

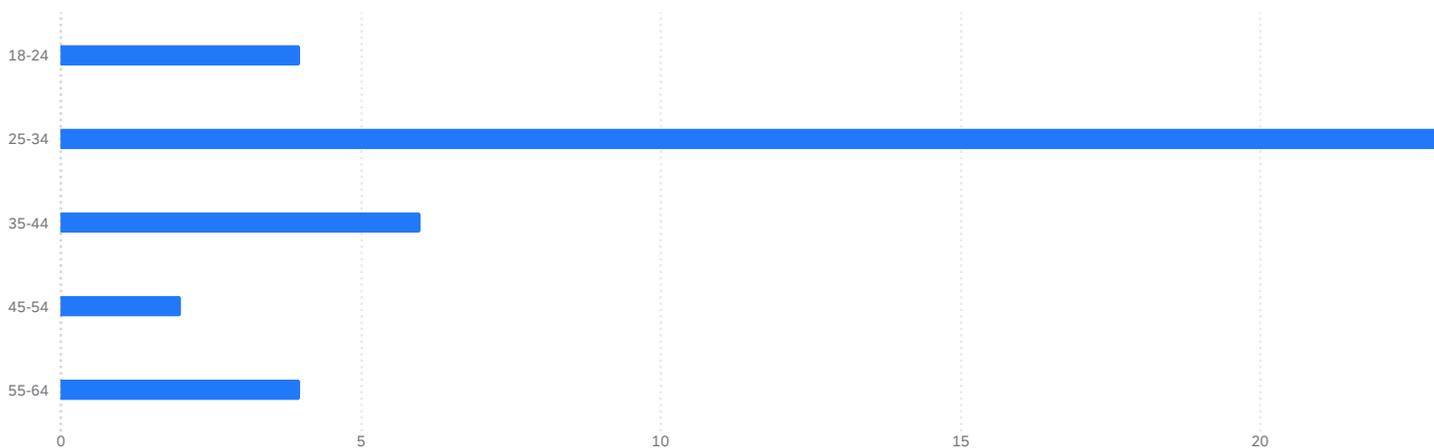
What gender do you identify as? 39 ⓘ

Q4 - What gender do you identify as?	Percentage	Count
Male	28%	11
Female	72%	28

What gender do you identify as? 39 ⓘ

What gender do you identify as?	Average	Minimum	Maximum	Count
Male	1.00	1.00	1.00	11
Female	2.00	2.00	2.00	28

How old are you? 39 ⓘ



How old are you? 39 ⓘ

Q5 - How old are you?	Percentage	Count
18-24	10%	4
25-34	59%	23
35-44	15%	6
45-54	5%	2
55-64	10%	4

How old are you? 39 ⓘ

How old are you?	Average	Minimum	Maximum	Count
18-24	1.00	1.00	1.00	4
25-34	2.00	2.00	2.00	23

How old are you?	Average	Minimum	Maximum	Count
35-44	3.00	3.00	3.00	6
45-54	4.00	4.00	4.00	2
55-64	5.00	5.00	5.00	4

Rate your experience with bio-based materials from '0 - No experience' to '100 -Advanced' 39 ⓘ

Rate your experience with bio-based materials from '0 - No experience' to '...	Average	Minimum	Maximum	Count
My experience of biobased textiles	31.28	0.00	80.00	39

A chain in which textiles are repurposed with the least amount of recycling or disposal done

A way of operating that involves the reuse of materials to keep them in the loop without creating other waste from the production of clothes

Reuse of textiles

Recycling

A place where the lifecycle of textiles is never ending.

reuse, recycle

Reusing the materials without losing the value of materials

An alternative to the current mostly linear nature of the textile industry today

Preventing waste of textiles through re-use, repair, and recycling as a collective.

Taking waste clothing products producing cellulose leading to regeneration. This leads to a modular approach to clothing and making use of AR to ensure products are sustainable for future use.

Cradle-to-cradle model

Reusing textiles we have and avoiding harmful materials and dyes in the process of making clothes

The way to give new lives to materials across all stages of their lifecycle

using clothes longer and repairing them whenever I can

A longer life for textiles

...

One where any new textiles are made out of materials that either use up existing waste or do not create any new waste and at the end of use these textiles can safely be brought back to the beginning of the value chain or returned to the Earth

Repurposing what you have

Recycle

continuous use and reuse of materials

From cradle to grave- raw inputs of a textile to its end of life/end us/where it ends up

Preventing textiles becoming waste, being fed back into the system

One where textiles are given the longest possible lifetime and when they reach end of life bring value to the planetary ecosystem

A economy where materials are kept in their life cycle for as long as possible and once they are at the end of their life cycle are circulated back into the system and re-made. Things can be perpetually cycled ideally.

Extending the lifecycle of clothing and other textiles by refusing, reusing, repairing, recycling, and other means to reduce negative environmental and social impacts of the industry and to reduce textile wastes.

Sustainability

Recycled and recycled

The future

New age material and innovation

Ethically sourced and developed materials

Reuse of textiles rather than discarding them

Renewable sustainable materials

Think about all the circle of the product, how it ends, waste manage.

Promising

The future

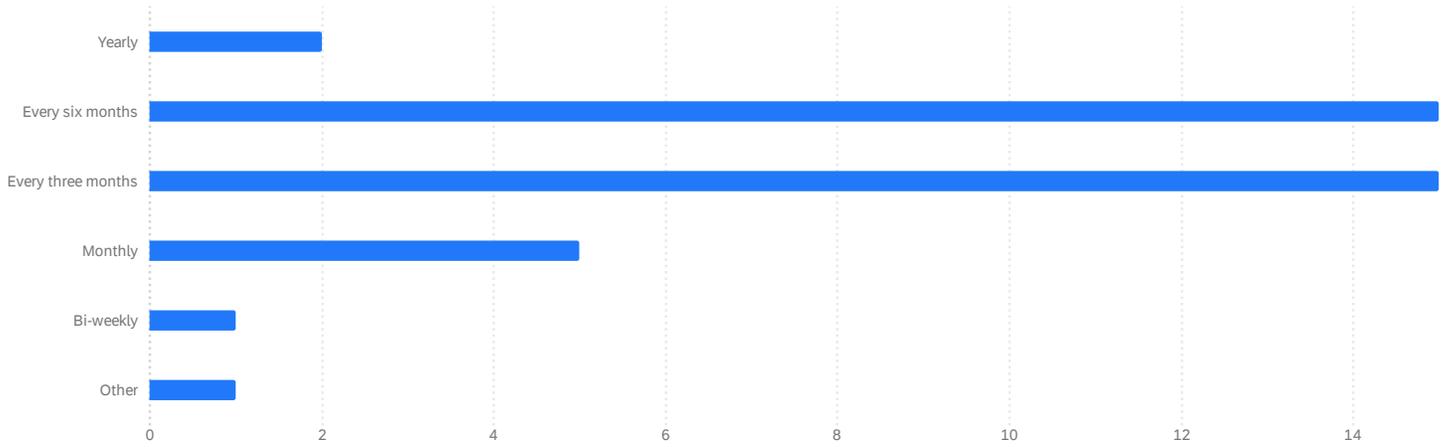
Recycling?

Closed loop production

Regenerative. Allows for ethical practices in the fashion and textile industry

Essential, dependent on innovation, regeneration, and dependent on new socially and ecologically just paradigms of production

How often do you buy clothes? 39 ⓘ



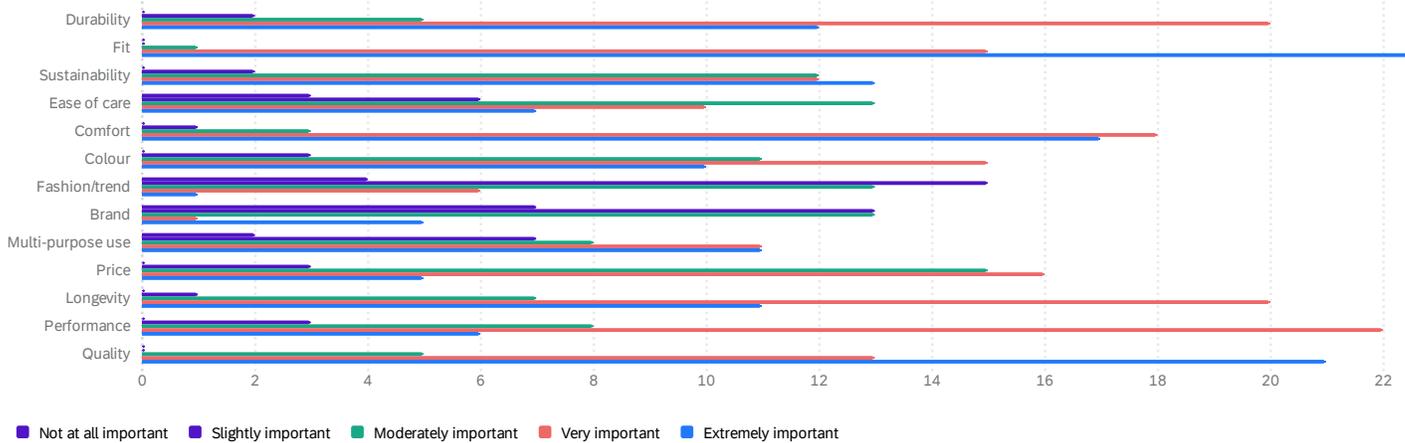
How often do you buy clothes? 39 ⓘ

Q8 - How often do you buy clothes?	Percentage	Count
Yearly	5%	2
Every six months	38%	15
Every three months	38%	15
Monthly	13%	5
Bi-weekly	3%	1
Other	3%	1

How often do you buy clothes? 39 ⓘ

How often do you buy clothes?	Average	Minimum	Maximum	Count
Yearly	2.00	2.00	2.00	2
Every six months	3.00	3.00	3.00	15
Every three months	4.00	4.00	4.00	15
Monthly	5.00	5.00	5.00	5
Bi-weekly	6.00	6.00	6.00	1
Other	9.00	9.00	9.00	1

Thinking about when you buy clothes, what qualities are you looking for? Please rate each quality according to its importance to you. 39 ⓘ



Thinking about when you buy clothes, what qualities are you looking for? Please rate each quality according to its importance to you. 39 ⓘ

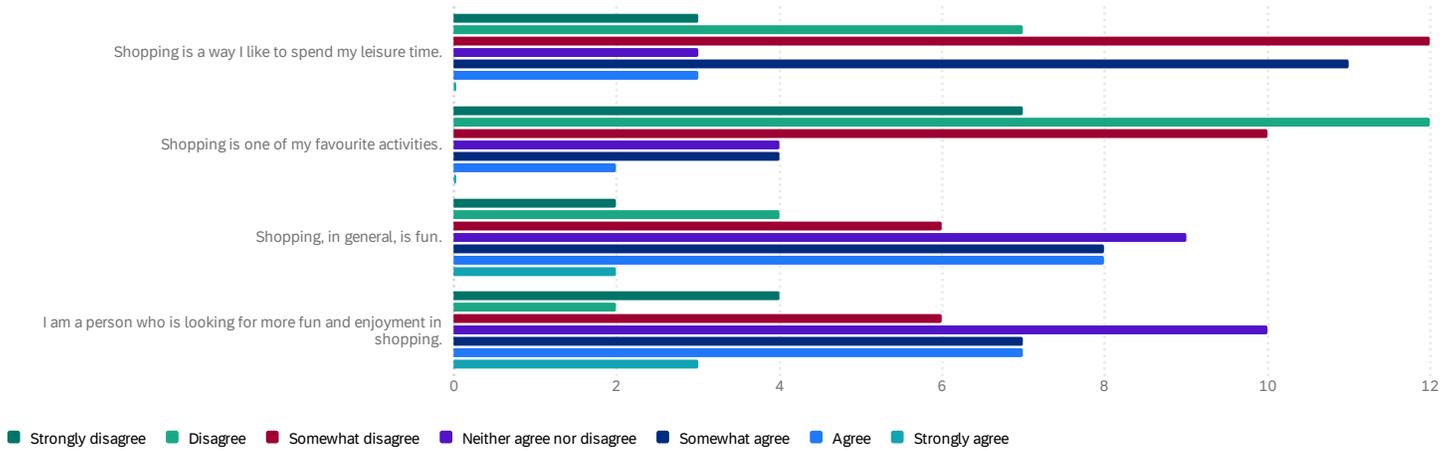
Thinking about when you buy clothes, what qualities are you looking for? Pl...	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Durability	0	2	5	20	12
Fit	0	0	1	15	23
Sustainability	0	2	12	12	13
Ease of care	3	6	13	10	7
Comfort	0	1	3	18	17
Colour	0	3	11	15	10
Fashion/trend	4	15	13	6	1
Brand	7	13	13	1	5
Multi-purpose use	2	7	8	11	11

Thinking about when you buy clothes, what qualities are you looking for? Pl...	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Price	0	3	15	16	5
Longevity	0	1	7	20	11
Performance	0	3	8	22	6
Quality	0	0	5	13	21

Thinking about when you buy clothes, what qualities are you looking for? Please rate each quality according to its importance to you. 39 ⓘ

Thinking about when you buy clothes, what qualities are you looking for? Pl...	Average	Minimum	Maximum	Count
Durability	4.08	2.00	5.00	39
Fit	4.56	3.00	5.00	39
Sustainability	3.92	2.00	5.00	39
Ease of care	3.31	1.00	5.00	39
Comfort	4.31	2.00	5.00	39
Colour	3.82	2.00	5.00	39
Fashion/trend	2.62	1.00	5.00	39
Brand	2.59	1.00	5.00	39
Multi-purpose use	3.56	1.00	5.00	39
Price	3.59	2.00	5.00	39
Longevity	4.05	2.00	5.00	39
Performance	3.79	2.00	5.00	39
Quality	4.41	3.00	5.00	39

To what extent do you agree with each of the following statements on a scale of 1 (strongly disagree) to 7 (strongly agree)? 39 ⓘ



To what extent do you agree with each of the following statements on a scale of 1 (strongly disagree) to 7 (strongly agree)? 39 ⓘ

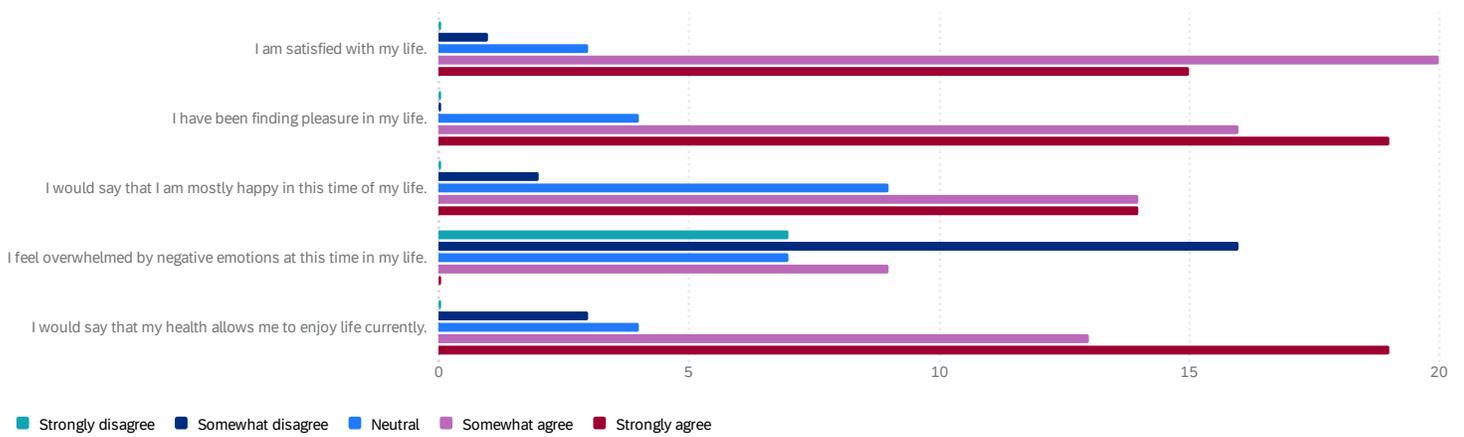
To what extent do you agree with each of the following statements on a scale...	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Shopping is a way I like to spend my leisure time.	3	7	12	3	11	3	0
Shopping is one of my favourite activities.	7	12	10	4	4	2	0
Shopping, in general, is fun.	2	4	6	9	8	8	2
I am a person who is looking for more fun and enjoyment in shopping.	4	2	6	10	7	7	3

To what extent do you agree with each of the following statements on a scale of 1 (strongly disagree) to 7 (strongly agree)? 39 ⓘ

To what extent do you agree with each of the following statements on a scale...	Average	Minimum	Maximum	Count
Shopping is a way I like to spend my leisure time.	3.54	1.00	6.00	39
Shopping is one of my favourite activities.	2.79	1.00	6.00	39
Shopping, in general, is fun.	4.26	1.00	7.00	39
I am a person who is looking for more fun and enjoyment in shopping.	4.21	1.00	7.00	39

The following 5 statements refer to how you currently feel about your wellbeing. Read each statement and decide the extent to which you agree/disagree.

39 ⓘ



The following 5 statements refer to how you currently feel about your wellbeing. Read each statement and decide the extent to which you agree/disagree.

39 ⓘ

The following 5 statements refer to how you currently feel about your wellb...

Strongly disagree Somewhat disagree Neutral Somewhat agree Strongly agree

Statement	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I am satisfied with my life.	0	1	3	20	15
I have been finding pleasure in my life.	0	0	4	16	19
I would say that I am mostly happy in this time of my life.	0	2	9	14	14
I feel overwhelmed by negative emotions at this time in my life.	7	16	7	9	0
I would say that my health allows me to enjoy life currently.	0	3	4	13	19

The following 5 statements refer to how you currently feel about your wellbeing. Read each statement and decide the extent to which you agree/disagree.

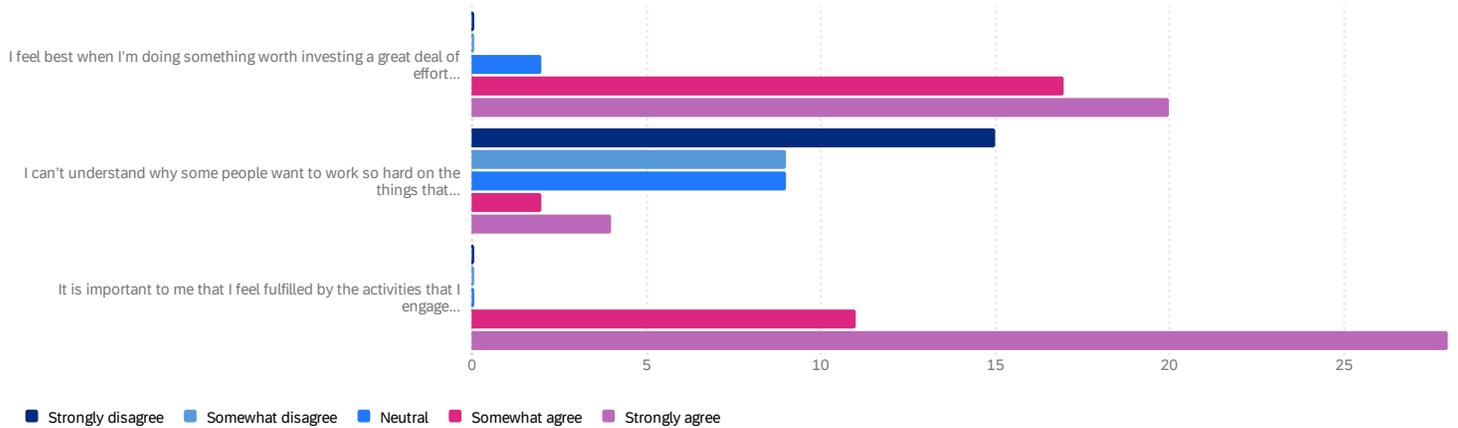
39 ⓘ

The following 5 statements refer to how you currently feel about your wellb...

Average Minimum Maximum Count

Statement	Average	Minimum	Maximum	Count
I am satisfied with my life.	4.26	2.00	5.00	39
I have been finding pleasure in my life.	4.38	3.00	5.00	39
I would say that I am mostly happy in this time of my life.	4.03	2.00	5.00	39
I feel overwhelmed by negative emotions at this time in my life.	2.46	1.00	4.00	39
I would say that my health allows me to enjoy life currently.	4.23	2.00	5.00	39

The following 3 statements refer to how you currently feel when you participate in activities in your daily life. Read each statement and decide the extent to which you agree/disagree. 39 ⓘ



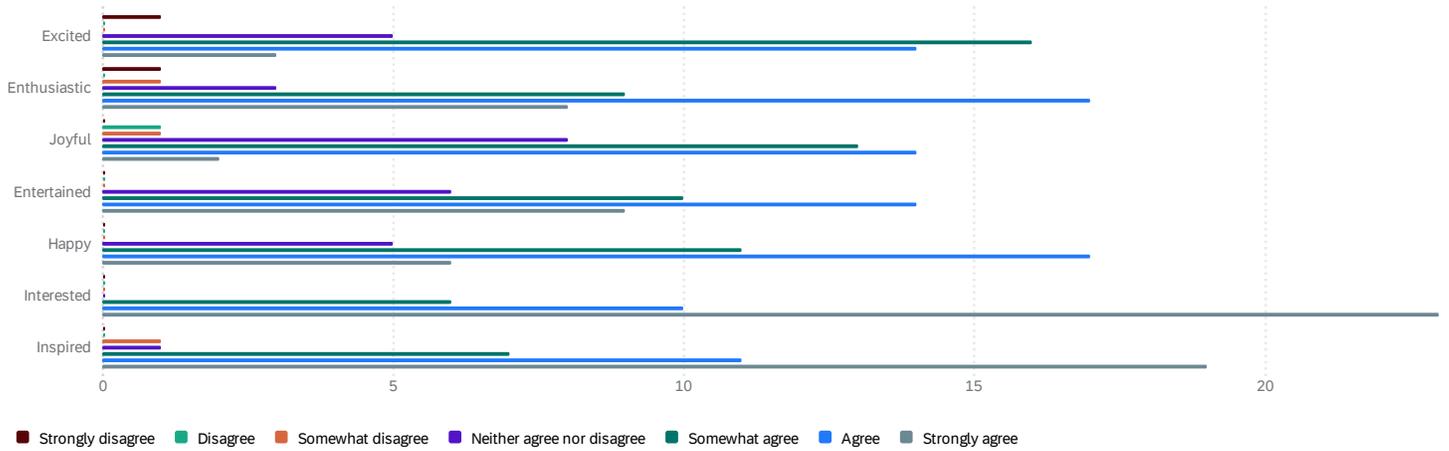
The following 3 statements refer to how you currently feel when you participate in activities in your daily life. Read each statement and decide the extent to which you agree/disagree. 39 ⓘ

The following 3 statements refer to how you currently feel when you partici...	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I feel best when I'm doing something worth investing a great deal of effort...	0	0	2	17	20
I can't understand why some people want to work so hard on the things that...	15	9	9	2	4
It is important to me that I feel fulfilled by the activities that I engage...	0	0	0	11	28

The following 3 statements refer to how you currently feel when you participate in activities in your daily life. Read each statement and decide the extent to which you agree/disagree. 39 ⓘ

The following 3 statements refer to how you currently feel when you partici...	Average	Minimum	Maximum	Count
I feel best when I'm doing something worth investing a great deal of effort...	4.46	3.00	5.00	39
I can't understand why some people want to work so hard on the things that...	2.26	1.00	5.00	39
It is important to me that I feel fulfilled by the activities that I engage...	4.72	4.00	5.00	39

To what extent do you agree with each of the following statements: "Right now, I feel..." 39 ⓘ



To what extent do you agree with each of the following statements: "Right now, I feel..." 39 ⓘ

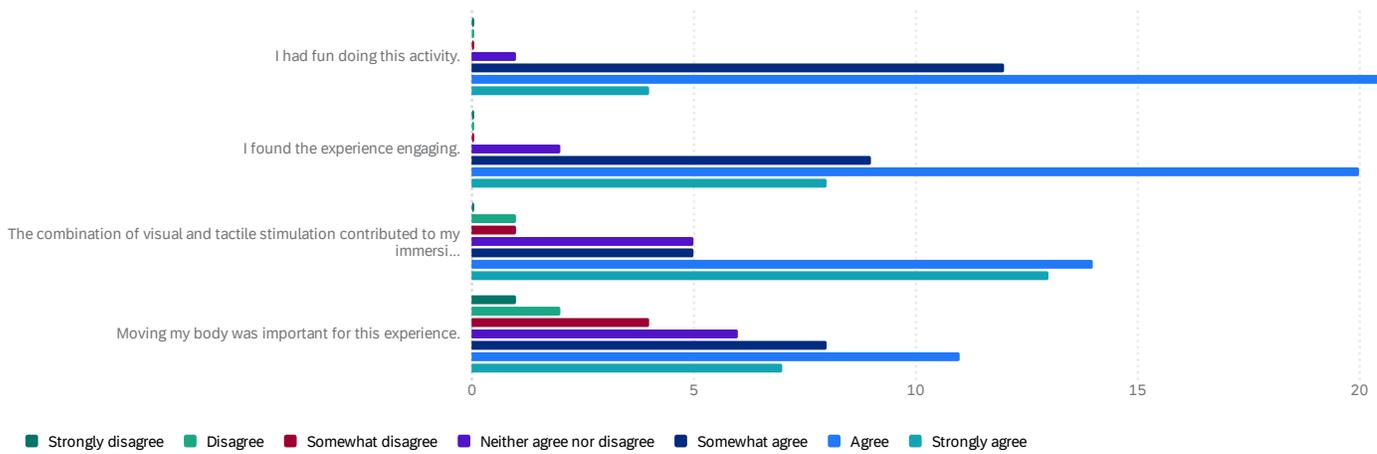
To what extent do you agree with each of the following statements: "Righ...

To what extent do you agree with each of the following statements: "Righ...	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Excited	1	0	0	5	16	14	3
Enthusiastic	1	0	1	3	9	17	8
Joyful	0	1	1	8	13	14	2
Entertained	0	0	0	6	10	14	9
Happy	0	0	0	5	11	17	6
Interested	0	0	0	0	6	10	23
Inspired	0	0	1	1	7	11	19

To what extent do you agree with each of the following statements: "Right now, I feel..." 39 ⓘ

To what extent do you agree with each of the following statements: "Righ...	Average	Minimum	Maximum	Count
Excited	5.28	1.00	7.00	39
Enthusiastic	5.62	1.00	7.00	39
Joyful	5.13	2.00	7.00	39
Entertained	5.67	4.00	7.00	39
Happy	5.62	4.00	7.00	39
Interested	6.44	5.00	7.00	39
Inspired	6.18	3.00	7.00	39

In relation to your engagement with biobased textiles. To what extent do you agree with each of the following statements: 39 ⓘ



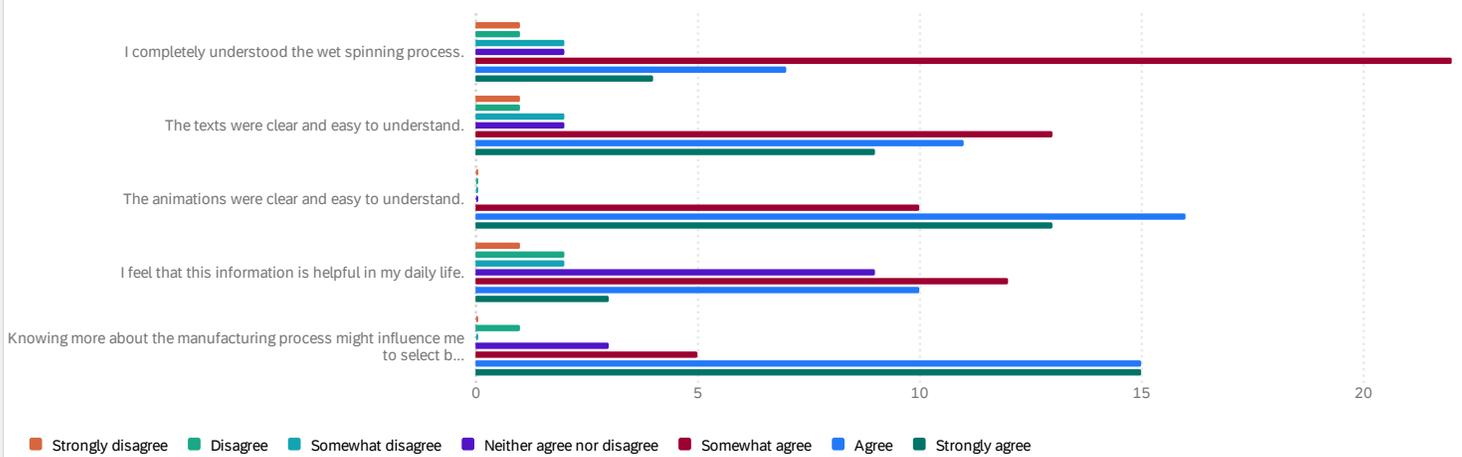
In relation to your engagement with biobased textiles. To what extent do you agree with each of the following statements: 39 ⓘ

In relation to your engagement with biobased textiles. To what extent do yo...	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I had fun doing this activity.	0	0	0	1	12	22	4
I found the experience engaging.	0	0	0	2	9	20	8
The combination of visual and tactile stimulation contributed to my immersi...	0	1	1	5	5	14	13
Moving my body was important for this experience.	1	2	4	6	8	11	7

In relation to your engagement with biobased textiles. To what extent do you agree with each of the following statements: 39 ⓘ

In relation to your engagement with biobased textiles. To what extent do yo...	Average	Minimum	Maximum	Count
I had fun doing this activity.	5.74	4.00	7.00	39
I found the experience engaging.	5.87	4.00	7.00	39
The combination of visual and tactile stimulation contributed to my immersi...	5.77	2.00	7.00	39
Moving my body was important for this experience.	5.03	1.00	7.00	39

When it comes to improving your knowledge, please indicate your level of agreement with the following sentences: 39 ⓘ



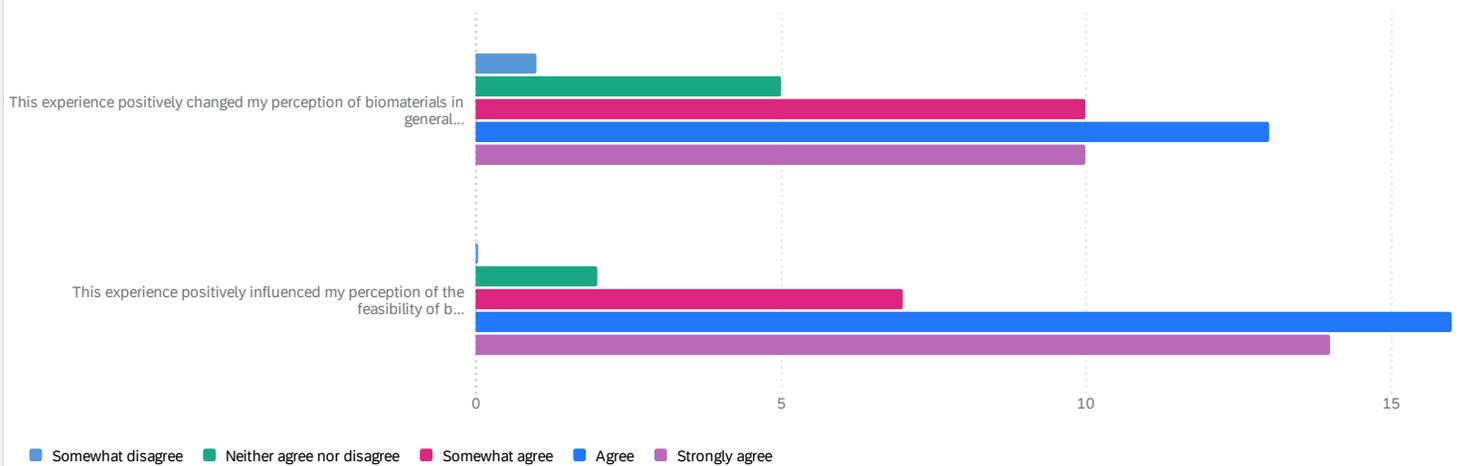
When it comes to improving your knowledge, please indicate your level of agreement with the following sentences: 39 ⓘ

When it comes to improving your knowledge, please indicate your level of ag...	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I completely understood the wet spinning process.	1	1	2	2	22	7	4
The texts were clear and easy to understand.	1	1	2	2	13	11	9
The animations were clear and easy to understand.	0	0	0	0	10	16	13
I feel that this information is helpful in my daily life.	1	2	2	9	12	10	3
Knowing more about the manufacturing process might influence me to select b...	0	1	0	3	5	15	15

When it comes to improving your knowledge, please indicate your level of agreement with the following sentences: 39 ⓘ

When it comes to improving your knowledge, please indicate your level of ag...	Average	Minimum	Maximum	Count
I completely understood the wet spinning process.	5.05	1.00	7.00	39
The texts were clear and easy to understand.	5.41	1.00	7.00	39
The animations were clear and easy to understand.	6.08	5.00	7.00	39
I feel that this information is helpful in my daily life.	4.82	1.00	7.00	39
Knowing more about the manufacturing process might influence me to select b...	6.00	2.00	7.00	39

In relation to your perception of the future of bio-based materials, please select to what extent you agree or disagree with the following sentences: 39 ⓘ



In relation to your perception of the future of bio-based materials, please select to what extent you agree or disagree with the following sentences: 39 ⓘ

In relation to your perception of the future of bio-based materials, please...	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
This experience positively changed my perception of biomaterials in general...	1	5	10	13	10
This experience positively influenced my perception of the feasibility of b...	0	2	7	16	14

In relation to your perception of the future of bio-based materials, please select to what extent you agree or disagree with the following sentences: 39 ⓘ

In relation to your perception of the future of bio-based materials, please...	Average	Minimum	Maximum	Count
This experience positively changed my perception of biomaterials in general...	5.67	3.00	7.00	39
This experience positively influenced my perception of the feasibility of b...	6.08	4.00	7.00	39

What is the most memorable part of the experience? ⓘ

Seeing the process through the phone. Also, I was surprised to see that the initial cellulose "paper" can be produced with other types of waste besides textiles.

The last part of the process, when the yarn gave life to the finished garment. It makes you imagine the possible future applications of these materials

Final product

I didn't know it was possible before so I'm inspired by what can be done

Learning about the process of making the filament

Holding the button and watch the AR animation and the scanning part

Seeing the diagram of the process

Using beer waste products to create bacterial cellulose

The augmented reality component showing the process of using bacterial cellulose to weave into clothing

Production of the garment from the yarn.

I was able to see the process through this digital realm which makes bio material casual, easy to approach and less serious.

I liked the spinning part of separating the filament from the ions and how the phone vibrated

Modular shirt and the idea of creating and using multipurpose modular approach to garments to lengthen its lifespan

The filament coming out of the syringe

Spinning the yarn and seeing how it can be transformed

The idea of modular multi purpose garments

The spinning process was particularly memorable and fun.

Sneezing on my arm and the beautiful layout of the exhibition. Also touching the different materials. Well presented by the researchers.

Seeing the variations of possibilities with the material

learning about the development of bio materials and how they can be simply made

The spinning animation (stage 4), from the dry jet spinning of cellulose

Extrusion from syringe

The tactile experience of the AR and having a more visceral sense of actually carrying out the wet spinning process was very memorable.

I never realised how simple the process was and it de-mystified it for me.

Getting to touch and visualise the bio based textile material.

Dry-jet spinning

Seeing the ar perform

The interactive design - very clear informations

Spinning of the yarn.

The augmented experience itself

Seeing the material which came from the scoby

Visualising how the process of bio based textiles works, as I am interested in trying the process myself but don't have any science background I felt less scared about trying it out myself.

Seeing the process in images.

Holding the button to see animations

Not sure

Feeling the materials after the AR experience

not touching the textures

The physical experience of seeing how the bio based materials is made was very inspirational for me. I liked learning about how this new material is made and the potential positive impact it could have for the fashion industry.

The animations were very compelling and I enjoyed the interactive element

It helps visualise the most "scientific" parts of the process, such as spinning step. Reading the description and the tools used can be a bit confusing for non experts, so having visual guidance helps the average consumer understand more about the material.

The illustrations were particularly clear, and the fact that the phone was vibrating and I had to move for seeing the entire picture added a playful point

Final product from the bacteria yarn was quite impressive; the whole process was shown quite difficult to understand at the beginning

I liked the step by step approach. Sometimes things weren't visible on the screen and I didn't realise I was missing something

It was effective in helping me have a visual understanding of the process

I like I know that the demonstration will always working. I can focus more on what's showing me. Rather than watching people doing the real demonstration in real life. It either too crowded or one thing would not work.

The spinning part

The graphic for creating the yarn was very effective

I think it could have been a bit more detailed in explaining how the process works and provide people with a deeper understanding.

First. Stage needed more clarity to help fully understand the process

Ineffective - too many scientific and technical jargons. The animation itself doesn't render the real process in the best way possible, for example the liquid wasn't rendered realistically so it felt artificial

The animations + its engaging with the viewer (you don't just read) I thought this was good

There is an expectation for the participants to understand chemical terms and there are no definitions available, which limits the understanding of the process

Effective was the movement of objects, ineffective was no being able to go back to understand the whole process

Scanning different icons made it easy to follow

Very engaging, well animated

I think think the interactive press and hold actions were really effective in engaging my attention. However, it might be helpful to prompt users to "look around" with the camera so that they don't miss out on animations or elements that are not immediately on screen.

Too many scientific words I am not familiar with

The spinning process

the short simple explanations help me understand as a lay person

The more time spent on the animation, the more time to visually see the process aided the understanding more. Shorter animations, not so much.

Where you see the back of the machine so have to look around the front was engaging

The language was quite technical and the illustrations were more effective at explaining the process than the text

I loved the vibrations to make me more engaged.

Holding down a button for each stage was simple for the user but less engaging and enjoyable.

Effective: seeing the process; ineffective: adjusting body position, limited visual range

Animation

More informations about the material and it's possiblities in wearing it, feeling, touching it

The part of making it a shirt.

I think it was effective in the sense that we could really understand the process well. But, as someone with less knowledge of biomaterials, a little backstory would've been more helpful.

The steps in the demo are quite quick so it can be a bit difficult to retain the specific terms used. it would be interesting to see the physical stages at the same time - touch & feel - as would be easier to retain info.

The vibration of the phone along with the visuals, tactility is a nice touch

I would make it with more details. Showing the process from the very beginning, from the waste.

I haven't seen enhanced interactions between physical space and AR, this seems to utilise just makers to trigger animations in 3D

No

An animation of the molecular activity would be good.

Animation was effective

I didn't realise that I could turn the phone landscape to experience the visuals. Being informed of this would help the participant to ensure they get the full virtual image of the process.

I thought it was very easy to figure out and enjoyed when the animations demanded you move the phone to see the full picture

Because it was a really entertaining and quick experience, I would suggest to see the steps in even more detail. I was interested enough to have the experience for a few extra minutes and learn even more.

Maybe to add information on the previous part of the process, how the bacterial cellulose is obtained

Numbers and how that discovery may effect the society

I'd like to be able to see a full size version of the process that I can walk around in. Maybe a AR human guide that can show me where to look

I didn't realise until the end that if I moved the phone I could see the spool being wound. I thought I had to stand still. It would be helpful to explain this in more detail to the user.

I hope it has less reading and more visuals

I couldn't see entire view as was too close....

Maybe not to restrict the AR to one area, meaning more people could experiment at once and it could be accessed remotely also!

I think the interactive elements could have been a bit more interactive and maybe more points where the movement and interaction with the real world were utilised.

Possible more interaction and simpler terms IF possible to help appreciate the process

An index or terminology sheet that explains the technical terms and the interpretation. More information about the applied research or its relevance to day-to-day implementation and how it affects consumption of textiles and where it leads to. It shows the process but it doesn't mean much unless I know why its important for me to know this process (impact)

Clearer illustrate the process, show where the initial materials come from rather than just mixing them together and making the end result

Add an intro about cellulose and some definitions to help understanding of the process

Overview at the beginning and end and point out how this differs from usual

Reading aloud the text

Prerecorded voice describing the process, maybe

Simplifying the language or using more layman friendly language where someone with no knowledge of textile processes will still be able to follow along.

Not sure.

Wider view area ie able to look around you

it could be interesting to see a further follow on on the use of the materials further and their different applications

For the shorter steps increase the no. of interactions on each stage.

None

Simplify the language if possible

I would love more interactivity maybe more movement as well, I feel like I'd love to know where the materials that go into this come from as well.

Differentiated user tasks for each stage of the manufacturing process to help with understanding.

Maybe a device with bigger screen

More information

Possibility to dive deeper into informations and know how

Not anything for now.

I think the inclusion of a narrative other than the manufacturing process would be helpful to understand and raise awareness of the systems if bio materials

Have the screens interspersed with the real experiment -see it on screen then in reality

Augmented reality in the future could become a more seamless part of society by not needing a device to engage with it, perhaps electronic can project augmented reality right before our eyes making it more immersive

I would show in real video instead of animation.

It would be better to see higher quality of renders. Also show statistics of the impact from this bio based material

I think it was a bit pointless and distracting. The screen wasn't big enough to see the whole image. The samples were behind glass so couldn't touch them. I think it all could have been explained better with a video and a voice over.

Continue the AR throughout the exhibition. Make the app downloadable on personal device.

I wish I could touch as I learn

See above. I would love the ability to physically feel the new cellulose materiel.

I think the text could be clearer
