

RIGA TECHNICAL UNIVERSITY Authored by: Elīza Gaidule, Dana Barkāne, Dana Beļakova, Gunta Zommere Project Number: 2021-1-EL01-KA220-VET-000034695



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(*) Action: C = Creation, I = Insert, U = Update, R = Replace, D = Delete

REFERENCED DOCUMENTS

ID	Reference	Title
1	2021-1-EL01-KA220-VET- 000034695	AR4RECLOTHING Proposal
2	PR1 / T1.1.1	National Research Report

APPLICABLE DOCUMENTS

ID	Reference	Title
1		
2		





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Stimulating gender-based innovative training methods to promote CLOTHING REcycling through Augmented Reality

1. Introduction

1.1 Scope of the project

Research has depicted the linkage between environment-oriented activities and gender disparities. In fact, gender equality matters to environmental sustainability with women performing two thirds of global working hours and being more dependent on natural resources in comparison with men (Irish Aid, 2013). However, the agenda promoting the importance of gender equality for the ecosystem still remains unfinished despite all the initiatives taken towards the establishment of eco-friendly activities (UN women, 2014). Therefore, while there is still a high level of gender inequality, women act as half of the world's resource managers, making their role crucial towards safeguarding the environment (Global Environment Facility, 2018). With clothing upcycling being the new trend for green fashion, there has been no concrete initiative promoting women's active participation in upcycling practices, despite EU's endeavor towards environmental sustainability. Therefore, the need for VET trainers and textile professionals (manufacturers, designers, colorists, etc.) to engage in an open dialogue in order to support gender-based training towards buckling down environmental challenges through clothing upcycling activities constitutes a brand new initiative in alignment with EU goals for resource efficiency (Europe 2020 Strategy).

1.2 Purpose of the document

The objective of the present report is to present the results of the needs verification analysis performed with representatives of the target group at national level. The organization involved 50 participants from the project target audience in order to validate the needs conceived during the thorough desk research conducted both at pre-application level and as part of the project activities. Therefore, the current report collects the results of the needs verification questionnaire addressed to textile manufacturers/students/professionals/NGOs for gender equality and/or environmental sustainability and other stakeholders. The aim is to receive valuable feedback towards developing training materials tailored to the current state of play and the actual needs in the field of textile upcycling and environmental consciousness.

1.3 Project target groups

The target groups addressed and affected by this research are:

- Directly:
 - Textile professionals (manufacturers, designers, colorists, stylists, converters, etc.) interested in or already taking initiatives towards environmental sustainability
 - VET & Textile experts willing to actively participate in an open dialogue about green methods that establish the importance of gender equality for the ecosystem





- HEI with Textile departments
- > Indirectly:
 - VET training organizations
 - Public bodies
 - NGOs or other organizations/authorities taking initiatives towards renewable resources and energy efficiency
 - AR developers or developers/organizations willing to embrace innovative digital solutions for sustainable training purposes and enhanced learning experiences
 - Policy makers

2. Methodology

2.1 Needs Verification Questionnaire

The questionnaire distributed either through online surveys or in a printed format was the following:

1. Introduction

Hello future AR4Recloth-ers!

Our team has conducted extended research in Romania, Greece, Poland, Spain, Latvia and the Netherlands to map the needs at national level in green practices, gender equality and clothing upcycling!

This questionnaire aims to receive your input in order to establish that our findings are valid! Our goal is to create personalized training materials and tools tailored to your own needs!

Will you help us?

It will only take you *10 minutes* and all information will be kept confidential and will be used ONLY for the purposes of the project!

Thank you in advance for your time!

2. Questions

2.1 Demographic Data

- 2.1.1 What is your gender?
 - Female





- Male
- □ Agender
- Bigender
- Nonbinary
- Other
- Prefer not to say
- 2.1.2 What is your level of education?
 - □ None
 - High School
 - □ College / Vocational education
 - Bachelor
 - Master
 - D Ph.D
- 2.1.3 What is your current occupation?
 - □ I am a student in Textile/Clothing Manufaturing
 - □ I am a student in Social/Humanitary/Gender studies
 - □ I am a student in Environmental studies
 - □ I have just finished my studies and looking for a job
 - □ I work in the textile manufacturing industry
 - □ I work for the protection of the environment
 - □ I work for societal issues (incl. Gender equality)
 - □ I am currently unemployed
 - □ I prefer not to say
 - Other

2.2 Level of awareness

Regarding your knowledge about eco-sustainable practices, please answer to the following questions:

2.2.1 Have you heard of any actions initiated by women towards environmental sustainability?

6

- Yes
- □ No
- Not sure

2.2.1.a If yes, please shortly describe them below



Regarding your knowledge about green practices, please answer to the following questions:

- 2.2.2 Have you heard of any environmental actions in the textile industry?
 - Yes
 - □ No
 - Not sure

2.2.2.a If yes, please shortly describe them below

2.2.3 What is your level of awareness in relation to the following practices/concepts? (1=not aware at all, 5=fully aware)

	1	2	З	4	5
2.2.3.a Circular clothing for sustainability					
2.2.3.b Circular material use					
2.2.3.c Sustainable Design					
2.2.3.d Digital solutions for sustainable innovations					
2.2.3.e Awareness-raising campaigns for clothing recycling					
2.2.3.f Awareness-raising actions for responsible textile consumption					
2.2.3.g Sustainable business models					
2.2.3.h Sustainability in fashion industry					
2.2.3.i Women participation in the protection of the environment					
2.2.3.j Gender-based training/learning methods					

2.3 Level of skills

2.3.1 What is your level of skills regarding the following? (1=lowest level, 5=highest level)

	1	2	3	4	5
2.3.1.a Creativity					
2.3.1.b Teamwork					
2.3.1.c Understanding of the work to be done					
2.3.1.d Problem-solving					
2.3.1.e Planning					
2.3.1.f Communication					
2.3.1.g Public speaking					
2.3.1.h Attention to detail					
2.3.1.i Self-motivation					
2.3.1.j Leadership					
2.3.1.k Negotiation					



2.4 Experience

- 2.4.1 Have you received any kind of training about environmental sustainability?
 - Yes
 - □ No

2.4.1.a If yes, please shortly describe them below

- 2.4.2 Have you received any kind of training about gender equality?
 - Yes
 - No

2.4.2.a If yes, please shortly describe them below

2.4.3 Have you received any kind of training about textile upcycling?

□ Yes □ No

2.4.3.a If yes, please shortly describe them below

2.5 Interest

- 2.5.1 Do you like the idea of AR4Recloting?
 - Yes
 - No
 - Not sure

2.5.1.a If no, please shortly explain below





- 2.5.2 Are you interested in further participating in AR4Recloting activities?
 - Yes
 - □ No
 - Not sure

2.5.2.a If no, please shortly explain below

Thank you so much for your time!

You can learn more about our news here: <u>http://ar4reclothing.erasmusplus.website/</u>

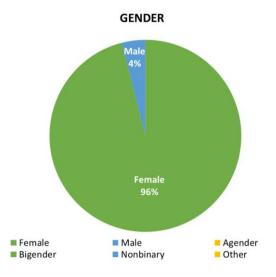




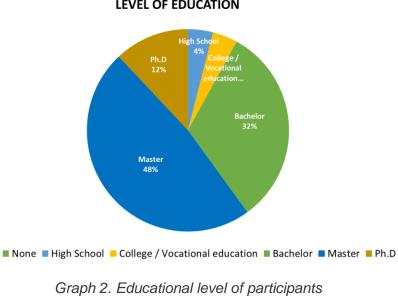


3.1 **Demographic data**

3.1.1 Gender



Graph 1. Gender of participants



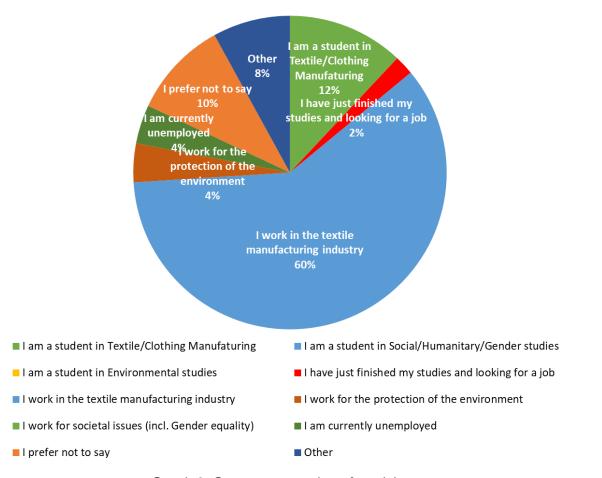
3.1.2 Level of education

LEVEL OF EDUCATION





3.1.3 Current occupation



CURRENT OCCUPATION

Graph 3. Current occupation of participants

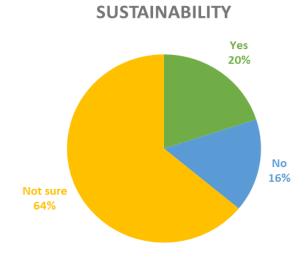




Stimulating gender-based innovative training methods to promote CLOTHING REcycling through Augmented Reality

3.2 Level of awareness

3.2.1 Knowledge of existing eco-sustainability actions by women

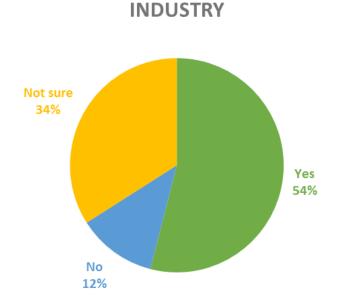


ACTIONS BY WOMEN FOR ENVIRONMENTAL

Graph 4. Participants' knowledge in environmental actions by women

ENVIRONMENTAL ACTIONS IN THE TEXTILE

3.2.2 Knowledge of existing eco-sustainability actions in textile industry

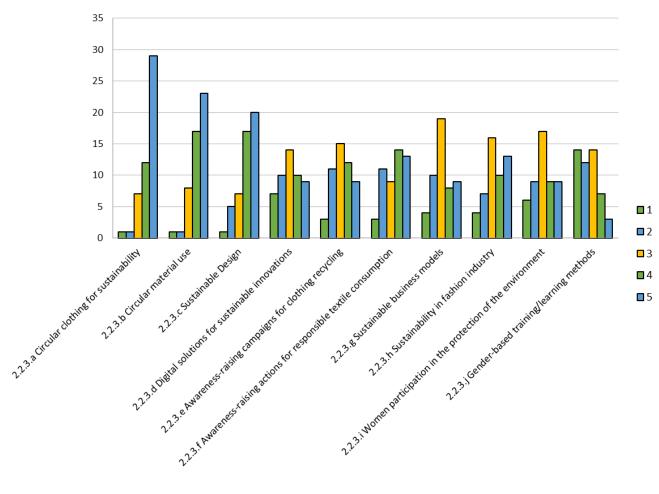


Graph 5. Participants' knowledge in environmental actions in textile





3.2.3 Awareness of sustainable and gender-equality concepts



LEVEL OF AWARENESS

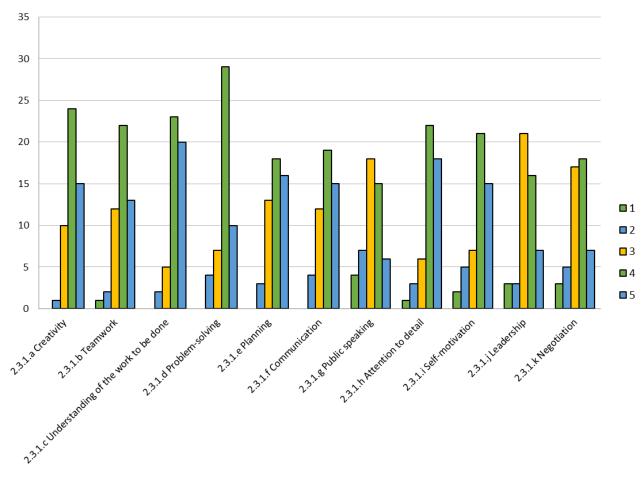
Graph 6. Participants' awareness in sustainable texting upcycling and gender equality





3.3 Level of skills

3.3.1 Level of hybrid skills



LEVEL OF SKILLS

Graph 7. Participants' skills for sustainable textile upcycling





3.4 Experience

3.4.1 Prior training for environmental sustainability



Graph 8. Participants' prior training for environmental sustainability

3.4.2 Prior training for gender equality

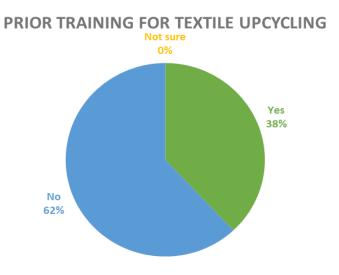


Graph 9. Participants' prior training for gender equality

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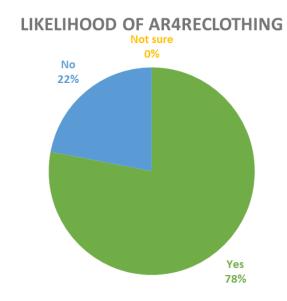


3.4.3 Prior training for textile upcycling



Graph 10. Participants' prior training for textile upcycling

3.5 Interest



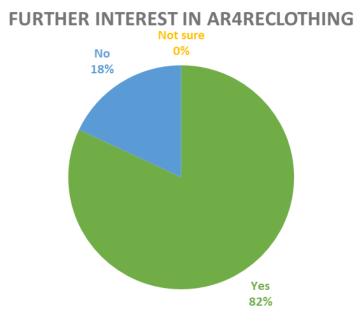
3.5.1 Likelihood of AR4ReClothing

Graph 11. Participants' preference in the project

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3.5.2 Interest in further participation



Graph 12. Participants' interest in further participation

4. Conclusions

What is the gender of most respondents?

The majority of respondents are women. There is a big contrast in the percentage distribution of respondents: 96% are women, and 4% are men.

Other gender types were not represented.

What is the educational level of most respondents?

Nearly half of all responders, or 48%, have a master's degree. 12 percent have doctorates, whereas 32% hold bachelor's degrees.

Overall, 92 percent have a higher education, while only 8 percent have a high school or college education.

There was no one without education.

What is the current occupation of most respondents?

More than half of respondents, that is 60%, work in the textile manufacturing industry or at an educational institution related to textile and clothing design and production training.

While 10% of respondents want to withhold their occupation, 13% of all respondents are enrolled in a program for studying textile or garment production.





The other types of occupation were represented relatively little among the respondents or were not mentioned at all, for example - there was no one who does work related to public issues (including gender equality).

What is the average level of awareneness for each of the practices examined?

The level of awareness of each indicated practice could be rated as normal, satisfactory or average.

In the section on women's initiatives for environmental sustainability, the majority of respondents answered that they were not sure or aware of such measures. As a percentage, it is 64 percent, which is much more than half.

In the section on textile industry measures in the field of environmental sustainability, the majority of respondents answered that they know such measures. As a percentage, they are 54%, which is just a little more than half.

The section on women's initiative in environmental sustainability issues is specific, therefore only a small number of respondents are aware of such measures.

The section on measures of the textile industry in the field of environmental sustainability is more well-known and remains more and more relevant, this is also revealed by the number of respondents' answers. Almost every individual knows about clothing reuse, recycling and textile containers.

Below you can see the average level of respondents for each of the listed practices:

Circular clothing for sustainability 4,34

Circular material use 4,2

Sustainable Design 4

Digital solutions for sustainable innovations 3,08

Awareness-raising campaigns for clothing recycling 3,26

Awareness-raising actions for responsible textile consumption 3,46

Sustainable business models 3,16

Sustainability in fashion industry 3,42

Women participation in the protection of the environment 3,12

Gender-based training/learning methods 2,46

What is the average level of skills for each of the competences examined?

Creativity 4,06

Teamwork 3,88 Understanding of the work to be done 4,22

Problem-solving 3,9

Planning 3,94

Communication 3,9

Public speaking 3,24

Attention to detail 4,06

Self-motivation 3,84

Leadership 3,42

Negotiation 3,42

When evaluating all eleven knowledge in total, the average level is 3.81.

Do participants have prior experience in any of the three key areas of the project? What is the rate?





42 percent of all respondents have participated in training on environmental sustainability, while 58 percent have not.

Only 8 percent have participated in gender equality training, while 92 percent have not.

38 percent have participated in textile recycling training, while 62 percent have not.

In general, evaluating the answers of the respondents in this section, it can be concluded that the competence of the respondents is greater in the issues of environmental sustainability and textile recycling than in gender equality.

Do they express interest in further participating in the project activities? What is the rate?

It is safe to say, based on the respondents' comments in this section, that people generally have a favorable attitude and are interested in this project.

78 percent of respondents are interested in the project idea and 82 percent of respondents are interested in further project activities.

General conclusions:

The project survey questionnaire was distributed using various technical means to reach as many potential respondents as possible. Relatively high interest in the questionnaire and the project was observed. In total, answers to the questionnaire were received from 50 respondents. Perhaps the number of respondents would be higher if the survey took place in autumn, winter or spring. Summer is vacation time when individuals use technology, emails and social networks relatively less.

Making general conclusions about the survey, it can be said that 50 respondents is a sufficient number to see the trend in the field.

It is worth emphasizing again that the majority of respondents are women, they are 96 percent or 48 individuals. Only 2 men out of 50 women gave their answers. Therefore, the participation, competence and attitude of women can be seen in all questions and answer sections. In general, in the sectors mentioned in the questionnaire in Latvia, the majority of active employees are women. Also in the previous national research, initiatives, associations, organizations and companies founded or managed by women were listed.

Analyzing the survey revealed that the respondents indicated seminars, training and courses in the descriptive questions, which were not found in the first part of the research, but would be a good addition to it.

It should be noted that in the "demographic data" section of the questionnaire, the answer option "I work in the textile manufacturing industry" includes answers from respondents who work in an educational institution related to textile and clothing manufacturing training, which by its nature is also a large and essential part of the industry.

Evaluating the questions of the questionnaire, and the answers given by the respondents, it can be claimed that they really reflect a small part of the real situation in the relevant field and mark a trend. In order to be able to make serious and justified statements, it would be necessary to carry out a much wider survey and research of specific sectors.

