



Innovation services: Interim report

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Executive Summary

The deliverable 3.2 Innovation Services: Interim Report as per DoA description aims to *describe and synthesize the results of the first phase of delivery of the Innovation Services realized with the 6 labs and an updated version of the Innovation Services Toolkit*. To keep consistency with the previous deliverable 3.1, we keep the same chapter framework, that is also a reflection of the DoA structure.

The first chapter on **T3.1 Models and Tools** gives a further structuring of the Toolkit, as an online Handbook, with a series of online and editable templates, that were adapted alongside the work performed within the activities of the labs and further informed by the actions and reality of the labs.

During the first phase of shemakes, three types of activities were performed by the involved shemakes labs (WAAG, REDU, IAAC, MAKESENSE): **T3.2 Community engagement events, T3.3 Lab to Lab collaborative research sessions and T3.4 Business engagement actions**. Each set of activities reported in this deliverable and in the online Handbook/Toolkit, has been tested by the involved labs, informing the toolkit in terms of content, findings, learnings and templates for knowledge transfer.

The Community Engagement activities were executed by REDU, WAAG and MAKESENSE, in order to test the initial criteria and framework, with the local communities of each lab. The labs experimented on a diverse set of enabling formats targeted to the local communities needs and opportunities, while keeping aligned on the core values and vision. Two types of formats emerged in this phase of Community Engagement:

- Interactive/co-creative activities with stakeholders to create a shared awareness and vision
- Community awareness events/talks with and about the stories of successful women entrepreneurs/leaders and the challenges they faced in the T&C field.

Through the Lab to Lab projects, IAAC, REDU and WAAG explored research activities, including desk research, mapping exercises and hands-on research. A shared research topic of wool as a local resource and an opportunity for sustainable futures in labs, was identified and unfold into three facets of the same goal: **Place** by exploring the territorial local ecosystems, **Design** with natural dyes techniques and **Make** applying a micro-scale and DIY tools for wool processes.

The research frame set in motion by the three labs ensures that each Lab leads a section and follows / interacts with the other two, forming a comprehensive whole. Thus, creating the criteria for an open and collaborative toolkit from which the transfer labs can easily feed -in and -from in terms of knowledge and local opportunities.



The Business Engagement actions for the shemakes labs also developed based on the understanding that each Lab has a specific context and set of opportunities depending on the networks it is part of. Therefore, also the first business engagement actions developed in this phase by MAKESENSE and WAAG are leaning towards two complementary formats:

- A Challenge Solving Workshop - for labs directly mentoring local entrepreneurs on their challenges
- Network mapping and connections - for labs that aim to facilitate connections between stakeholders and entrepreneurs

Each chapter departs from the hypothesis and work initially planned on the previous deliverable, then describes the developments that occurred during the first phase of the project and reflects upon the design of models and tools to transform the broad range of activities into replicable formats to be followed by the transfer labs during the next coming phase.



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1. Models and tools

1.1 Recap D3.1 & Summary D3.2

During the initial project phase (M1-3), the first concept of the innovation model and tools were developed to guide Phase 1 of actions, used and tested in the following months (M4-9). This first concept of the shemakes.eu model was presented in deliverable 3.1:

- **TCBL and Fabricademy** as points of departure and initial building blocks of existing structures, models and methods;
- **First concept of the shemakes adapted model structure.** This adapted model is split in three levels and lays the foundation for a value driven network of labs operating towards the same goal in the context of the shemakes.eu project. It aims to support the labs while executing its activities, at the same time providing a base from which recurrent iterations of feedback and adaptation will feed into the model’s evolution.

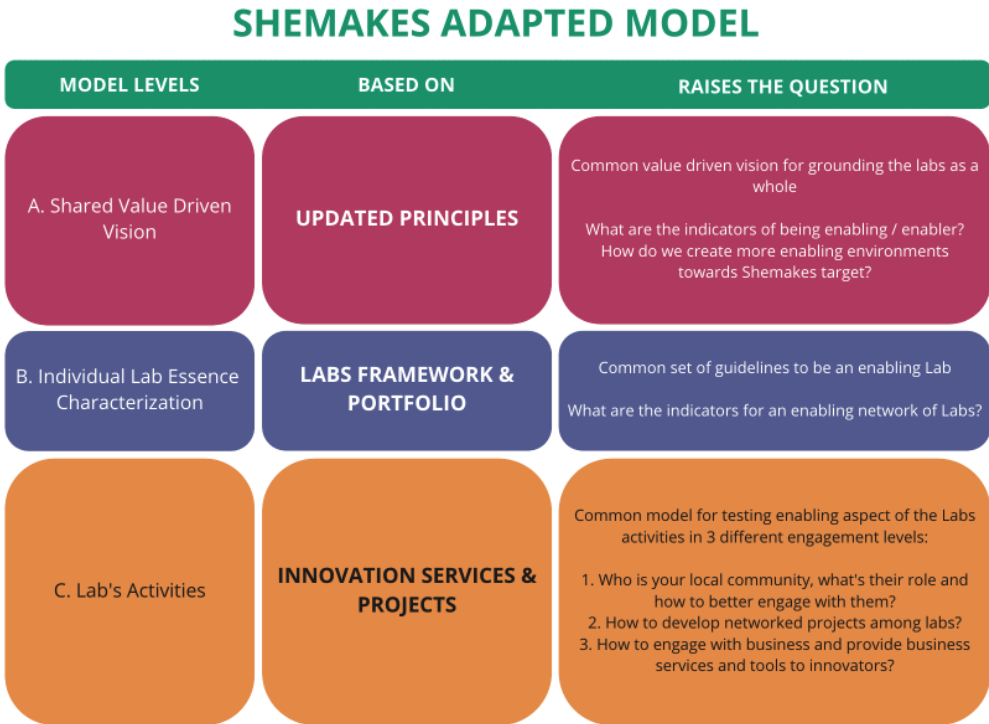


Figure 1, shemakes adapted model presented in D3.1

As described in the DoA, the priority of this work package during the Innovation Actions Phase 1, was mainly to coordinate, develop and execute the activities on the engagement levels: tasks 3.2 community engagement; 3.3 lab-to-lab project and 3.4 business engagement. Therefore, this chapter mainly focuses on the updates from the last working period and describes the next steps that will be taken to prepare the 2nd loop of Actions, starting January 2022 (M10-12).



1.2 Synthesis of activities carried out

From March to September several coordination activities, including meetings, co-creation sessions round tables, took place within the shemakes.eu consortium and WP3 in order to align and further develop the actions to be taken amongst the labs as well as constantly coordinate work among WP2 and WP4. A detailed table with the most relevant meetings and working sessions can be found in the [Annex 6.1](#) of this deliverable. As per the activities that happened for each task specifically, they will be presented in a table summary inside each chapter.

1.3 The toolkit updates

As described in D3.1, **co-creation is key in the development of the tools needed for the labs to create enabling environments for women**, since it departs from the needs and perspective from within the community, identifying together its needs, formulating the problems and also possible solutions. Following this principle, a digital environment was co-designed, serving both as a documentation platform and as the first toolkit for transfer labs: the shemakes Handbook¹. This Handbook will serve as a one-stop space for guiding the transfer labs into the Innovation services (WP3) but also to the Learning Paths (WP2) and Reputation management (WP4).

As the model presented in D3.1 unfolded in the hands of the labs, in return, the labs' needs and knowledge further shaped the activity and research templates of the handbook. This organic growth informed the templates for the toolkit step by step, assuring the correct information was collected. As a living space, open for contributions and constant development, the Handbook will be used continuously throughout the project by all the labs. The online environment will host knowledge coming from both WP2 and WP3, where the Learning Paths (WP2) focus on further exploring the content of the learning experience while the Innovation Services (WP3) provide tools, formats and guidelines for labs to act on the various engagement levels/ community levels.

Based on the values of open source, the toolkit is hosted on Gitlab. GitLab is a web-based DevOps lifecycle tool that provides a Git repository manager providing wiki, issue-tracking and continuous integration and deployment pipeline features. It follows an open-core development model where the core functionality is released under an open-source (MIT) license while the additional functionality such as code owners, multiple issue assignees, dependency scanning and insights are under a proprietary license.

¹ Handbook is the work in progress name for the repository of the Toolkits of the Learning paths and Innovation Services, which in the future will also host the material coming from the Reputation Management. Link to the Handbook: <http://fabricademy.fabcloud.io/shemakes/handbook/>



An ongoing conversation on the communication aspects of the Handbook is being held, the best format, naming and method of diffusion for optimum uptake of the content through this tool. Therefore, until the *Reputation Building and Transition Phase is completed (M10-12)* the working name “Handbook” is adopted by the consortium.

1.1.1 Key users & main objectives of the digital space

From this moment onwards the core labs are responsible for documenting and filling in the initial information that will serve as base for the handbook, in the form of templates and step-by-step guidelines on how to replicate shemakes activities.

Transfer labs will then be the first key-users of the content generated, replicating a range of actions in their local context and contributing to the development of the handbook, by adding new information and/or creating new content.

Some of the content generated will also feed into the main shemakes.eu website to amplify the project’s reach through promotion and communication (WP6). This is in line with the collaborating ethos that we are following in the consortium.

1.1.2 Structure

The handbook has been developed within FabCloud², a repository used by Fabricademy and many more labs for the documentation of their research and their findings in a collaborative way. This ensures the page’s maintenance after the project’s timeline is ended and also keeps the same open-source, fully collaborative approach that is already used as Fabricademy current documentation best-practices.

For the Innovation Services of shemakes, the handbook’s structure is shaped around the tasks, as illustrated below.

² <https://www.fablabs.io/>



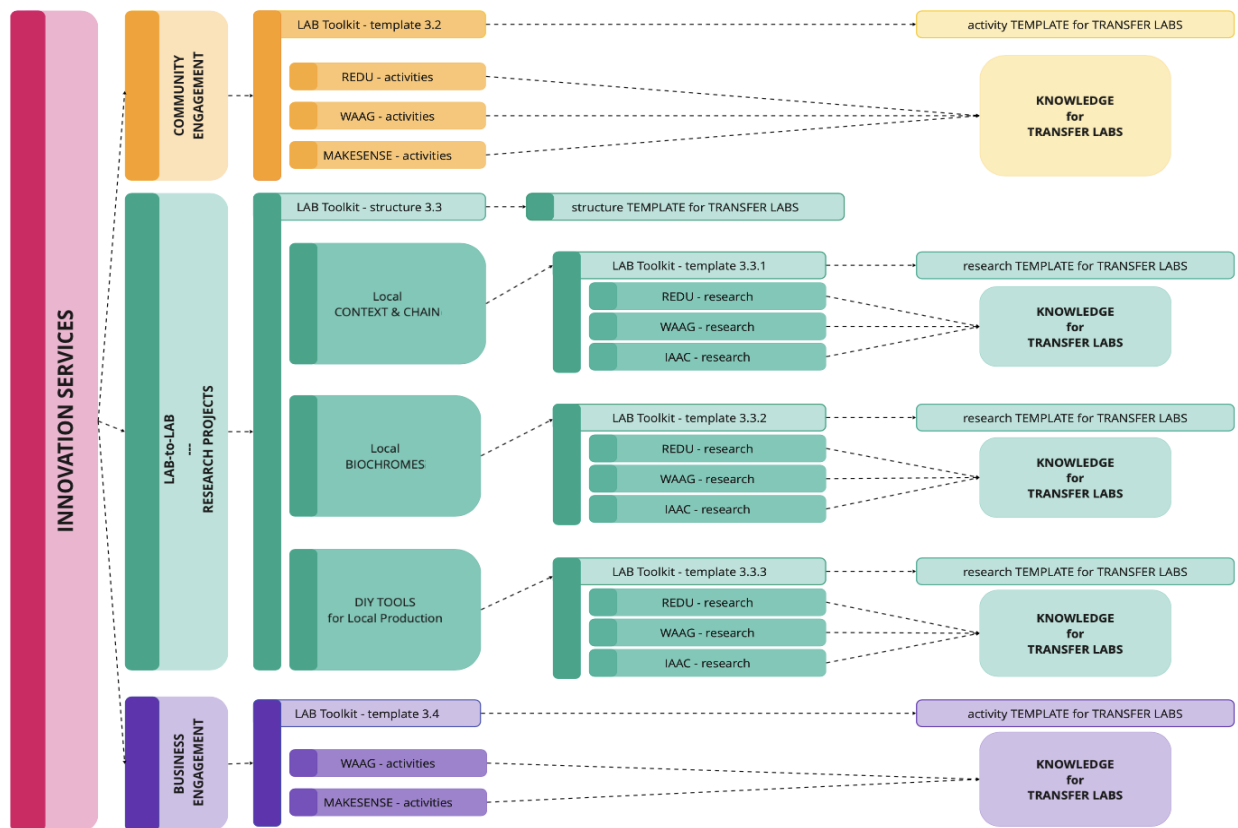


Figure 2, Structure of the Handbook/Toolkit for the Innovation Services

1.1.3 Templates

The templates for the documentation were updated after the execution of the activities, to prepare for the next phase. Templates are ready made coded skeletons that create a documentation structure for all labs that join shemakes Innovation Services in WP3.

They are written in Markdown³, a very simple coding language that allows everybody to contribute easily to the handbook of the Innovation Services, fostering collaboration and knowledge exchange.

³ <https://www.markdownguide.org>

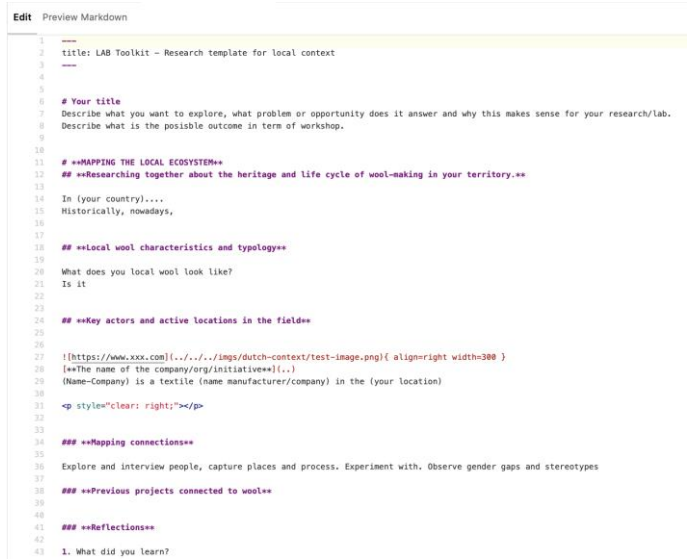
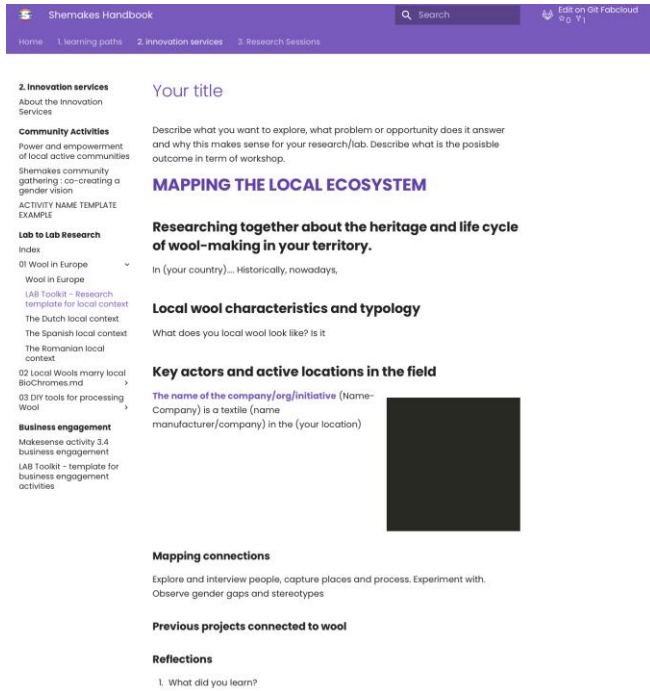


Figure 3, Example of a Handbook template

(Left: example of template rendered; right: example of template in code, before rendering)

Below a list of the templates and research produced for all the activities of the Innovation Services.

Table 1, Handbook Templates

Task	Template name	Template Link	labs
3.1	Structure Innovation Services	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/	Waag
3.2	Structure Community Engagement	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/Community-Activities/	Waag; Redu; Make
3.2.1	Template Community Engagement actions	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/Community-Activities/99-Toolkit-template-3.2-community-engagement/	Waag
3.3	Structure Lab-to-Lab	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/Lab-to-Lab-Research/01_Wool-in-Europe/01_Wool-microfactories/	Waag; laac; Redu



Task	Template name	Template Link	labs
3.3.1	Template Wool local context Research activities	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/Lab-to-Lab-Research/01_Wool-in-Europe/99-Toolkit-template-3.3.1-wool-context/	Waag; laac; Redu
3.3.2	Template Wool BioChromes Research activities	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/Lab-to-Lab-Research/02_Local-Wools-marry-local-BioChromes.md/99-Toolkit-template-3.3.2-dyes/	Waag
3.3.3	Template Wool DIY Tools Research activities	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/Lab-to-Lab-Research/03_DIY%20tools%20for%20processing%20Wool/99_Toolkit-template-3.3.3-tools/	Waag; laac
3.4	Structure Business Engagement	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/business-engagement/	Waag; Makesense
3.4.1	Template community Engagement actions	http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/business-engagement/Toolkit-template-3.4-business-engagement/	Waag

1.4 Next steps and WP3 updated timeline

As per DoA description the next phases of shemakes project are:

Reputation building and transition (Oct-Nov-Dec) Advisors, Gurus and Ambassadors help to highlight the increased value of skills and the prospects for increased equity for women, leading to the transition towards the second iteration of shemakes.eu Lab activities with the enlarged network of 18 labs. Working on WP3 actions means selecting Ambassadors from the first phase to deploy activities in the future labs in a peer-to-peer way, with the help of Gurus (in each Lab) and Advisors (a selection of results will be pitched to them for further development).

Innovation actions Phase 2 (Jan-Jun) delivers the second iteration of shemakes.eu Lab activities within the extended labs network, promoting multi-faceted innovation through the Gurus and Ambassadors identified in the previous phase, while identifying new 'job routes' and business opportunities for a further increased value of skills.

The overall timeline of WP3 Models and Tools is summarized in the table below.



Table 2, Timeline for Innovation Services next phases

Project Phase as per DoA	Tasks	Date (Timing)
Reputation Building and Transition Phase	Ambassadors selection	Oct
	Pitch to Advisors	Nov
	Further develop the Toolkit and its templates	Oct-Nov
Innovation Actions Phase 2	Gurus-Ambassadors Knowledge exchange	Jan-Feb
	Transfer labs test phase, execution of activities	Mar-May
	Round of feedback and second iteration of the shemakes Models and Tools	Jun

For each task within this work package, a similar table will be presented at the end of each chapter, to explain in detail the activities to be explored in the next phases.



2. Community Engagement

2.1 Recap D3.1 & Summary D3.2

As stated in the DoA, the community engagement actions of the shemakes labs have the aim to determine the most valuable formats to put the shemakes enabling principles into practice.

In D3.1, the labs identified that an opportunity for innovation in community engagement lay in discovering what was the current state of awareness around the subjects of “women” and “gender inequality” in the T&C industry- STEM actors.

Also in D3.1, “community builds change”, one of the core hypotheses we outlined and around which we focused our research, was guided by the Quadruple Helix concept and methodologies. The concept highlights the importance of actively integrating the general public and ordinary citizens into innovation projects as well as local social groups (from associations to NGOs, from regional support to national institutions) as major actors in local innovation systems.

During the second phase of shemakes, a number of different activities were performed by the shemakes labs, in order to test the initial criteria and framework, with the local communities of each lab.

In the summary below we list the activities, timeline and impact of the activities carried out by WAAG, REDU and MAKESENSE in the community building process.

Table 3, Summary of the community engagement lab activities

(March 2021-September 2021)

Lab	Date	Title and short description	Key figures	Duration
REDU	16/06 - 04/07	Questionnaire on identifying the general perception/opinion regarding gender gap in STEM / Textile & Clothing Industry	537 total (355 women)	Survey available for 3 weeks
REDU	04/09	Stakeholders community building workshop “REDUcing the gender gap. Creating a community”	9 women	4 hours
MAKE	06/09	Barcamp - How to create an inclusive entrepreneurship?	15 women	1 hour and a half



Lab	Date	Title and short description	Key figures	Duration
WAAG	30/06	Workshop - shemakes community gathering: co-creating a gender vision at Waag	6 women	2 hours
WAAG	11/08	Workshop - Shemakes community gathering: co-creating a gender vision at Paros	14 women	2 hours
WAAG	02/09	Panel discussion - Woman in Fashion: paving the way for female entrepreneurs. Discussion with four leading women from the textile and clothing industry.	60 total (50 women and 10 men)	1 hour

2.2 Development Process – Phase 1

In the previous deliverable, we saw the “Quadruple helix⁴” and the “Community builds change” concepts as core concepts of the shemakes model for Community Engagement. The purpose of these concepts is to develop special methods and tools to empower women, by co-defining a core format and agenda for the upcoming events/discussions/panels. These were tested by each of the three labs in their communities, and their formats are being improved before being transferred to 12 other labs.

In the Phase 1 (M4-9), based on these participatory and interactive models, the shemakes labs first researched and discussed possible formats for workshops/panels/talks that would frame the stakeholder consultation scheme, engagement, collaboration and empowerment. By outlining these key criteria that each lab must meet and integrate, the labs agreed that each lab would adapt the formats to determine the most effective way to create community engagement activities, in line with the local reality and needs that characterize each of their surrounding communities. In order to have a positive impact and to raise awareness, attention to cultural habits also generated ideas for identifying the best way to interact with the community.

As stated in D3.1 the issue of gender inequality is so embedded in our education and behaviour, that even the starting point for acting could be flawed in “how” we address it. The path found to be the most reliable and safe, was to act in small steps: involve - check - draw conclusions - adapt to the emerging needs - improve and test again.

⁴ The Quadruple Helix Model adapted by Fraunhofer (2016), originally developed by Carayannis and Campbell (2009). Copyright © 2015 Fraunhofer.

Referring to the communities already existing in each lab, the labs started mapping together their common approaches and where it required adaptation to the lab local environment. For example, REDU started from the idea of going through a consultation phase before defining the community it is targeting, WAAG and Makesense conducted direct targeted interviews with their stakeholders.

The adjustments made by the labs to the timeline agreed in D3.1 for the community engagement activities in phase one underwent some modifications, not related to content but more to the accessibility of the stakeholders in the summer months - these minor adjustments did not bring any impediment in reaching the common goals and carrying out these activities.

2.2.1 Shemakes community engagement - Redu context

Activity description

The REDU team started by researching and gathering information on the global, European and national contexts of gender gaps, looking for specific information on the fields of Textiles & Clothing as well as STEM. The lab was particularly driven by exploring the difference between statistical and real-life data at national level.

Two activities were launched: A questionnaire to the general public and a stakeholder workshop.

The questionnaire aimed at finding out people's perceptions of the gender disparities they have experienced. This was carried out anonymously, to promote the feeling of a safe space that would allow personal experience to emerge and give the chance to the local community to fully open up. This questionnaire generated great insight and learnings both in terms of the number of respondents, quality of responses, and in terms of its online feedback (where it was published).

The second activity was the workshop **"We REDUce the gender gap. We create a community"**. Community involvement and raising awareness in the community aim to maintain a lasting collaboration and a significant increase in the number of stakeholders involved in this process.



2.2.1.1 Activity 1 – Online survey

Table 4, REDU Activity 1 Summary Description

Consulting the local community through the online questionnaire on “Identifying the general perception/opinion regarding gender gap in STEM/Textile and Garment industry”	
GOALS & FORMAT	Development of the survey and its launch online, data monitoring and interpretation. As mentioned above the main goal was to properly assess the local situation as an indicator on where to act upon.
DATE & LOCATION	The questionnaire was designed using the Typeform platform and launched online on 16 June on REDU’s social media platforms (Facebook and Instagram) and then closed on 4th of July.
PARTICIPANTS & IMPACT	From a sample size of 537 subjects from Romania (out of 545 registered questionnaires, 537 were validated after the verification process, with those with incomplete/multiple answers being eliminated), 355 were women representing 66% of all the respondents. 435 of the 537 respondents gave a personal definition of gender inequality, with some giving complex answers covering several dimensions of the concept, while others opted for a single component or characteristic. This indicates an active concern and involvement on the part of the questionnaire participants. The questionnaire not only generated valuable insights and findings in terms of local perceptions, we believe it also raised the awareness among those who completed it, regardless of whether they agreed or disagreed with the topic of the gender gap.

Key Learnings

From the very beginning of the project, we started researching the gender gap status at national level in order to identify the most appropriate starting point for action. From our own experience constructed upon years of past interactions with women in our local activities, we could raise the hypothesis that the general situation seems different from national level statistics. At the European level, Romania seems not to have large differences in terms of



gender gap in STEM fields, whereas its textile industry is still dominated by women, even though they occupy the low paid jobs and are very much related to sewing.

Thus, we decided that an online survey would make the context and perception a little clearer. The research was done via a questionnaire consisting of 29 items as a data collection tool, including 28 closed questions (with predefined answer options) and one open question (giving subjects the possibility to freely record their answers). Depending on their content, factual and opinion questions were included. Data collection and analysis were carried out in accordance with the principle of data confidentiality, and participation in the research was voluntary, based on the expression of free consent.

Survey’s main findings. Below are some key insights gained from the survey results.

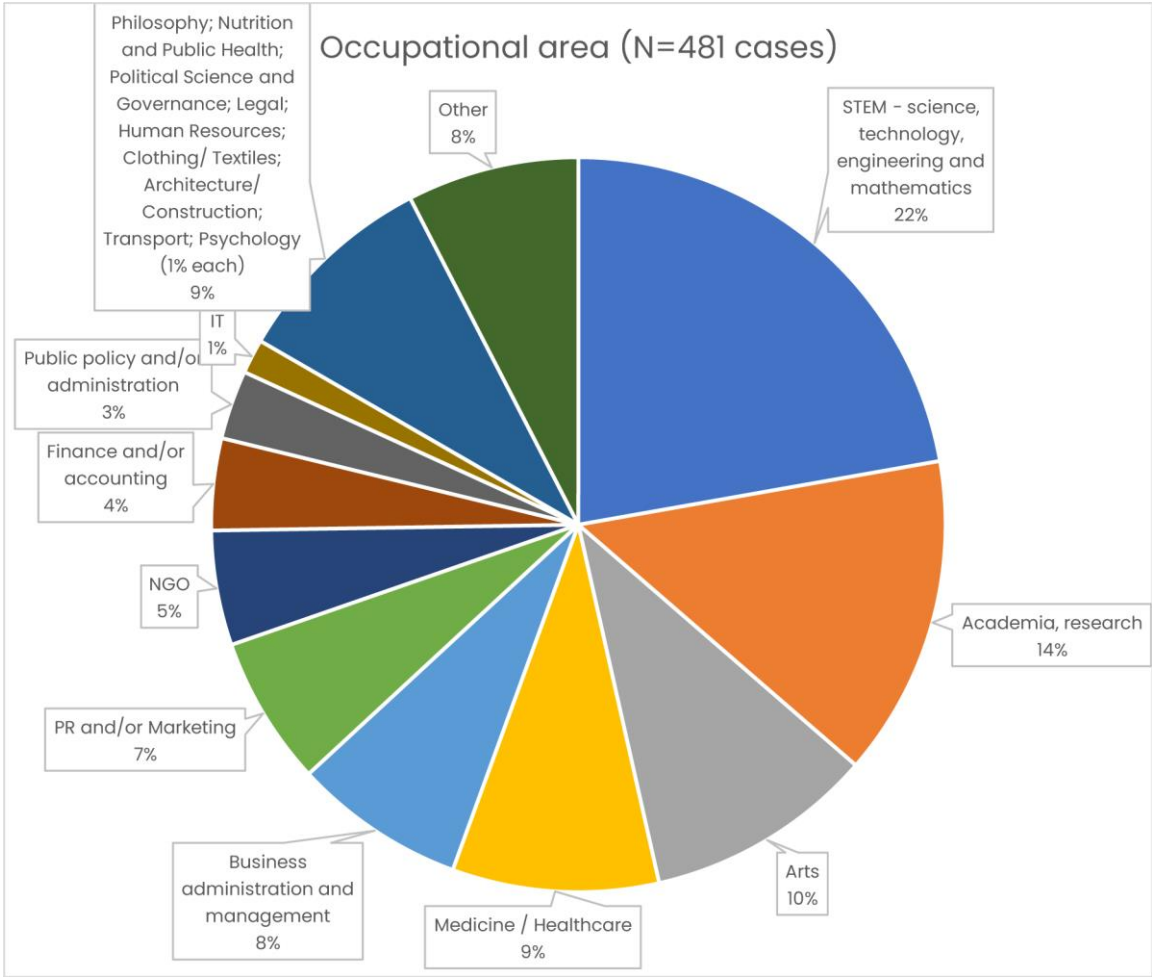


Figure 4, Respondents’ profile

The top three fields in which respondents work are *STEM - 22%*, *Academic/Research - 14%* and *Arts - 10%*.



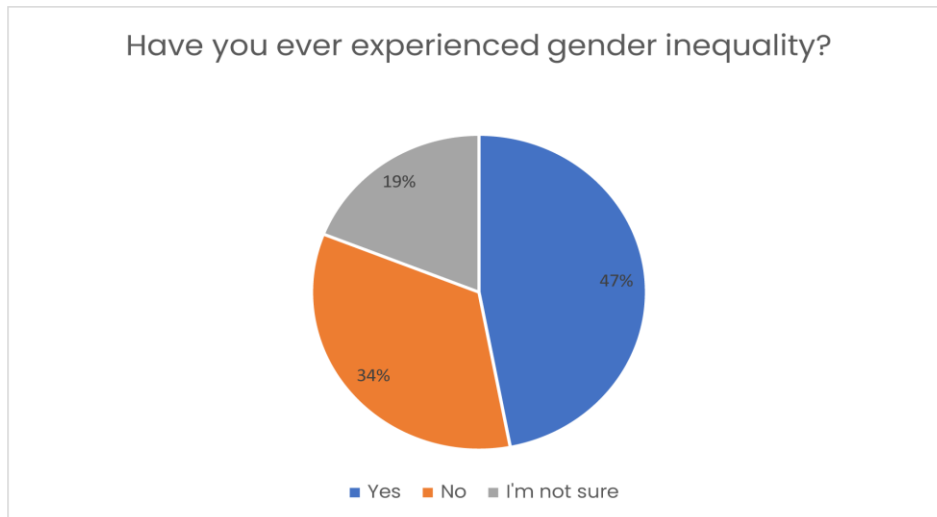


Figure 5, Gender inequality experience

The data indicate that almost **half** of the subjects (**47%**) have experienced gender inequality at least once, while about **1 in 5 (19%)** are not sure if they have experienced it. The number of those who said they had not experienced this type of situation totalled **34%**.

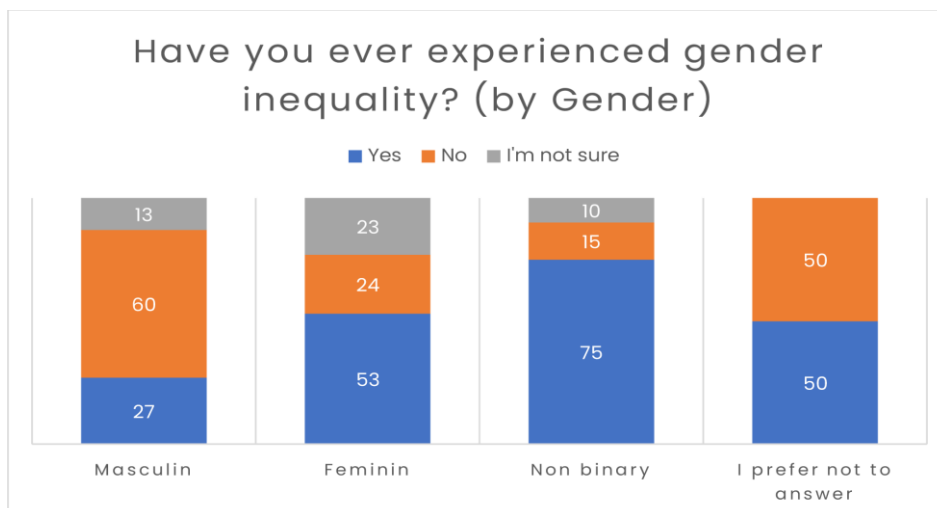


Figure 6, Gender inequality by gender

Among the respondents, we had a majority of women (355 respondents) and a very small minority of non-binary (20 respondents). Here, the results indicate that the percentage of females who *have experienced* gender inequality at least once is **almost double** that of males (**53% vs. 27%**). The gender gap is further compounded by the percentages for the response option *I am not sure*: more females said they were *not sure* whether they had experienced gender inequality (**23%**) than males (**13% of the total**). Thus, these data reveal that females were more exposed to such situations than males, with **24%** of those who *denied* exposure to unequal treatment because of gender, compared to **60%** of males who said they *had not* experienced such treatment.

A very small number of respondents identified with “non-binary” (20), among which 15 experienced inequality because of gender, and 2 did not give a firm answer (*not sure*).

Testing biased behaviour. The next section of the questionnaire consisted of presenting seven statements about the role of women and men in society and measuring how regularly respondents heard these phrases.

Biased behaviour refers to the fact that repeated exposure to a series of stereotypical statements can lead to their internalisation and the creation of expectations (behaviours considered socially desirable) from people of the same or opposite gender or the appropriation of specific roles in line with them.

In the following tables, we present the ranking of the statements by decreasing order. For the first 3 statements, we decided on purpose not to show mean values to allow for differences to appear clearly, particularly between men and women, even if our comments on each table may relate to the general results.

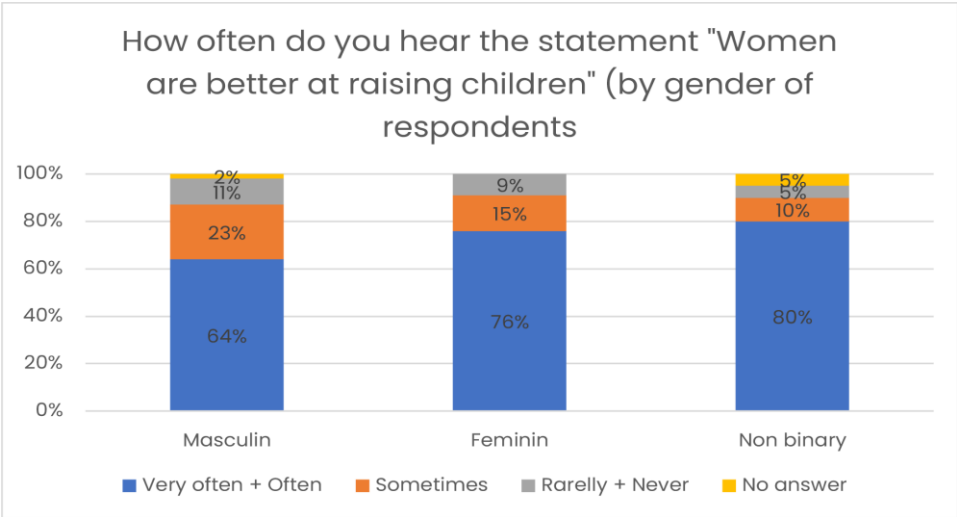


Figure 7, Frequency statement 1 by gender

On average, the statement with the **highest percentage** of *very often* response - out of the seven included in the item - is "Women are better at raising children" (**43%**), - reinforced by the 30 p.p. (percentage points) of those who said they *often* heard this phrase. Only **9%** of the participants in the survey said they had *rarely* or *never* heard this statement, while **17%** said they had heard it *sometimes*. On this item, the answers we collected from men are lower than those of women.



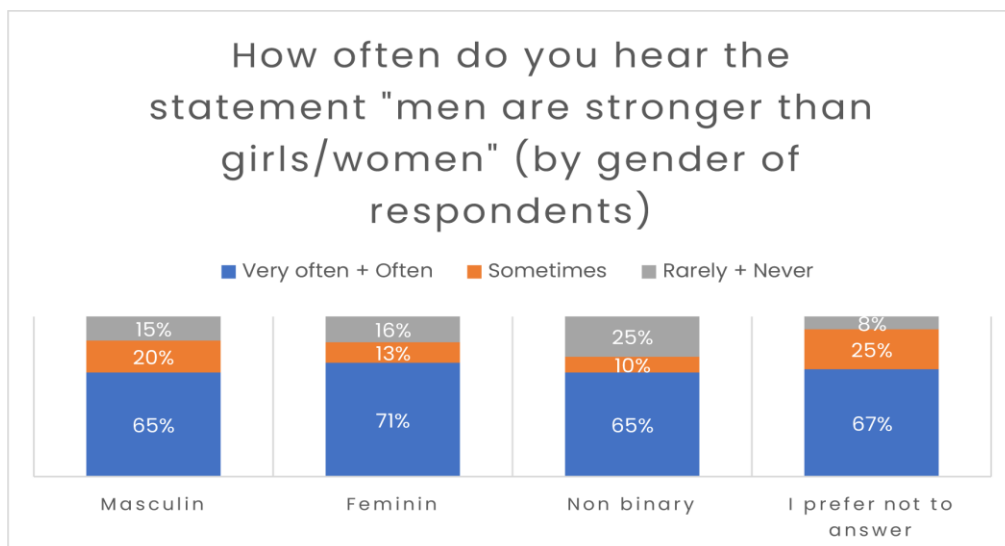


Figure 8, Frequency statement 2 by gender

The **second** most common statement heard in current discussions is "Men are stronger than girls/women": On average, **42%** of respondents said they heard it *very often*, **27%** *often*, and 15% - *sometimes*. At gender level, women tendentially more than men (**71%** - women, **65%** - men) said they had encountered the expression (very often+often) "Men are stronger than women".

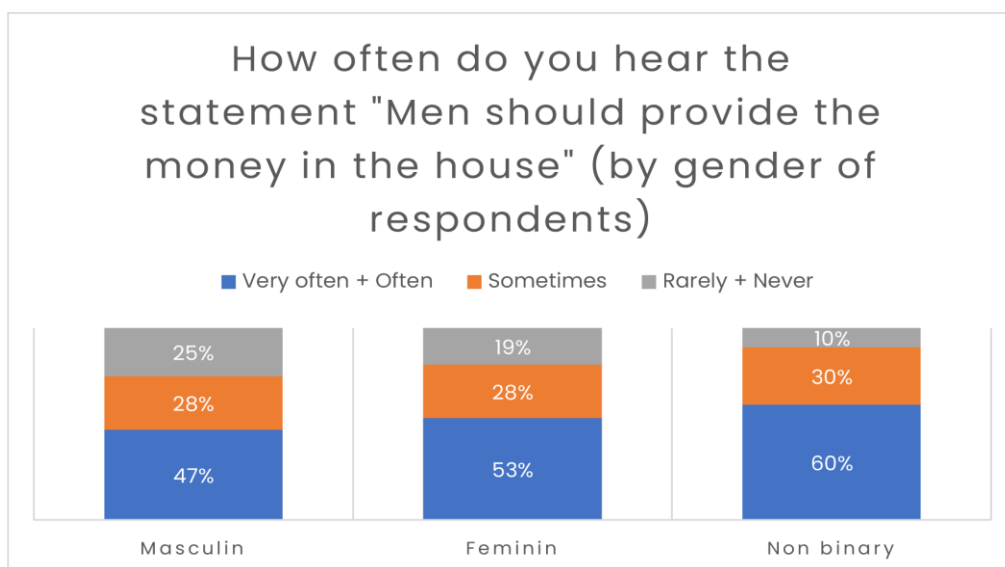


Figure 9, Frequency statement 3 by gender

On average, more than half of the participants in the survey said they had heard the statement "Men should provide the money in the house" *very often* and *often*, while **28%** chose the *sometimes* response. **One in five** subjects *rarely* or *never* heard this phrase.

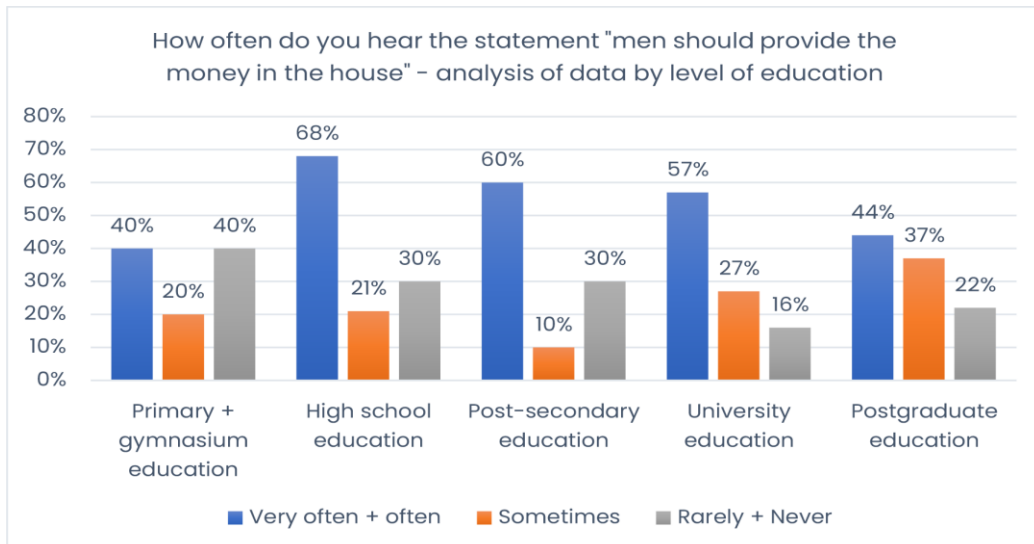


Figure 10, Frequency statement 3 by education

The difference in the "Money" statement came from the **education** level. High school graduates were more likely to report hearing this phrase very often and frequently than university graduates (**68% vs. 57%**). Moreover, the number decreases as the level of education increases: only **44%** of postgraduates had frequent contact with the statement "Men should bring the money in the house".

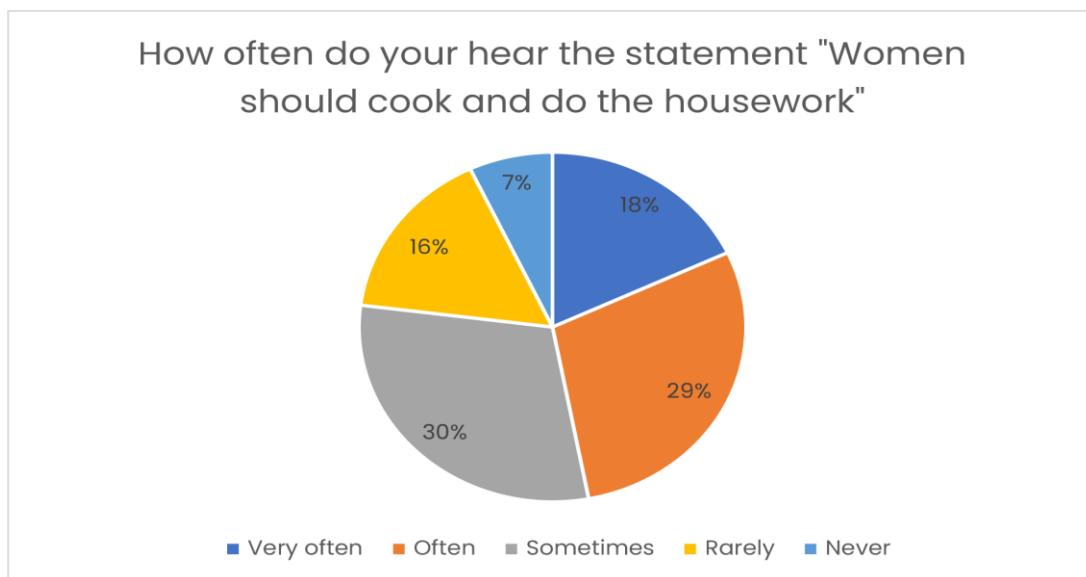


Figure 11, Frequency statement 4

47% of the participants in the survey said that they *very often* and *often* heard the statement "Women should cook and do the housework". Women were more likely than men to say they had "*very often + often*" come into contact with this expression (**54% vs. 32%**), while twice as many men said they had "*rarely + never*" heard this expression as women.

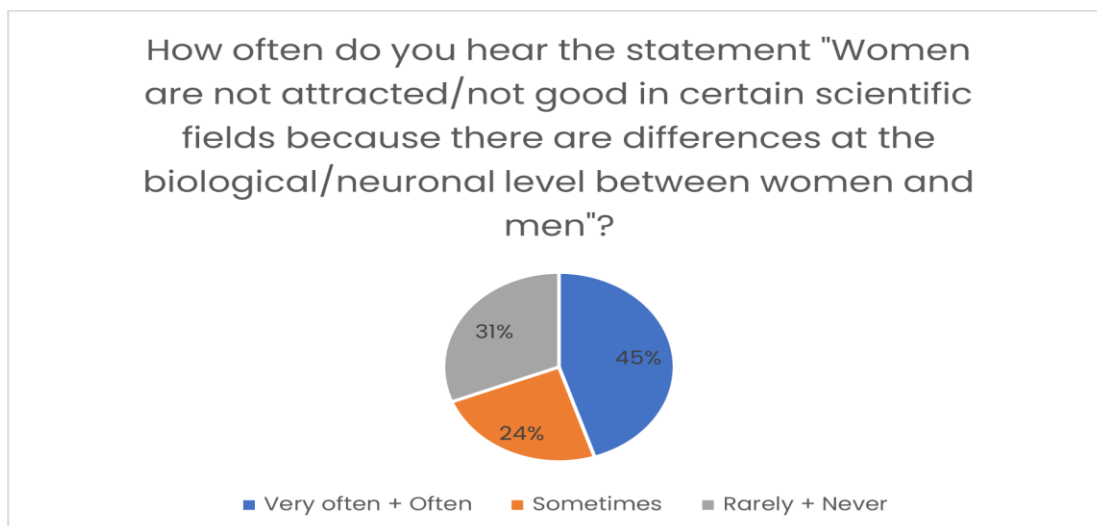


Figure 12, Frequency statement 5

This statement is related to women being not attracted/not good in certain scientific fields because there are differences at the biological/neuronal level between women and men. **45%** of the participants in the survey mentioned that such an idea is encountered *very often* and *often*, while its absence from the public space was reported by **31%** (*rarely* and *never*). Nearly **one in four** respondents heard this statement with moderate intensity (*sometimes* **24%**). Again, women are more attentive to such statements around them: **51%** reported having heard such an idea *very often* and *often*, while the same was claimed by **27.5%** of males

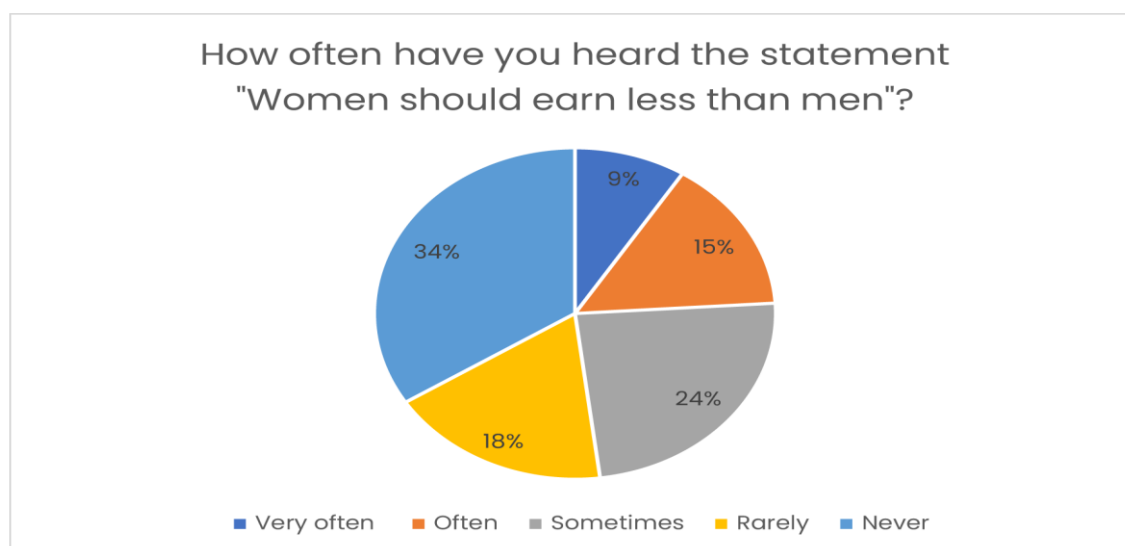


Figure 13, Frequency statement 6

The statement "Women should earn less than men" was chosen by almost **a third** of the respondents "*very often*" whereas this statement was *never* (**24%**) or only *rarely* (**18%**) heard.

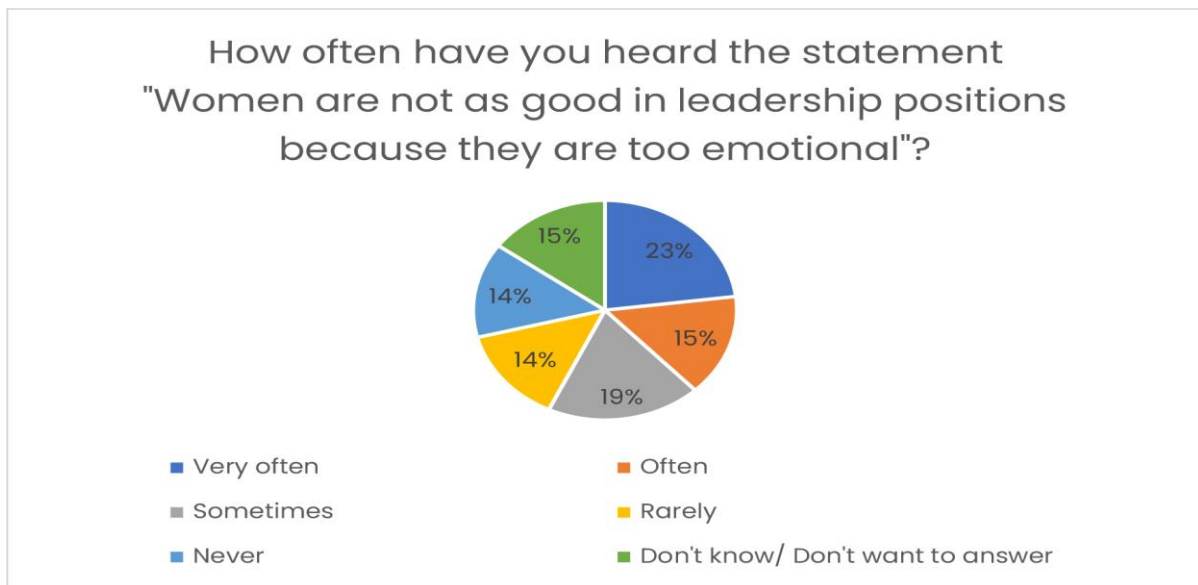


Figure 14, Frequency statement 7

Finally, the idea that "Women are not as good in managerial positions because they are too emotional", was chosen *very often* by nearly a **quarter (23%)** of respondents, **15%** - *often* and **19%** - *sometimes*. **15%** did not express a view on this issue.

The **results** as summarised above showed that there are **a lot of stereotypical statements regarding women in Romania**, far below the value of gender equality presented in statistics⁵ and inherited from past politics, where all people should be equal.

These stereotypes are grounded in the fact that women should be at home with children, and strong men should be earning money for the family. That was related to a "natural" difference in capabilities, talents and necessity for women to access to higher education and position. However, as sociology research has repeatedly shown, "nature" is always a question of "culture".

Unfortunately, these stereotypes continue the formatting of the socio-cultural relations and are **strong obstacles** to overcome in shemakes.

Reflection on lab's capability

The content of the questionnaire was researched and elaborated by the REDU team, consulting with an sociologist expert, Roxana Vasiliu (PhD in Sociology and Assistant Professor in the Faculty of Philosophy and Social Political Sciences, Al.I. Cuza University - Iasi). Roxana guided the lab on how to properly structure the survey before its launch. Afterwards she

⁵ <https://eige.europa.eu/gender-equality-index/2020/compare-countries>

helped us understand the main topics for data analysis and interpretation, as well as documented the results and conclusions of this research.⁶

Online format. REDU launched this questionnaire online and not in a physical format. This generated a lot of answers and a much higher number than we had originally expected (more than 500 as opposed to our initial target set internally of 100 respondents). Taking into account that the study was conducted online, the results are rather specific to an audience that meets certain conditions: it is connected to the internet, has access to social media platforms / various online channels, thus it does not reveal the opinions of the general population.

Therefore, if we were to redefine/revaluate this activity and improve its quality, an **additional** step would be to conduct the questionnaire also in physical/face-to-face format, in parallel with the online one, to those who do not have access to the internet (elderly people, or the ones from disadvantaged social categories but with a link to T&C or STEM fields, or to those who simply did not get in touch with the survey).

More than the outcomes of the survey itself, there is a need for an important reflection and further investigation on how to deal with a very specific situation the lab was confronted with: **hate speech and extremely negative** reactions were received on REDU's facebook page where the questionnaire was published and paid for. Surprisingly, this post probably brought the biggest reach of all the past 7 years of REDU's work. The lab has been spammed with hateful, accusatory posts, extremely offensive to women, non-binary, gay, or trans people and even to the REDU team itself. We have chosen not to leave most of these messages visible on the lab's page, as they were attracting an increasingly large number of visitors each day; screenshots of some messages are attached in the Annex 1 of this document.

As a consequence, when communicating, the labs should try to use unbiased **language** and adapt to their local context. There is a possibility that the topic of gender gap may attract different opinions or comments. We suggest using **self-owned** and/or local/national partners **promotion channels**, not necessarily a paid promotion which, even if it has a considerable reach, may attract malevolent people or groups. Social media networks can be seen as the most important technological revolution after the Internet, but it must be taken into account that the opportunities they offer also come with disadvantages - the latter we must prevent.

The lab's plan is to further develop, in the second phase of the project, collaborating with WP5 Evaluation and Impact Assessment and WP6 Communication and dissemination, a set of **guidelines** for online communication in situations where the topic of the Gender Gap also provokes negative, offensive reactions that do not add value to the actions of the labs or the project.

⁶ [The Report Document](#)

2.2.1.2 Activity 2 – Stakeholders’ event

Table 5, REDU Activity 2 Summary Description

Stakeholders Event- REDUcing the Gender Gap. Creating a Community.	
GOALS & FORMAT	<p>Based on the quantitative research conducted through the questionnaire, our next step was to focus in more detail on the Textile and STEM industries, through qualitative research, which started via a meeting with selected local stakeholders in these two fields.</p> <p>The aim of the stakeholder workshop, titled "Closing the Gender Gap - Creating a Community", was to contextualise, involve and empower a number of key stakeholders from different fields (on the quadruple Helix model - academia, business, public administration and civil society) to join us in our efforts to close the gender gap (as illustrated before) and to define a plan to develop/ or improve (if it already exists) a Gender Equality plan, that we can start working towards it in the next period, each in our own working environments.</p> <p>Between discussion and workshop, the event included short presentations followed by discussions on the issues raised, the StarAnt Game (adapted with 6 quadrants) and a networking brunch in the last hour.</p> <p>We also wanted to create an environment as safe as possible, where participants could open up and share their experiences during their career, be it in business, academia, public administration or non-governmental.</p>
DATE & LOCATION	<p>The event took place on the 4th of September 2021, between 10:00 AM - 14:00 PM, at a local anticafe named HUMANS.</p>
PARTICIPANTS & IMPACT	<p>We had 10 participants of which 9 were women. At the end of the discussion, they agreed to take part in the next meetings or campaigns that we want to organise together and they also expressed interest in helping to disseminate our actions, including the involvement of other stakeholders in this group.</p>



Key learnings

This type of session gives an opportunity for participants to open up, identify and empathise with each other and their experiences. Some see the experience as an eye-opener to the importance and positive effects of communication.

It is important to establish communication rules for the meeting such as:

- There are no right or wrong answers.
- No one should feel inhibited in expressing their point of view.
- Everyone should respect (or at least try to respect) each other's opinions and differences of ideas.

Each participant should feel entitled to express her/his opinion, and the facilitator should probe on "silent" participants.

The time dedicated (4 hours) appears not to be sufficient. A very minimum of an extra half hour was needed, from the moment participants begin to share experiences, ideas and support each other into the networking part, which was supported by snacks, sweets and coffee.

There were moments of reflection on the fact that beyond the gender gap, we have through our cultural identity an education where we are not very good at communicating/ signalling inequities. There is also an expression/proverb that is still widely used: *"The sword doesn't cut off the bowed head"*. In Romania, the oppressions of the communist regime are still being felt, it was a dictatorship in which civil society was altered by dictatorial principles that imposed censorship and inhibition of free expression. Through the Security and the Militia, the two institutions whose main purpose was to restrict people's rights, the population was kept in a permanent state of fear of speaking out, of acting freely. There were then security informers, who were in fact citizens recruited from the ranks of society, recruited to snitch on their relatives, friends or colleagues. The 42 years of communist rule left this imprint of fear/restraint of speech, which is still felt in the behaviour of Romanians over 30.

Also, it seemed that there were many situations where pressures and stereotypes come from women rather than men. Participants said that the "inequality mentality" was also transmitted and perpetuated by women themselves. This reflection was brought back to the shemakes meetings, to explore the relevance and weight of this local challenge and further understand the similarities and differences with the other shemakes European labs.



Using the Star Exercise⁷ (adapted from WAAG, but using 6 quadrants), REDU team inserted 2 questions and 3 statements from our questionnaire about the general population's perception of the gender gap, to define the state of mind/play of our new community group on this topic. The community responses were compared (and inserted at the end of the Powerpoint presentation) with those of the general public.

One of the questions was intentionally proposed (*How often have you heard the statement: "Men are stronger than women"?*) to get an understanding of their perception of "strength". Only two people signalled that they could not position themselves - until they understood whether we meant physical or emotional strength. This was possible in a qualitative interaction as opposed to quantitative results where, as we saw before, most of our respondents thought directly about physical strength. "Strength" understood as "Physical strength" can be then considered as the implicit bias.

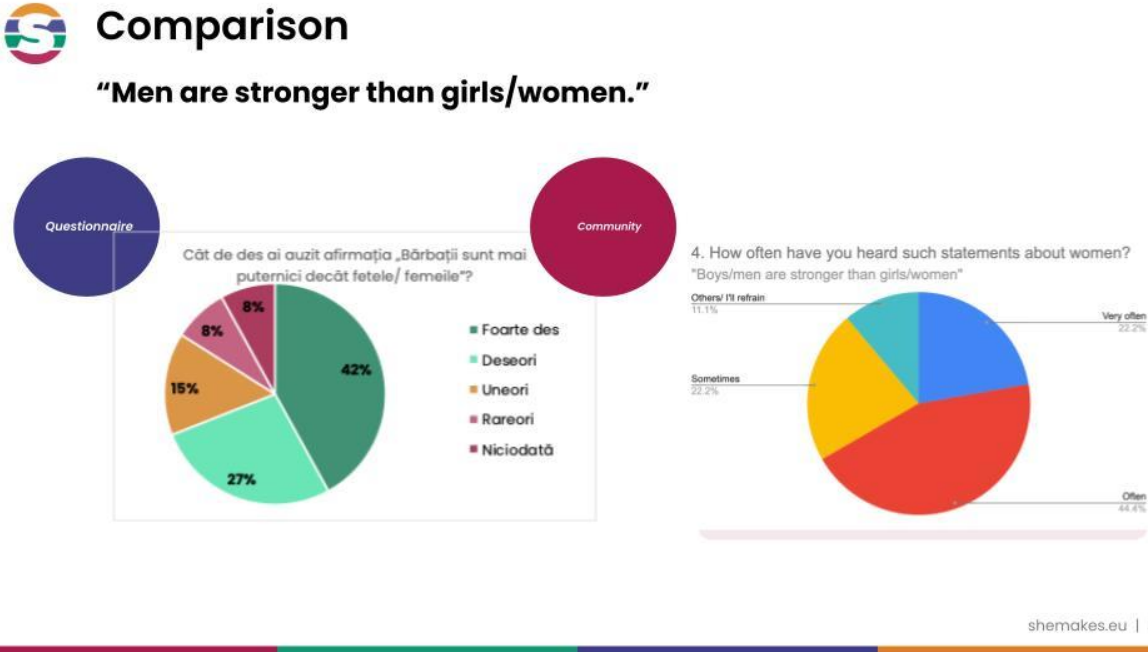


Figure 15, Screenshot from REDU’s Stakeholders event⁸

Some community members have also expressed concern that there is a general tendency not to associate the STEM field with the Textile industry, while at the same time the idea has been put across that relatively few people know about the close link between the two fields, given that behind this industry we mainly see women working on sewing machines.

Also during the stakeholder event, REDU team considered it auspicious to present a basic content for a Gender Equality Plan. The community was invited to go through it and discuss it

⁷ [Link to Shemakes Handbook – Star Exercise guidelines](#)

⁸ [REDU's Stakeholders Event PPT Presentation](#)



with the intention of involving them in the further development of such a document within the businesses/entities they work for.

The expression **Gender Equality** turned out to be relatively new for stakeholders, even though, especially for those working in state institutions, there are many regulations aligned with the requirements of the European Union in terms of inclusiveness and diversity. What was agreed to do after the discussion on the Gender Equality Plan, was to continue to research until the next meeting (planned for January 2022) what requirements/rules would be relevant for the type of legal entity each is part of: university, own business, state institution/NGO, civil society.

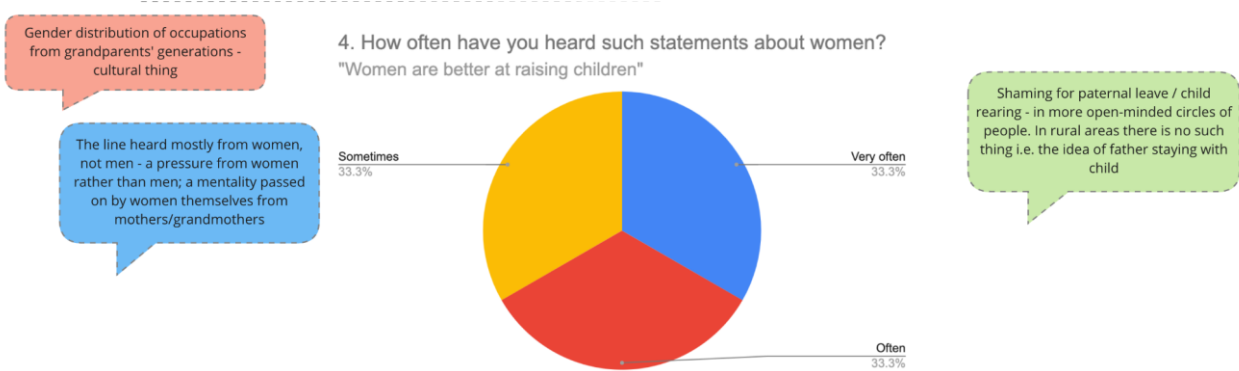


Figure 16, Screenshot from Miro board with community stakeholders reflections⁹

Reflection on lab’s capability

The REDU team chose to organise an event with stakeholders that they had invited one by one among the key players of the local textile sector, to engage and direct efforts towards members of the community that will be alongside shemakes objectives in the long term. The group was composed of members from the textile industry, factory/atelier owners, fashion designers, artists, workers from the public sector and NGOs, professors from universities in Iasi (*University of Arts "George Enescu" - Faculty of Clothing Design, Technical University "Gheorghe Asachi" - Faculty of Textiles*) and researchers. We plan to involve this engaged community in our future actions addressing the issue of gender gap and improvement of the role of women together. Based on other events organised by the REDU team in the past, we have the experience that in the local-regional case, this kind of meetings are much more fruitful compared to those very open to the general public (as the long-term involvement of participants diminishes quickly in a relatively short time).

⁹ [Miro board with the key results from the Closing the Gender Gap - Creating a Community" - stakeholders workshop](#)



The local team that prepared and executed the activity consisted of three people - two facilitators and a third person in charge of documenting and reporting about the community conversations and reflections.

As outlined above, a personal approach was chosen. The list to which the (personalized) mails were sent consisted of 20 stakeholders - some of whom could not participate, but most of them expressing their wish to be kept informed about the workshop outcomes and to be involved in future actions.

Stakeholders were contacted via email with a save the date sent one month before the event, informing them about the shemakes.eu project, "where and what" was planned for the workshop. A week before the event everyone was contacted by phone to be reminded and check their availability and two days prior everyone received the agenda and some important info were repeated: location address, phone numbers of the organizers.



Figure 17, workshop Creating a Community¹⁰

2.2.2 Shemakes community engagement - Makesense context

Table 6, Makesense Activity 1 Summary Description

Barcamp on inclusive entrepreneurship	
GOALS & FORMAT	Makesense carried out a Barcamp (interactive and collaborative event) around how to make entrepreneurship more inclusive. It involved 4 inspiring entrepreneurs and 11 civil society actors (the event

¹⁰ [Link with Photos and Videos folder, from REDU's Stakeholders event "REDUcing the GenderGap.Creating a Community"](#)



Barcamp on inclusive entrepreneurship	
	<p>was open to everyone, being an entrepreneur or not). The barcamp was structured around 3 steps:</p> <ol style="list-style-type: none"> 1. Introduction 2. Barcamp 3. Wrap-up
DATE & LOCATION	The event took place on the 6th of September 2021, 7:00 PM – 8:30 PM.
PARTICIPANTS & IMPACT	<p>Out of 33 inscriptions, 15 women came to the event: 4 entrepreneurs invited and 11 participants. The participants' profiles were diverse: at least 5 of them were early stage entrepreneurs, 2 of them coaches for women entrepreneurs, and the rest were in career transition, considering entrepreneurship as a serious option.</p> <p>The main impacts for participants were:</p> <ul style="list-style-type: none"> • Networking with other women, • Receiving advice and tips for their entrepreneurial career, • Provide a motivational boost. <p>The entrepreneurs got the opportunity to present their projects and support the other participants. Overall, this in-person event was energizing and inspiring, laying the foundation for a community with the potential for long-term involvement and development.</p>

Activity's steps in detail

Introduction: We started the workshop presenting makesense, our actions related to female entrepreneurship, and the workshop format. The introduction was followed by an icebreaker so that all participants got to know each other. Finally, we asked the 4 invited entrepreneurs to share their entrepreneurial journeys and share gender related topics they were confronted with. The 4 entrepreneurs were:

- [Sandra Verger](#) – creator of a podcast celebrating inspiring women, called "[Les Locomotives](#)"
- [Ingrid Bernuit](#) – currently creating an association on personal development

- Chloé Cohen - journalist and founder of “Nouveau Modèle” podcast, a podcast interviewing women working in sustainable fashion
- Camille Le Gal - co-founder of Fairly Made, a sustainable sourcing and manufacturing solution for brands

Barcamp: After the introduction, we launched the barcamp. The 15 participants were invited to pitch issues that mattered to them, related to entrepreneurship. Groups decided to reflect on 3 challenges.

Table 7, Barcamp Challenges

Barcamp challenges	
Money and funds	<p>As a woman entrepreneur, a common challenge is charging a price for your work, without minimizing it. Money is also a real topic for entrepreneurs, who need to make a living through their project. The group exchanged on the impostor’s syndrome women often face when charging their services, and shared financial help available to French entrepreneurs. Impostor syndrome is a psychological pattern in which an individual doubts their skills, talents, or accomplishments and has a persistent internalized fear of being exposed as a “fraud”.</p> <p>One participant was also scared of launching her activity due to financial uncertainty and was encouraged by the others to take the leap.</p>
Teams	<p>Entrepreneurs often need to find partners or recruit as the project grows. The questions that arose in this discussion group were: How to get rid of recruitment biases and recruit people based on their skills and not their gender? How to find the right partner, sharing the same vision and values as you?</p>
Discrimination	<p>How to avoid being victim of discrimination inside your company? The group focused on LGBT+ discriminations, and on which actions should be taken inside companies for a greater inclusivity (bringing awareness, recruitment process...).</p>

Wrap up: We closed the workshop with a presentation of the different groups’ ideas and with a presentation of shemakes.eu, in order to engage women entrepreneurs as participants or as ambassadors.



Reflection on lab's capability

This event format enables a safe space for discussion and exchange. Indeed, in-person events with 15-20 participants offer the opportunity for everyone to express without fearing judgement or rejection. Safe spaces such as this one seem to be lacking for women entrepreneurs in the sector to bloom.

We used our own barcamp methodology. This methodology is easily transferable as the workshop is participant-led. Facilitator's key role is to introduce the workshop, establish a safe discussion space and encourage participants to propose themes.

We reached entrepreneurs and participants from makesense's network and through social networks (Instagram, LinkedIn, Newsletter).

After the workshop, an internal assessment was made based on the KADI framework - Acronym of Keep Add Drop Improve (Easyretro, 2021).

- **Keep:** The number of participants (15-20) was optimal in order to create an informal and safe space atmosphere. It was also a good ratio with the two facilitators present from the Makesense team. Another element to keep in mind is the balance between inspiration and action phases, 30 minutes were dedicated to the 4 entrepreneur's testimonials, 30 minutes to group discussions. This balance is crucial: inspiration phases create an atmosphere of confidence and exchanges between participants, increasing the quality of action phases.
- **Add:** A next step for this event centered on women entrepreneurship could be to involve men participants. The event was open to everyone but attracted mainly women. Gender inequalities do not only impact women and men should be involved in these discussions to bridge the gender gap. Participants also brought interesting topics to the table. The event focused on women entrepreneurship, but could have been extended to other groups than women, such as LGBT+ people, who are also disadvantaged. Entrepreneurship should not just be egalitarian, but inclusive.
- **Drop:** We had prepared canvases in order to help groups reflect on their themes (Money and Funds, Team and Discriminations) but groups managed to share tips and advice without the canvasses.
- **Improve:** As there were two facilitators, the facilitating team could not participate in all groups. Having one additional facilitator could be an improvement axis.





Figure 18, Barcamp on inclusive entrepreneurship¹¹

2.2.3 Shemakes community engagement – Waag Textile Lab context

At WAAG, the chosen activities for this phase were a workshop: the “Shemakes community gathering: co-creating a gender vision”; and a panel discussion: the “Woman in Fashion: paving the way for female entrepreneurs”.

Both activities were constructed along the lines of the behavioural change methodology, thus starting from the creation of awareness at first, to then work towards understanding how others are tackling challenges; and finally continue towards the creation of opportunities for change.

The first type of activity, the **Community Gathering**, explores together with the Lab’s community how to take the first steps to co-create a shared vision on gender equality. The exercise unfolds into two different parts that can be combined:

1. Grounding

The first actions aim to create a shared understanding and frame challenges encountered in a group discussion.

2. Visioning

The second set of actions, aims to explore how other women tackle and overcome obstacles and challenges they have encountered; leading to the co-creation of shared values and principles.

The second type of activity performed in this phase by WAAG was the **Panel Discussion – Woman in Fashion: paving the way for female entrepreneurs**, placing on stage four women

¹¹ [Link with Photos and Videos folder, from MAKE's barcamp event](#)

entrepreneurs with experience, sharing their perspectives and acknowledging different elements of being a woman entrepreneur and the problems they see or encounter(ed) in relation to the gender gap.

Table 8, WAAG Activity 1 Summary Description

Workshop – Shemakes community gathering: co-creating a gender vision	
GOALS & FORMAT	<p>The two-fold goal and format of the first community engagement activities is made up of:</p> <ul style="list-style-type: none"> - Grounding the group vision by creating a common understanding on the variety of obstacles that hinder women in their development, starting from their own personal experience - Co-creation of a shared understanding of what are the enabling factors that support their own or their peers' growth, confidence and empowerment.
DATE & LOCATION	<p>The activity was executed two times</p> <p>30/06 - Internally to the group, at WAAG. Executed at an organisation level, involving only women within our company, that perform different jobs and work at different levels. Both the Grounding and the Co-creation session were tested.</p> <p>11/08 - With the community of practice, in Paros, Greece during the FabriGathering event. Executed at a networked level, with participants from our community of labs coming from all over the world. The Grounding exercise was tested with a larger group.</p>
PARTICIPANTS & IMPACT	<p>A total of 20 women were impacted by the activities, producing concrete feedback and are now ready to further explore and take action in their local practice, broadening once again their understanding and vision.</p> <ol style="list-style-type: none"> 1. At a group level within WAAG, 6 people (all identifying as women) joined the session. 2. At a community of practice level, 14 people (all identifying as women) joined the session.





Figure 19, shemakes community gathering: co-creating a gender vision workshop at Aegean Idea Lab in Paros – Greece¹²

Key Learnings

From our fruitful sessions, notably in Paros, we wish to highlight some of the interesting quotes from participants of the Grounding exercise:

¹² [Link to Shemakes community gathering : co-creating a gender vision workshop at Aegean Idea Lab in Paros – Greece pictures](#)



Figure 20, Quotes from Paros workshop

The fact that we were able to create such an open space for personal experiences to be shared, suggests that locally we might be on the right track with this group-discussion format of the Grounding exercise, at least as a starting point. The stories and perspectives shared also pointed out that sometimes what is given as common sense for some can turn out to be on a very different line of thinking for others. By having the space for ideas to clash in mutual respect and openness for change, new in-between thoughts started to emerge and perhaps new behaviour was seeded.

During the execution of these activities WAAG's team discovered that:

- This type of group-discussion is very successful in creating a shared understanding.
- The ground rules that were formulated around safe-space, (mutual respect, there are no right or wrong answers, etc.) are essential for a healthy participation, in which no one feels excluded or marginalized. They are present in the handbook as part of the activity's guidelines.
- Space and time for discussion are essential, the activity might become longer than expected, but it's essential for all participants to be heard.
- There is an after-effect lingering in the participants' minds - they realized the diversity of perspectives and situations women go through in general, creating more empathy in the group.
- They realized that they differ from each other: they face different obstacles and hindering situations that they had not yet experienced. But there are also many paths to support and empower each other; they also need men to take further action in supporting them.

Reflection on lab's capability

Overall, as an activity to take place in person, there are not that many requirements in terms of equipment or tools needed, the overall format and questions can be adapted to the local reality of each lab. It is relevant to point out that there should be a previous reflection moment on how to create an optimal environment for the local context and circumstances. For example, to extend the introduction/warm-up moment in order to make people more comfortable and get to know each other more before the start of the exercise itself.

The role of the facilitator it's also crucial in allowing and promoting different perspectives to be heard, incentivizing participants that tend to be quieter so they also have a chance to talk and participate. In addition, the facilitator should make sure that the discussion doesn't flow into a polarized "right or wrong" outcome, one of the exercise's goals is to realize that in controversial topics like the gender issues presented, often, no such thing as an absolute truth can be reached.

This activity is listed in the handbook, the full list of resources and preparation guidelines for the activity can be found under the Innovation Services, Community Engagement menu.¹³

¹³[Shemakes community gathering: co-creating a gender vision toolkit](#)



Table 9, Waag Activity 2 Summary Description

Panel discussion – Woman in Fashion: paving the way for female entrepreneurs	
GOALS & FORMAT	The goal of this panel was to discuss the gender gap with four leading women in the textile and clothing industry. (Personal) experiences and various perspectives were shared and fed into the discussion about working towards stronger support networks and enabling women to step into leading roles.
DATE & LOCATION	The panel discussion took place at WAAG on Thursday 2. September 2021 between 8 and 9 PM and was streamed live with the possibility to ask questions to the panelists via a chat. Four panelists contributed, of which one of them gave her input via video recording prior to the panel. The panel was moderated by one of the co-founders of WAAG's TextileLab.
PARTICIPANTS & IMPACT	<p>Around 50 identified as women and around 10 identified as men were impacted, a total of around 60 people. The group included the WAAG team involved, the panelists themselves and the audience. The preparations, panel itself and shared outcomes afterwards had a strong ripple effect. (The audience reached after the panel is not included here in numbers yet.)</p> <p>Panelists: Ytha Kempes, Maartje Janse, Roosmarie Ruigrok, Annemieke Koster</p>

Key learnings

- This format has pros and cons. It supports and strengthens the connection to a local community of professionals. A broad, worldwide audience can be reached, while keeping a local focus which makes it interesting to compare to other communities and partner labs. There is only contact with the audience through a live chat, which gives limited possibilities to actively engage with the audience and anticipate. For next time other formats can be tested. For example, using live survey tools like Mentimeter¹⁴, in which you can formulate questions and stimulate the participation of the audience in real time.

¹⁴ <https://www.mentimeter.com/>



- It became clear that this topic is layered and can be seen through different lenses that interact with: personal experiences / perception, systemic, cultural, (lack of) law / legislation.
- The panellists had different experiences when it comes to the gender gap but acknowledged a need for systemic change, a shift from a more masculine to a more feminine system in which feminine traits / values are cultivated and valued (as much as masculine ones). Both traits are needed and need to be present in a person, team, or network.
- Payments need to be equal, no discussion there. A stronger focus on content of work and jobs, can ensure this happens.
- In order to navigate through this imbalanced industry and claim the space for Social Corporate Responsibility (SCR), a personal sense of ethics and drive / passion were considered to be very important to support SCR in this industry.
- Despite the reluctance to ascribe certain traits / values to men or women, the panellists agreed that women need to support each other by acknowledgement, facilitation, knowledge sharing, understanding we have a shared goal, and collaboration.
- Business models and the dominant ideas about success, growth and sustainability have to be rethought and developed.
- The panel fuelled a discussion within the community and laid the ground for a possible follow-up. Here men could be invited or one of the topics could be the main focus.
- Panellists were more explicit prior to and after the panel about their personal experiences. During the panel there seemed to be a reluctance to make a difference between (the position) of men and women in this industry.

Reflection on lab's capability

We started from the shemakes deliverable D5.1 written by Joe Cullen and Kerstin Junge and the first workshop executed at WAAG (see above). Based on these two we had conversations with the four panellists from our network to understand their viewpoint and prepare for the panel. The event took place at the WAAG building for which technical support was needed for the livestream. Not only prior to the panel, but also afterwards information was shared throughout the local and shemakes network.

This type of activity demands a relative high preparation, such as:

- Time dedicated by the moderator in preparing the discussion topics, presenting them in advance to the panellists in order to be able to conduct a nice flow during the live event itself
- The technical set-up for a live streaming with multiple participants is somewhat challenging. There were individual microphones for each participant (which required a sound operator for the multiple channels), 2 cameras (a wide and focused frame), lightning and a screen on which participants could see themselves and also the pre-recorded interview with one of the panellists that couldn't join the live session. All this effort required 3 people on the backstage to make sure everything happened as expected
- The full explanation of equipments and guideline on how to replicate such format will be presented in the handbook, under the Community Engagement activities menu



Figure 21, Woman in Fashion: paving the way for female entrepreneurs at WAAG's Theatrum Anatomicum^{15 16}

¹⁵ [Link to event pictures](#)

¹⁶ [Online video recording of the session](#)

2.3 Model adaptation based on learnings from phase I

Methodology & theoretical framework

By using the Quadruple Helix framework, the common goal was to develop a long lasting collaboration aiming to generate positive change for women and at the same time creating/engaging a community that can address the issue of gender and implement/disseminate the results and solutions, under a shemakes umbrella.

To this purpose, in D3.1 REDU lab has outlined the steps, core elements, of the community engagement process:

- Identification of stakeholders interested in the topic of Gender Gap reduction;
- Understanding their position on the Gender Gap and the importance of empowering women, especially in the Textile and Clothing and STEM industries;
- Engaging the stakeholders/community by:
 - **Talks/events/panels** presenting the vision of change and to show them the benefits and opportunities that can arise
 - **Design thinking** workshops to co-create and co-define alongside the community the most relevant first steps to action.
- 4 stages of building the shemakes community through which to engage and work with stakeholders: **consulting, involving, collaborating, empowering.**

Labs Analysis by REDU

The shemakes community building activities started from a co-defined basic structure, which was from the start open to adaptability according to the needs of each lab. The labs communicated and openly discussed in bi-weekly meetings the steps they intended to take. At the foundation of the idea and development process of each activity, be it panel, workshop, interview or discussion, the common ground found in each activity undertaken in Phase 1 was:

- Creating a safe environment where community members can open up and share their personal experiences, while being able to empathise and communicate with others. To facilitate this, a set of communication rules was presented in each activity undertaken.
- Each of the three labs succeeded in setting up a local community according to shemakes principles, in defining a common gender vision framed in a local context, and helped to empower at least the stakeholders or parties involved in their activities and emphasised the importance of a sense of belonging in generating positive change.



The similarities/common ground between activities can be clustered as follows:

- **WAAG and REDU** organised interactive community engagement activities with stakeholders from the Textile and Clothing industry and STEM field, who were directly involved either through challenging exercises or by encouraging them to discuss/recount their personal experiences. A form of interaction that, through the connections created, gave the women participants a voice and a chance to open up and belong to a group with shared ideals/visions regarding the gender gap.
- **WAAG and MAKESENSE** organised community engagement activities that focused on successful women entrepreneurs/leaders in the T&C sector, emphasizing on gender related topics throughout their personal journey to a successful career.

When talking about building a community one has to admit that exact formulas exist up to a point. Any process of this kind necessarily needs the context in which it is intended to start. In D3.1, the Quadruple Helix framework has been taken as the most appropriate innovative approach for setting up the shemakes community.

We started from this framework considering it as best to conduct each activity. Of course at the same time the involvement of key actors from 4 domains (academic, business, institution, civil society) can be very challenging for any lab.



2.4 Preparation of the transfer phase

The preparation of the transfer phase is below summarized with an activity table and a timeline.

Activities

Table 10, Overview of linked resources for the Transfer Lab in the Handbook

Activity's Name	Handbook Link	Reach
Shemakes community gathering: co-creating a gender vision	https://bit.ly/3D3Ohj0	<ul style="list-style-type: none"> • Medium scale • Group activity 5-25p (time management and format need to be adapted by the amount of participants)
Questionnaire on Identifying the general perception/ opinion regarding gender gap in STEM/ Textile & Garment Industry	https://bit.ly/3mgzhzu	<ul style="list-style-type: none"> • Medium/Large scale • Online activity 0-500+p
BarCamp	https://bit.ly/3F224QV	<ul style="list-style-type: none"> • Small scale • Group activity - currently tested: 10-15p; scalable up to 30 people (with 1 facilitator for each 10 people)

Timeline

The timeline for the transfer of knowledge represents the reflection and formalisation of the task's previous activities. This phase will lead to improvements and adaptations of the Handbook for Community Engagement. WAAG, in collaboration with REDU, will refine the necessary material for the Transfer labs to empower them in creating enabling environments and test alongside the consortium partners the activities already formulated and possibly grow the portfolio of Lab activities in the shemakes project.

Table 11, Timeline for Community Engagement next phases

Phase	Tasks	Date (Timing)
Reputation building and transition	Meetings among the core labs involved in Community Engagement to review and adapt the existing activities templates	Oct-Nov 2021
	UX and UI Design improvement of the Handbook pages	Nov 2021
	Implementation of the reviewed and adapted Handbook ready for the transfer labs	Dec 2021
Innovation actions Phase 2	Introduction to the new transfer labs that are exploring, collaborating and executing tasks to engage with their local community	Jan-Feb 2022
	Testing of the templates and activities presented in the Handbook by the transfer labs. Follow-up with the selected Gurus and Ambassadors.	Mar-Apr 2022
	Reflection, enlargement of the activity templates as additions to the online Handbook	May-Jun 2022



3. Lab-to-Lab Engagement

3.1 Recap D3.1 & Summary D3.2

Lab-to-lab projects are open research spaces to foster collaborative research across labs. They reinforce cooperation between partner labs and create a research-playground to better engage with the transfer labs. Based on a rich background of international cooperation through previous European projects, the model emerged from a sub-project within the TCBL project: BioShades, textile dyeing with bacteria, led by WAAG.

In the first deliverable of this project, the experiences and the overall methodology for lab-to-lab projects are described and adapted to fit with the gender-oriented approach of shemakes, both in execution and the topics of the projects.

During the two cycles of task 3.4, a total of three lab-to-lab projects will be co-developed by IAAC, WAAG and REDU. While the first cycle remains more analytical and explorative inside the partner's ecosystems, the second cycle fosters research on shared experimentations and exchange of knowledge with additional transfer labs through distributed activities.

The following section presents the results of the first round of activities for the lab-to-lab projects. After a first stage of **ideation** around the future investigated topics, the three labs leading the **research**, decided to focus on the topic of **wool**. The decision was made because of a shared effervescent motivation on the topic and real local challenges about wool: a need to rehabilitate the knowledge, from how to process wool at different scales, to how to design through more sustainable processes.

To explore the topic of wool in all its complexity, the project partners have created 3 lab-to-lab projects that will investigate three different angles or facets to activate research on wool on the extended shemakes labs ecosystem. The distribution of projects follows the 3 notions of TCBL- Place, Design, Make.

- **Places with territorial local ecosystems** led by REDU in collaboration with WAAG and IAAC
- **Design with natural dyes** led by WAAG in collaboration with REDU and IAAC
- **Make micro-scale and DIY tools** led by IAAC in collaboration with REDU and WAAG

The partners are gathering the content in the shemakes handbook¹⁷ part dedicated to lab-to-lab projects.

¹⁷ <http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/>



The following section describes the research process and related activities with more details, and a summary of the lab-to-lab activities, held between March 2021 and September 2021.

Table 12, Summary of lab-to-lab engagement activities (March – September 2021)

Step	Date	Title and short description	Labs
Step 1	April-May	Brainstorming on the research topics	IAAC with REDU & WAAG
Step 1 and 2	May	Definition of the Wool topic and collective working process	IAAC with REDU & WAAG
		Structure of the wool processes and initiatives overview in a Miro board and associated documents	WAAG & IAAC
		Structuring of the local context templates in the Miro board and investigating local initiatives	IAAC
Step 3 and 4	June - September	Knowledge transfer: reproduction of previous DIY tools	REDU & IAAC
		Structuring of the research templates / Handbook: context, biochromes & tools	
		BioChromes 4 days workshop / research sessions - Recycling Natural dyes	WAAG
		DIY tools workshop / research sessions in collaboration with HVA (AUAS) - Carding mat and DIY hand spindle	WAAG & IAAC

3.2 Research Process – Cycle 1

Cycle 1 is composed of research agenda design, team formation, in-depth research and knowledge exchange. Each step performed in this phase of the Innovation Services is described below.



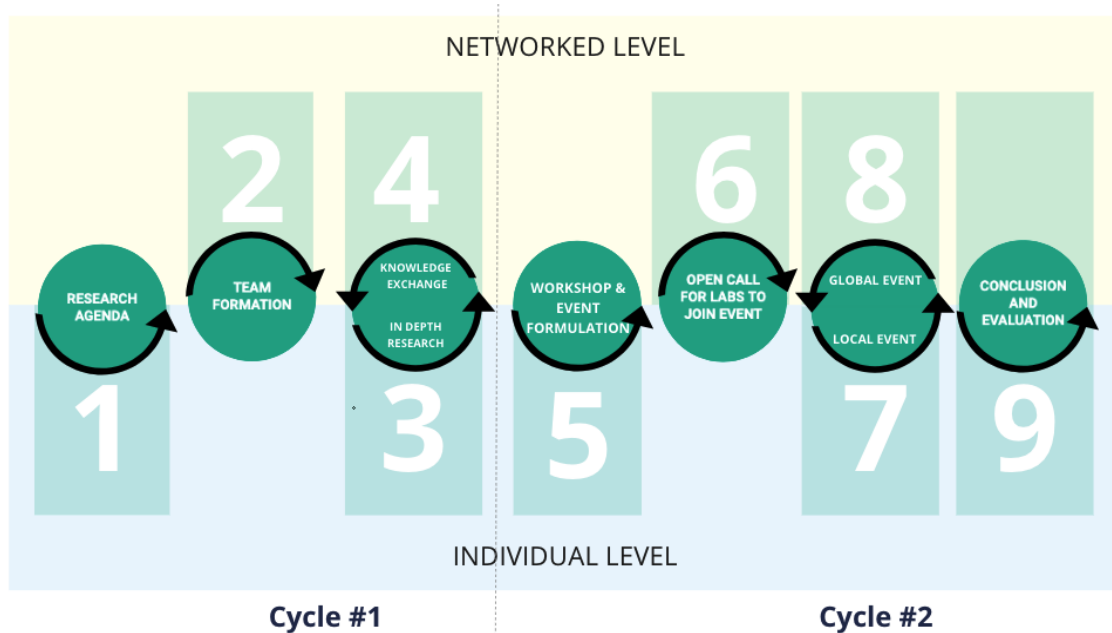


Figure 22, From the model as starting point

3.2.1 Step 1 – Research Agenda

The objective of this step is to set up a collective research agenda for the lab-to-lab projects of the shemakes project. After making an overview of the various areas of research inside the Fabricademy program, grouped as Sustainability, Industry 4.0, Textile Narratives and Wearables, the three labs have shared their personal motivations in a shared document to have a list of topics to investigate.

Below the short-list merged in the first ideation session between labs:

- Biocomposites & biomaterials
- Exploring natural dyes on a human & nature symbiotic approach
- Recycling and upcycling of fibers and discarded materials
- Assistive technologies and healthcare
- Dismantling gender in and through design

From this first list, the initial discussion highlighted an overarching theme that connects the affinities of the labs engaged. In the lab-to-lab projects initiated during shemakes, a core shared element resulted to be the intersection of **circularity, sustainability and nature connection**. The **second** round of ideation allowed the labs to identify more refined research topics that were compiled during an online session as follows:

- Printing/dyes – Botanical printing
- Explore the gaps in the dyeing process – making it truly circular – to not harm the environment – waste water – heat recovery etc.

- Waste sources (food and other industries) for colours, for materials
- Natural dyeing without metals, exploring different mordanting techniques, printing/stamping
- Foraging expeditions to find colours, seasonal connection / clay colors / mineral colors
- Spraying fibers - can we spray pigments that we extract - can we spray dye - or construct garments through a spraying technique.
- Extracting the color from the plants/ growing plants /
- Extracting blue indigo from woad plants (Isatis tinctoria - european indigo)
- Bioplastics with leftovers from dyes

The idea for the topic “wool” emerged in a collective session where REDU shared their recent opportunity to organize a local workshop on wool-making and recycling that they later call “WOOLLABS”. The moment partners started to share knowledge and experience around the techniques of wool-making, it became clear that various topics of interest could be brought together in further investigations into wool. Furthermore, this topic and research approach were in line with the shared values of local production, self-sustaining, connected / distributed hubs, rescaling and exploring local challenges.

It was the starting point of the next step of lab-to-lab engagement. To explore the topic in all its complexity, the project partners have decided to run 3 connected lab-to-lab projects that explore different research facets of the wool system. The distribution of projects follows the 3 principles of WAAG/TCBL- Place, Design, Make: (1) Places with local ecosystems, (2) Design with natural local dyes, (3) Make DIY tools. Through all those explorations, the labs will transversely explore the gender dimension, promoting opportunities for women to understand and activate wool making in different localities, observing and testing strategies to overcome possible gaps and stereotypes.

3.2.2 Step 2 – Team Formation

Core team

The core team of these three connected projects is composed of participants from IAAC (Anastasia Pistofidou and Marion Real), REDU (Elvys Sandu and Andrea Sofronea) and WAAG (Cecilia Raspanti and Beatriz Sandini). This step has mainly consisted of dialogues between these three labs, fostering interaction according to the availability, skills, interests and networks associated with each participant. The online Handbook has been set up and templates were created spanning from the conversations during the bi-monthly lab meetings. Once the core team got used to work with each other and have a first representation of the wool system (from general data and life-cycle processes to lists of micro-scale machines and original initiatives), they defined the three lab projects that are now diving into the different facets of



the wool. The three labs are all involved to capture data and practice for the 3 projects which are supervised respectively by one lab.

Extended team

The core team is extended with motivated lab participants and relevant industrial, educational and research partners that work with wool.

Relevant labs and stakeholders are mapped who could contribute improving the knowledge on local contexts, understanding the local capacities, informing about wool design and all tools that support the processing from culture to recycling: from farmers, industrial players, wool cooperatives, brands and designers to researchers, Fabricademy alumni and social initiatives.

Some key contacts have been established, for instance:

- **Becky Earley** from the Centre for Circular Design, part of the advisory board. Contributed with her previous investigations on wool recycling potential.
- **Loes Bogers** from the Amsterdam University of Applied Sciences, senior researcher Critical Making and Fabricademy alumna. Contributed with knowledge and wool related tools design.
- **Le TextileLab Lyon** who is currently looking for solutions to give value to waste wool.
- Researchers / textile industrial partners to understand the Dutch local industrial challenges.
- **Clean & Unique** is a platform for Dutch sustainable clothing production and advise
- **Sara Diaz** from Hilo project.

A challenge for the team formation is mobilising more complementary participants to densify the work done in each project and feed the mutual literacy between different disciplines that characterizes lab-to-lab projects.



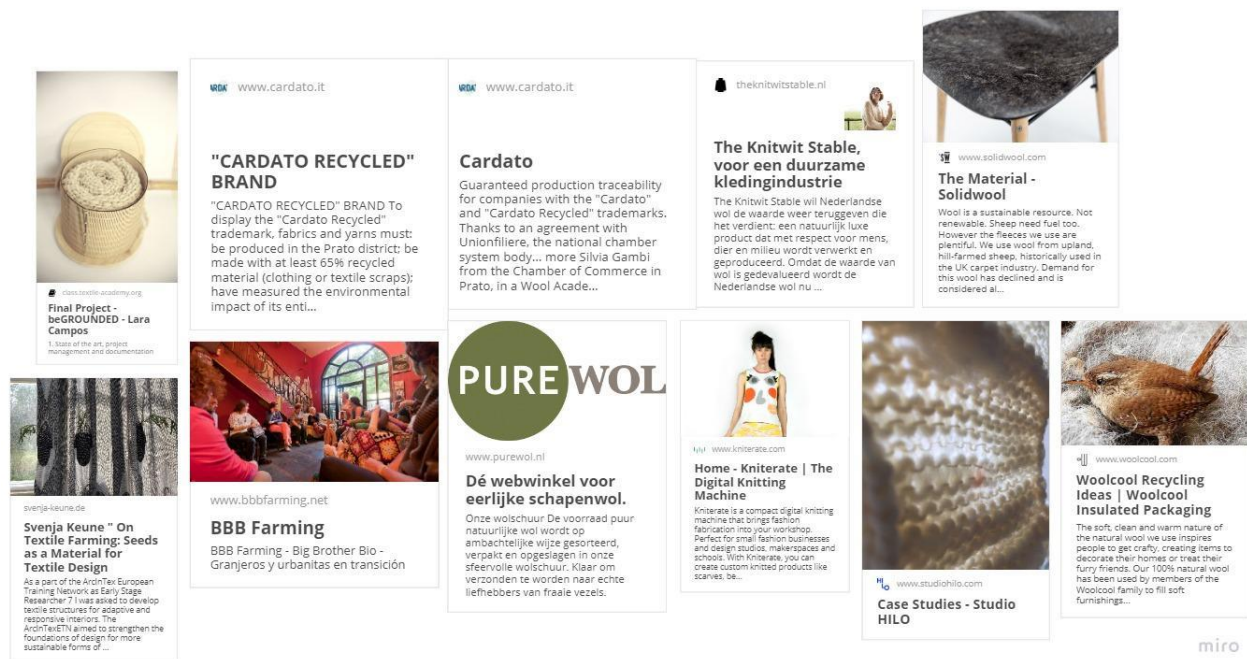


Figure 23, Capture of some good practices associated to the research project

3.2.3 Step 3 – In-depth research

Based on lab meetings, individual investigation, local discoveries, desk and field research, personal explorations and prototyping, labs have dived into the topic to build up their own knowledge. They crafted the first content and guidelines from in-depth research on the topic of wool, and its 3 networked projects. Involved partners investigate together the general wool context and processes while simultaneously working on three specific topics as presented below.

Table 13, Overview of the research areas

What	Theme	Objectives
Upstream research	General understanding of the - wool process	Capturing the essence of wool, its core process, creating a systemic view on the current knowledge highlighting the intervention points.
Project 1	Territorial Wool ecosystems	The understanding of local dynamics and challenges regarding the processes of wool, from sheep to fabric, mapping and bringing together the local existing ecosystems, its key actors and stakeholders to strengthen the networks and promote locally productive



		territories., while observing the situations of women and their potential for innovation
Project 2	Local dyes for sustainable and productive territories	Exploration of local natural dyes, from botanical to mineral and fungal, to food-waste dyes. To bring back the knowledge on coloring in a sustainable and locally productive fashion at various steps within the chain. As a bridge between past and future techniques, that creates mutual literacy, while building upon the territorial contextualisation of the chain. Example: in Holland, wool is harvested from local sheep, often processed locally in the country, but never dyed locally, breaking the local manufacturing chain.
Project 3	Small-scale tools for local production	Redesign and production of small scale tools through digital fabrication techniques, for the processing of small quantities of wool. Exploring the problematics of small wool quantities that are often not enough for large scale production and are therefore wasted resources

3.2.3.1 Understanding the wool process

Aims:

Create an overview on the wool process

Methods:

Desk research, process and stakeholder mapping with Miro

Main outcomes:

Wool has a rich and deep history. Many techniques have been used from the past century. Various cultures and places are sharing this resource. Quality differs according to the type of species. Nowadays, traditional techniques are facing the risk of being lost, some part of the wool is still burnt in huge amounts, while wool post-consumer waste is poorly valorized. Local communities are numerous wishing to reshape local value-chains around wool, from farmers, spinners, weavers, designers, makers, waste and up-cycling centres. Women have taken part in wool-making since generations. Through the narrative of past practices, we can measure the evolution of the women in society (Lemmer-Webber, 2021), (Sebillotte Cuchet, 2014). Some studies emphasized their caring role, softening the practices of extensive agriculture with animals while others raised gender issues related within the wool supply chain. (Gulistan A,

2014) Herrero, (2020) insists on the power of regenerative communities guided by womens, she mentioned: “

“Women involved in pastoralist and wool production activities are committed to their communities and landscapes, and they play an important role in building and strengthening regional identity. Women’s roles and contributions to market chains and rural economies must be better understood and made visible, so that their work can be adequately valued and reflected in policies and planning. Our work highlights how women of Extremadura can be agents of change in moving towards sustainable and ecologically sound agriculture and reviving or maintaining cultural practices that benefit biodiversity, regional identity and the local economy.

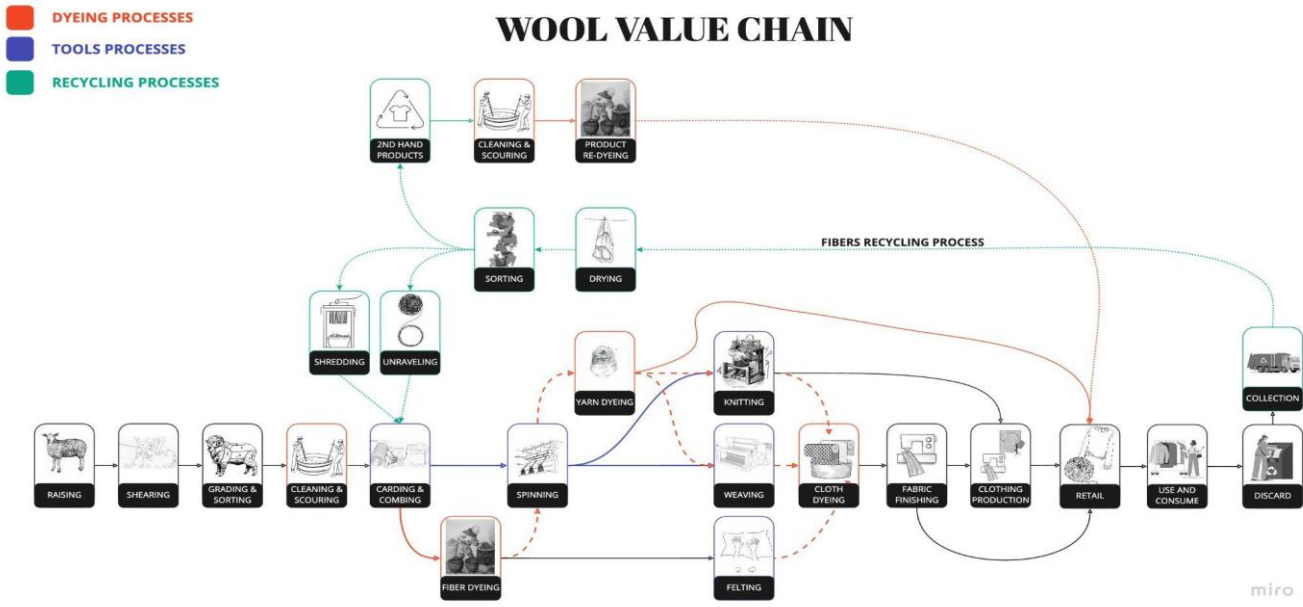


Figure 24, Wool process flow and possible interventions by WAAG

The map above highlights the various steps of the process and the circular potential of this resource (see Figure 3). The map helps to frame first insights for possible local lab interventions.

3.2.3.2 Territorial wool ecosystems

Aims:

Better understand and involve local wool ecosystems in Europe.

Methods:



Two templates have been created, the first has been designed in Miro, the second one is an adaptation for documenting the Handbook. Both have the aim of investigating the local ecosystem. It is composed of 3 steps:

- Mapping of the local ecosystem: researching together about the heritage and life cycle of wool-making in this territory: the local wool characteristics and typology, the key actors and active locations in the field.
- Connecting to people and places: local researchers are invited to visit, and interview people, capture places and processes, start experimenting with, observe and question them around gender gaps and stereotypes.
- Reflecting between local researchers and other labs on what has been learnt, what are the "hot topics" to explore, what are the cultural specificity/gaps of the place, with whom to collaborate for the other dimension of the lab-to-lab projects? What were/is/could be the place and role of women there?



Figure 25, local context exploration template, by IAAC

Main outcomes:

Partners have started mapping out their own local initiatives and collecting information to better capture the local wool context narratives and future opportunities for circular wool (table below).



Table 14, Overview of emerging wool ecosystems

Local ecosystems	Mapping of the main initiatives	Possible (Future) activities involving girls and women with the initiatives
Dutch (WAAG)	Identification of key initiatives and active stakeholders: KnitwitStable, Pure Wol, HvA Critical making, Kniterate and Kniterate Utrecht, Saxion, Amsterdam Municipality	Using dyeing as a technique to foster discussion around local context.
Romania (REDU)	Sheep Sanctuary ARCA, Technical University "Gh.Asachi" – Iași (Textiles Faculty DIMA), Arts University "George Enescu" – Iași (Fashion Design Faculty and Textile Design Faculty), Poartă-mă cu flori (Wear me with flowers),	Dive in the tensions between the culture of veganism and wool makers. Visit and capture existing processes in Romania Connect through botanica dyeing.
Pyrenean (IAAC + future implication of LEON)	Local wool festival https://www.barcelonaknits.com/ and local women led craftswomen community https://www.duduadudua.com/ Identification of 9 key initiatives: Laines paysannes, Marelha, Iletegia, Ternua, Hilatura Arnau, Xisqueta, Barcelona Knits, BBBfarming, ecofibra.es.	Possible participation with workshops and networking Visit of local stakeholders with the Bask Design Center during Fabricademy bootcamp, visits of Arnau and Xisqueta.
Alpine (IAAC + future implication of ONLF)	Identification of 6 key initiatives: Filature de l'Avancon, Phil Angora, Ardelaine, Ecrevis, Association des tondeurs de moutons Characterisation of local plants for dyeing	Visit of Ardelaine and Phil Angora, participation in wool sorting in local spinning. Co-exploration with Ecrevis and ONLF.
IAAC + Austria	FarmLab is a rural fab lab in Austria that has just initiated a wool project combined with local indigo growing and natural dyes. https://www.instagram.com/farmlab.at/	Possible wool residencies

In addition, interesting remarks have emerged during the lab-to-lab calls:

- A critical point has been raised by REDU concerning the importance of denouncing the practice of wool-making when it comes to hurting animals. A focus on the recycling process and observing unacceptable practices has been mentioned.
- The idea is to create a collective map of small scale wool-based initiatives, based on the example of open-source platforms such as fablabs.io and TCBL, often used by



many different types of labs to map themselves and other stakeholders. A starting map, produced by laac with Umap/OpenStreetMaps¹⁸, is available online [here](#)¹⁹.

Where to find the results?

The context of each ecosystem will be documented in the online Handbook²⁰.

3.2.3.3 Local BioChromes

Aims:

With the rise of local and circular productive territories, in combination with small scale labs such as Textilelabs, Fablabs and Makerspaces, we see a greater chance for a revival of this locally bound knowledge. The chemical and botanical aspects of this knowledge can promote cross sectorial mutual literacy, an important aspect of networked lab-to-lab projects.

Dyeing and colouring of wool is an essential step to create plain or patterned yarns for both knitting and weaving of either cloth or garments. There is a challenge to create dyes and understand how to create a sustainable dye journey (recycling dye baths for a fully zero-waste process) that is entirely based on local materials (from the wool to the grown dye stuff).

Methods:

Desk and field research, experimenting with dyeing techniques for wool only, with locally grown dyes.

Outcomes:

- *Understanding and mapping dyeing processes*

Natural dyeing is a process that is often performed on finished spun yarns or cloths, however within our research we have expanded the intervention points to the dyeing of the fiber. Diving into the Dutch context, it was found that the country has a rich history in natural, botanical dyes. Especially, researchers identified that the native flora is often a source of colour and pigment, even though the knowledge behind the techniques and methods is often forgotten or set aside. After mapping those processes, WAAG chose to lead a research that learned from the traditional dyeing processes while improving their sustainability. As presented in Figure 3.5, the focus is shifted to the locality where the original material for dyeing grows, and to a fully recycled process of dyes, where no resources are wasted.

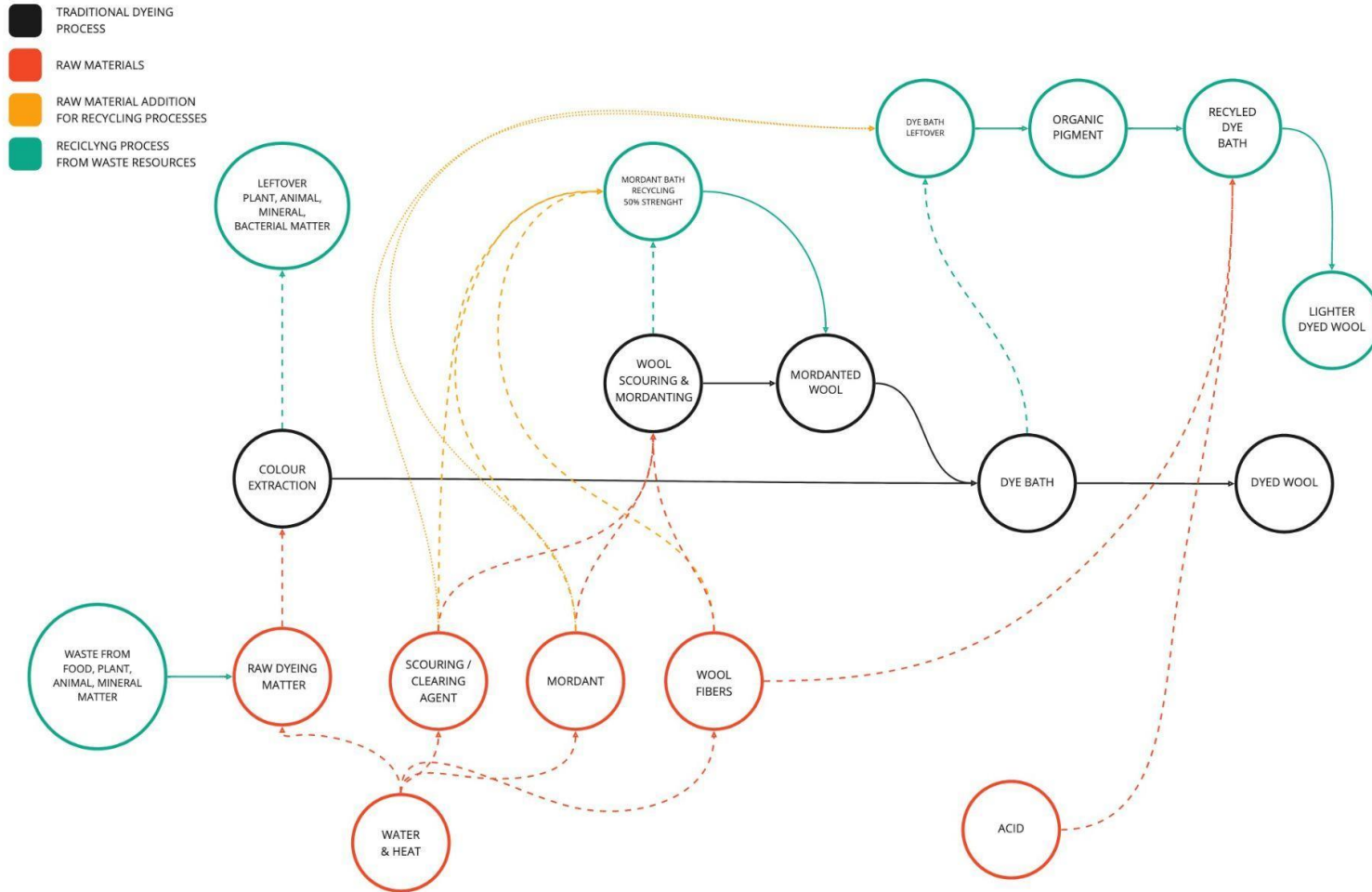
¹⁸ https://wiki.openstreetmap.org/wiki/Main_Page; <https://umap.openstreetmap.fr/en/>

¹⁹ http://umap.openstreetmap.fr/fr/map/wool-ecosystems_638187#16/45.6908/5.3214

²⁰ [Wool Research - Mapping the local system](#)



SHEMAKES SUSTAINABLE DYEING RESEARCH



miro

Figure 26, Shemakes - Wool BioChromes dyeing process, WAAG



- *Experimentation with wool dyeing*

During the FabriGathering held in Paros (Greece), the group explored and experimented with teaching a number of processes around zero-waste circular natural dyeing named BioChromes 5.0.

The ideal process in steps is as follows:

1. Extraction of the natural colourant and classification there-of
2. Dyeing of the (already cleaned and mordanted) wool
3. Recycling of the left-over dye bath into a solid organic pigment
4. Re-splitting of the pigment into an acidic dye bath (only viable for wool)
5. Dyeing of the (clean but not mordanted) wool

During the live session a number of these steps were executed. Later on, the remaining steps were tested in the lab in Amsterdam. For the entire cycle of dyeing Dutch local wool has been used until now from one of the key actors mapped in the contextualisation.

Where to find the results?

Further in detail information regarding the actual technical knowledge produced for this part of the Lab-to-Lab projects is to be found in the [Shemakes Lab Handbook](#).

3.2.3.4 DIY tools for Little Wool Factory

Aims:

Understand, design, test, and document DIY tools needed for creating a little wool factory replicable in farms, labs or existing companies.

Methods:

Tool mapping - Little Wool Factory design - Development - Test - Documentation.

Main outcomes:

- **Tool Mapping**

Here are the main valuable elements of the collected materials until now.

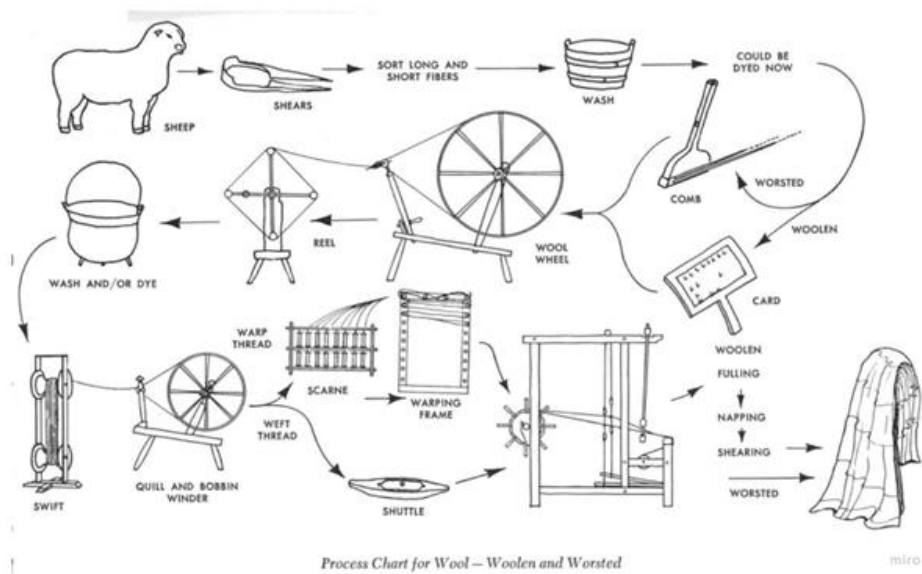


Figure 27, Traditional wool process illustrated tools²¹

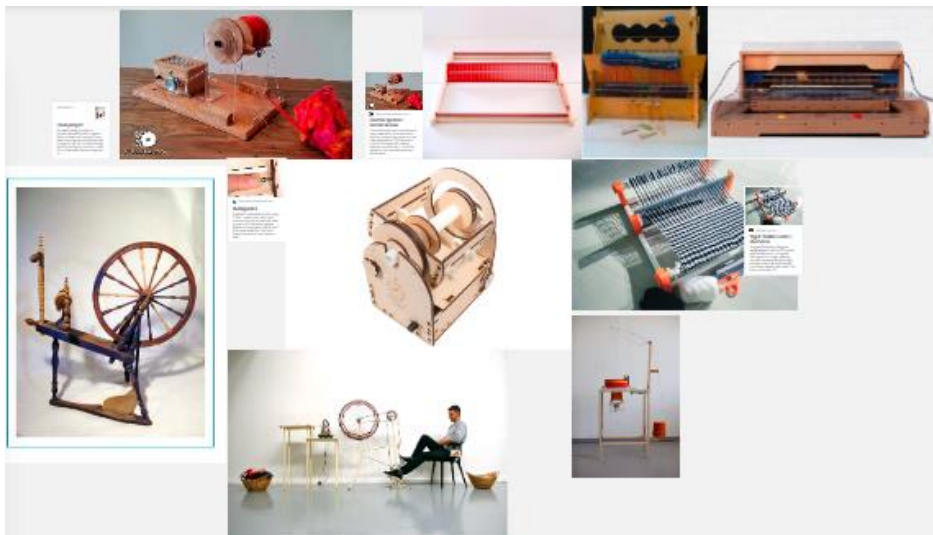


Figure 28, Patchwork of DIY tools by IAAC

- **Understanding DIY tools**

The Little Wool Factory used the overall wool process mapping described earlier and add practices ranging from large scale industries to small scale independent initiatives to better understand the required equipment and ideate on how it can be reproduced with digital fabrication equipment, providing blueprints and tutorials on assembling open source tools and machines for setting up small scale wool microfactories. After personal on-site research at the Icelandic Wool Factory, Alafoss in 2019, FarmLab Visit in Austria 2019, Wool Initiative at Basque country 2021, we could

²¹ (Marion L. Channing, 1971: The Textile Tools of Colonial Homes: from Raw Materials to Finished Garments, Before Mass Production in the Factories)

better comprehend the steps required and infrastructures needed for creating a Little Wool Factory, from sorting Wool and cleaning the debris, washing, storing, wool picking, wool carding, spinning for yarns, felting for non wovens. Then, looking at DIY practices, tools were identified especially for the most common making phase for textile designers, i.e from spinning to looming and knitting. Some of them have already been tested in the Fabricademy community like [The Hilo spinning machine](#), or the [loom from the Be grounded project](#), the fabloom project among others. In the [Open Source Hardware](#) week, students are already learning about those specific machines and working on re-developing or hacking them.

Apart from those steps, a wide range of tools has been created for agriculture purposes that could be applied in the early stage of the process of wool collection. Websites and open source platforms such as [Wikifactory](#), [Open source ecology](#), or [ifixit](#) could help to find the right documentation. An original project, from Fabricademy Alumna Sofia Guridi, ([FILT](#)) has created a machine for felting shredded textile waste and thus focusing on facilitating the end of life of the process. Partners identified that the DIY version of one relevant tool was missing on the process: the carding machine.

- **Experimenting with the DIY tools**

This experimentation, building and learning moment is an important step towards building DIY machines that can handle small wool quantities to be tested and feeds the replicability of the tools for the labs and the lab-to-lab projects.

Applying and replicating existing tutorials: For the Rewool discovery workshop, REDU worked closely with IAAC to successfully replicate a number of digitally fabricated tools (spinning and weaving tools) coming from the Fabricademy research portfolio and open source fabrication files. They were built by the researchers and used in the event to weave and spin single strains of wool.

Assembling a DIY carding tool and accessories: The first tools created are a DIY carding/blending tool and a hand spindle. These were created by the Amsterdam University of Applied Science, tested and experimented upon during the Local BioChromes workshop held in August 2021, as described also in the previous chapter. Experimentation started with a DIY carding cloth and brush, to experiment together and teach others how to card wool fleece and how to mix (also defined as blend) the naturally dyed Dutch wool, creating a new range of carded wool colours. After the carding tool, experimentation was brought one step further with a DIY hand spindle, to learn and teach how wool is spun by hand.

From the overview created by tool mapping and first experimentations, the remaining strategy relies on identifying which tools are interesting for a DIY

reproduction, why and what is possible to do in the timeframe of the shemakes.eu project. Working with connected labs to design and replicate will extend those first experiments and extend the perimeter of the Little Wool Factory and the usability of the small household scale machines and at the same time promote the use of shared infrastructures (fablabs) for engaging with communities interested in wool craft; engaging women in making and using the machines.

Where to find the results?

Further in detail information regarding the actual technical knowledge produced for this part of the lab-to-lab projects is to be found in [the Shemakes Lab Handbook](#).

3.3 Model adaptation based on learnings from phase1

During the first phase, the research methodology inspired by the BioChromes project appears as a relevant and powerful approach to frame, explore and exchange knowledge between labs. Thus, the research model remains intact till this moment. In the second phase, some alignments might be done to adjust with the onboarding process of the transfer lab and the participation of ambassadors.

General **comments**, captured through practice, could be mentioned:

Better understanding and structuring research environments

- Research opportunities are infinite inside the shemakes ecosystems. Besides the general areas identified, many dimensions could be treated and need time to be investigated. This is the case for the transversal topic of wool-making. Many small research projects could start under its umbrella.
- Research framing is about agreeing on the relevant focus zoom, in the funnel of disciplines and knowledge.
- Moments for divergence and convergence are necessary. It became important to let a window open to new investigation while diving in one topic. De-zooming and reflecting at a more systemic level.
- Such research needs an agile mindset but especially a vast panel of expertise and skills ranging from research methods like desk and field research, experimentations to disciplines (social and human, engineering, ecological sciences...)



Toward resource-oriented lab-to-lab projects: Design, Make, Place. A promising approach

Within the circular economy, material design driven and life-cycle approaches emphasize the importance to look at the narratives of local resources, looking at their journey from culture/extraction to production to end-of-life loops. While shemakes lab-to-lab projects investigate different prisms of wool, future projects could focus on building transversal knowledge around flax, hems, pine, algae etc., according to labs affinity. When exploring such circular value-chains with distributed labs, using the TCBL Design-Make-Place model seems promising. It permits to build a systemic view fed by local explorations and transversal knowledge around design and tool-making.

The importance of documentation process and knowledge exchange

One of the strengths of the research methodology for lab-to-lab projects is the importance given to collective documentation and to guarantee the creation of collective sharing moments to expand the perimeter of the research community. The first steps initiated until now in the first phase confirms the originality and relevance of sustaining such practices. It means to take time to collectively think on how to document, using existing tools such as the open source tools, enjoy existing community events such as Fab and TCBL conferences or educational courses to share, reflect and practice.



3.4 Preparation of the transfer phase

Future activities

This first phase has permitted to frame the research and build a first layer of knowledge and intents for exploring wool narratives. Each subproject will now reinforce its knowledge through additional in-depth research activities, while documenting the work into guidelines and tools for lab-to-lab engagement (see table below).

Table 15, Roadmap for each lab-to-lab project

Project	Future activities	Documentation to update
P1 - Territorial Wool ecosystems	<p>Each lab investigates through visits and experimentation.</p> <p>Reflexions on designing an international wool platform.</p> <p>Analysing gender in the wool ecosystems</p>	<p>Global context in the EU.</p> <p>1 page/territory.</p> <p>Possible illustrations from visits.</p> <p>Tutorial for documentation and replication.</p>
P2- Local dyes for sustainable and productive territories	<p>Experimentations planned for IAAC, WAAG, REDU led by the women gurus</p> <p>Emphasizing the practices through Fabricademy nodes during the biochromes week.</p> <p>Finding opportunities to work closely with local partners and empower especially women in activities</p>	<p>BioChromes - local dyes for local wool.</p> <p>Native BioChromes of Holland.</p> <p>Other practices.</p> <p>LAB Toolkit - Research template for BioChromes.</p>
P3-Small-scale tools for local production	<p>Experimentations planned for IAAC, WAAG, REDU.</p> <p>Emphasizing the practices through Fabricademy nodes during the OS HARDWARE week.</p> <p>Finding opportunities to work closely with tech partners (Hilo, Filt)</p> <p>Empower girls and women in making activities</p>	<p>Overview of DIY tools.</p> <p>Research DIY tools for processing local wool.</p> <p>LAB Toolkit - Research template for DIY tools for processing local wool.</p>

Timeline



While these projects will gather knowledge all along the project timeframe, with emerging research occurring in the labs and their territories, the Loop 2 of the shemakes.eu project, starting in January 2022 will allow to move from cycle 1 to cycle 2 of the research methodology, extending the project to new 12 labs. The effort in the following months will focus on preparing this transition in a fluid way, with a specific effort to document and make the research accessible to other labs. Then, transfer labs will join and be onboarded in the lab-to-lab projects and will expand the knowledge through their own research. Three distributed events will be organized on each topic with core and transfer labs, joined by other labs through open communication. The lab-to-lab project will end with a documentation and evaluation phase that will build upon the activities carried out in the previous steps.

Table 16, Timeline for lab-to-lab engagement next phases

Steps	Tasks	Date (Timing)
In depth research (step 3)	Expanding knowledge in the three projects through local visits and experiments	Oct-Dec 2021
Documentation and knowledge exchange (step 4)	Concretize individual research in Handbook and templates	
	Prepare for transferring of knowledge	
Phase 2 (step 5 - step 8)	Handbook, templates, transfer to transfer labs Knowledge exchange with transfer labs	Jan- Jun 2022
	Expand collective Research Lab-Lab	
	Definition and running of 3 distributed workshops	
Conclusion and evaluation (step 9)	Collect and gather feedback Work closely with WP5	Jun - End of project



4. Business Engagement

4.1 Recap D3.1 & Summary D3.2

The business engagement (Task 3.4) builds upon Task 2.4 hypotheses regarding more efficient 'routes to jobs' for women with alternative education. The focus of Task 3.4 is to test business concepts of future women entrepreneurs. Our common approach was to engage women with an entrepreneurial potential to match with TCBL Businesses or start-ups. As labs, our role consisted in supporting the smooth and fruitful development of each collaboration.

Task 3.4's final objective is to identify three possible start-up opportunities and three possible new business lines for existing companies between the two phases of activity.

During the first phase of activity, an initial **assessment** was led on the 6 core labs' background in terms of business engagement. The idea being to better understand where each of the labs came from and what resources that they already had (network, expertise, etc.) could be used in business engagement activities.

What came out was:

- While most of the labs are very much aware of their business ecosystem, knowing local actors with whom they could work on this business engagement axis, some of them still need to go through a mapping phase to be able to start working.
- Most of the labs have experienced coaching, some of them with entrepreneurs, but not all, as sometimes the support is directed towards innovators that aren't launching an entrepreneurial project.
- The two things that were the most tested by the labs are: accompanying the ideation stage and opening their network to allow entrepreneurs to be mentored, to receive more in-depth support and to receive useful training in project management.

In parallel to this assessment, MAKE raised a list of possible activities that could be executed during phase 1 in order to achieve the objectives above mentioned. Pros and cons of each of these activities were highlighted regarding two main axes: the project's objectives and what came out of this assessment and how accessible to the other labs seemed to be the activity.

As a reminder, the activities that were suggested were:



- **Creathon:** A one-day innovation bootcamp which aims at bringing out innovative projects. Through collective and accessible methodologies, participants can create a project out of an idea or accelerate the development of an existing project.
- **Sprints:** A 6-weeks program to bring a project idea to life. It takes the shape of a 100% online group coaching program to test both the idea and the entrepreneurial stance: clarify your problematic, your mission, explore your ecosystem, identify your potential targets, and test your solution with them.
- **Startup calls:** Creating and leading calls for projects to support innovation, then selecting promotions that are to receive grants or tailor-made coaching.
- **Spot:** A digital platform to support entrepreneurs and connect them to the right resources and people necessary for the successful development of their project.
- **Mentoring sessions:** A mentoring workshop consists in pairing expert mentors in project coaching and/or a specific theme with project leaders who are facing a challenge that is hindering the development of their project.
- **Challenge solving workshops:** Collective intelligence of chosen mentors (*a time of creative divergence and a time of convergence*) around a precise challenge of various entrepreneurs.

Out of the list, the **Challenge Solving Workshop** was the chosen one as:

1. it was perceived to be the most accessible and inclusive tool for present/future labs,
2. it would help us both support the women in the making of their entrepreneurial project and help them meet more actors from the T&C sector to foster collaboration.

During Phase 1, makesense adapted and executed the shemakes version of the Challenge Solving Workshop while Waag focused on researching female entrepreneurship and mapping the different possibilities within its network to understand its starting point. Together, the labs realised that to reach the complexity of the labs involved in this project and create a model to be followed in the future, there was the need to further explore each lab's reality and create multiple paths for activities to happen on the next phases.

4.2 Development Process – Phase 1



Below are some of the general steps the labs took to discover and uncover the diversity of entry points that labs have towards business engagement.

At first, MAKE and WAAG worked hand-in-hand through a series of weekly meetings to explore the differences between the labs and to better understand if the Challenge Solving Workshop was really accessible to everyone. Very quickly, the two labs chose to validate the accessibility hypothesis by the simple fact that WAAG would also conduct a Challenge Solving Workshop by trying to experience it. WAAG pointed out some gaps in the model as it did not seem broad enough to embrace the different realities for all labs.

Using the digital co-creation tool, this chart was designed to shape the connections and possibilities within the task.

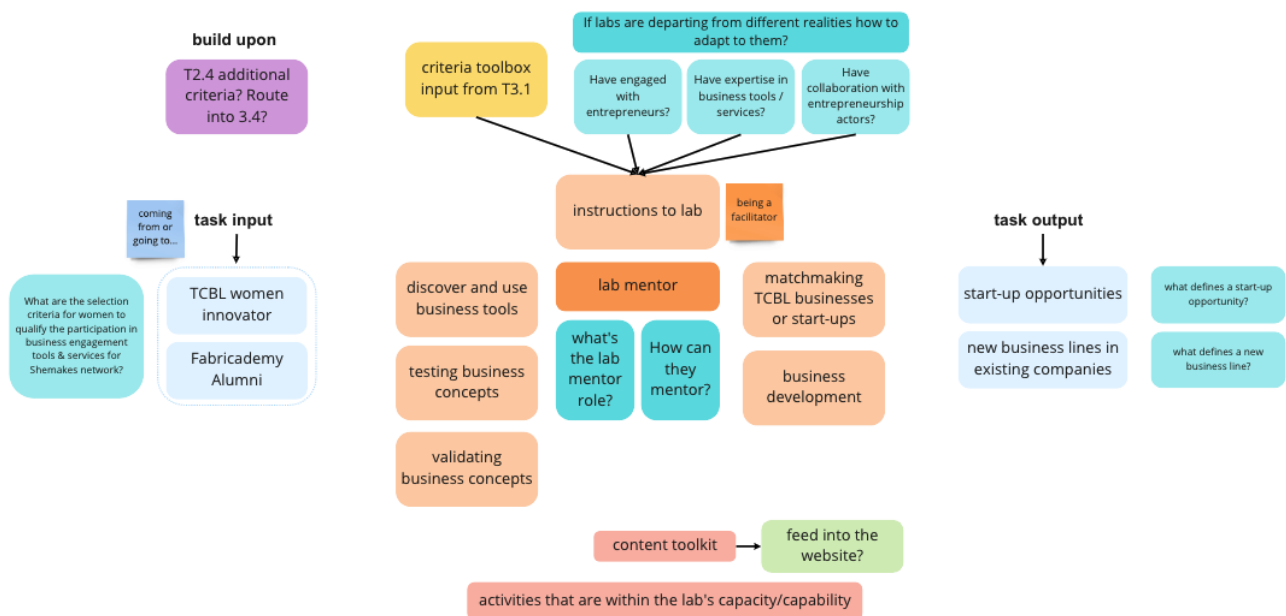


Figure 29, Miro board mapping

Then, MAKE used one of the bi-weekly Lab meetings to go deeper into the topic where they got the opportunity to better understand:

- what business engagement meant to all the labs and the type of activities that they had in mind with their reality and with the women innovators that surround them.
- the barriers that the labs had in organizing Challenge Solving Workshops.



MAKE also designed a questionnaire in order to deeply understand business engagement activities performed by other labs and select the most relevant ones regarding shemakes objectives.

Table 17, Summary of the business engagement lab activities (March – September 2021)

Lab	Date	Title and short description	N° people engaged	Duration
MAKE	June-Aug	Lab's research, survey and co-creation session to map and understand their local context	6 shemakes' cores labs	3 months
MAKE	July	Challenge Solving Workshop	8 people	3 hours
WAAG	July-Aug	Mapping of the local ecosystem business oriented - to scout relevant gender oriented opportunities and stakeholders	8 people	2 months
WAAG	July-Aug-Sept	Co-creation, conversations and knowledge exchange with women entrepreneurs	6 women	1 hour

4.2.1 Shemakes business engagement - Makesense activities

Since the previous deliverable, in order to make the Challenge Solving workshop happen, a number of sub-activities were organised:

Table 18, Schedule of activities, makesense

Tasks	Date (Timing)
<ol style="list-style-type: none"> 1. Targeting of women entrepreneurs (online with international partners) 2. Mapping of potential partner companies 	June 2021
<ol style="list-style-type: none"> 1. Diagnosis of the 2 selected women entrepreneurs 2. Targeting of partner companies and experts who will participate in the workshop 3. Logistical considerations (<i>e.g. booking a venue, mobilizing additional facilitators if needed</i>) 	June 2021
<ol style="list-style-type: none"> 1. Elaboration of the methodology, the detailed schedule 2. Briefing of the different stakeholders 	July 2021



Tasks	Date (Timing)
3. Activity	
1. Analysis of the activities realized	August–September
2. Preparation of a business engagement set for transfer labs	2021

4.2.2 Transferability

When exploring the transferability of this activity, it became clear that this type of activity is more relevant for labs that already have a clear overview of their local businesses and entrepreneurial opportunities for their active community. As a reflection from this conclusion, the lab then explored which steps would be required to be prepared to also replicate this type of activity, this will be further explained in the subchapter

Table 19, Makesense Workshop, Summary description

Challenge Solving Workshop	
GOALS & FORMAT	<p>The activity we decided to realize is a challenge solving workshop. A challenge solving workshop is rythmed and led by a facilitator with specific questions and generally two sequences (<i>a time of creative divergence and a time of convergence</i>) around a precise challenge of the entrepreneur. The goal is to exchange ideas, offer solutions and sometimes change perspectives on a problem.</p> <p>We organized a 3 hour workshop gathering 2 women entrepreneurs in ethical fashion, 6 mentors working in T&C sector, and 2 facilitators (us from MAKE lab).</p>
DATE & LOCATION	<p>The event took place on the 28th of July (from 10am to 1 pm) at La Caserne, a third-party ethical fashion venue in Paris. It was a real strength to hold the workshop in an emblematic T&C place, as the participants met with Maeva Bessis, La Caserne director.</p>
PARTICIPANTS & IMPACT	<p>Out of 10 participants, 8 were women.</p>

Challenge Solving Workshop

The activity mostly impacted the 2 entrepreneurs, Yushing Eng and Sophie Faura. Yushing's challenge was to promote her line of vegan paper and linen accessories Shing. Sophie needed to build a business model for her Third Place project. After the workshop, we sent them a survey to assess the impact of the workshop: the key supports they received during the workshop are contacts, opportunities and self-confidence. They also got new ideas. These outcomes were aligned with their expectations before coming to the workshop.

5 out of 6 mentors were women. They were also impacted by the activity. According to our impact survey, they feel they improved their skills in project coaching, their creativity, and expanded their network.

Gender vision findings

This type of activity is successful in lifting women innovator's obstacles, especially self-confidence. The entrepreneurs got to present their projects to mentors at the beginning of the workshop. Working in small groups (2 or 4 mentors per entrepreneur) also helped to create a safe space to exchange ideas.

This activity is a "network accelerator" for women entrepreneurs. They got to meet with experienced mentors of the T&C sector, and with La Caserne team, people they would have not dared to reach alone. One entrepreneur even met again with La Caserne director later. Matching with businesses is a significant help for women innovators, opening new entry points for business opportunities.

Reflection on lab's capability

We used our own challenge solving workshop methodology. We reached entrepreneurs and mentors from makesense's network.

After the workshop, we made an internal assessment on the workshop based on the KADI framework (Keep Add Drop Improve).

- **Keep:** Elements that should be kept for a future workshop are entrepreneur's profiles (at the early stage of their projects), enabling them to get the most out of mentor's help. Mentor selection was also a strength of the workshop, as all of them were working in the same sector and holding relevant job positions to address entrepreneur's challenges. The last element to keep is the place of the workshop, multiplying the opportunities for our entrepreneurs.



- Add: Our workshop lasted 3 hours. A future challenge should last half a day, in order to have more informal moments such as breaks, lunchtime, and so on.
- Drop: Retrospectively, we would not use a slide presentation for the workshop introduction, as it does not have so much added value.
- Improve: As mentioned in the “Add” part, an improvement axis for the workshop is to focus more on time management. Also, we wonder if it would be interesting to add at least one follow-up session with the entrepreneurs to better understand if it really allowed to enhance start up opportunities or new business lines creations. Indeed, challenge solving workshops are intense and entrepreneurs could need a common recap, may have some extra questions or deeper explanations.



Figure 30, Makesense challenge solving workshop²²

²² [Link of the picture folders from MAKE's Challenge Solving Workshop](#)

4.2.3 Shemakes business engagement - WAAG / TextileLab activities

During the first phase of business engagement-activities WAAG focused on:

1. Mapping out interesting connections within the network that align with the project and could feed into the community engagement activity (as described in chapter 2) and possible collaborations in the next phase
2. Desk research and conversations with female entrepreneurs, exploring current literature and perspectives for the conversations with leading women in a business engagement activity

These two explorative actions led to activities happening in the first phase (an interview and a panel discussion) and also paved the way for possible partnerships for the following phase. The table below is a summary of activities rather than one unique activity as the others in this deliverable.

Table 20, WAAG Activities, Summary description

Female entrepreneurship	
GOALS & FORMAT	The goal of this activity was to start mapping relevant Women entrepreneurs that form the local landscape and network of the Lab (that could possibly participate in the panel described earlier) and to get a better understanding of how the gender gap is perceived in the Netherlands.
DATE & LOCATION	This activity was performed over a widespread period of time, starting with a brainstorm and mapping, followed by desk research and preparatory conversations and one interview with four leading women that took part in the panel discussion described earlier.
PARTICIPANTS & IMPACT	Participants were identified as: active women entrepreneurs that could assist and inspire younger or less experienced generation; businesses that are sensitive to the shemakes goals and aim; young women entrepreneurs coming from the community of the lab and the Fabricademy network.



Female entrepreneurship

The experts:

- **Maartje Jansen** - as entrepreneur and as Lab manager of the creative lab of MakersUnite²³
- **Roosmarie Ruigrok** - as owner / lead entrepreneur of Clean&Unique²⁴ and project lead at the Amsterdam Municipality
- **Ytha Kempkes** - founder and member of the cooperation MADE HERE²⁵. She is an economist that always focuses on societal issues while seeing the human scale and the bigger picture.
- **Annemieke Koster**, a communication scientist and entrepreneur, and founder and owner of Enschede Textielstad²⁶, currently the only existing sustainable weaving mill in the Netherlands.

The networks and businesses:

- **Culture.Fashion**²⁷ - first exploration of relevant women entrepreneurs within this value driven network.
- **Impact Hub**²⁸ - First contact and ideation session with Manon Klein - Accelerate Lead of Impact Hub Amsterdam, one of the most relevant players in the entrepreneurial community of Amsterdam

Young entrepreneurs / Fabricademy:

- Alumni of the **Fabricademy** program

Impact:

²³Makers Unite, <https://makersunite.eu>

²⁴ Clean and Unique, <https://www.cleanandunique.com/>

²⁵ Atelier Made Here, <https://www.ateliermadehere.nl/>

²⁶ Enschede Textielstad, <https://enschedetextielstad.nl>

²⁷ Culture.Fashion, <https://culture.fashion/en>

²⁸ Impact Hub Amsterdam, <https://amsterdam.impacthub.net/>



Female entrepreneurship

Sensibilisation about the shemakes goals and aims, connecting women on this topic, joining forces as a local network active in the textile and clothing fields.

Key learnings

Mapping:

The mapping exercise uncovered a rich and activist starting group of women in leading positions in textile and clothing companies that turned out to be very involved with the shemakes objectives, a local project with similar objectives/possible collaboration and different researchers specialised in women and entrepreneurship.

Desk Research, Conversations & Interview:

The current affairs and explorative desk research showed that (the lack of) female leaders(hip) and entrepreneurs(hip) is a topic that gets more and more attention in The Netherlands. Women still get paid less for equal work, less women are in leading positions, less are present in start-ups and women's businesses receive less investments.²⁹ These facts result in a broad discussion in which people discuss the importance of gender equality, the root cause of the problems and how this can and needs to be changed.

In the discussion with the experts the complexity of the problem and its interconnected topics were confirmed. According to economist and entrepreneur Ytha Kempes, our current systems and structures are masculine; stimulating a culture of competition rather than collaboration, striving for growth instead of sustainability or care and stimulating masculine behaviour (in both men and women) that becomes problematic in a time where a more holistic and value-driven approach is needed. The same idea can be found in *The Athena Doctrine: How Women (and the Men Who Think Like Them) Will Rule the Future*. This book is based on worldwide research and gives an overview of the traits that need to be found in future leaders. The worldwide research includes the mapping of different traits as 'masculine' or 'feminine', which can be found in both men and women.

²⁹ De Mol, E. & Janneke Niessen. 2018. Financieel Dagblad. Investeringsfondsen stappen zelden in startups van vrouwen (Investment funds rarely get into women's startups)



Above and below ‘feminine’ and ‘masculine’ are used, following this research, which should not be understood as a way to stereotype. Therefore, the terms ‘masculine’ and ‘feminine’ are placed between commas.

MASCULINE	FEMININE
	1. EXPRESSIVE
	2. PLANS FOR FUTURE
3. DECISIVE	
	4. REASONABLE
	5. LOYAL
	6. FLEXIBLE
	7. PATIENT
8. RESILIENT	
	9. INTUITIVE
	10. COLLABORATIVE

SOURCE: The Athena Doctrine: How Women (and the Men Who Think Like Them) Will Rule the Future

Figure 31, Most important masculine/feminine traits of future leaders

Annemieke Koster endorses this vision, but stresses the importance of ‘masculine’ traits as an entrepreneur, like boldness and being daring, which are found less in women (in general). According to the panellists, ‘feminine’ traits should be valued and thought / cultivated more, while at the same time changing the system and the way we work. Also, needed traits don’t need to be found in one person, but can be found in a team or a network of women.

A layered approach (focusing on the system, culture, payment-gap, validation of work, etc. simultaneously) is needed to support more women toward leading positions and in entrepreneurship. These layers can be unravelled in more details, examined and discussed during different shemakes activities while translating into concrete knowledge, mindset and attitude to transfer to the other labs.

WAAG’s Possible Next Steps

Different sub-themes can be extracted from the explorative activities and feed into an in-depth local program for women leaders / entrepreneurs to be in the T&C Sector. Possible collaborations need to be explored more with organisations and networks such as Impact Hub and Culture.Fashion.

Reflection on lab’s capability



Although the TextileLab has a broad network of relevant experts and independent entrepreneurs following Fabricademy, business development or engagement is not at the core of its activities. The Lab has a strong focus on research and education, so working together with the experts was needed to get a better understanding of their working field and the problems they encounter (as women).



Figure 32, Women in Fashion Panel discussion, Annemieke Koster interview extract^{30,31}

4.3 Model adaptation based on learnings from Phase I

The key learning arising from Phase I is that, even though the labs connect on similar values, they seem to be heterogeneous on business tools and services that could be provided by them.

- labs form part of different networks, and have a variety of different ties with business actors and innovators.

³⁰ [Link to Shemakes : Women in fashion recorded stream](#)

³¹ [Link to folder with event pictures](#)

- “Business actors” represent a wide range of organizations. The 4-Helix model gathers under this term all actors who want to make business along a value chain, whether it is for profit (for good and bad) or whether all profit is reinvested. Business actors can then be SMEs, large companies, public institutions, fablabs, startup incubators, factories, individual mentors and so on.
- “Innovators” group is also diverse. According to the 4-Helix model, innovators can be people, institutions that “think different”, either as “renovators” or “innovators”. They are academics, research institutions, labs that are connected to STEM, students from different backgrounds, Fabricademy Alumni, emerging entrepreneurs, creatives/makers. These innovator profiles also have different needs and objectives.

As highlighted – above, the decision taken was to realize different paths per lab: Challenge solving workshop for MAKE and Research (Mapping, Desk Research, Conversations & Interview)

for WAAG. However, the labs are aware there are more than 2 levels of business engagement, and wanted to offer a larger set of activities examples for Transfer labs.

Along with these activities, the decision was to suggest an exhaustive set of business engagement actions; expecting as a result to offer each transfer lab a relevant activity to realize during Phase 2, depending on its means, network, and objectives.

4.3.1 Revisiting labs Business Engagement

4.3.1.1 Exchanging on Lab’s business engagement activities

During the 21/07 Recurring lab meeting, labs shared their vision of business engagement and examples of activities they usually perform. The answers highlighted the diversity of ways to connect innovators and business actors: factory and company visits, meetings with fashion entrepreneurs, providers ecosystem mapping.

What was really interesting, as in the interviews from the Learning Paths work package (more precisely the task on innovation paths), Camille Le Gal from Fairly Made³² explained how much it helped her to get to visit factories as she was not coming from the T&C world at first.

³² Fairly Made, <https://www.fairlymade.com/>



4.3.1.2 Survey analysis of Lab's business engagement activities

MAKE designed a survey addressed to labs involved in T3.4 in order to deeply understand each business engagement activity. In D3.1, a survey had already been conducted across the different labs participating in the WP3 to understand the role-players that are to create business engagement.

This second survey is complementary as the goal behind it is to screen relevant activities regarding business engagement hypotheses and shemakes objectives (helping women innovators and bridging the gender gap).

Activities should fulfill the 3 following criteria:

- 1) The activity gives the opportunity for innovators to match with business actors, and leads to start up opportunities or new business lines creations.
- 2) The activity has a positive impact on innovators and their projects.
- 3) The activity is implementable by transfer labs, regarding their means (skills, network, equipment...), and specificities (lab's structure, lab's national specificities).

Here under, you can find the content of the survey above mentioned:

ACTIVITY SUMMARY

1. Describe the activity you organized and its methodology.
2. How many people can be involved in this activity? Is the event re-sizable or only relevant for a small/large group?
3. What is the budget needed for this activity (depending on the number of participants)?
4. What is the time needed to organize this activity? (0-1 month / 1-3 months / 3-6 months)
5. What is the profile of the innovators helped in this activity ? (Students /Entrepreneurs / creatives)
6. What were the innovators' needs before the activity? (Discover new ideas / Discover new opportunities (project, funding, visibility) / Network and Meet T&C actors / Increase their self-confidence / Increase their credibility into the T&C sector / A tech help (prototyping, transitioning to industrialization...) / An economic help (making a living out of the project, finding funds...))
7. What is the profile of the business actor involved in the activity? (A factory / A fablab / An SME / A big company / An experienced entrepreneur / An experienced professional)
8. What is the role of the business actor during the activity? (Mentoring / Presenting their activities / Opening their doors for a visit / Lending their equipment to the innovators)



IMPACT EVALUATION

1. What was the impact of the activity on the innovators? (*There was no impact / Weak / Important / Significant*)
2. What did this activity provide the innovators with? (*Discover new ideas / Discover new opportunities (project, funding, visibility) / Network and Meet T&C actors / Increase their self-confidence / Increase their credibility into the T&C sector / A tech help (prototyping, transitioning to industrialization...) / An economic help (making a living out of the project, finding funds...)*)
3. Does this activity lift women's difficulties in creating their own business (cultural, technical, economic) ? If yes/no, explain why.

REPLICABILITY FOR TRANSFER LABS

1. *Is the activity implementable by other labs, in autonomy, with simple guidelines? Why or why not?*
2. What do labs need to make this activity? (it can be specific skills, network, equipment...)
3. What are the pre-requisites for a lab to organize the activity? (*Student contacts / Entrepreneur contacts / Business actor contacts*)
4. Is the activity deployable on an international scale, or only replicable in specific countries? Why or Why not?

Figure 33, Survey lab's business engagement activities

4.3.2 Business Engagement set for transfer labs

Out of the new findings coming from labs, an initial flowchart was designed to comprehend the possible paths of engagement to follow, this is represented by the figure below.



Figure 34, Initial draft of the Business Engagement Flowchart on a Miro board

This set of business engagement activities depicts 9 activities.

- An initial research phase that combines **Mapping of the network, Desk Research, Conversations & Interview** by WAAG
- The activity realized by MAKE: **Challenge Solving Workshop**
- 3 activities previously realized by ONLF, LEON and REDU, and selected through the survey: **Hackathons, Entrepreneurial Ideas Contest, and Focus Groups.**
- 4 activities are suggested additionally:
 - 2 by REDU but not executed already: **Factory visits for students,** and **Meetings between students and experienced creatives,**
 - and another 2 activities suggested in D3.1 by MAKE and already executed inside previous projects: **Mentoring sessions** and **Bootcamps.**



Below is a double entry table to identify relevant activities to organize, depending on the innovators and business actors labs are connected with. The “Focus group” activity is not in the table as it can involve all business actors and innovators. Empty squares do not mean that here does not exist any business engagement activity to realize, but that our 5 labs’ activity formats are not designed to these actors’ combinations.

Table 21, Survey lab’s business engagement activities

<i>The innovators (horizontally) and business actors (vertically) you are usually connected with</i>	<i>Students</i>	<i>Entrepreneurs</i>	<i>Creatives / Makers</i>
<i>Factories and/or Fablabs</i>	Factory visits	Entrepreneurial ideas contest	Entrepreneurial ideas contest
<i>Companies (startups, SMEs, medium and big companies, startup incubators)</i>	Bootcamp Hackathon	Hackathon Challenge solving workshop Entrepreneurial ideas contest	Entrepreneurial ideas contest
<i>Experienced professionals and /or entrepreneurs and/or creatives</i>	Meetings and interviews	Challenge solving workshop Mentoring sessions	

The initial list of activities and its guidelines are present in the handbook under the Business Engagement section.³³

4.3.3 Conclusions and Next steps

This business engagement set is addressed to transfer labs to help them launch their own business engagement activities.

Some future actions we identified can be:

- Enrich the table thanks to transfer labs’ tests and feedbacks, or other activity formats that transfer labs could suggest in the future.

³³<http://fabricademy.fabcloud.io/shemakes/handbook/2.-innovation-services/business-engagement/>



- Integrate an impact evaluation for each activity into this business engagement set, in order to know which activity format is the most beneficial for women innovators we aim to help inside shemakes.

One target of the Business engagement task was to reach at least three start-up opportunities. The Challenge solving workshop we organized helped 2 startup opportunities, so the next step to take during phase 2 would be to help at least a third entrepreneur.

4.4 Preparation of the transfer phase

In preparation for the transfer phase with new associate labs, a number of Business Engagement activities and templates have been shaped in the online Handbook. The templates will be further adapted and clarified during the upcoming phase, further detailing starting points, formats and methods.

Table 22, Timeline for Business Engagement next phases

Phase	Tasks	Date (Timing)
Reputation building and transition	Meetings among MAKE, WAAG and TCBL to review and adapt the existing activities templates	Oct-Nov
	UX and UI Design improvement of the handbook pages	Dec
Innovation actions Phase 2	Implementation of the reviewed and adapted Handbook ready for the transfer labs	Jan-Feb
	Introduction for the new transfer labs that are exploring, collaborating on and executing tasks to engage with their local community of businesses and entrepreneurs	Mar-Apr
	Testing of the templates and activities present in the Handbook by the transfer labs. Follow-up with the Gurus and Ambassadors	May-Jun



Phase	Tasks	Date (Timing)
	Reflection, enlargement of the activity templates as add-ons to the online Handbook	

5. Conclusion and outlook

Shemakes first phase was filled with productive discussions, co-created research, workshops, panels and other types of events, where the core labs explored their great potential to impact the local community and strengthen connexions with women innovators and other labs in their network. Through the constant exchange of content and feedback sessions, shemakes labs were able to further develop the concepts drafted in the beginning of the project and to collect additional insights on the needs for becoming a more enabling environment for women.

By understanding the local context and differences among the different partners in each task, the core labs were able to plan and execute activities independently, creating multiple routes options to be followed in the different levels of engagement. Furthermore, with the development of the shemakes handbook, core labs can, from now on, focus on fulfilling all the documentation and learning accumulated during this period, which will be crucial for the success of the Transfer phase. Labs will also dedicate time to select and welcome the ambassadors that will act as important carriers and multipliers of the shemakes values.

New adjustments and learnings will be constantly explored on the shemakes living model, that will be adapted as transfer labs sum up with their expertise and knowledge into the network. As the complexity increases, the Innovation Services methodologies and toolkit will serve as the foundation that will guide the labs in strengthening the Shemakes network.

6.Document information

Revision History

Revision	Date	Author	partner	Description
V 0.1	05.08.2021	Raspanti, C., Sandini, B., Berentzen, I.	WAAG	First draft and outlines for partner labs to start working
V 0.2	16.09.2021	Real, M. , Pistofidou, Huon-Merceur E. Senave, V., Raspanti, C., Sandini, B., Berentzen, I., Sofronea, A., Sandu, E.	WAAG, IAAC, MAKESENSE, REDU	Version ready for peer reviewed by
V 0.3	23.09.2021	Frederique Thureau; Kerstin Junge; Niels Lichtenthäler	TCBL, TIG, MATR	Reviewed document
V 0.4	29.09.2021	Raspanti, C., Sandini, B., Berentzen, I	WAAG	Editing
V 0.5	30.09.2021	Frederique Thureau	TCBL	Final proofreadings
V 1.0	1.10.2021	Raspanti, C., Sandini, B., Berentzen, I	WAAG	Final edits for delivery

6.1.1.1 Statement of Originality

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6.1.1.2 Copyright



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6.1.1.4 Acknowledgement

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7. Annex

7.1 Table synthesis of WP3 meetings carried out during phase 1

Table 23, Table synthesis of WP3 meetings carried out during phase 1

Date	Meetings	Who?
06.04	Meeting between WP coordinator and project coordination to discuss WP3 deliverable 3.1 status as adaptations to the model	WAAG + TCBL
07.04	Meeting between labs involved in T3.3 lab-to-lab engagement, update on the deliverable and alignment of concepts	WAAG, REDU AND IAAC
28.04	Overview of the evaluation frame by TIG Presentation of google drive folder and update on the spreadsheet	All core labs + MATRIX
05.05	Round table of activities executed by IAAC, ONLF, LEON Presentation and discussion around the <i>How to plan and document activities</i>	All core labs + MATRIX
18.05	Brainstorm and definition on the research agenda for T3.3 lab-to-lab engagement - Supporting files here and here	WAAG, REDU AND IAAC
18.05	T3.2 community engagement meeting to further define REDU's survey and the scope of the first activities	WAAG, IAAC AND MAKE
26.05	Round table of activities by all labs Presentation of the activity documentation template Update and questions on documentations	All core labs + MATRIX
09.06	Round table of activities by all labs Update of ONLF Opportunities for running shemakes learning activities interlabs Innovation narratives events and follow-up Small introduction to the git handbook	All core labs + MATRIX
16.06	Alignment session WP2, WP3 and WP4 Creation of the Miro for illustrating the activities to documents	IAAC, WAAG, MATRIX



	<p>Feedback on innovation interviews T2.4</p> <p>Administrative point</p>	
23.06	<p>Diffusion of the Miro Matrix to all labs</p> <p>Overview of the survey and interviews procedures T2.4</p>	All core labs + MATRIX
07.07	<p>Discussion on the WP1 methodology guided by Matrix</p> <p>Updates</p>	All + MATRIX except LEON and ONLF (excused)
21.07	<p>Reflections with WP3 on business engagement and innovation practices.</p> <p>Joint Toolkit reflexion for WP2 and WP3</p> <p>Reflexive activities about key learnings through paper design for Fab16 conference</p>	All + Matrix + TCBL
09-15.08	<p>shemakes/Fabricademy community gathering event at the Aegean Idea Lab in Paros - Greece. During the period of a week shemakes lab members contributed eight workshops of different formats in two locations. The gathering concentrated on diverse activities from wearables, soft robotics, sustainability with biochromes on wool to traditional leather moulding.</p>	WAAG, IAAC, LEON, ONLF and MATRIX
25.08	<p>Reconnexion post summer holidays break</p> <p>Introduction to deliverable 3.2 and distribution of tasks.</p> <p>Reminder about documentation and monitoring</p> <p>Introduction to handbook at GitHub by Cecilia Respanti (WAAG)</p>	All core labs
01.09	<p>Labs meeting split by each task of WP2 and WP3, alignment between all labs</p>	All core labs



7.2 Survey REDU – Perceptions and attitudes on gender gaps in STEM fields

The following figures are print screens to exemplify the survey's visuals on Typeform platform.

2 → În ce interval de ani este cuprinsă vârsta ta? *

A) 14 - 18 ani

B) 19 - 25 ani

C) 26 - 34 ani

D) 35 - 45 ani

E) 46 - 55 ani

F) 56 - 65 ani

G) 65 + ani

H) Prefer să nu răspund

OK ✓

Salut! Suntem echipa REDU și te rugăm să ne acorzi câteva minute pentru a răspunde la următorul chestionar care face parte dintr-o serie de activități pe care le implementăm în cadrul proiectului european shemakes.eu. Scopul acestui chestionar este de a afla care este percepția generală în România cu privire la decalajele de gen, cu precădere în Industria Textilă și STIM – știință, tehnologie, inginerie și matematică. Chiar dacă nu activezi într-unul dintre aceste domenii, răspunsul tău este la fel de important pentru noi.

Precizare GDPR:
După cum vei putea observa, nu cerem furnizarea datelor personale, iar toate răspunsurile și informațiile obținute în urma acestui chestionar vor fi păstrate în medii sigure și vor fi protejate de accesul, divulgarea, utilizarea, modificarea sau distrugerea neautorizată de către orice altă organizație sau persoană fizică.

Începe apasă Enter ↵

Acest proiect a primit finanțare prin programul Uniunii Europene de cercetare și inovare Orizont 2020 în temeiul acordului de finanțare nr. 101006203

Figure 35, REDU Questionnaire page template on Typeform

7.2.1 Survey questions

Questionnaire – On identifying the general perception/opinion regarding gender gap in STEM/ Textile & Garment Industry

1. **What is your gender?**

Male

Female

I'd rather not answer

Non binary

2. **What is your age?**

14 – 18

19 – 25

26 – 34

35– 45

45 – 55

55– 65

65+

3. **Level of education?**

Primary education

Gymnasium studies

High-school studies

Post-secondary education

University studies

Postgraduate studies

4. **What does gender inequality mean to you? * How would you define it in your own words?**

Write down your answer here.

5. **If you are a student, employee, freelancer or entrepreneur, which of the following occupational areas do you work in? This question is required. ***

A Academic, research

B Business administration and management

C Arts

D Philosophy

E Finance and / or accounting

F PR and / or Marketing

G Medicine / Nursing

H Nutrition and public health and

I Public policies and / or administration

J Political science and government

K STEM – science, technology, engineering and mathematics

L NGO



M Other (please specify which)

6. Have you ever experienced gender inequality?

Yes

Not sure

No

7. What kind of problems did you face because of gender? You can select multiple answers

A Lower salary

B Intimidating, threatening or physically abusive behavior

C Behavior that denigrates, ridicules, or humiliates a person

D Sexual harassment

E Less chances of promotion

F Other (please specify which)

8. How often do you hear such statements about women? *

	Very often	Often	Sometimes	Rare	Never
"Women should cook and do housework"					
"Men should secure money in the house"					
"Women are not attracted / good in certain scientific fields because there are biological / neuronal differences between women and men"					
"Women are better at raising children"					
"Men are stronger than girls / women"					
"Women should earn less than men"					
"Women are not as good at leadership because they are too emotional"					

9. Do you think that in our country, girls and women are treated equally with boys and men, respectively? This question is required. *

A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion

10. Do you think that in our country, girls and women are treated equally with boys and men, respectively, in terms of access to education and completion of studies? *



A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion

11. From your point of view, in Romania, as many young girls as young boys are finishing postgraduate studies in the fields of STIM - science, technology, engineering and mathematics? *

A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion

12. Do you think that in our country, women have the same opportunity as men, in terms of access to management positions, technical occupations and / or high expertise? *

A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion

13. In your opinion, are women as active as men in the fields of STEM - science, technology, engineering and mathematics? *

A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion

14. From your point of view, do women active in the fields of STEM - science, technology, engineering and mathematics receive the same recognition and the same opportunities (in terms of expert and / or leadership positions) as men? *

A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion

15. Do you consider that the spirit of innovation is stimulated in society (through non-formal and informal education, lifelong learning programs, funding opportunities, etc.) for women and men alike? *

A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion



16. From your point of view, are women given the same opportunities as men to contribute to a more sustainable future for the communities they belong to? *

A Definitely yes

B Yes

C Not

D Definitely not

E I don't know / I don't have an opinion

7.2.2 Quantitative Research Report

Perceptions and attitudes on gender differences in STEM fields – online survey, Author Roxana Vasiliu. This report summarises the results of an online opinion poll, which was mainly aimed at identifying the general perception of gender gaps in Romania, particularly in the Textile Industry and STEM – Science, Technology, Engineering and Mathematics. The study was carried out by the REDU team in the framework of the shemakes.eu project and targeted the general population over 14 years old. [Link to the document.](#)

