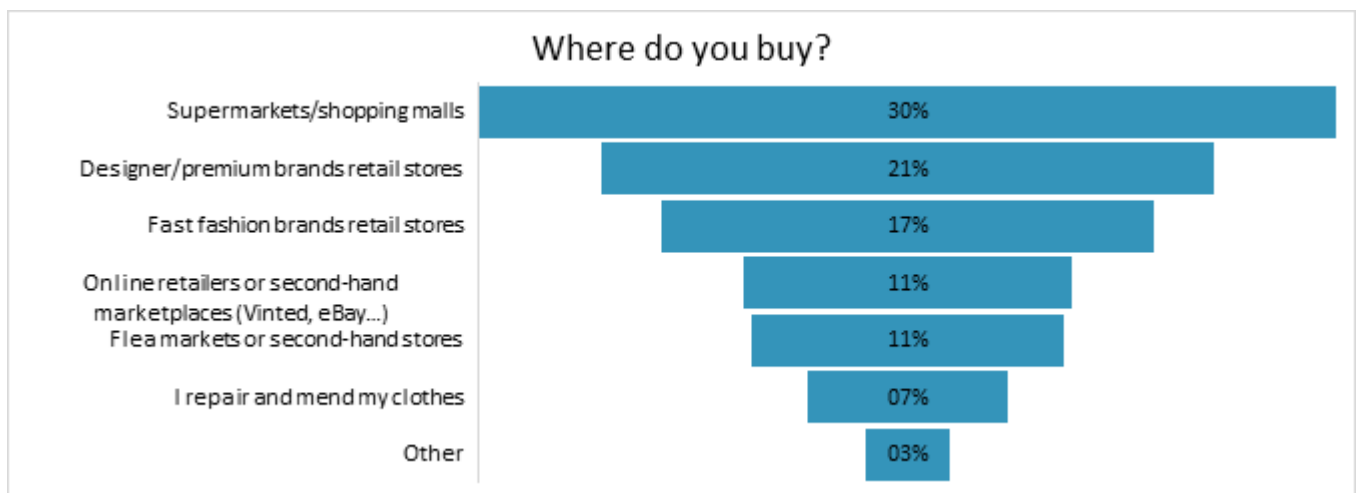


Figure 13 Where do you buy most of your clothes or household textiles?

Comparing the answers in the three countries, it is interesting to note that in Spain supermarkets/shopping malls and fast fashion brands retail stores prevail, while in Greece and in also designer/premium brands retail stores are relevant.

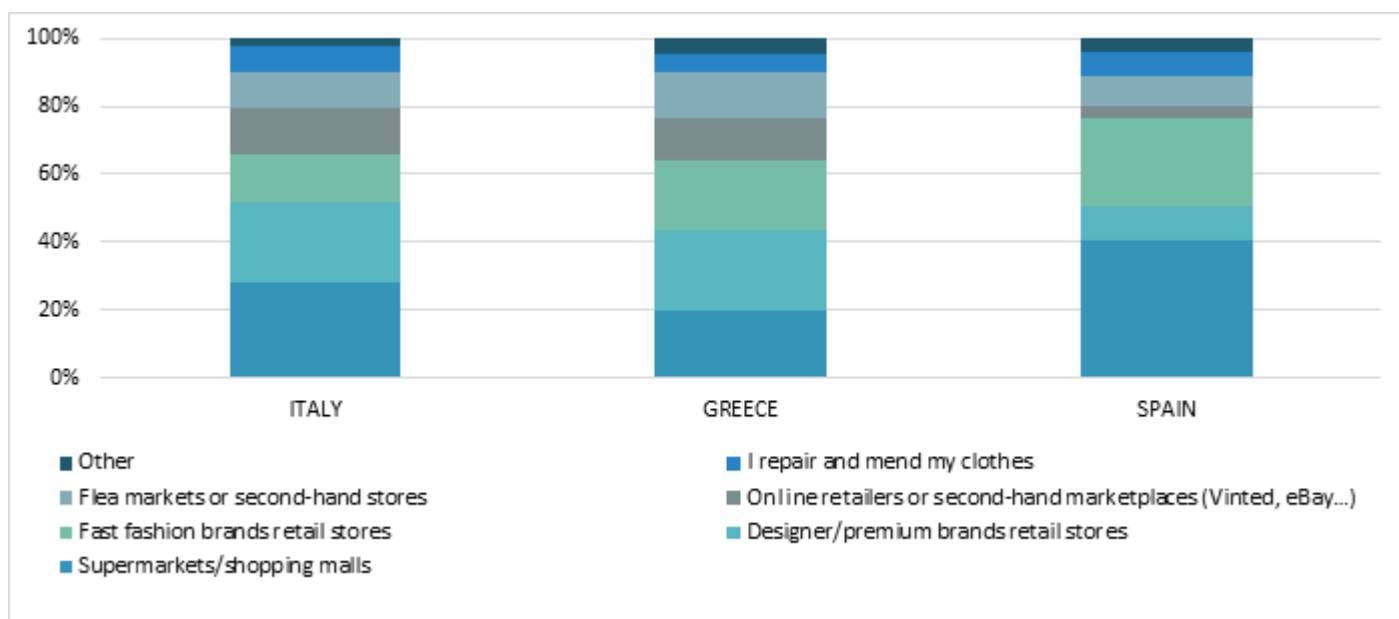
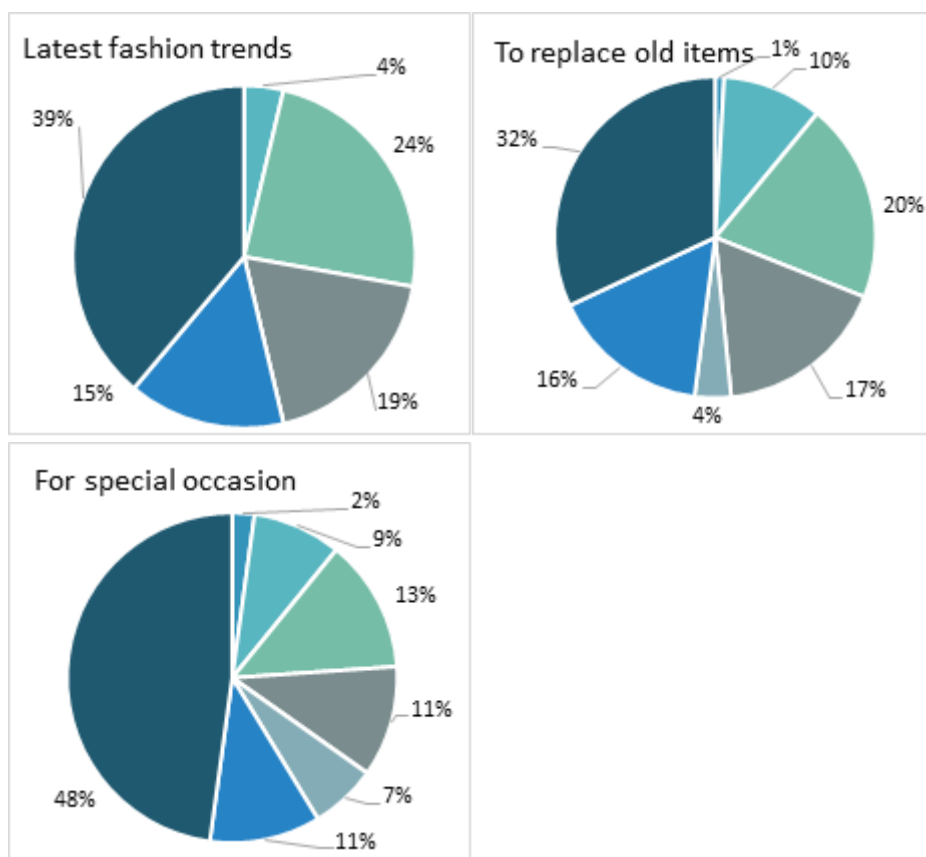


Figure 14 Where do you buy most of your clothes or household textiles per country

According to the data, those who buy clothes to replace old ones, for special occasions, to follow latest fashion trends, or to avail of promotions do so primarily by visiting shopping malls. Those who buy new clothes for a change of size, however, seem to prefer online thrift stores.



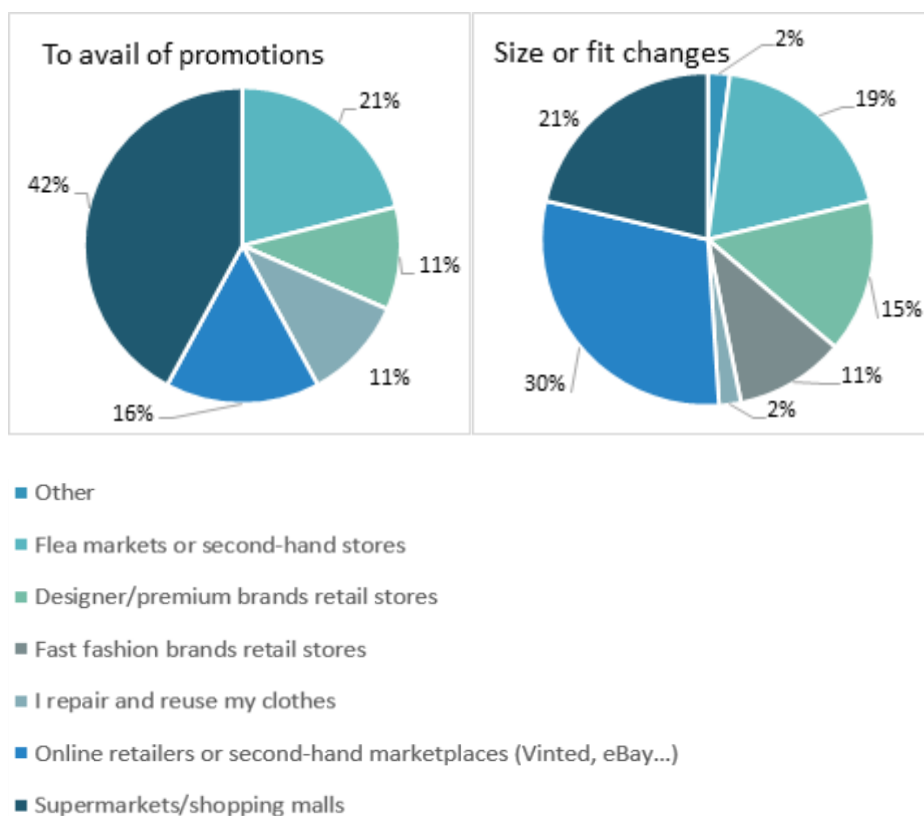


Figure 15 Comparison between place where buy new textile items and reasons to buy new textile items

The label is one of the few tools (perhaps the only one for now) that gives us information with respect to characteristics, properties and origin of the product we are buying (at least that's how it should be in theory). Despite this, not everyone reads it: 69% of respondents say they read the label on the textile products they buy; and the percentage of those who say they don't read it increases as age decreases.

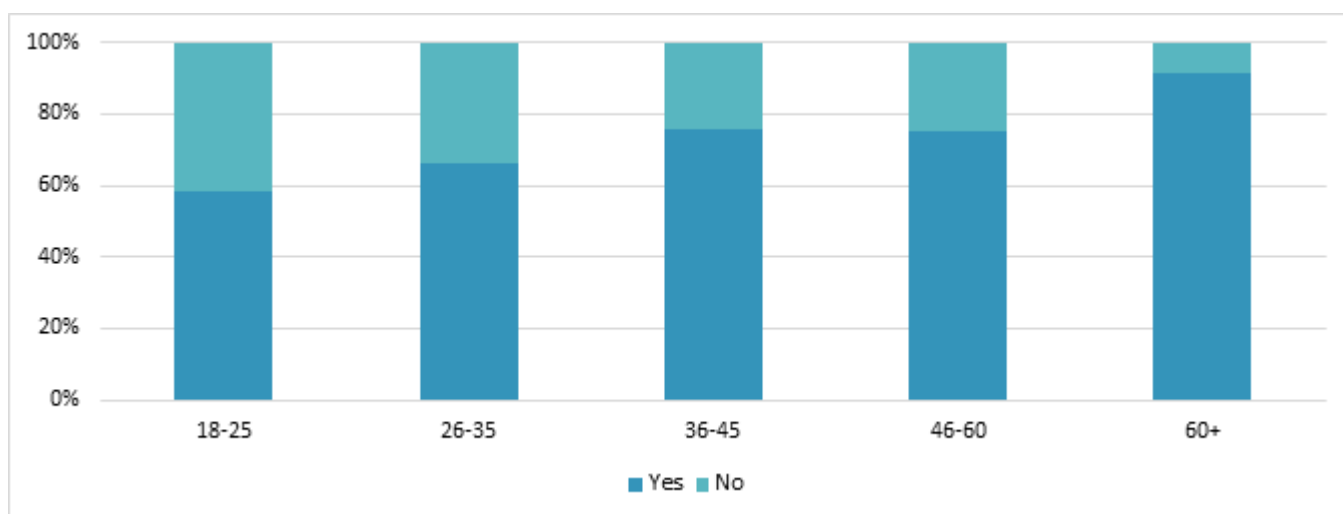


Figure 16 Comparison between age range and the practice to read the label

Around 34,6% of respondents say that the information on the label is often incomplete,

unclear, and not transparent. Investigating what consumers think is missing from labels or what information they would like in more detail and clearer, what seems to be missing the most is clear information about the origin of both textile products and raw materials used; information and data on the production chain and the processes of production; working conditions.

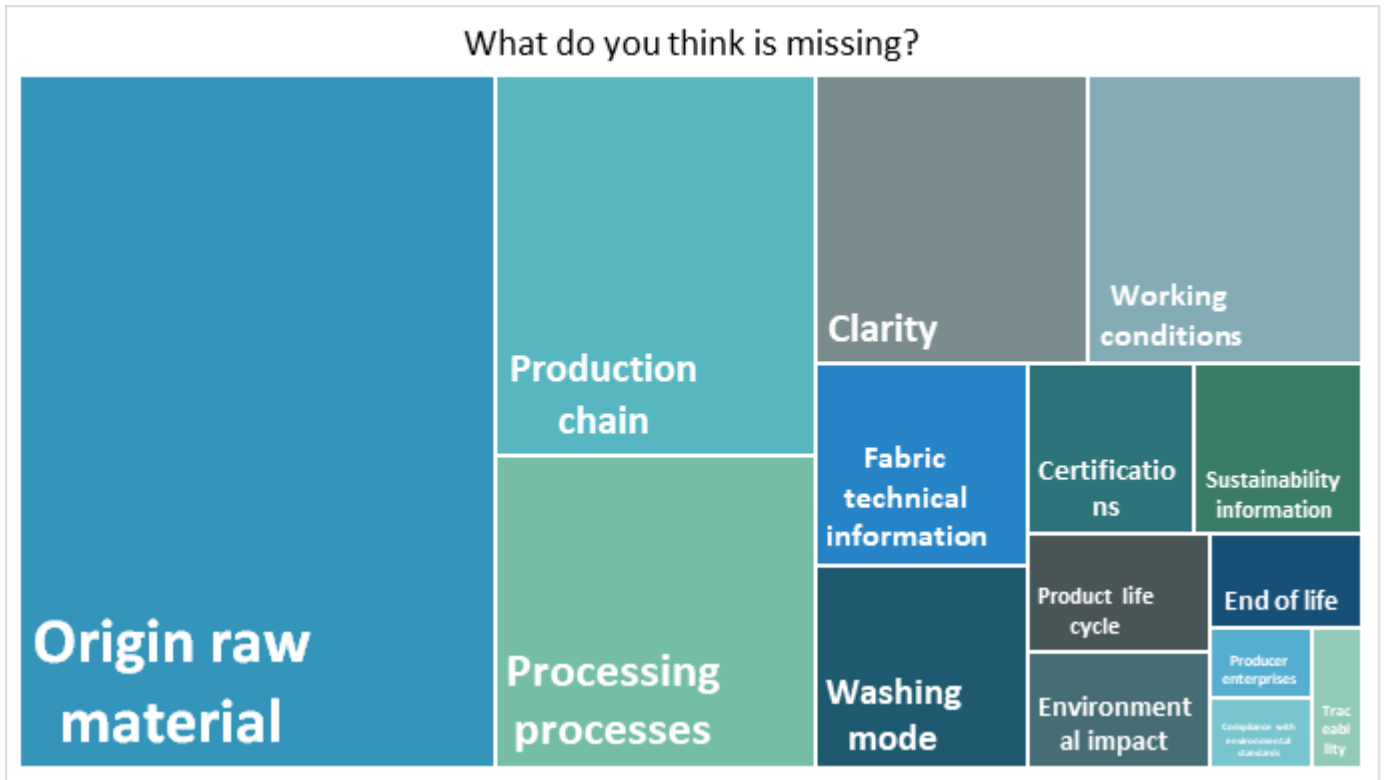


Figure 17 What do you think is missing?

Compared to years ago, people buy much more, to wear for much less time on average, thanks also to the so-called fast fashion. So, we ask the interviewers how many times on average they use textiles or clothing before throwing them away.

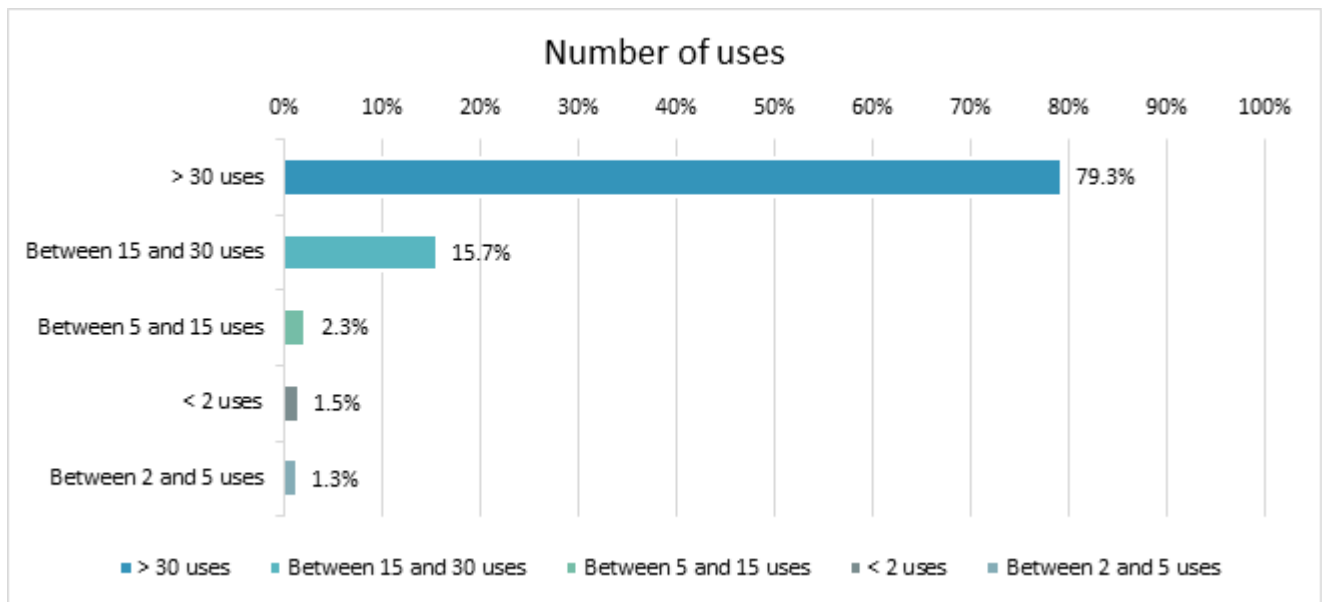


Figure 18 How many times do you use on average a textile item before you dispose of it?

The majority (79,3%) said that they use their clothes more than 30 times before throwing them away. Only 1,5% said that they wear their clothes less than 2 times.

The durability of a garment depends not only on the owner's intentions but also on the design of the product itself, and here fast fashion comes into play again.

Asking how long textiles last on average, 84,6% of the respondents said that their textile products last for more than 1 year on average.

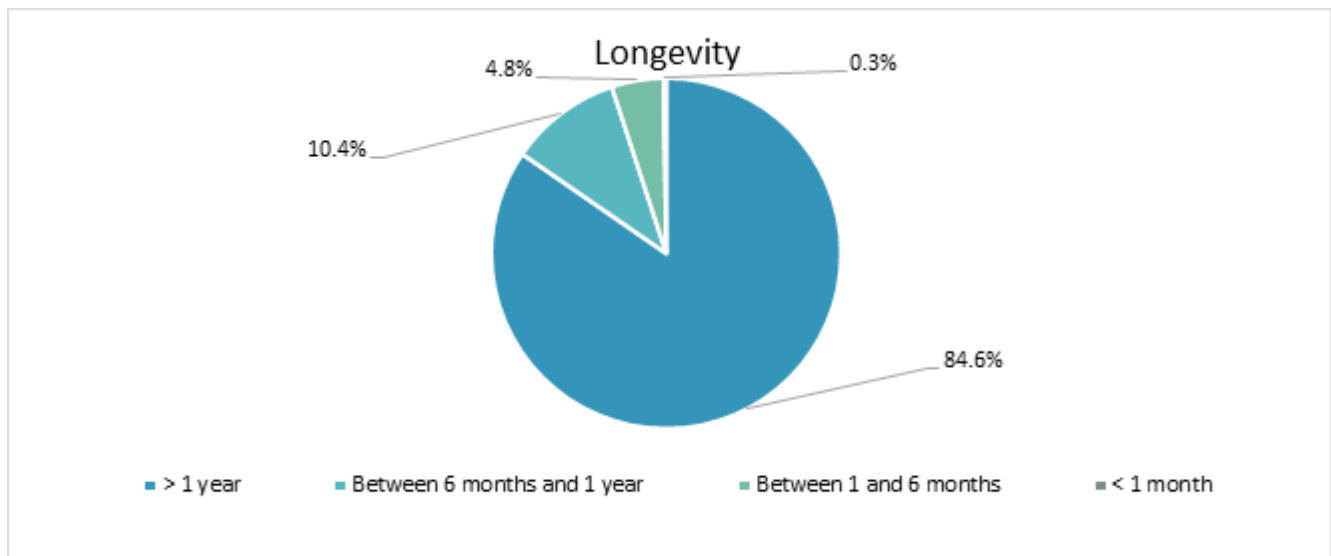


Figure 19 Which is the longevity of your textile items on average?

Getting rid of clothes is not easy, and there are various ways to do it, each with its own impact. Most respondents (37,7%) give them to friends, relatives or charity; 23% dispose of them through separate collection (where this exists and it is easy to use). It seems that the most highly rated responses correspond to alternatives that go towards a lower environmental impact.

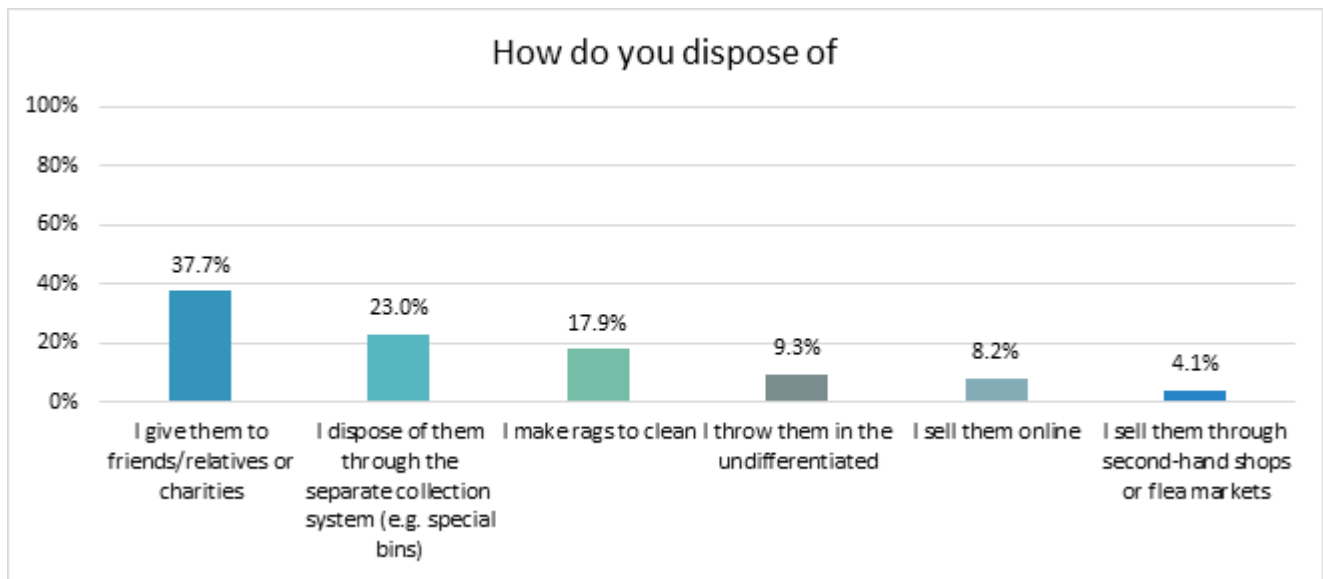


Figure 20 How do you dispose of textile products you no longer use?

2.4.3 Products characteristics

The characteristics of the fabric (type of material and color) are parameters that define the degree of recyclability of the material. For example, single-colored fabrics are more easily recyclable than multi-colored fabrics; organic fabrics have a lower environmental impact (in general compared to the whole life cycle) than materials made from artificial fibers.

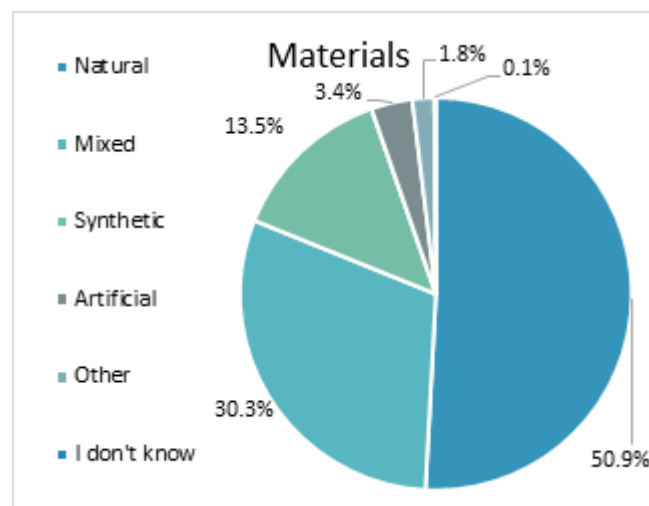


Figure 21 What material are your clothes mainly made of?

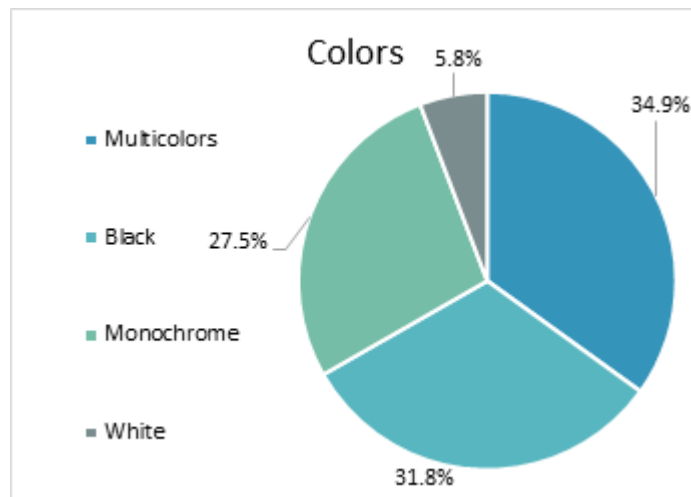


Figure 22 What is your favorite color when buying clothes?

36% of respondents say they buy mainly black fabrics, 31% multicolored, 27% monochrome and 6% white fabrics.

Fabrics can be natural, made of plant fibers, fibers of animal origin, or extracted from a mineral; artificial, natural raw materials are transformed into fibers by chemical processes; or synthetic, derived from synthetic materials and consisting mostly of petroleum derivatives. The three different types of fabrics have different characteristics and environmental impacts.

The most common materials are natural (50,9%), consisting mainly of cotton and wool; followed by fabrics made of mixed materials (30,3%) and synthetic (13,5%).

2.4.4 Knowledge

Some questions aimed to understand the basic knowledge of the world of textile production.

Note how 41,1% of respondents do not know how textile waste is managed in their region or city. For the rest of the responses, the most common method is management by cooperatives or cooperative networks (19.4%), followed by management by the municipalities of separate waste collection. Less widespread modes are management by private companies and export to foreign countries.

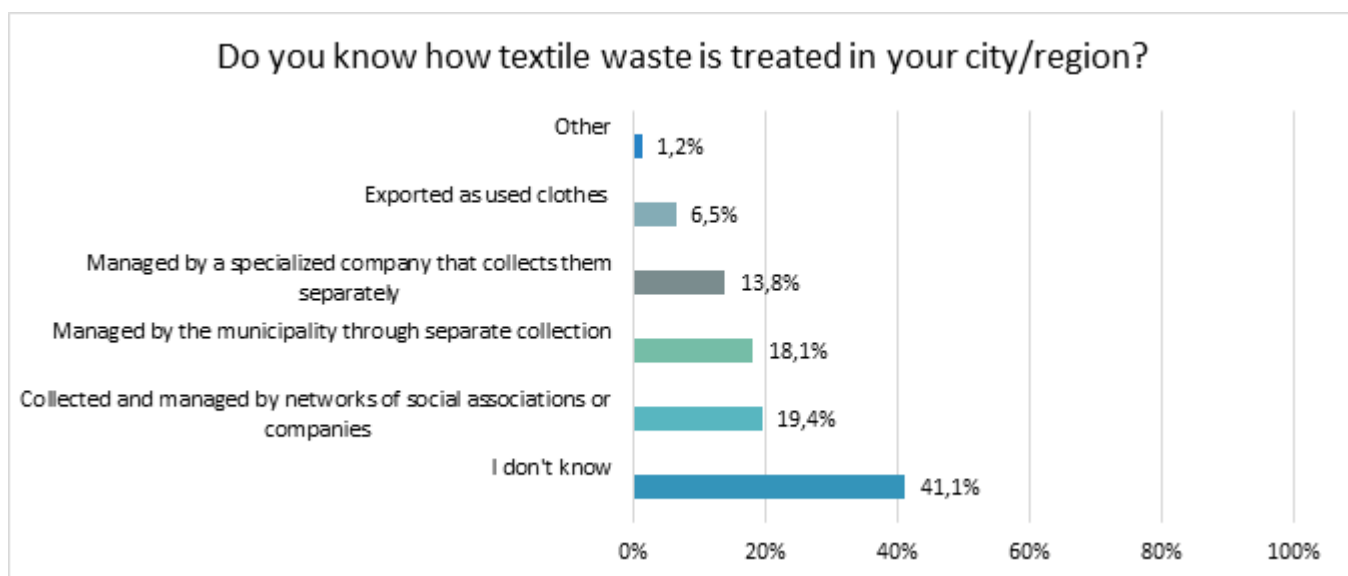


Figure 23 Do you know how textile products that you dispose of are treated in your city/region?

There does not appear to be a strong correlation between the ways in which textile waste is disposed of and the ways in which it is managed in one's region or city. It is striking, however, that those who do not know how textile waste is managed in their area (41,1% of the responses) clearly prefer to give it to friends and relatives or make rags out of it, rather than dispose of it by entering it into the waste management cycle.

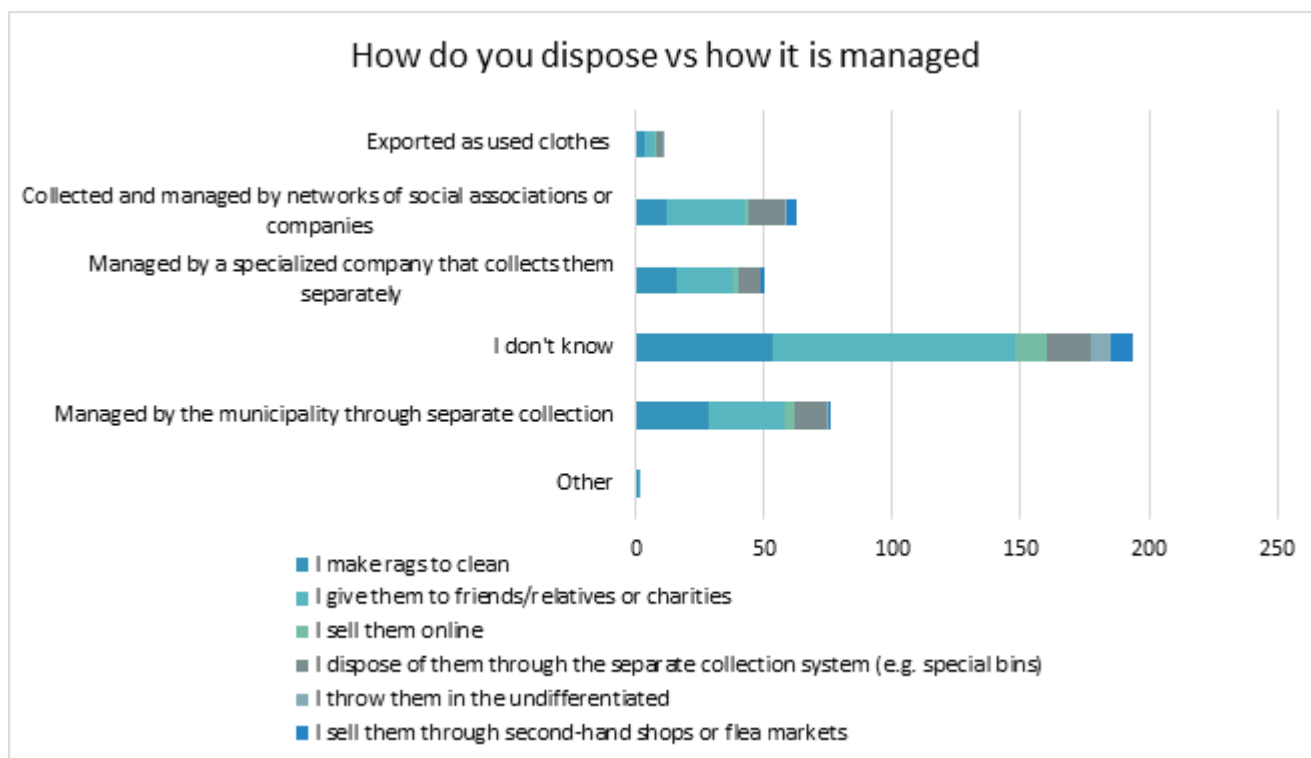


Figure 24 Comparison between how you dispose of your textile waste and how they are managed

When asked about the amount of water used to produce a cotton T-shirt, 44,2% answered correctly (2700 liters).

When asked what fast fashion is, 80% answered correctly (term used to define a type of business model of fashion characterized by rapid renewal of collections, low prices and quality of products, large production volumes).

2.4.5 Personal commitments

In the end, it was asked to give an assessment of some assertions regarding personal commitments about possible change of habits towards greater sustainability and awareness.

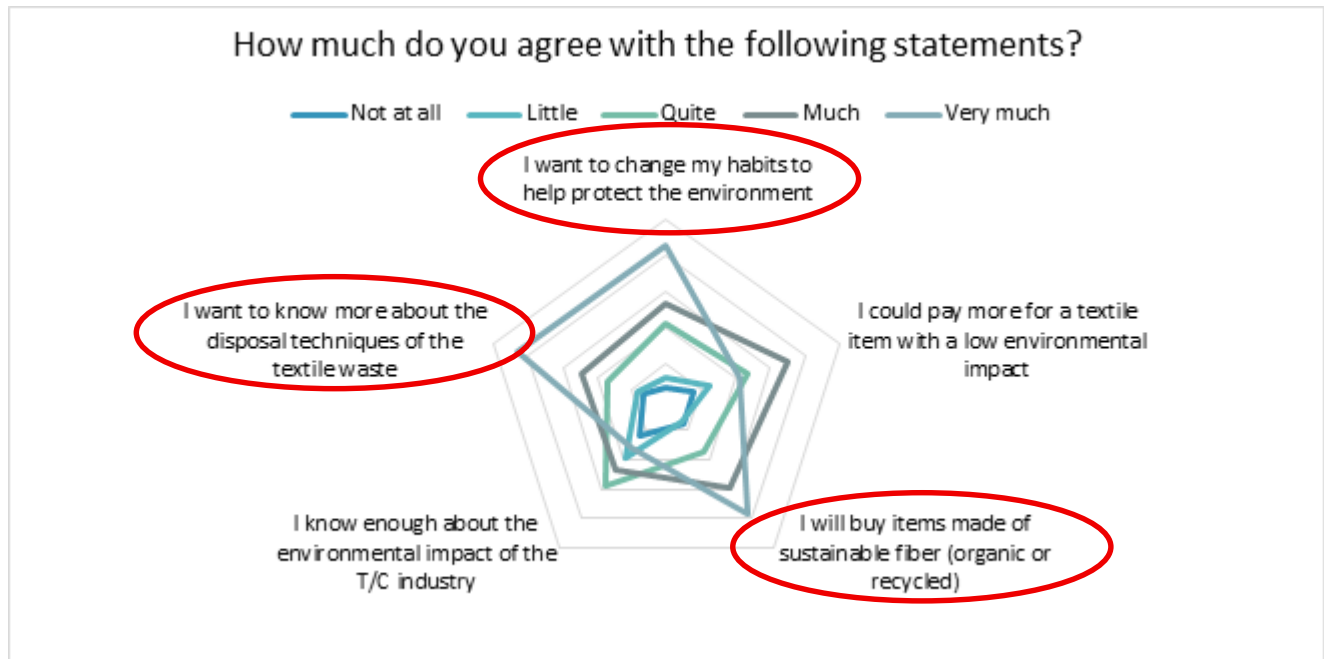


Figure 25 How much do you agree with the sentences?

Respondents totally agree to change habits to protect the environment. They also find themselves totally in agreement in buying sustainable fiber garments and fabrics. A need for knowledge of the methods and techniques of textile waste disposal emerges, to be more aware of the impact of the entire supply chain. The same agree to pay more for textiles with a low environmental impact; they quite agree with saying that they know enough about the environmental impact of the textile industry.

2.4.6 Second survey

At the end of the living lab activities, a second survey was spread among the participants. The aim was to collect feedback on the specific activities and topics faced and to investigate if some changes happened in the habits of the participants.

The answers that arrived are 105, considerably lower than the answers to the first survey.

The geographical distribution is the following:



Figure 26 Number of answers to the second survey per country.

Looking at the age distribution of the participants of the second survey, we can easily see that the age group that contributed most to the decrease in responses is that of young people between 18 and 35 years old.

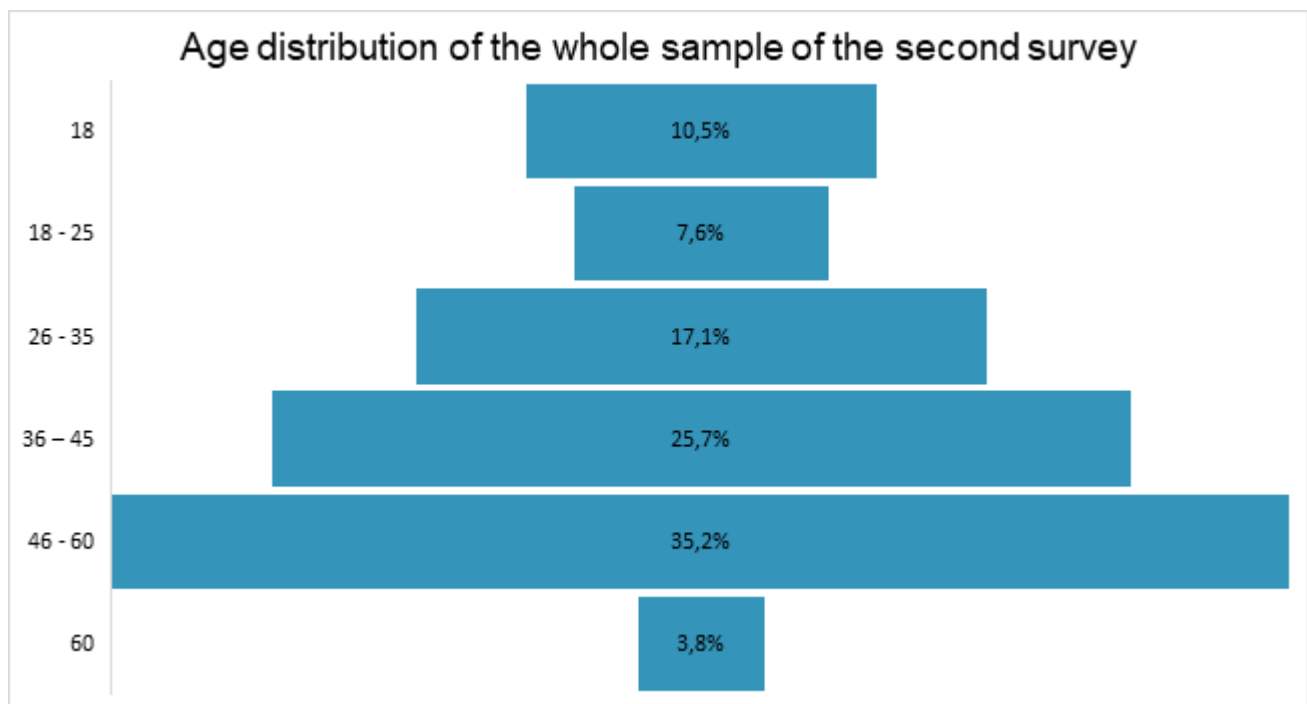


Figure 27 Age distribution of the whole sample of the second survey (Italy, Greece and Spain).

However, all the participants in the living lab activities stated that the information provided was useful and that the objectives of the event were clearly stated. The place where textile products are bought most remains supermarkets, followed by online retailers.

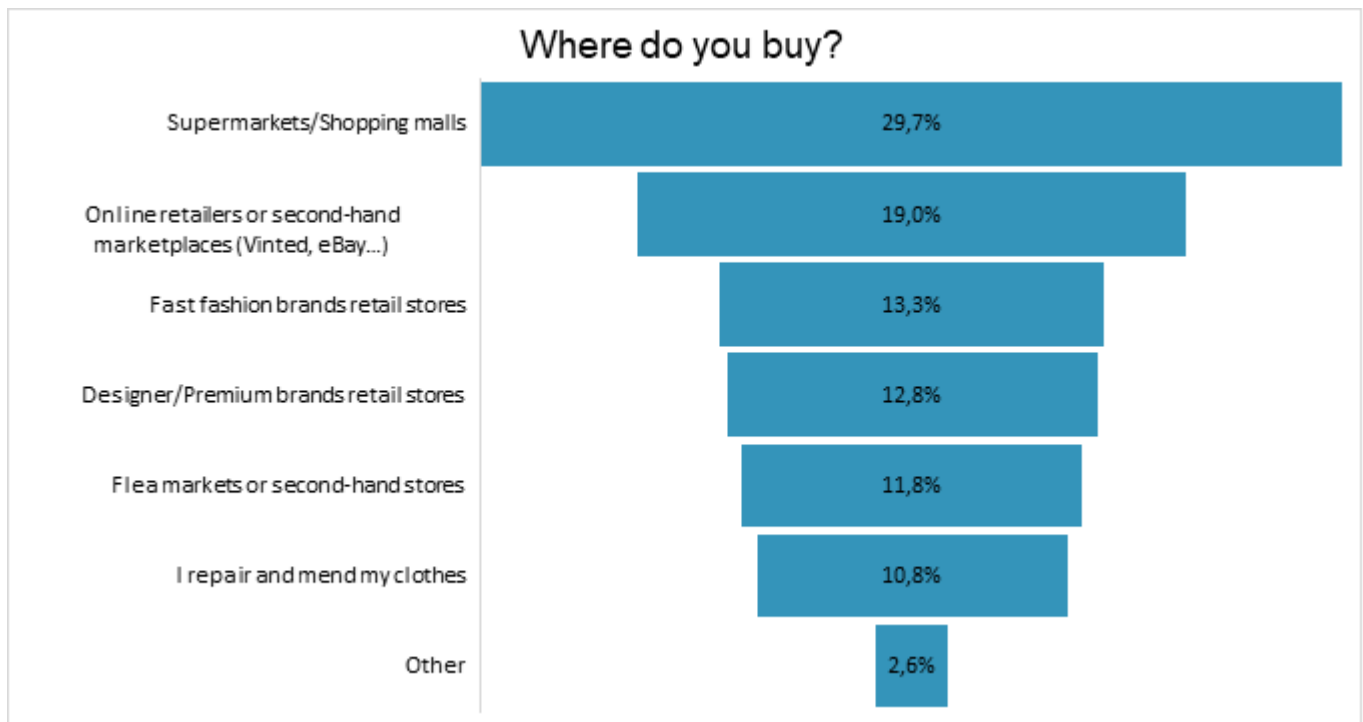


Figure 28 Where do you buy most of your clothes or household textiles? (second survey)

The percentage of people who say they read labels rises from 69% to 82%.

The information needed and missing is the same as the first survey: the information on the label is often incomplete, unclear, and not transparent. What seems to be missing the most is clear information about the origin of both textile products and raw materials used; information and data on the production chain and the processes of production; working conditions.

Regarding consumer habits, no significant differences in responses were noted: the preferred fabrics were multicolored, made of organic materials (mainly cotton and wool), the garments were mainly used for more than 30 uses and lasted for more than 1 year for 90% of responses.

The desire to change habits to move towards more sustainable styles and the demand for more shared information (especially with respect to the end of life) remain the two statements with which participants most agree.

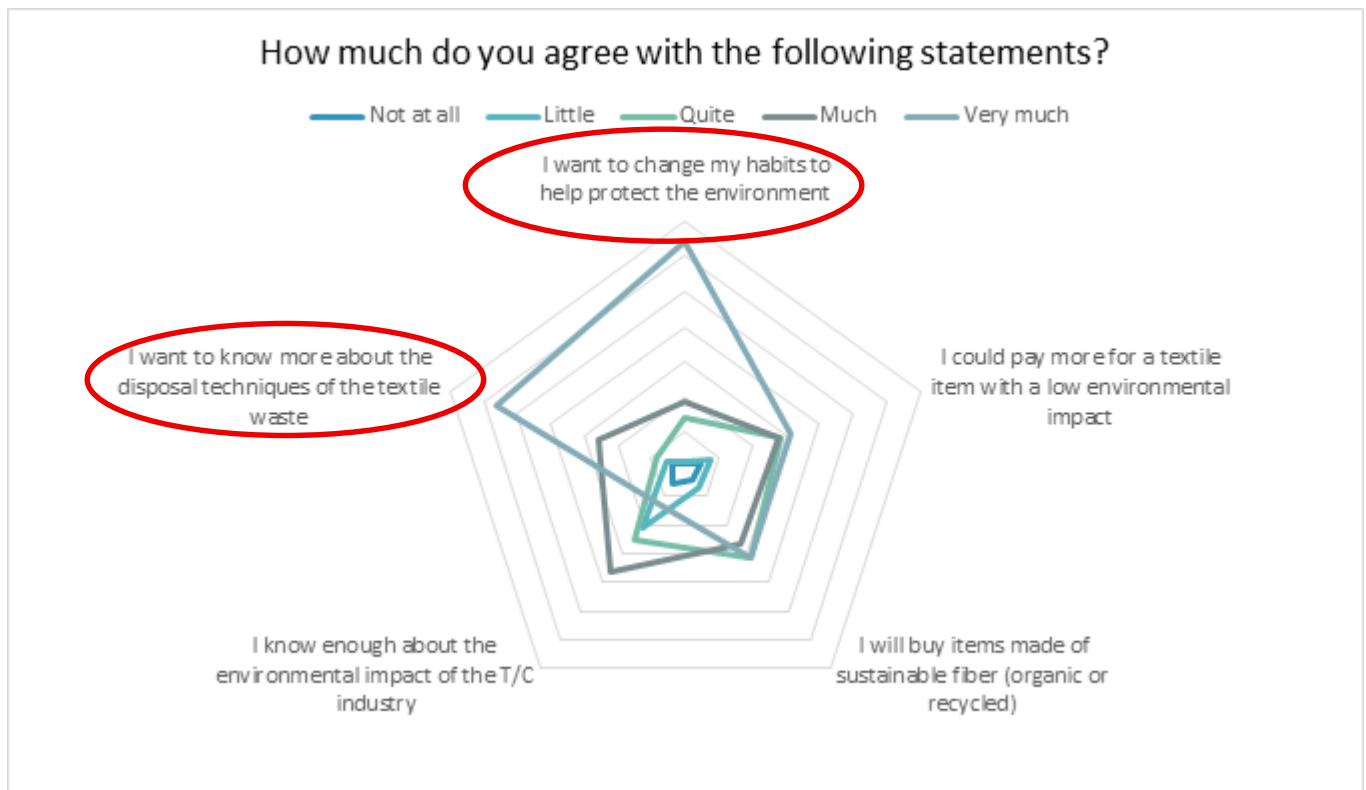


Figure 29 How much do you agree with the sentences. (second survey)

2.5 Final considerations

The sample of people reached in total is representative. The distribution in the three countries is skewed towards Italy, but a satisfactory number of people has also been reached in Greece and Spain.

The age group distribution is also representative, covering all the categories considered, although it is heterogeneous, with most respondents from 46 to 60 years.

It is therefore possible to give some general consideration.

In general, there are discrepancies between what respondents said about their habits or knowledge of the production and disposal/recovery chain of textile products and waste and what they would like. For example, 42,4% say they do not give weight to sustainability when buying textiles, but most of them are also totally in agreement to buy sustainable fibers and fabrics and change their habits to protect the environment.

These responses could be related to the lack of knowledge about the real impact of the textile chain and not to a real disinterest in the subject. Another factor, not thoroughly investigated in this survey, is the economic one. Sustainability often comes at a price that not everyone can afford. The spread of ultra and fast fashion only exacerbates this perception.

This could be also an example of the value-action gap: the difference between what people



say and what people do [2]. This phenomenon has been observed especially with respect to environmental issues: concerns increase but actions struggle to change.

It is clear that there is a need to raise awareness and spread knowledge towards consumers, not very careful in their overall assessments buying textile products. Instead, we have, as consumers, a fundamental role thanks to the power of our own choices.

Activities like Living Labs can help to understand how much our actions weigh and how important it is to be an informed consumer. Creating links and comparisons among companies, administrations, and citizens is a first step in trying to reduce the value-action gap.

There is a certain correlation between age group and the reasons for buying new clothes. Younger people tend to buy for special occasions and to follow the latest trends, while the older tend to buy more for size changes. Another finding that emerges is that as age decreases, fewer people read labels.

The responses received with the second survey, although lower than the first, confirm the considerations and trends of the first. It should be noted that a higher percentage of participants reported reading labels after participating in living lab activities.

All the participants state that the proposed activities and the topics covered have been useful and effective for a greater understanding of the specific topic.

However, there is a demand for further dissemination and knowledge sharing events regarding the impact of the entire supply chain, the specific conditions of workers, and possible more sustainable alternatives.

There is a need for communication at different levels and to different targets.

A communication at general and cross-cutting level to increase basic knowledge on the environmental and social impacts of the whole textile production chain.

A more focused and differentiated communication by age groups: promote swap party and the use of flea markets for the oldest; instead, promote rental of clothes and spread knowledge among the youngest. Trying to decrease the consumption of new clothes, stressed both economic and environmental benefits.

35% of respondents claim that the labels are unclear: greater transparency and uniformity of indications in labels are needed. The digital passport (DPP) provided by the European Ecodesign Regulation for Sustainable Products (ESPR) represents the product's true digital identity and contains crucial information about its life cycle, such as composition, performance, sustainability, and recycling opportunities and beyond, trying to standardize this aspect, to make people more aware and information clearer.



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- Last, but not least, industries must do their job, using sustainable materials, pushing on research and eco-design and mostly informing consumers on the whole life cycle of the textile products from cradle to cradle.



3. Communication campaign

The Living Lab has been accompanied by a wider communication campaign aimed at informing consumers and civil society about the environmental costs of fashion choices.

The partners Legambiente in Italy, Textile Trade Association in North Macedonia, Bulgarian Fashion Association in Bulgaria, Consorci de la Ribera in Spain, Diadyma in Greece, Citeve in Portugal and E-zavod in Slovenia carried out the campaign. In total, it was produced in 7 countries and disseminated through 5 social channels.

It is made of videos (22 in total) that were disseminated via social media through short clip versions. The videos are shot in different shopping contexts: big brands shops, fast fashion shops, second-hand shops or others and involve different targets of consumers (youth, adults, families). An interviewer was involved in engaging people, making them feel comfortable, interacting in a funny way, and informing them about the covered topics.

The general structure of the video's storyboard is as follows:

1. **Introduction:** Each video starts with the key concept, the aim of the project, and the description of the shopping context.
2. **Game: Quiz, data, solutions, and discussion.** The core of the video is a quiz with three different answers where just one is correct. This is the occasion to discuss data and the project's topics. The complete quiz is in Annex 3 of the deliverable.
3. **Be pro-positive: What can consumers do?** The last step of involvement of interviewees is to bring out positive actions to reduce textile waste through both the interviewee's responses and the interviewer's suggestions.
4. **Call to Action (Link with Living lab).** The videos end with a call to follow the VERDEinMED project and actively participate through Living Labs.

Link video youtube: <https://www.youtube.com/@VERDEinMEDproject/playlists>

3.1 Impact and performance

The collaborative distribution model bypassed the need for paid advertising, successfully reaching important results through purely organic, trusted partner-led dissemination.

These results can be summarized in three key figures reflecting activity over the last 18 months: over 50,000 impressions; more than 26,000 people reached; around 2,000 interactions.

The impression is the number of times our content is displayed, no matter if it was clicked on or not or viewed several times by the same user. The Reach is the number of people who see our content. Interaction is the real level of engagement that users have with our social pages, and it includes likes, shares, comments, and saves.

The combined efforts of all 7 partners led to a total reach of 26,576 unique users, proving the strength of our cross-border network

What we have learned is that there is no single formula. Our strength has been diversity: we used the energy of Instagram to make ourselves known and the solidity of LinkedIn to make experts listen to us. The fact that 26,000 people saw our messages organically is proof that when partners join forces, the message comes across loud and clear.

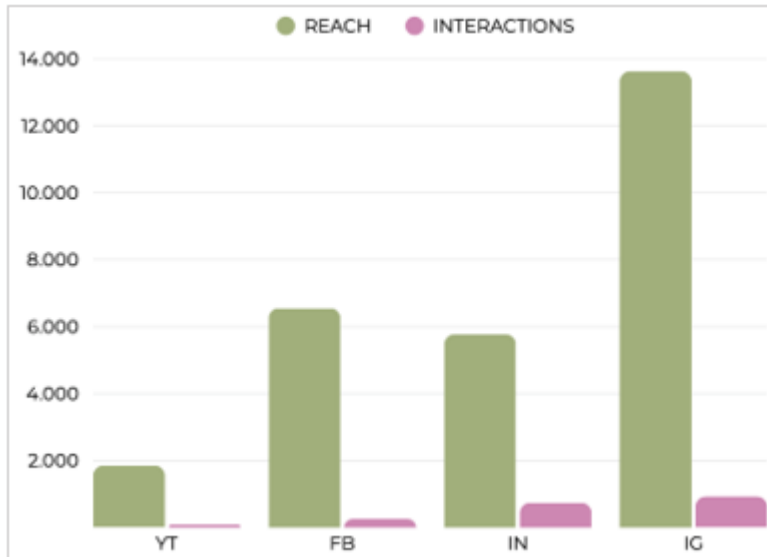


Figure 30 Number of reach and interactions per social media

The campaign was led by Instagram but solidly supported by other channels.

While Instagram drives mass awareness, LinkedIn and Facebook ensure professional credibility and local territorial rooting. Technical and high-quality video content performed exceptionally well on professional networks, proving that our audience values expert insights over generic messaging. On LinkedIn, despite having a smaller reach than Instagram, the interaction rate is proportionally much higher: LinkedIn is our high-quality professional driver.

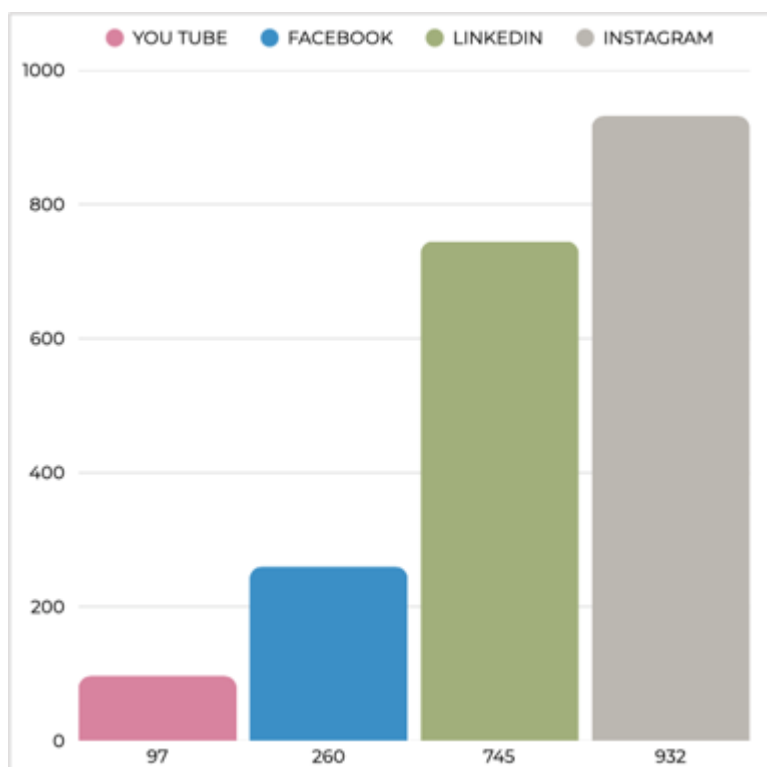


Figure 31 Number of interactions per social media

3.2 Media relation

Another important result in terms of dissemination was achieved thanks to BFA and TTT who promoted the videos through the specialized press. The communication strategy successfully leveraged over 20 specialized media outlets across the Bulgarian and North Macedonia regions, achieving a potential reach of over 100,000 impressions. This cross-channel approach ensured high visibility among both industry stakeholders and end consumers.

3.3 International video

In addition, a final video was produced, that is a mashup of the 21 videos. It is a mix of images, topics and voices from across Europe that maintain the same main structure and objective.

Link to the final video: https://www.youtube.com/watch?v=toV_lFabuYY



4. Conclusions

In general, among citizens there is both an information gap and a value-action gap. There are discrepancies between consumers' habits or knowledge of the production and disposal/recovery chain for textiles and waste and what they would like to behave.

Communication is needed at different levels and aimed at different targets:

- General, cross-cutting communication to increase basic knowledge about the environmental and social impacts of the entire textile supply chain.
- More targeted and differentiated communication for different age groups: promoting clothing swaps and the use of second-hand markets for older people; promoting clothing rental and raising awareness among younger people.
- Seeking to reduce the consumption of new clothing, emphasizing both the economic and environmental benefits.

From the business perspective, there is the need for direct collaboration between stakeholders, including institutions, in order the strengthening the ecosystem. Industries should invest in R&D and embrace eco-design prioritizing sustainable materials



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ANNEX 1 – QUESTIONNAIRE OF THE FIRST SURVEY

1 Personal data

1. Name and surname*
2. Country*
3. City*
4. Age class*:
 - a. < 18
 - b. 18 - 25
 - c. 26 - 35
 - d. 36 – 45
 - e. 46 - 60
 - f. 60
5. Contact*:
 - a. e-mail
6. Geographical area*:
 - a. Urban
 - b. Rural
 - c. Other (specify)

2 Your habits and the textile system

7. Which are your reasons to acquire new textile items*? [multiple answers]
 - a. To replace old items
 - b. Size or fit changes
 - c. To avail of promotions
 - d. For special occasions
 - e. Latest fashion trends
 - f. Other (specify)
8. How much sustainability weighs in your clothing purchases*?
 - a. Very much
 - b. Quite
 - c. Little
 - d. Not at all
9. Do you know where your clothes come from*?
 - a. Yes
 - b. No
10. If yes, where do they come mainly from? [multiple answer]
 - a. EU countries
 - b. Eastern European countries
 - c. Countries of Southern Asia
 - d. Other (specify)
11. Where do you buy most of your clothes or household textiles (sheets, tablecloths, curtains...) *? [multiple answer]



- a. Online retailers or second-hand marketplaces (Vinted, eBay...)
 - b. Flea markets or second-hand stores
 - c. Supermarkets/shopping malls
 - d. Designer/premium brands retail stores
 - e. Fast fashion brands retail stores
 - f. I repair and mend my clothes
 - g. Other (specify)
12. Do you read the labels of the products that you buy*?
- a. Yes
 - b. No
13. Do you think the information found on the label are comprehensive and transparent? If not, what do you think is missing?
- a. Yes
 - b. No (specify)
14. What is your favorite color when buying clothes*?
- a. Dark
 - b. White
 - c. Monocolour
 - d. Blended
15. What material are your clothes mainly made of*? (multiple answer)
- a. Cotton
 - b. Polyester
 - c. Acrylic
 - d. Wool
 - e. Mixed
 - f. Organic
 - g. Other (specify)
16. How many times do you use on average a textile item before you dispose of it*?
- a. < 2 uses
 - b. Between 2 and 5
 - c. Between 5 and 15
 - d. Between 15 and 30
 - e. > 30 uses
17. Which is the longevity of your textile items on average*?
- a. < 1 month
 - b. Between 1 month and 6 months
 - c. Between 6 months and 1 year
 - d. > 1 year
18. How do you dispose of textile products you no longer use*? [multiple answer]
- a. I make rags for cleaning
 - b. I donate them to friends/relatives or to charity or social enterprises
 - c. I sell them via the thrift store or flea market
 - d. I sell them online



- e. I dispose of them via the textile separate collection system (e.g. in the street container)
 - f. I throw them in the household mixed waste
19. Do you know how textile products that you dispose of are treated in your city/region*? [multiple answer]
- a. The municipality collects separately and manages them
 - b. A specialized company collects separately and manages them
 - c. A network of social enterprises collects and manages them
 - d. Exported as second hand to third countries
 - e. I don't know
 - f. Other (specify)
20. Do you know how many liters of water it takes to make a cotton T-shirt*?
- a. 10
 - b. 340
 - c. 2700
 - d. 12000
21. What is fast fashion*?
- a. Term used to express a design that concerns fashion and that passes quickly influencing current fashion trends.
 - b. Type of tissue that biodegrades quickly.
 - c. Clothes whose production time is reduced by modern technologies.
 - d. Term used to define a type of fashion business model characterized by a quick renewal of collections, low prices and quality of products and large production volumes.
 - e. Other (specify)
22. Vote how much you agree with the following statements (1 not at all – 5 fully agreed)
- *,
- a. I want to change my habits to help protect the environment
 - b. I could pay more for a textile item with a low environmental impact
 - c. I will buy items made of sustainable fiber (organic or recycled)
 - d. I know enough about the environmental impact of the T/C industry
 - e. I want to know more about the disposal techniques of the textile waste
23. Are you interested in participating in the next activities of the living lab*?
- a. Yes
 - b. No
24. If you have any comments, please leave it here:



ANNEX 2 – QUESTIONNAIRE OF THE SECOND SURVEY

Questions

1. Name and surname*
2. Country*
3. City*
4. Age class*:
 - a. < 18
 - b. 18 - 25
 - c. 26 - 35
 - d. 36 – 45
 - e. 46 - 60
 - f. 60
5. Contact*:
 - a. e-mail
6. Did you follow some training, meeting or study visit in the framework of the VERDEinMED project? *
 - a. Yes
 - b. No
7. If yes, did you find the information provided useful? *
 - a. Yes
 - b. No
 - c. Other
8. If yes, did you find that the objectives of the event were clearly stated? *
 - a. Yes
 - b. No
 - c. Other
9. Where do you buy most of your clothes or household textiles (sheets, tablecloths, curtains...)? (multiple answer) *
 - Online retailers or second-hand marketplaces (Vinted, eBay...)
 - Flea markets or second-hand stores
 - Supermarkets/Shopping malls
 - Designer/Premium brands retail stores
 - Fast fashion brands retail stores
 - I repair and mend my clothes
 - Other (specify)
10. Do you read the labels of the products that you buy? *
 - Yes



- No
11. Do you think the information found on the label is comprehensive and transparent?
If not, what do you think is missing? *
- Yes
 - No (specify)
12. What is your favourite colour when buying clothes? *
- Dark (higher footprint)
 - White
 - Monocolor (easily recycled)
 - Blended
13. What material are your clothes mainly made of? (multiple answer) *
- Cotton
 - Polyester
 - Acrylic
 - Wool
 - Mixed
 - Organic
 - Other (specify)
14. How many times do you use on average a textile item before you dispose of it? *
- < 2 uses
 - Between 2 and 5
 - Between 5 and 15
 - Between 15 and 30
 - 30 uses
15. Which is the longevity of your textile items on average? *
- < 1 month
 - Between 1 month and 6 months
 - Between 6 months and 1 year
 - 1 year
16. Vote how much you agree with the following statements (1 not at all – 5 fully agreed)
*.
- I want to change my habits to help protect the environment



- I could pay more for a textile item with a low environmental impact
- I will buy items made of sustainable fiber (organic or recycled)
- I know enough about the environmental impact of the T/C industry
- I want to know more about the disposal techniques of the textile waste

17. What topics would you like to explore further? *



ANNEX 3 – QUESTIONNAIRE OF THE COMMUNICATION CAMPAIGN

QUESTIONS, ANSWERS AND TOPICS FOR THE QUIZ

1. Can you imagine how many kilograms of textile waste each person produces in the European Union each year?

- 7 kg

- 9 kg

16 kg

INFO: In 2020, each person in the EU consumed an average of 16 kg of textiles, 4.4 kg per person was collected separately for reuse and recycling and 11.6 kg per person ended up in mixed household waste. SOURCE

2. Do you know what percentage of all textile products placed on the European market are destroyed without ever being used for their intended purpose?

0%

4-9%

70-80%

INFO: According to available studies, it is estimated that 4-9% of all textile products placed on the market in Europe are destroyed before use, totalling 264,000-594,000 tonnes of textile products destroyed each year. SOURCE

3. Do you know what the average European return rate of clothes purchased online is?

2%

20%

80%

INFO: One in five garments sold online is returned. The return rate for products sold online is up to three times higher than for products sold in physical shops. SOURCE

4. Do you know how many returned garments purchased online are destroyed?

half of it

1/3

- 1/5

INFO: It is estimated that 22-43%, or on average one third of all returned garments purchased online, end up being destroyed. SOURCE

5. What percentage of the total fiber used for clothing is incinerated or disposed of in landfills?

- 20%

- 77%

87%

INFO: On average, Europeans use about 26 kilos of textiles and discard about 11 kilos each year. Used clothes may be exported outside the EU, but they are mostly (87%) incinerated or landfilled. Every second, the equivalent of one truckload of textile waste is landfilled or



. burned. SOURCE

. 6. What percentage of used clothing is recycled into new garments?

- more than 40%

- 1%

- more than 50%

INFO: European citizens consume almost 26 kg of textiles each year and dispose of about 11 kg of textiles. Used clothing may be exported outside the EU but is mostly incinerated or sent to landfill (87%). SOURCE. In 2017, according to the Ellen MacArthur Foundation, less than 1% of all textiles worldwide were recycled: SOURCE

7. If demographic and lifestyle patterns continue as they are now, compared to 62 million tonnes in 2019, how much will global clothing consumption amount to in 5 years' time?

- 39 million tonnes

- 70 million tonnes

- 102 million tonnes

INFO: The production and consumption of textiles continue to increase, as do their impact on climate, water and energy consumption and the environment. World production of textiles almost doubled between 2000 and 2015 and consumption of clothing and footwear is expected to increase by 63 % by 2030, from 62 million tonnes today to 102 million tonnes in 2030. SOURCE

8. Textile fiber production has almost doubled in recent years, from 58 million tonnes in 2000 to 109 million tonnes in 2020. What is the growth forecast by 2030?

- 125 million tonnes

- 145 million tonnes

- 165 million tonnes

INFO: As part of its action plan for the circular economy, the European Commission presented in March 2022 a new strategy to make textiles more durable, repairable, reusable and recyclable, to counteract fast fashion and stimulate innovation in the sector. SOURCE

9. How many of the hazardous substances used in textile products placed on the EU market are considered carcinogenic, mutagenic or toxic for reproduction?

- about 60

- 80

- about 120

INFO: The presence of hazardous substances used in textile products placed on the EU market is a matter of concern for the European Commission and is being addressed in the framework of the REACH regulation which establishes procedures for the collection and evaluation of information on the properties of substances and the hazards arising from them SOURCE

10. Social enterprises active in the re-use sector have considerable potential to create local, green and inclusive businesses and jobs in the EU. How many jobs does a social enterprise create on average per 1,000 tonnes of collected textiles?



- 20-35

- 30-45

-50-65

INFO: It is particularly important to promote social enterprises active in the re-use sector, as they have significant potential to create local, green and inclusive businesses and jobs in the EU. On average, a social enterprise creates between 20 and 35 jobs per 1,000 tonnes of textiles collected for reuse. However, the sector faces many challenges to be competitive and to become a major player in the textile sector. SOURCE

GARMENT WORKERS AND SALARY

11. Where are the lowest paid garment workers in the world?

- in Ethiopia, with a basic wage of \$26 per month

- in Bangladesh, with a basic wage of \$36 per month

- in China, with a basic wage of \$46 per month

INFO: The minimum monthly wage in Ethiopia is about \$110, according to Ayele Gelan, research economist at the Kuwait Institute for Scientific Research. SOURCE

12. What is the percentage of female workers (compared to male workers) in the garment industry worldwide?

- 55%

- 65%

- 75%

INFO: The Communication on decent work worldwide for a just global transition and sustainable recovery considers the textile sector as a key sector where decent work conditions will be promoted through awareness-raising activities in bilateral relations and multilateral fora. In this context, the textile industry can promote gender equality, as an estimated 75 % of textile workers worldwide are women. SOURCE

THE IMPACT OF TEXTILE PRODUCTION AND WASTE ON THE ENVIRONMENT

13. Every year, the fashion industry uses 93 billion cubic meters of water: this amount would be enough to meet the consumption needs of:

1 million people

5 million people

- 100 million people

INFO: 93 billion cubic meters of water, enough for the survival of 5 million people, are used by the fashion industry every year. The fashion industry produces 20% of global wastewater. SOURCE

14. Some estimates indicate that it takes 2,700 liters of fresh water to make a single cotton T-shirt, a volume equal to what a person would have to drink:



- in 1 year

- in 2.5 years

- in 4 years

INFO: Textile production needs to use a lot of water, not to mention the use of land for the cultivation of cotton and other fibers. Some estimates indicate that it takes 2,700 litres of fresh water to manufacture a single cotton shirt, a volume equal to what a person would have to drink in 2.5 years. SOURCE

15. According to data from the United Nations Environment Programme (UNEP), how many liters of water are needed to produce one pair of jeans, from the production of the cotton to the delivery of the final product to the shop?

7,500 litres

- 1,040 litres

- 502 litres

INFO: It takes around 7,500 liters of water to produce a single pair of jeans - the average amount of water a person drinks over a seven-year period. This is just one of the many startling figures that have emerged from recent environmental research showing that the cost of being fashionable goes far beyond just the price tag. SOURCE

16. In 2020, the textile sector was the third largest source of water and land use degradation. In that year, to provide clothes and shoes for each EU citizen, an average of

- 100 square meters of land

- 200 square meters of land

- 400 square meters of land

INFO: In 2020, the textile sector was the third largest source of land use and water degradation with an average of 400 square meters of land! SOURCE

17. And how many kg of raw materials?

- 103

- 293

- 391

INFO: Most resource use and emissions occur outside Europe. SOURCE

18. What is the estimated percentage of wastewater worldwide that comes from dyeing and processing textiles?

- About 15%

- About 20%

- About 40%

INFO: Textile production is responsible for global drinking water pollution due to the various processes the products undergo, such as dyeing and finishing. SOURCE

19. By what percentage is the fashion industry responsible for the world's annual carbon emissions?

- by 2%

- by 5%

- by 10%



INFO: The fashion industry is estimated to be responsible for 10% of global carbon emissions, more than the total of all international flights and shipping combined. According to the European Environment Agency, textile purchases in the EU in 2020 generated around 270 kg of CO2 emissions per person. This means that textiles consumed in the EU generated 121 million tonnes of greenhouse gas emissions. SOURCE

20. At this rate, how much will greenhouse gas emissions from the fashion industry increase by 2030?

- by more than 20%

- by more than 40%

- by more than 50%

INFO: Global apparel and footwear production generates 8% of the world's greenhouse gas emissions and, because production is concentrated in Asia, the industry depends mainly on fossil coal and natural gas to generate electricity and heat. If we continue with a business-as-usual approach, the industry's GHG emissions are expected to increase by almost 50 per cent by 2030. SOURCE

21. How many plastic microfibers reach the ocean each year?

50,000 tonnes

- up to 500,000 tonnes

- 1 million tonnes

INFO: About 8% of European microplastics released into the oceans come from synthetic textiles - globally, this figure is estimated at 16-35%. Between 200,000 and 500,000 tonnes of microplastics from textiles enter the global marine environment each year - the equivalent of 50 billion plastic bottles. SOURCE

22. How many plastic microfibers can a single load of polyester linen release?

1000

- 200.000

- 700.000

INFO: It is estimated that textile production is responsible for about 20% of global clean water pollution from dyeing and finishing products and that microplastic fibers may end up in the food chain. Most of the microplastics produced by textiles are released during the first washings. SOURCE

NATIONAL CONTEXT

23. The Italian textile manufacturing sector consists of more than 13,000 companies, most of which are involved in:

weaving

embroidery

textile finishing and clothing

INFO: The Italian textile manufacturing sector is made up of over 13,000 companies, most of which refer to textile and clothing finishing (18.7%) and the manufacture of bed, table



and interior linen (18.3%). Also significant is the percentage of companies specializing in weaving (13.7%), textile fiber processing companies (10.1%), textile material manufacturing companies (8.9%), embroidery companies (8.7%) and knitting companies (4.5%). Fewer, on the other hand, are carpet manufacturing companies, yarn, cordage, rope and netting companies (1.3%), tulle, lace and lace manufacturing companies (0.8%) and industrial and technical companies (0.3%). SOURCE

24. How many tonnes of textile waste were produced in Italy in 2022?

10.000 tons

160.000 tons

300.000 tons

INFO: According to ISPRA (Institute for Environmental and Environmental Research) data, 160,000 tonnes of textile waste were produced in Italy (about 500 million clothes): 80,000 in the North, 33,500 in the Centre and 46,700 in the South. For an average of about 2.7 kg per inhabitant. SOURCE

25. How many new jobs could a textile reuse and recycling chain bring to Italy?

1.000

50.000

250.000

INFO: A potential of 50,000 new jobs and labor inclusion paths for 15,000 disadvantaged people. So much could be generated by a textile supply chain committed to giving new life to used clothes through the recovery and reuse of textile waste and the involvement of social cooperatives with over thirty years of experience. SOURCE

26. Since when is it or will it be mandatory in Italy to collect textile waste?

It is not mandatory

1 January 2022

1 January 2025

INFO: Separate collection of the textile fraction is mandatory for EU countries by 2025, but in Italy this obligation, addressed to municipalities, has been brought forward to 1 January 2022 by DL 116/2020. SOURCE

27. How many textile waste collection consortia exist in Italy?

• no-one

4

- 10

INFO: Four consortia are currently active in Italy: RETEXT.GREEN (founded by Sistema



Moda Italia and Fondazione del Tessile Italiano), ECOTESSILI (founded by Federdistribuzione), COBAT TESSILE (part of COBAT, a multi-consortium platform controlled by Innovatec) and RE.CREA (coordinated by Camera nazionale della moda Italiana and founded by several well-known Italian fashion brands). UNIRAU (Unione Imprese Raccolta Riuso e Riciclo Abbigliamento Usato) can also be added to the stakeholders. SOURCE

28. How much textile waste is collected separately in Italy each year?

approximately 100 tons

approximately 30,000 tonnes

about 150,000 tonnes

INFO: Textile waste from the urban circuit is collected separately through dedicated roadside containers: in 2021, it amounted to a total of 154,000 tonnes. SOURCE

29. How much textile waste is still found in undifferentiated bins in Italy?

• 0,5%

- 5,7%

- 45,3%

INFO: In 2020, 73% of Italian municipalities had implemented separate collection systems for the textile fraction, but 5.7% of undifferentiated waste is still composed of textile waste: it is clear that collections can be greatly improved. SOURCE

30. About one third of the used clothing collected in Italy is mainly exported to where?

Albania

Pakistan

Tunisia

INFO: Over a third of the clothing collected in Italy is mainly exported to Tunisia, the traditional market of Italian for-profit operators. Africa remains the prevailing destination even if in the last three years there has been a strong increase in exports to Eastern European countries. SOURCE



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PreVENTing and ReDucing the tEXtiles waste mountain in the MED area



Consortium

- Centre for Research & Technology, Hellas (CERTH)
- Bulgarian Fashion Association
- CITEVE
- Confindustria
- Consorci de la Ribera
- Corporación Tecnológica de Andalucía
- Diadyma S.A.
- e-Zavod
- Legambiente
- Textile Trade Association Textile Cluster (TTA-TC)



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Coordinator

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Project overview

The VERDEinMED project is an initiative funded by the Interreg Euro-MED programme to promote the circular economy in the textile sector. VERDEinMED is a thematic project that will provide a support service to boost circularity in the textile value chain for businesses, consumers, policy makers and academia.

The project is part of the Innovative Sustainable Economy mission of the Euro-MED programme, which seeks cooperation between Mediterranean countries to promote smarter and greener business models. It brings together 10 partners and 15 associated entities from Greece, Spain, Portugal, Italy, Slovenia, North Macedonia, Bulgaria, Tunisia, Turkey, Belgium and Lebanon.