

# CONSUMER INSIGHTS: CIRCULARITY, SUSTAINABILITY, AND MADE IN THE ALPS



# Table of Content

## Introduction

### 1. Qualitative Insights: The image of textile products from Alpine value chains

### 2. Insights from survey data

### 3. Insights from experimental studies

## Discussion and Conclusions



## Introduction

The Alpine textile heritage has been disrupted by globalization, the offshoring of textile value chains, and the replacement of locally produced raw materials, semifinished products, and end goods with cheaper imports.

Today, numerous initiatives across the Alps are working to re-localize textile value chains, utilizing local resources like wool to create more socio-environmentally sustainable products. Through their purchase choices, consumers can play a crucial role in supporting the re-localization of more sustainable and circular textile value chains.

- Consumers can drive the market by demanding environmentally and socially sustainable textiles. Their demand encourages companies to adopt more sustainable practices, such as using shorter value chains and local raw materials.
- By making thoughtful purchasing decisions, consumers can support companies that follow sustainable and circular practices, holding them accountable for their socio-environmental impacts.



## **Little is however known about consumers' attitudes towards and intentions to purchase sustainable and circular textile products from Alpine regions.**

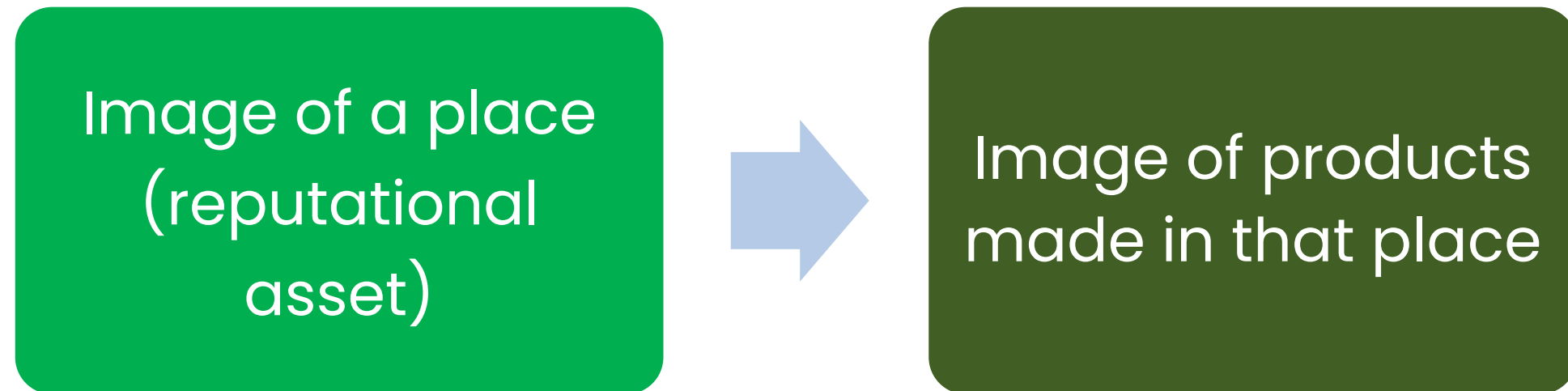
- Available studies, adopting different methodologies, predominantly report information at the national or regional levels. As a result, comparison of research findings from one region to the other is hardly possible.
- Moreover, the focus of these studies is typically on products made in a specific country (for example, 'Made in France', 'Made in Italy', 'Swiss-made'). Studies do not typically elicit consumer perceptions of hybrid products from cross-border value chains.

## **Insight from academic consumer research suggests that 'made in' images, also known as 'place brands' or 'place-of-origin effects', might play an important role in the re-localization of textile value chains in Alpine regions.**

- Places project images regardless of conscious communication efforts. When a place is well-known and with a good image, local companies can benefit from it, as the image of the place connotes the products made in that place (see Fig. 1). This mechanism is known as the image-transfer process (McCracken 1986, 1989).



## Figure 1 – The image transfer process in place-based branding



Source: Adapted from McCracken (1986, 1989)



**Consumer research has also long detected the so-called ‘attitude-behavior gap’, or the deviation between the attitude towards (and intention to buy) sustainable products and actual purchase behavior.**

- Consumers find it hard to translate their preferences for more sustainable products into actual behaviors. When making a purchase, socio-environmental performances are considered together with other attributes such as perceived product quality, aesthetics, price, and brand image. This means that even environmentally friendly consumers may end up buying cheaper products when faced with more environmentally friendly and expensive alternatives.
- In the last decades, products of fast fashion and globalized textile value chains have accustomed consumers to paying very low prices, thus reducing their willingness to pay for more sustainable products.

**In addition, consumers might mistrust sustainability claims, seen as instances of ‘greenwashing’.**

- Greenwashing refers to business practices through which a company projects a ‘green’ image and portrays itself as environmentally sustainable, when in fact its operations still have negative impacts on the environment and society.



## **Taking the broader consumer landscape in mind, this AlpTextyles report provides insight based on complementary methodologies and data sources on consumer perceptions of sustainable and circular textile products “Made in the Alps”.**

- Research activities were carried out by emlyon business school’s lifestyle research center, under the coordination of prof. Diego Rinallo. Team members involved were prof. Marta Pizzetti, prof. Verena Gruber, and Dr Miriam Leite Farias. We gratefully acknowledge the contribution of project partner FAU, and, in particular, of Mr Markus Lambracht, for help in the visualization of geographical data.

## **The deliverable also integrates data from the ARPAF-III ‘Made in the Alps’ and the EU Horizon 2020 Trick projects, which we gratefully acknowledge.**

- The Alpine Region Preparatory Action Fund project ‘Made in the Alps’ (2022-23) carried out research activities on consumer perceptions of the Alps and products from Alpine value chains (including, but not exclusively textiles). Involved partners (Polo Poschiavo, ZRC SAZU, and emlyon business school) are also AlpTextyles partner, which facilitated transfer of knowledge between the two projects.
- In the framework of the EU Horizon 2020 Trick project, the Institute of Management of the Sant’Anna School of Advanced Studies carried out a study on “Consumer Behavior relating to Circular Fashion, Innovation and Usage of QR code”. We are grateful to the Trick project partners for permission to use data gathered for this study in this deliverable, and, in particular, from Prof Francesco Testa, Prof. Natalia Marzia Gusmerotti and Ms Greta Colombi for their support and collaboration.



## This deliverable is structured as follows:

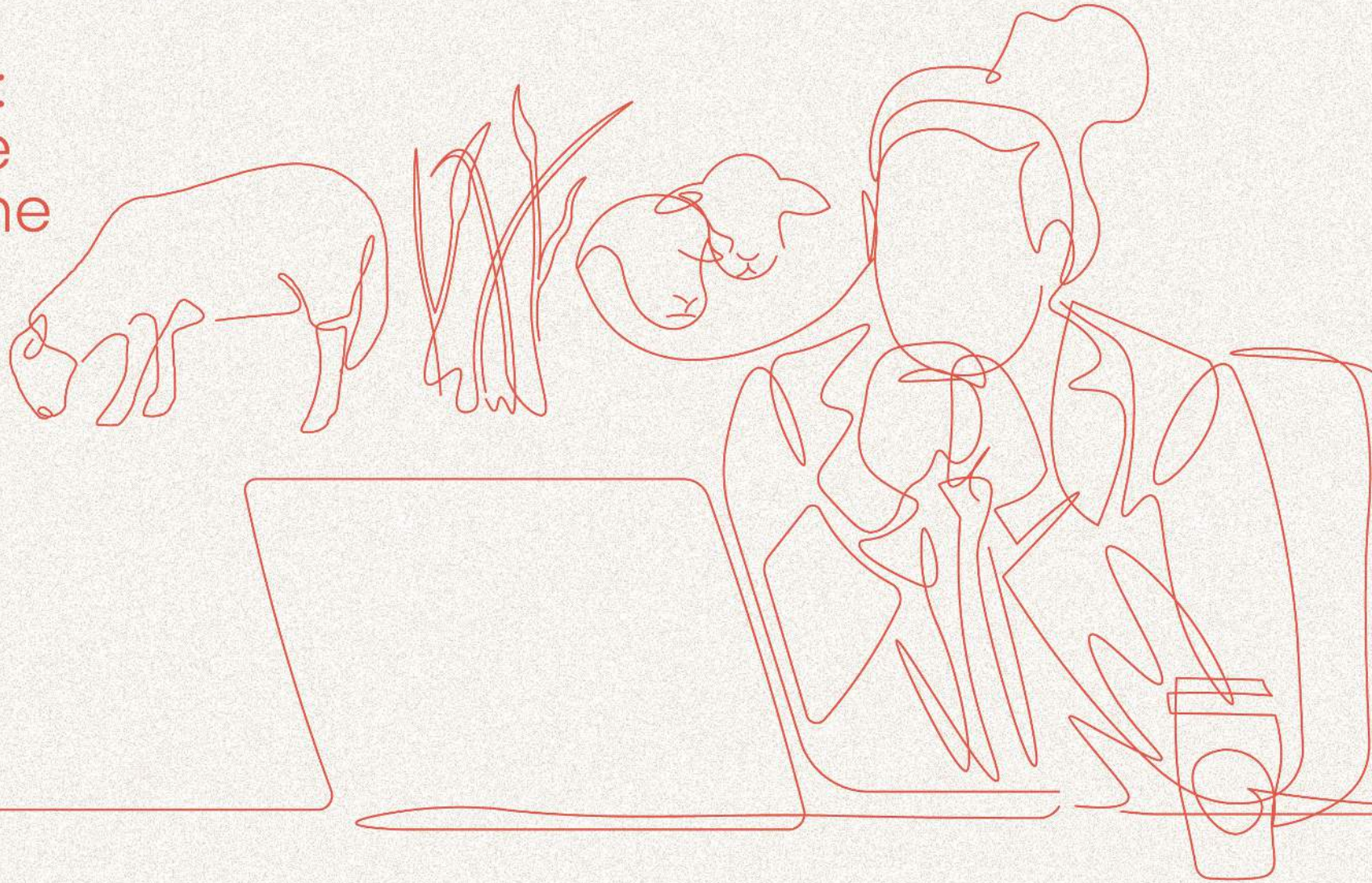
- Building on findings from the ARPAF-III 'Made in the Alps' project, Part 1 reports qualitative data on the image of the Alps and the extent to which its products from textile value chains might benefit from it. We found that the image of the Alps is attractive and particularly favors artisanal products. Most consumers however do not promptly associate it to textile products.
- Part 2 reports data from the Horizon 2020 Trick project, which we re-analyzed and mapped drawing on methods used in geographic information systems. According to the research findings, consumers show high levels of environmental consciousness and preference for sustainable textile products. This is good news – but research findings should be interpreted with caution due to social desirability bias in survey responses and consumers' environmental attitude-behavior gap.
- Part 3 reports quantitative data obtained from eight experimental studies involving a total of 1,758 participants. Research findings suggest that consumers highly value Alpine products, associating them with artisanal craftsmanship and passion. Consuming these products enhances their positive feelings and sense of contributing to society. Consumers particularly appreciate products made from native Alpine fibers, such as wool from autochthonous sheep breeds, and value the sustainability of products made from circular materials or natural components.
- We conclude with a general discussion of research findings across methodologies and practical implications.





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# Qualitative insights: The image of textile Products from alpine Value chains



**Priority 2**  
Carbon neutral and resource



# Introduction

**This section reports data from the ARPAF-III ‘Made in the Alps’ project, further re-analyzed with a focus on consumer perceptions of products from textile value chains.**

- Our goal was to understand what the Alps mean to consumers and how the image of the Alps provides a symbolic added value to textile products made in the region (see Figure in the next page)
- This data is based on qualitative, in-depth interviews with 23 informants from different regions within the Alpine space.
- As detailed in the ‘Made in the Alps’ report *Consumers’ Perceptions of “Made in the Alps”* (2023), a first round of interviews was realized by Diego Rinallo (emlyon business school), Erik Logar (ZRC SAZU) and Paola Gioia (Kedge Business School).
- Additional interviews were conducted by EUSALP Youth Councillors Achille Riberyon, Aljon Kerec, Giulio Bernasconi, Leila Izard, and Timothy Sung, whose contributions are gratefully acknowledged.
- Data analysis and interpretation were carried out by Paola Gioia (Kedge Business School) and Diego Rinallo (emlyon business school).



# The underlying model: the meaning transfer from place to local products

AlpTextyles

### Image of the Alps



### Image of products «Made in the Alps»





**The interviews were enhanced using a photo-elicitation technique (Heisley & Levy 1991; Matteucci 2013), which yielded rich narratives about the Alps and products from Alpine value chains.**

- Photo-elicitation involves using photographs to evoke deeper responses and insights from participants. This methodology leverages visual stimuli to trigger memories, emotions, and discussions that might not arise during a consumer interview relying solely on verbal interaction.
- Informants were asked to bring a collection of photographs representing the Alps and products from Alpine value chains. These photographs could be downloaded from the internet or represent original works.
- The research also relied on an additional set of photographs that interviewers used to address topics informants might not spontaneously discuss. For example, photos of textile crafts were shown to informants who focused only on food when talking about Alpine products.
- As it is common in interview-based research, we report findings with examples of informant *verbatim*s.





# The Alps are associated with sublime nature, escape from the city, and the possibility of finding oneself – all images that first emerged during Romanticism

**Before the Romantic era, the Alps had a negative image, of a dangerous and inhospitable place, which those forced to cross them--pilgrims, merchants, soldiers--were happy to leave behind.**

- The difficult terrain and harsh and often unpredictable weather conditions made crossing the Alps perilous, contributing to their reputation as dangerous and inhospitable. Risks of banditry further contributed to their fearsome image.
- The Alps were also shrouded in fear and superstition, with numerous legends depicting them as inhabited by devils and monsters.

**The Alps were significant to Romanticism as they embodied the movement's ideals of sublime and pure nature, provided an escape from industrialization and chaotic urban life, offered a space for introspection, and stirred the imagination with their mystery.**

- With their vastness, awe-inspiring beauty, and dramatic landscapes, the Alps embodied the Romantic notion of the sublime. Ascending to the Alps offered a deep emotional experience, facilitating spiritual renewal.
- Amidst Europe's industrialization, which many Romantics viewed as dehumanizing, the Alps symbolized a pristine, unspoiled natural world, providing an escape from urban chaos. Their solitude and isolation allowed for individual introspection and reflection. The Alps' beauty, rich folklore, and myths inspired Romantic writers and artists, who celebrated their sublime beauty and emotional power, often depicting humans as small and insignificant.



«The wanderer above the sea of fog»,  
c. 1818, by the German Romantic painter  
Caspar David Friedrich



# Tourism has both benefited from and reinforced these Romantic associations, which echo through the tales of the Alps told by tourists past and present.

Even before the advent of present-day tourism, the Alps became a sought-after destination for those in search of pristine landscapes and health resorts with thermal waters and clean air.

- The late 19th century brought additional familiarity, thanks to travel guides and improved railroads.
- Explorers' conquests of Alpine peaks inspired admiration and Alpine clubs, with their networks of shelters and trail, further increased accessibility, turning the Alps into a must-visit for the affluent.

Post-World War I, the popularity of skiing, featured prominently in films and popular culture, added to the allure of the Alps. After World War II, with the rise of the middle class and mass tourism, the Alps became an increasingly popular destination. The Romantic image of unspoiled nature and tradition continues to define the Alps, even if the image of the Alps seen by tourists is very different from the image held by the Alpine the populations.



Source: "[Big turns, big runs and big smiles. @marjapersson and @stolyg showing this Canadian powder refugee how it's done. Pow to the valley? #blackcrows\\_skis @hitcase #lagrave #alps #ski #france](#)" by [Andre Charland](#)

**In-depth interviews reveal that the image of the Alps is rooted in sensorial experiences – first and foremost the colors of the landscape, with each season having its specific hues.**





# The Alps also evoke the music of the natural elements, the sounds of animals, and 'silence' – the absence of the noises of city life.

## Most informants spontaneously evoke the sound of wind and water.

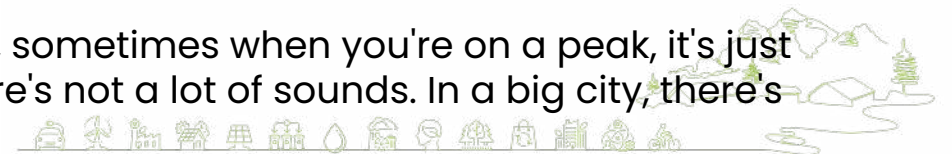
- "The wind that rustle the leaves"
- "Another sound is the sound of the water, which is very striking . . . I live near the sea [where] there is a sound of the water which is, you know, the waves moving and agitating. Which is a completely different sound. As you know, the river going from up to down the hill like hitting the rocks and the pebbles. I just love this song; I find it very peaceful.»

## The chirping of birds and the ringing of cows in mountain pastures are also frequently recalled.

- "Winding blowing in the trees and the sound of a bird up in the mountains"; "The chirping of birds"
- "There were a lot of cows which we could hear even though we couldn't see them because of the bells attached to their necks", "the beauty of cowbells that you can recognize and hear even without seeing them"

## There are many who associate the Alps with peace, calm and silence – to be understood not as the absence of sound tout court but rather as the absence of typical city noises, in continuity with Romantic ideals.

- "I don't hear sound. It feels very, very peaceful and very quiet"
- "It's not like in the city where you have a lot of sound from the city. Here it's way more quiet, but at the same time it's like it enables you to still focus on some other sounds like the songs from the nature, for example the river, but also the birds, that are very predominant in my imagination in this area, so at the same time very quiet but some new sounds that you don't necessarily hear in your daily life. »
- "what I love about the Alps is that there's often no sounds, actually. You know, sometimes when you're on a peak, it's just very peaceful often, where you just hear the wind whistling a little bit, but there's not a lot of sounds. In a big city, there's always something going on. "





Source: "cow traffic jam on the Alps High Route - Mt Blanc to Matterhorn" by Rick McCharles, licensed under CC BY 2.0.





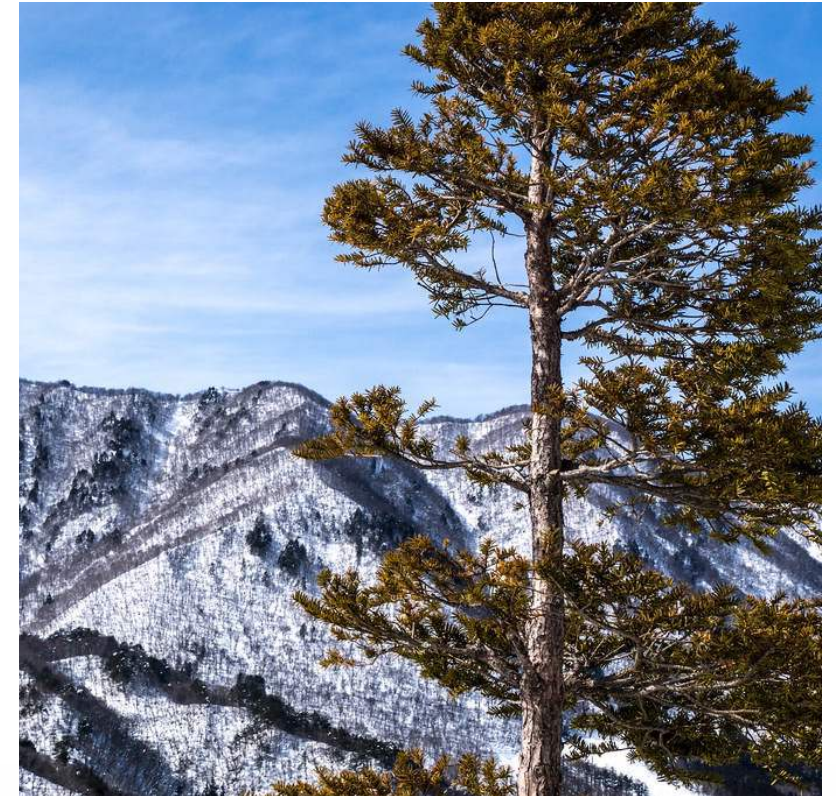
# The Alps are also associated to the smells of nature – wild and tame – and ‘fresh air’, free of the unpleasant odors of the city

## Experiences of nature leave strong olfactive traces in informant's memory.

- "It feels very fresh. I can't really describe. It's very hard to describe this flavour of just being surrounded by nature, the trees and the flowers"
- "The smell of the fir wood, the smell of the pine trees, of resin".
- "Flowers, grass", "the smell of a flowery plant"
- "The smell you would smell in a forest, nature, animals and excrement"
- "You can smell the trees, the earth. Partly very strong, but it's just very pleasant to breathe the air, to smell nature there»

## The air is described as fresh, pure and purifying, very different from the polluted air in the city

- "It's cold. It's cool. I mean, it's clean. There's nothing very striking about the smell of fresh air and just when you inhale it, you feel it cleans your body"
- "You don't smell the exhaust fumes, you wouldn't smell the rubbish, but basically some clean air that would basically calm you down. And then there are those smells from nature".



Source: "Mountain Contrasts" by Images by Petra, licensed under CC BY 2.0.





Source: "Alpine flowers" by A\_Peach is licensed under CC BY 2.0.



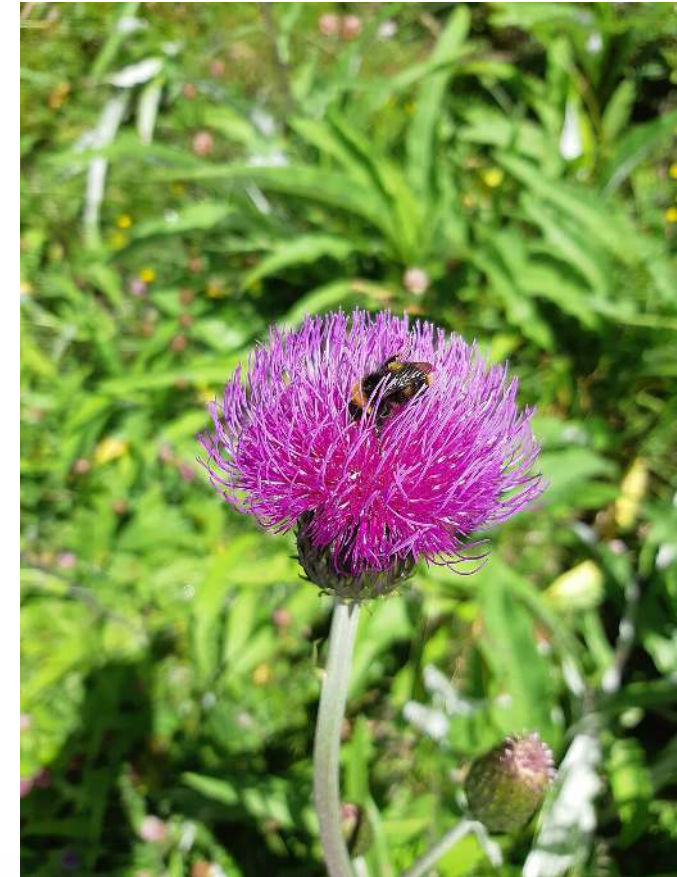




# When asked about Alpine products, consumers predominantly think of food.

**Among products associated with the Alps, food is top of mind. Compared to other product categories, food spontaneously sparks long, detailed, and passionate conversations. Cheese, honey, herbs, spirits, charcuteries are effortlessly mentioned as distinctively Alpine. This enthusiasm is tied to positive memories of food and wine experiences, often linked to encounters with the Alpine landscape – a productive landscape largely dedicated to food production.**

- "With the scouts I had been to this shelter . . . where there was this family with cows, goats. They were making milk, and in the morning, there was a four o'clock wake-up call, they would milk, then they would put the milk in the copper pot, they would turn it, there were all the various operations and then they would get to making cheese. And to me that's something that really struck me a lot because of how simple this process was handled, almost this simplicity without having the machinery . . . but in a very simple, natural way, and in the end, you were getting a product that is not comparable to what you get in other circumstances."
- "Cheeses from the mountains, they taste better because while you are eating them . . . it is the flavor of the barn and the fresh milk that you can taste, that is, the proper flavor of the barn, which is a very strong flavor that you cannot taste, in my opinion, in packaged cheeses".
- "In this context, where bees have certain environment around, they can go and pollinate certain types of plants. There is a much more natural context. You then get a product that is much better, much more quality. And so, in my opinion that's another thing that I associated with the alpine area, that's the bees, the honey, everything behind that, that's it. "



Source: "Sankt Gallenkirch-Alp Nova-flowers and bee-03ESD" by Rikki Mitterer, licensed under CC BY-SA 4.0.

## Other product categories are seldom mentioned and do not generate narratives as rich as those related to food.

### Wood and wood crafts are much less top of mind, but emerge thanks to photo-elicitation.

- Furniture, when it is mentioned, is in traditional style. Wood chalet are also mentioned.
- The idea of short supply chains for wood and forestry products generates mixed feelings in some informants, as 'cutting tree' is perceived as a way to exploit nature.

### Technological products are also hardly mentioned, except in the case of sky lifts or hydro-electric energy infrastructures.

- «Maybe in a couple of years there will be no snow anymore, which is kind of sad because, as I said, in my imagination, the Alps are also associated with what they are in winter and so the snow and, more than skiing, the mountains under the snow. It's just very beautiful and it's again very fresh air and very different from what we experience in our daily life, so it's still important to preserve this kind of moments and this situation».



Source: "Wood Pile" by kellinahandbasket, licensed under CC BY 2.0.





# Consumer show little awareness that textile fibers are still produced in the Alps today.

Textiles products are rarely mentioned spontaneously. Narratives elicited through photo-elicitation are not as rich as those about food.

Among the natural fibers produced in the Alps, wool is the most frequently mentioned, often as an educated guess (“There are sheep, there must be wool”) rather than based on actual knowledge. Flax is rarely mentioned, hemp never.

- “I don’t think of textile products when I think about mountains”
- “I don’t think of clothing as much when I think about the Alps, but I guess wool and maybe linen”
- “I guess wool from the sheep”
- “I don’t think I’ve never bought any clothes made in the Alps so that I know of a particular textile that is from the Alps but I guess wool.”
- “I don’t know if it counts as a textile, but like cowhide for clothes or carpets”.

Sheep farming is predominantly associated with the production of milk and cheese rather than wool.



Source: "Sheep on the path" by Olivier Bruchez, licensed under CC BY-SA 2.0.





# Clothing worn during Alpine leisure activities is not associated to local production.

Technical clothing for walking, skiing, and other mountain leisure activities is not typically associated with manufacturers in the Alpine regions. Instead, these products are linked to large luxury brands based in the world's fashion capitals and international sports brands. The value chains of these producers are often global, and hardly associated with local production in the Alps.

The rich textile heritage of the Alpine regions, which includes traditional spinning and weaving techniques and traditional costumes, is largely absent from informants' perceptions.

- “Jumpers [that used to be] made by grannies, yes, I associate them with the mountains. But I don't think about these products made in the mountains today”.

However, when delving deeper with photo-elicitation, some elements begin to emerge in informants' awareness...



Source: "Ski Alp Val Rendena 2009" by CoppaDelleDolomiti, licensed under CC BY 2.0.





# Like other products 'made in the Alps', textile products are perceived to be:

## 1. Expensive

- Artisanal/hand made
- Produced in smaller quantities (no economies of scales)
- Produced by smaller firms
- Produced with more expensive raw materials/ingredients (locally sourced)

## 2. With a different price structure and distribution

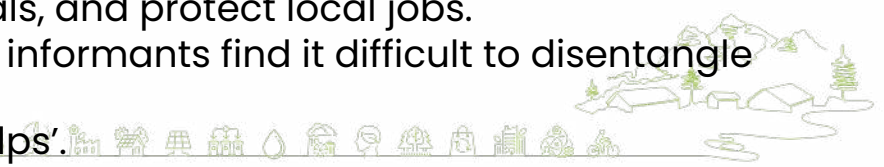
- Sold directly by producers, without intermediaries
- More difficult to find (no mass distribution)
- Price doesn't include the huge marketing/promotional costs of industrial producers

## 3. Targeting a specific market segment

- Some clients lack the cultural sensitivity to appreciate them or see the difference with mass-produced products from global value chains
- There are economic barriers to purchase (not everybody can afford them)
- Some consider them luxury products for rich consumers or products for special occasions (for example, Alpine honey not for everyday use, but as a gift; holiday souvenir).

## 4. Culturally and environmentally friendlier

- They valorize local *savoir faire*, at risk at disappearing, the use raw materials, and protect local jobs.
- When locally produced and distributed, result from short value chains. But informants find it difficult to disentangle origin of raw materials vs place of production.
- The term 'circularity' is never employed to refer to products 'made in the Alps'.



# Summary of research findings from qualitative insights

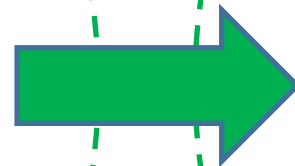
AlpTeStyles

## Image of the Alps

Positive, attractive, linked to nature

Romantic = exotic, primitive, untouched by modernity

The complexity of the Alps is simplified by those who «consume» the Alps through tourist experiences



## Image of products «Made in the Alps»

Consumers 'romanticize' products 'Made in the Alps', considered artisanal/hand made by SMEs with more 'natural' production processes. They are considered expensive, culturally, and environmentally friendlier, and targeting only clients with specific socio-cultural characteristics.

There is limited awareness of fibers, yarns, fabrics and finished textile products 'Made in the Alps' – the exception being dirdnl and other forms of folk dress.







Despite a positive image and a favorable 'goodwill' effect, textile products 'Made in the Alps' are considered relatively expensive. This poses challenges to the marketing strategies of these products.

- Place of origin and perceptions of socio-cultural sustainability can generate higher willingness to pay a higher price – but only until a limit.
- Products from reterritorialized textile value chains thus suffer from price competition from cheaper products from globalized value chains as well as more expensive branded products sustained by high levels of marketing investments.
- Additionally, interview data can suffer from normative responses exaggerating interest in and willingness to pay for these products.



["Dirndl Just 70 Euros each"](#)  
by [mikecogh](#), licensed under [CC BY-SA 2.0](#).

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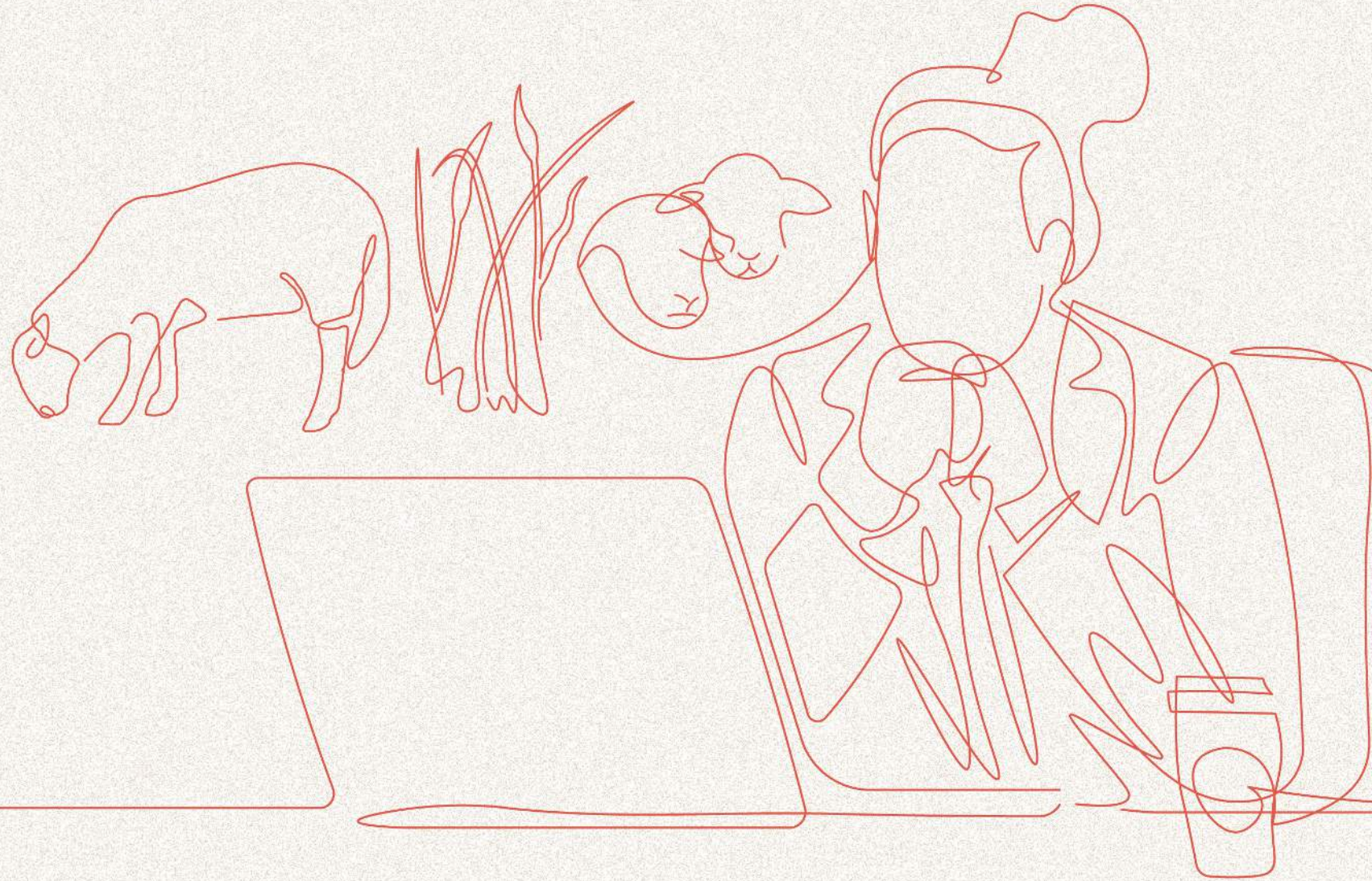
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# 2

## Insights from survey data



**Priority 2**  
Carbon neutral and resource



# Introduction

**Part 2 reports data from the Horizon 2020 Trick project, further re-analyzed with a focus on consumers' attitudes regarding sustainable textiles.**

- The data was collected by the Institute of Management, Sant'Anna School of Advanced Studies within the framework of the EU Horizon 2020 TRICK project, which we gratefully acknowledge for having generously shared their dataset with the AlpTextyles project. For more information about the study, please refer to Prof. Testa ([Francesco.testa@santannapisa.it](mailto:Francesco.testa@santannapisa.it)) and Prof. Gusmerotti ([NataliaMarzia.gusmerotti@santannapisa.it](mailto:NataliaMarzia.gusmerotti@santannapisa.it)).
- The data is based on a survey completed by representative samples in five European countries: France, Italy, Germany, Poland, and Spain. Out of these, we focused on the Alpine regions in France, Italy, and Germany
- The survey assesses consumers' perceptions regarding sustainability issues in the textile-clothing sector. We have selected the nine items most relevant to our project, that is items addressing perceptions of the environmental impact of clothing, preferences for buying local products, awareness about textile waste, and others.
- The data analysis and interpretation was carried out by Marta Pizzetti and Verena Gruber (both emlyon business school) and visualized by Markus Lambracht, Jan Guss and Tobias Chilla (Friedrich-Alexander-University Erlangen-Nuremberg, FAU).



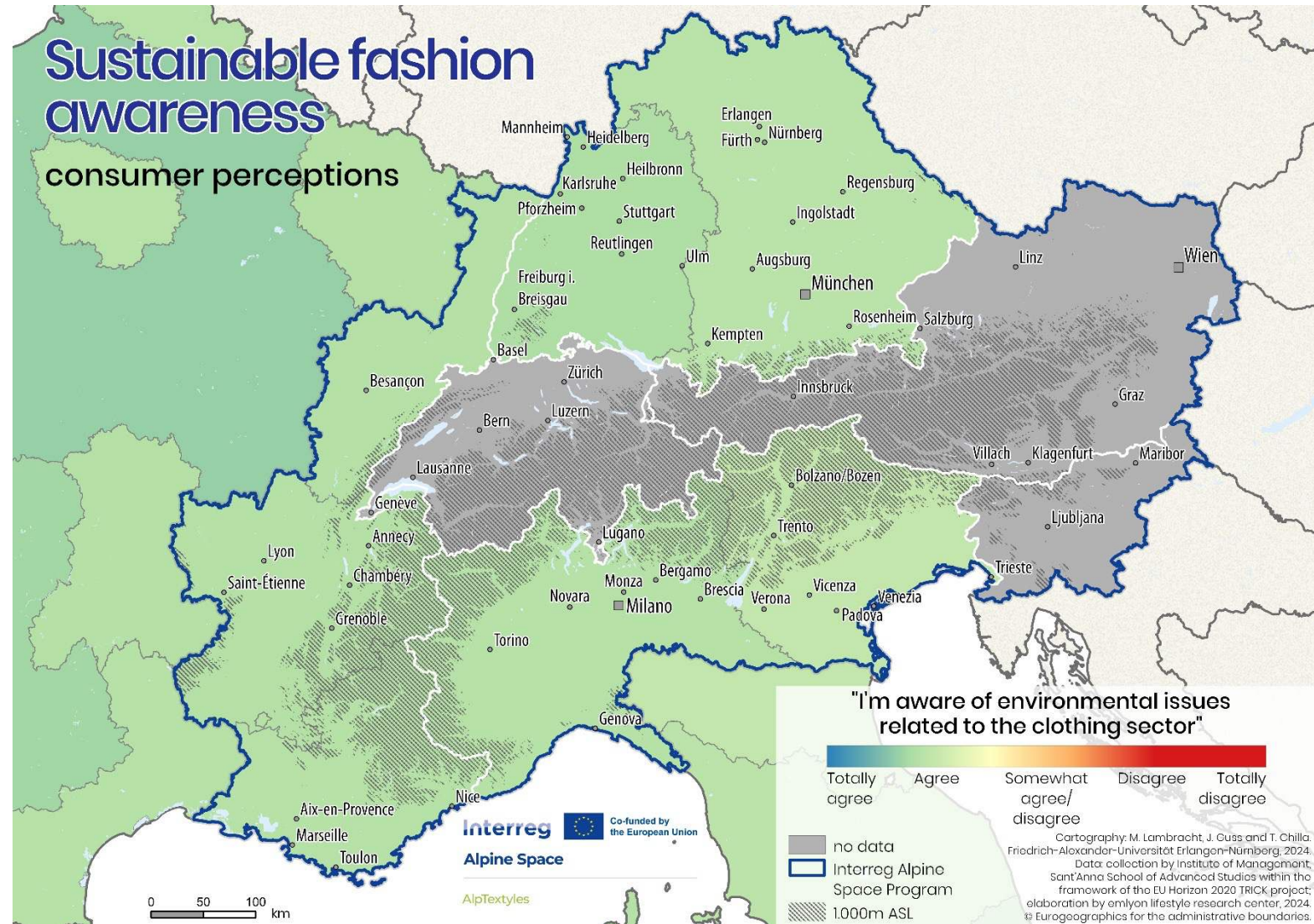
Scuola Superiore Sant'Anna



# Awareness of environmental issues related to the clothing sector

Consumers in Alpine regions are generally quite aware of the environmental issues related to the clothing sector (M=3.89).

Overall, there is little variation from one region to the other.

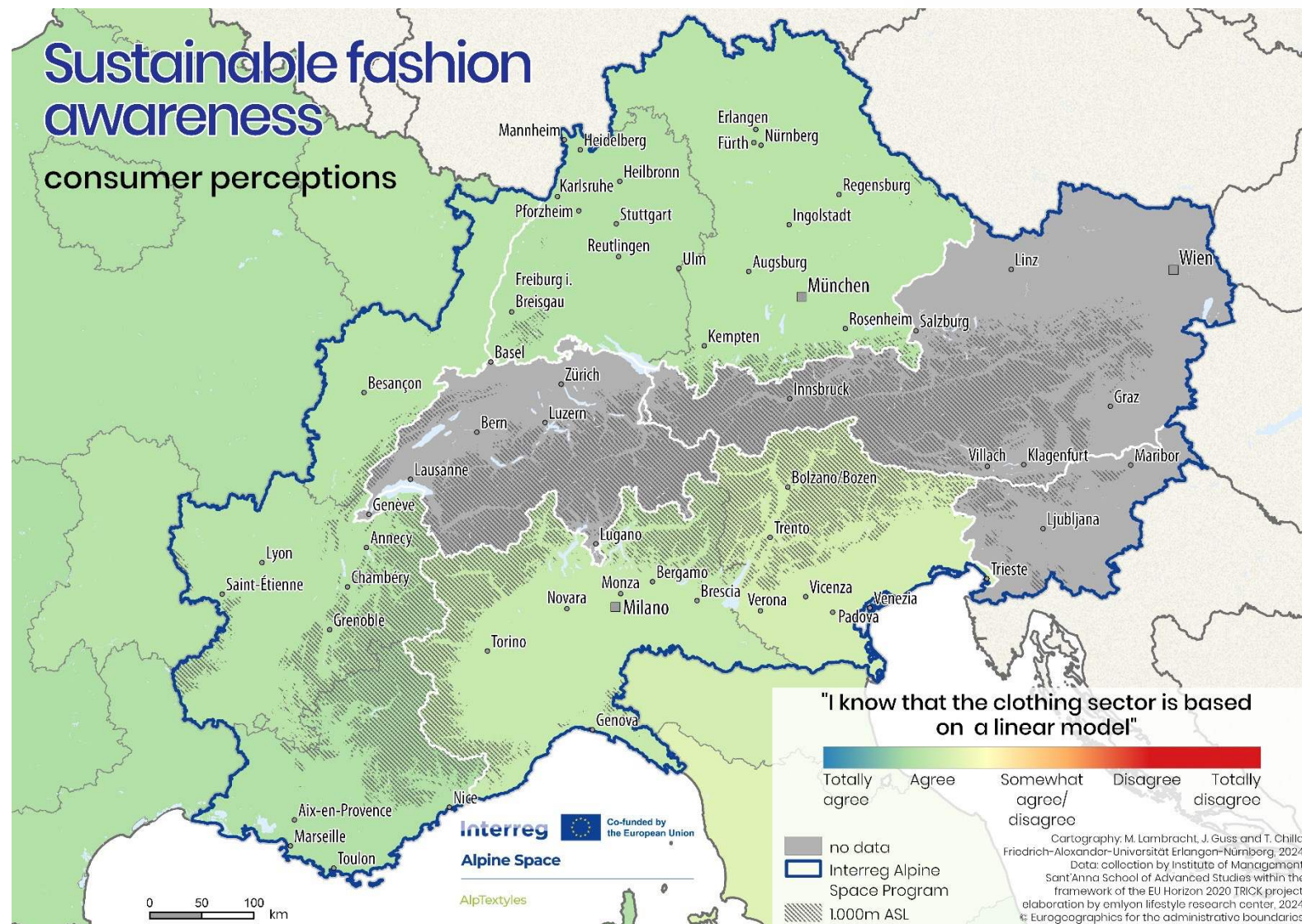




# Knowledge of the linearity of the economic model in the textile sector

Consumers in Alpine countries know that the clothing sector is based on a linear model (M= 3.73)

Also in this case, there is limited variation in average answers from one Alpine region to the next.

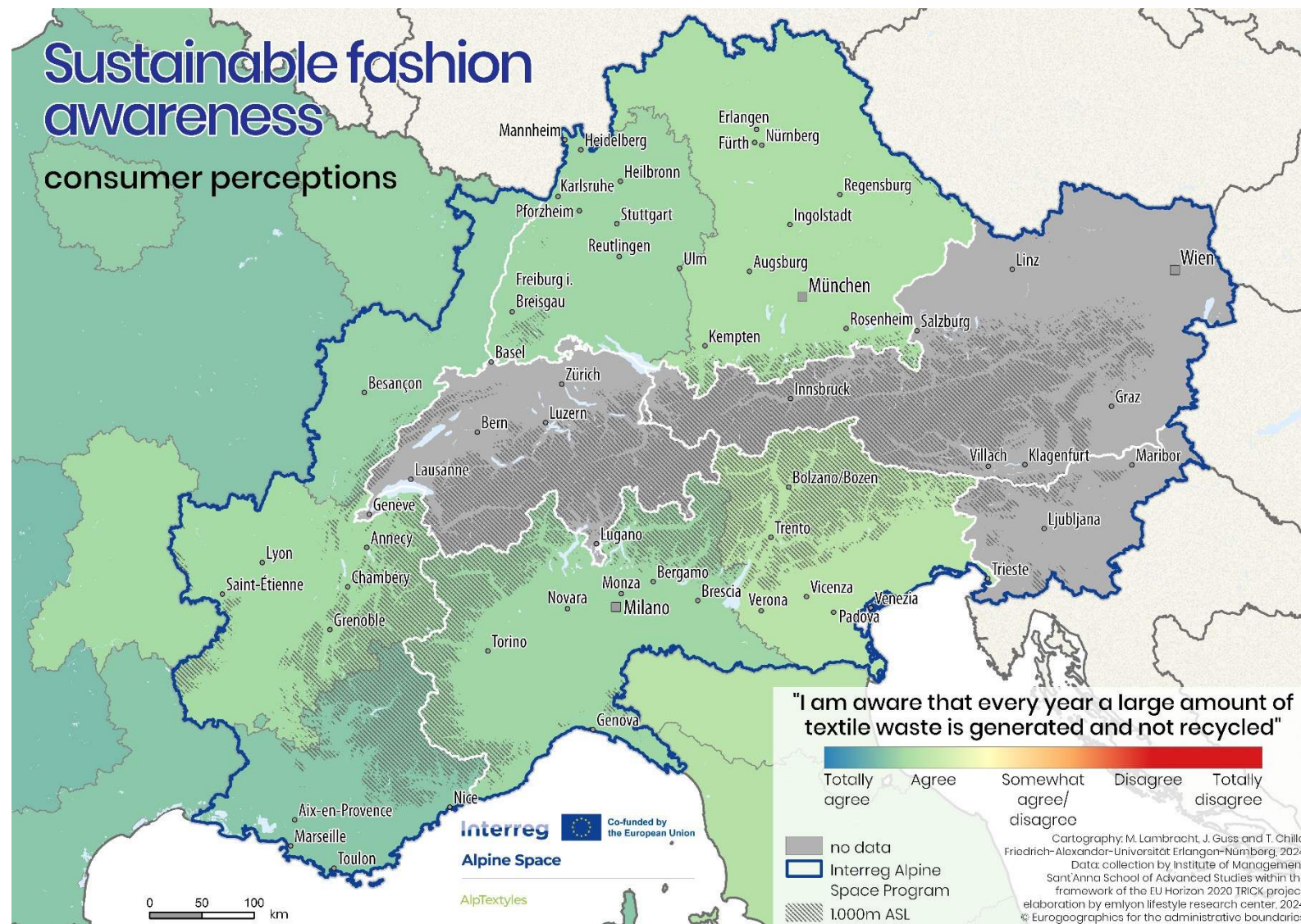




# Awareness about textile waste

Consumers in Alpine countries report that they are very much aware of the large amount of textile waste that is generated and not recycled (M= 4.07)

For this item, means are higher than in the case of previous indicators.

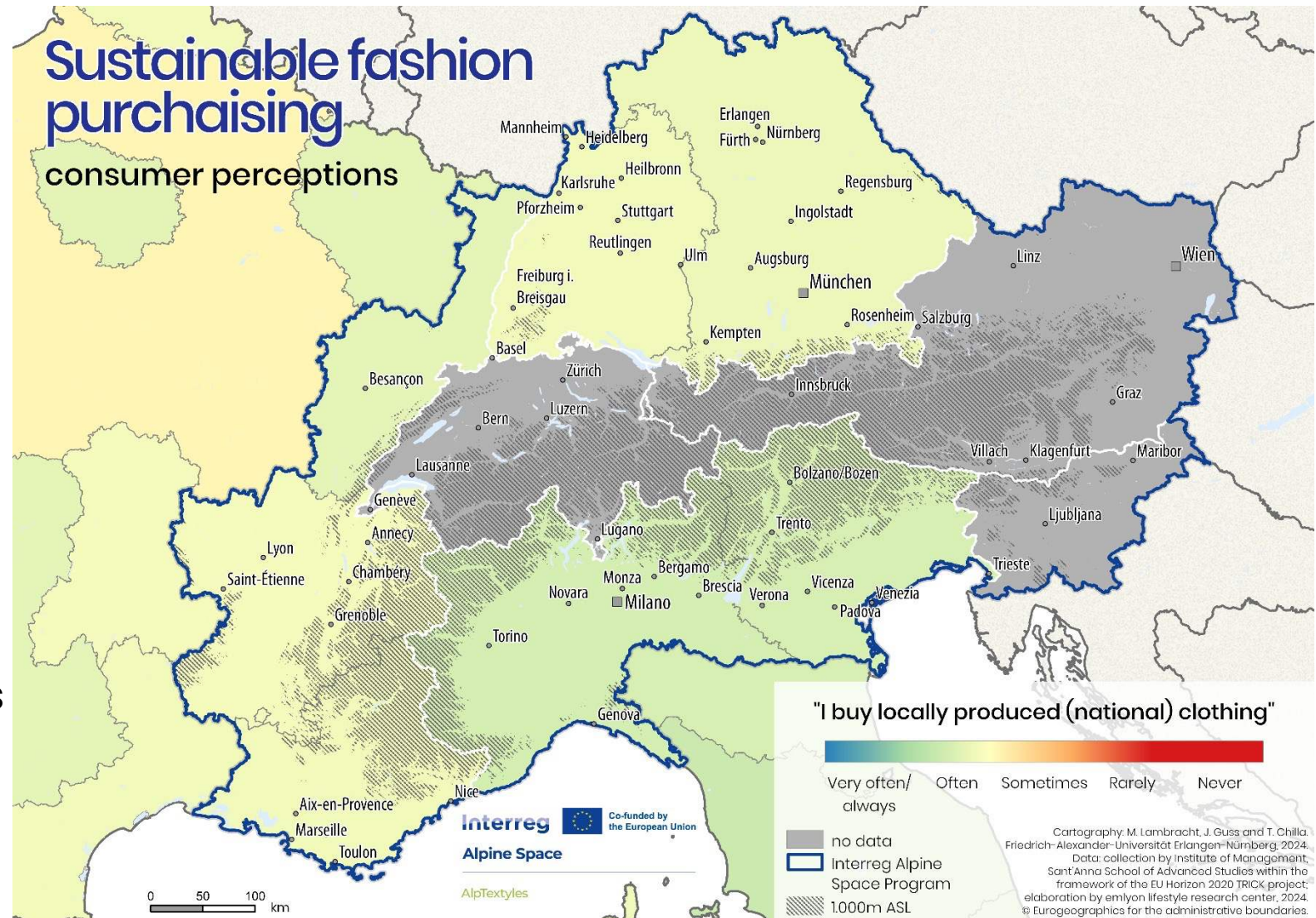




# Purchase of locally produced clothing

Consumers in Alpine regions report that they buy locally produced (national) clothing sometimes to often (M= 3.36).

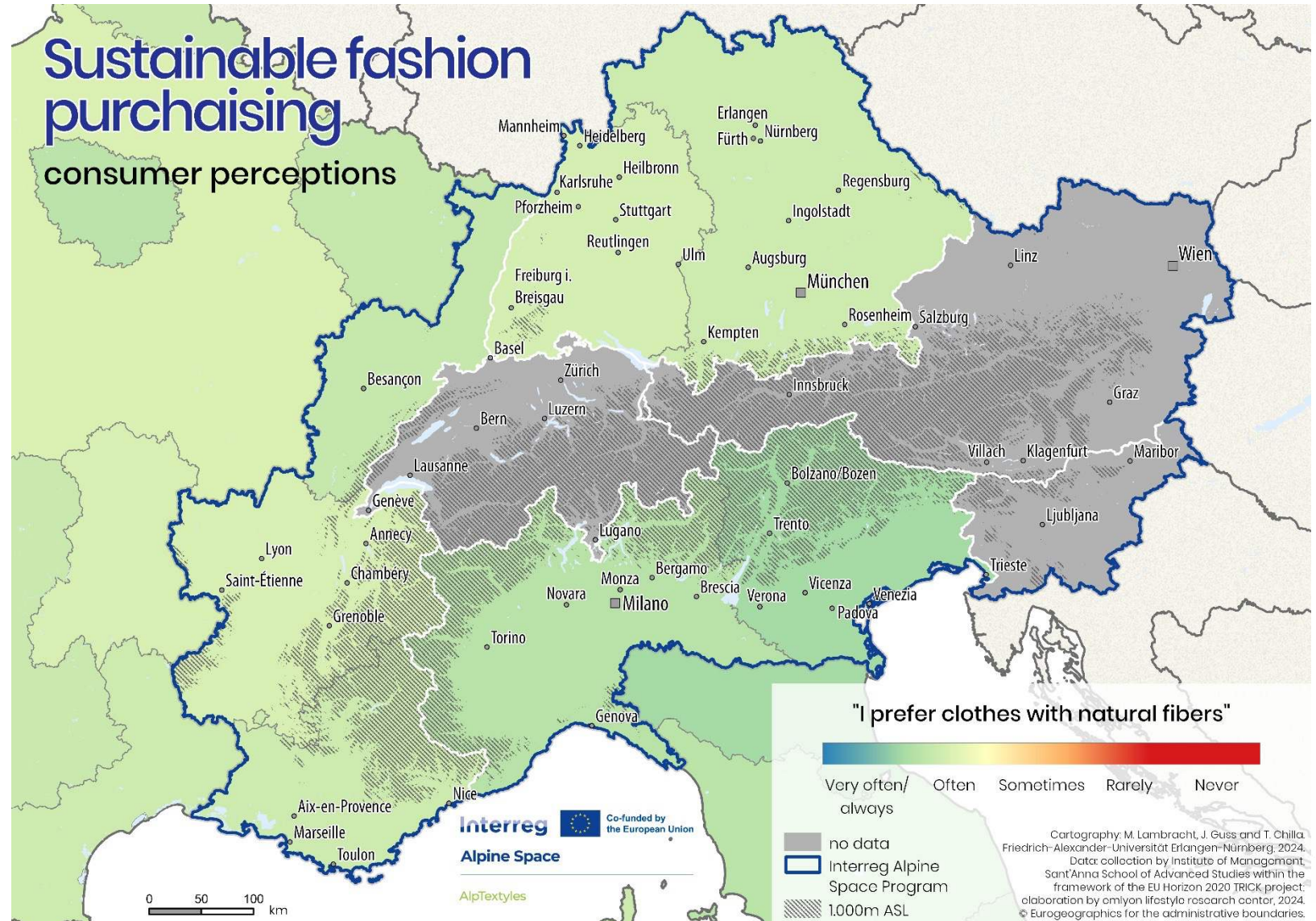
The high awareness of environmental issues does not necessarily translate in purchase of local products. This may be due to the gap between attitudes and behaviors, which is frequent in the context of sustainable consumption.





# Preferences for natural fibers

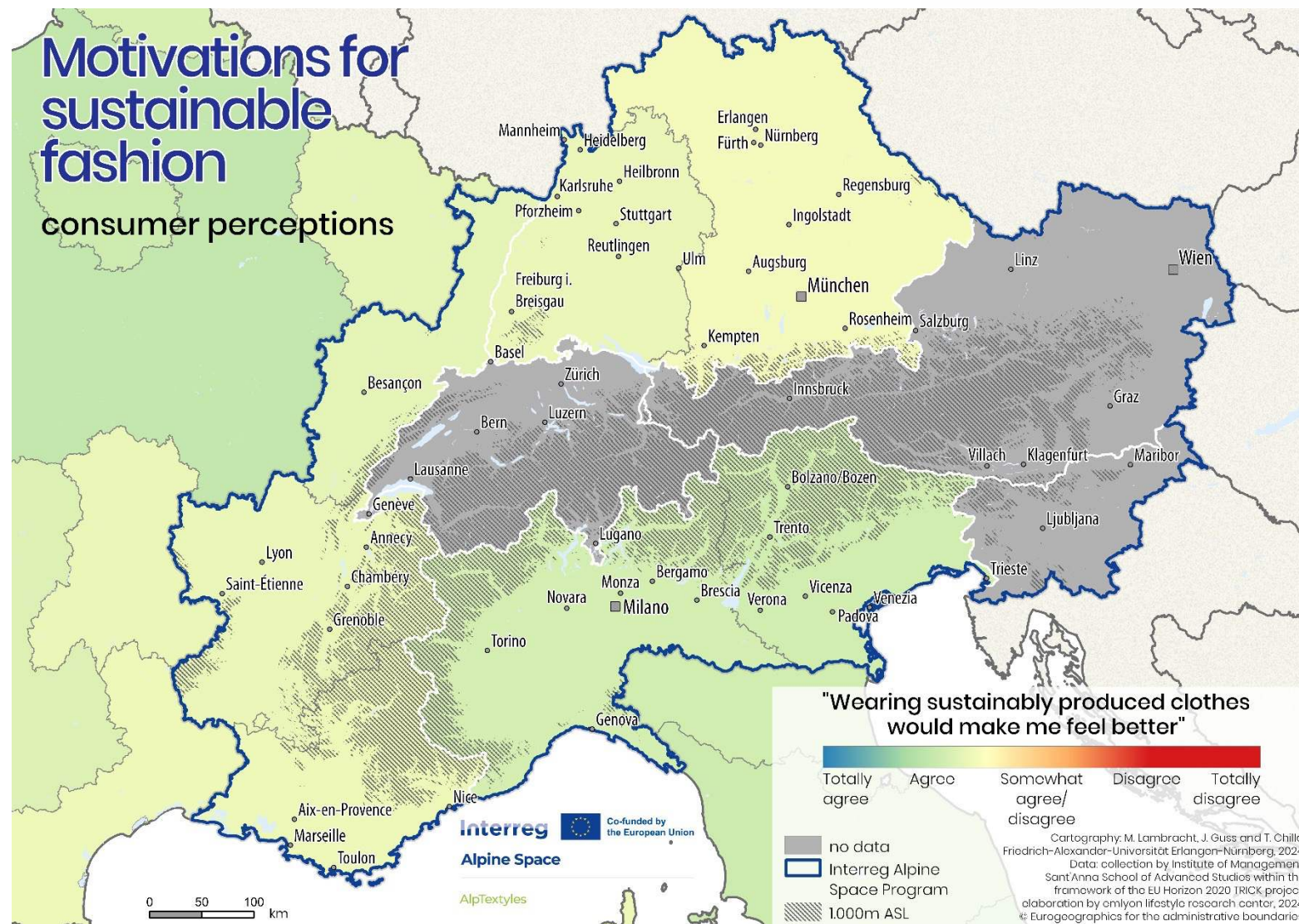
Consumers in Alpine regions tend to prefer clothes with natural fibers (M= 3.74)





# Wearing sustainable clothes makes consumers feel better

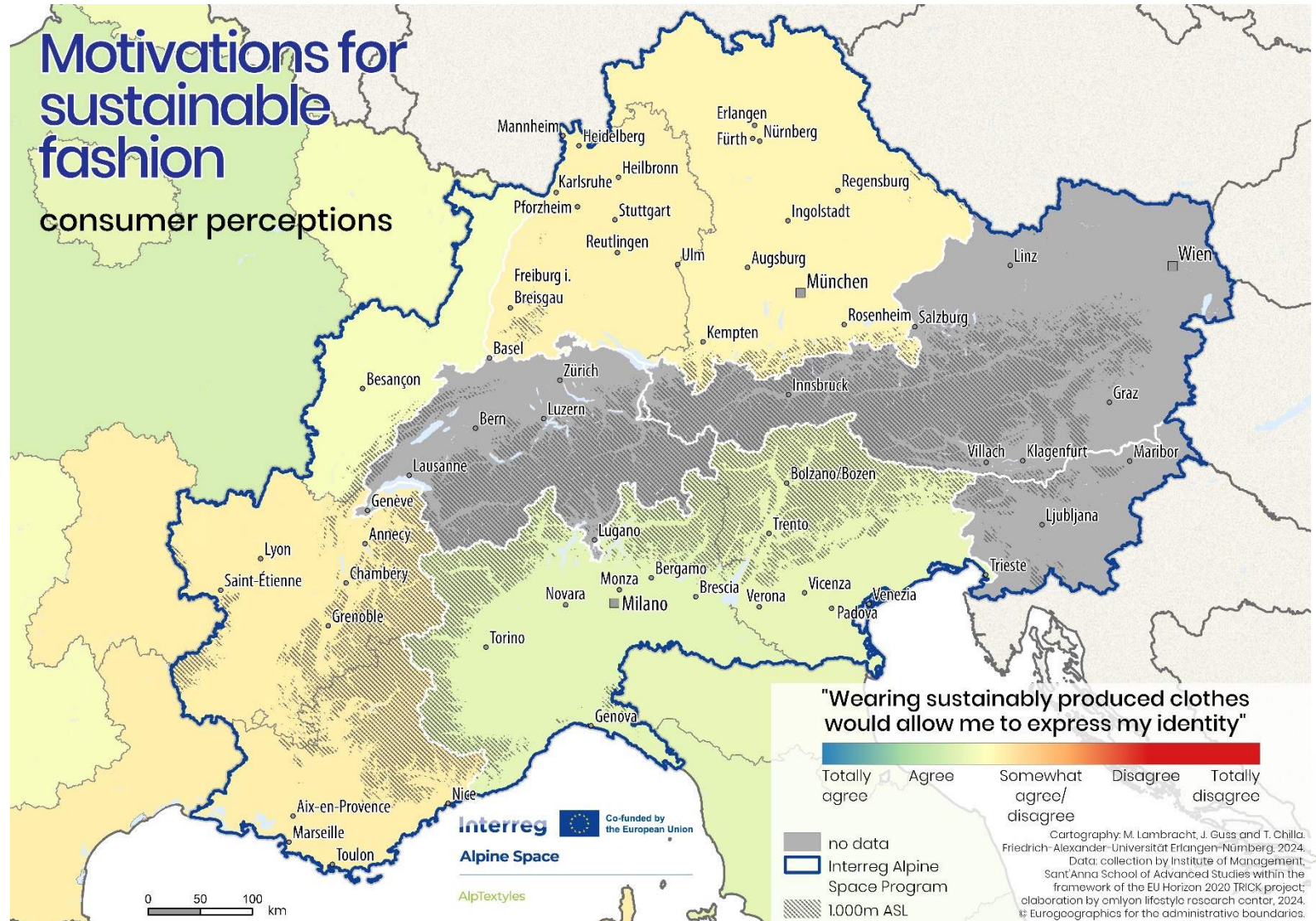
Consumers in Alpine regions tend to agree that wearing sustainably produced clothes would make them feel better (M= 3.45).





# Wearing sustainable clothes allows consumers to express their identity

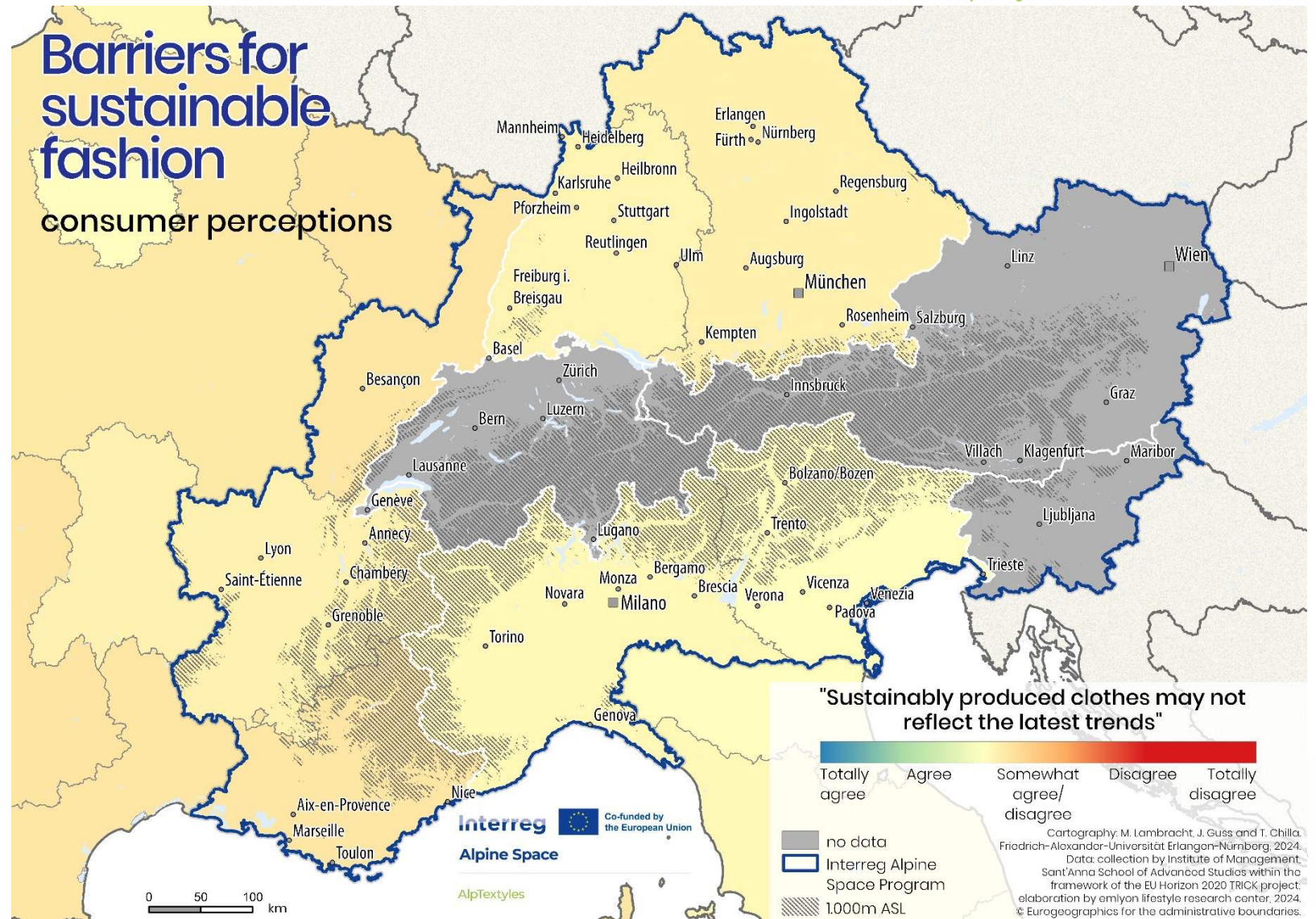
Consumers in Alpine countries somewhat to agree that wearing sustainably produced clothes would allow them to express their identity (M= 3.17)





# Trendiness of sustainable clothing

Consumers in Alpine countries somewhat agree with the statement that sustainably produced clothes may not reflect the latest trends (M= 2.86)

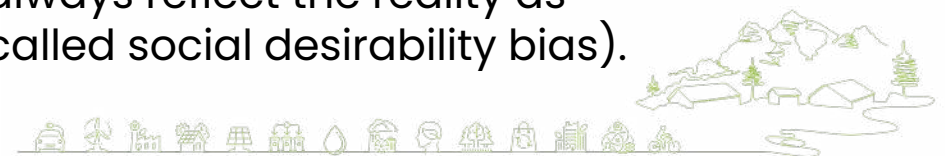


# Discussion and conclusion on the insights from survey data

- The survey results show that self-reported awareness about environmental issues and knowledge about the challenges in the textile sector (such as large amounts of textile waste) are high among consumers in Alpine countries.
- Respondents also indicate their preference for locally (nationally) produced clothing and natural fibers, though this preference is somewhat less pronounced with an average agreement of 3.36 and 3.74 out of 5.
- Two items captured consumers' perceptions about how wearing sustainably produced clothes would make them feel. They somewhat agree that wearing sustainably produced clothes would make them feel better (average of 3.45) and, to a lesser extent, to express their identity (average of 3.17).
- Last, the survey data shows that Alpine consumers have mixed feelings to what extent sustainably produced clothing reflects the latest trends (average of 2.86 out of 5).

Overall, we can see a pronounced interest and awareness regarding sustainability in the textile value chain, which is quite similar across the samples of France, Italy, and Germany.

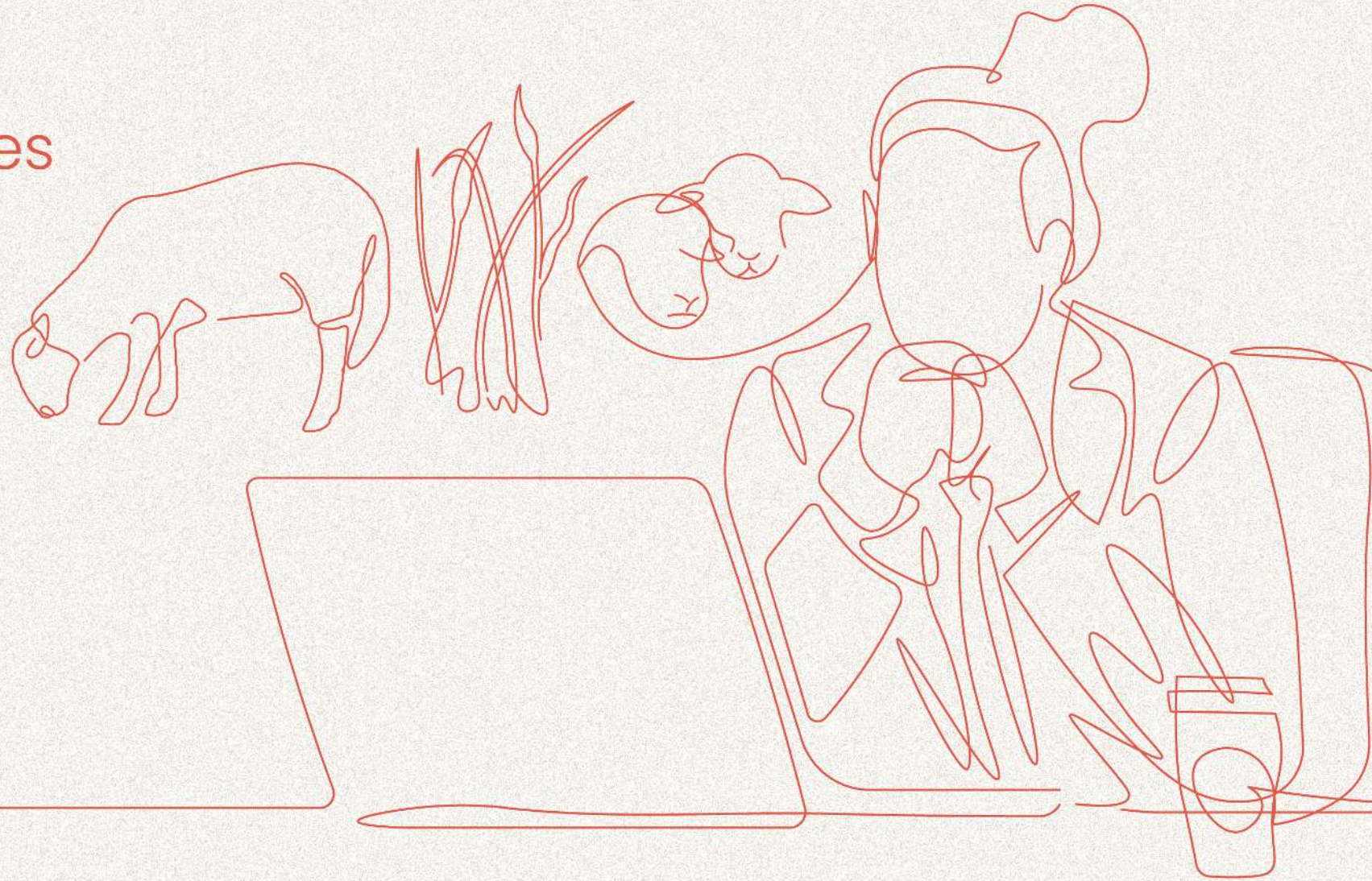
However, self-report data as the one provided in surveys do not always reflect the reality as respondents tend to show themselves in a positive light (the so-called social desirability bias). Experimental designs can help counter this problem.





3

## Insights from experimental studies



**Priority 2**  
Carbon neutral and resource



# The Experimental Studies

We conducted a series of experimental studies to examine and map consumers' reactions to Alpine products.

In developing and conducting these experiments, we:

- i) Carefully considered and integrated current challenges and practices of companies and institutions in Alpine regions to offer them actionable suggestions;
- ii) Took inspiration from the insights derived from the qualitative investigation and integrated some of these insights in our designs;
- iii) Reviewed the literature to develop rigorous designs and derive working hypotheses that are tested in these studies.

Each study focuses on one/two Alpine product attributes to test their effects on different consumers' reactions, including perceptions, attitudes, and intentions.





# The Methodology

Experimental designs investigate and statistically analyze causal relationships between variables, such as Alpine product attributes (e.g., labels, composition) and consumers' reactions. They allow a fine-grained investigation of specific effects of each attribute on consumer behaviour outcomes.

Experiments are often based on the use of short texts (i.e., scenarios) and/or pictures (i.e. stimuli) that present a product. Scenarios and stimuli are ad hoc created to present the attribute under investigation, and to test the effect on target consumer reactions. The strength of the methodology is that it allows to exclude the influence of extraneous and external elements that might bias the consumer behaviour under investigation or provide an alternative explanation.

The studies conducted were administered online, through online questionnaires including scenarios and stimuli.

The samples involved in the studies have been recruited from Alpine panels of Academic Prolific ([www.prolific.com](http://www.prolific.com)) – a participant crowdsourcing platform widely used by marketing practitioners and scholars.



# Overview of the Studies

STUDY	AIM	SAMPLE	MAIN FINDINGS
<b>Study 1</b>	Investigate whether and how the Alpine production (i.e. «Made in the Alps») influences how consumers rate the product in terms of attractiveness	272 consumers from Germany and Austria, Italy and France	«Made in the Alps» products are not more attractive to consumers, but they are perceived as made with love
<b>Study 2</b>	Testing how product place and origin of the materials affect consumer responses	196 consumers from Italy	Origin of materials affects more consumer's perceptions than the place of production
<b>Study 3</b>	Understand if the production mode (i.e. handmade) and the place of production (i.e. Alps) affect consumer's perceptions about wool products	308 consumers from Germany and Austria	Alpine products, especially when handmade, are more attractive to consumers
<b>Study 4</b>	Generalize the results of Study 3 to other textile fibers	301 consumers from Germany and Austria	Alpine products elicit more positive perceptions, especially when they are made by hemp
<b>Study 5</b>	Explore how circular products «Made in the Alps» are perceived by consumers	302 consumers from Italy	When circular products are made in the Alps, they elicit more positive reactions
<b>Study 6</b>	Examine the effect of native sheep breed wool on consumer reactions	200 consumers from Italy and France	Native wool elicits more positive perceptions
<b>Study 7</b>	Understanding how natural dyes affect consumer reactions to Alpine products	79 consumers from Slovenia	Consumers value natural dyes and respond more favorably to products colored with natural dyes
<b>Study 8</b>	Extending the results of study 6 to other native product attributes – i.e. native dyeing colors	100 consumers from Austria, Germany, and Switzerland	Native dyeing colors do not elicit more positive perceptions.



# STUDY 1

**AIM:** compare the effects of product labels (« made in the Alps » vs. a generic « mountain » label) on consumers' responses.

**DESIGN:** 2 (label: «Made in the Alps» vs. Mountain product vs. no label) x 4 (product replicates) experimental design

*The study has been replicated with 3 samples*

90 participants ( $M_{age} = 31$ , 49% female) from the German & Austrian resident panel of Academic Prolific  
92 participants ( $M_{age} = 30$ , 41% female) recruited from the Italian resident panel of Academic Prolific  
90 participants ( $M_{age} = 31$ , 48% female) recruited from the French resident panel of Academic Prolific

*Procedures:* participants were exposed to 4 products, labelled as Made on the Alps vs. Made on the mountains vs. no cues, and asked to rate them in terms of product attractiveness (6 items from Fuchs et al., 2015; Cronbach alpha = .903) and symbolic love contained in the product (3 items from Fuchs et al., 2015; Cronbach alpha = .887)

*Product stimuli:* wool socks; wool blanket, linen tablecloth; summer linen clothes.



## EXAMPLES OF THE STIMULI

«Made in the Alps» // Mountain pair of socks (100% wool, unisex, also available in black: 25,00 Euros)



«Made in the Alps» // Mountain linen table cloth (100% linen, rectangular, also available in white: 69,00 Euros)

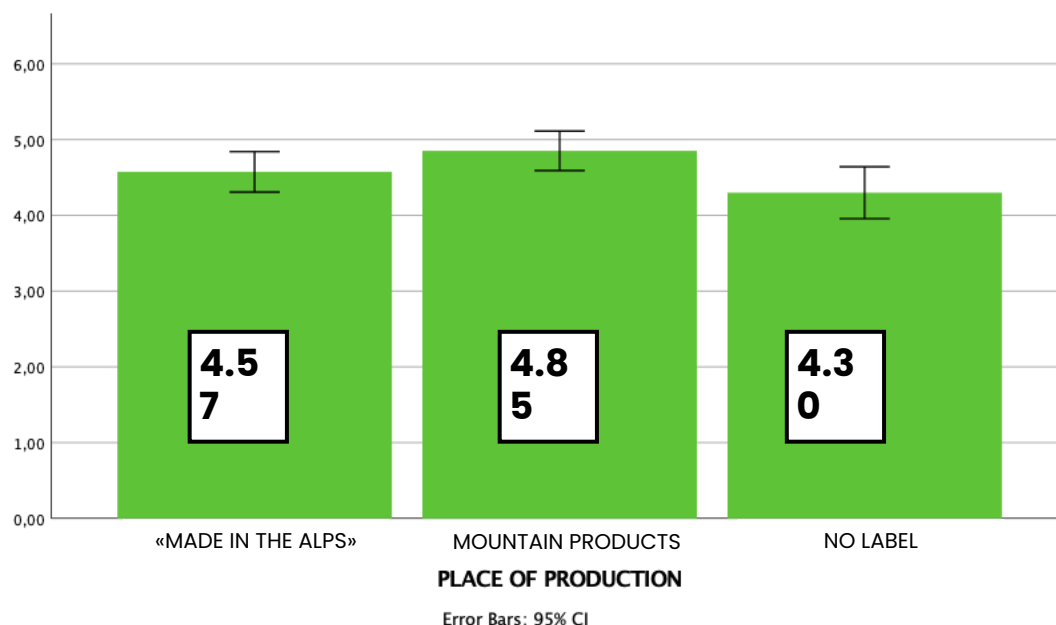




# FINDINGS STUDY 1

**Product attractiveness:** the labels do not influence how attractive the products are perceived. Overall, consumers rate the products medium attractive (Mean = 4.8 out of 7) regardless of the label.

**Symbolic love:** Consumers perceive that mountain products and products “made in the Alps” are imbued with symbolic love\*. They recognize higher symbolic love associated to ‘mountain’ products (+8%) and “Made in the Alps” products (+4%) compared to products without any label.



\*means are statistically different ( $p < .05$ )

## STUDY 2

**AIM:** examining whether the place of the production and the origin of the materials (Alpine vs. not-Alpine) affect consumer responses.

**DESIGN:** 2 (place of production: Alpine vs. not-Alpine) x 2 (material origin: Alpine vs. not-Alpine) between-subjects experimental design

*Sample:* 196 participants ( $M_{age} = 31$ , 48.5% female) from the Italian resident panel of Academic Prolific

*Procedures:* participants were exposed to a scenario describing a company producing scarfs made by wool from the Alps (vs. valleys) in artisan studios located in the Alps (vs. valley). Then, we asked questions in order to measure attitude towards the product (5 items from Spears & Singh, 2004; Cronbach alpha = .898), intention to purchase (Tassiello et al., 2021), willingness to pay (ad hoc created), product authenticity (3 items from Newman & Dhar, 2014; Cronbach alpha = .799), alps image transferability (4 items adapted from Arora et al. 2016; Cronbach alpha = .894), perceived sustainability (3 items from Pelosa et al., 2013; Cronbach alpha = .913), and Washing perception: Cronbach alpha = .896

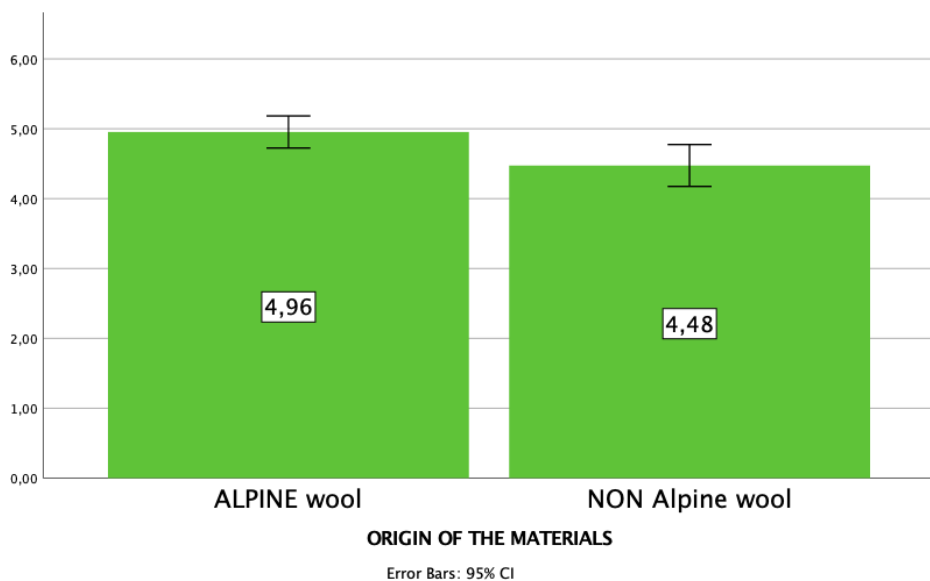
*Product stimuli:* wool socks; wool blanket, linen tablecloth; summer linen clothes.



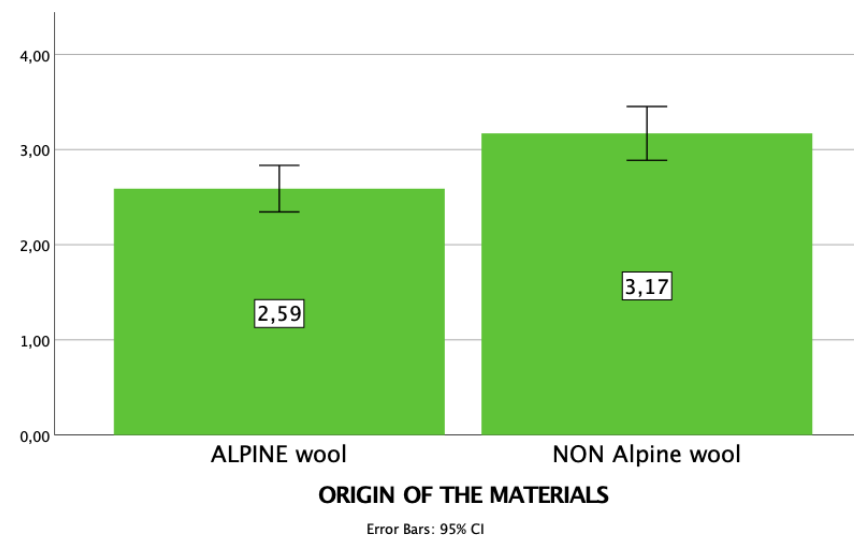


# FINDINGS STUDY 2

**Alps image transferability:** Consumers think that the product embodies the characteristics of the Alps when it is made by Alpine wool (+3.6%)\*, while the place of production does not influence such perception.



**Washing perceptions:** refer to the consumer skepticism related to the use of Alpine labels for commercializing products. When the product is not made by Alpine wool, it elicits higher perceptions of washing (+8.3%; M =3.17 out of 7) compared to products made by Alpine wool (M = 2.59)\*\*.



\*means are statistically different ( $p < .05$ ); \*\*means are statistically different ( $p < .01$ )

# STUDY 3

**AIM:** compare how Alpine products that are handmade vs. machine-made are assessed and perceived by consumers.

**DESIGN:** 3 (Production: handmade vs. machine-made vs. no production cues) x 2 (place: Alpine vs. non-Alpine) between-subjects experimental design

*Sample:* 308 participants ( $M_{age} = 29,56$ ; 47,9% female) recruited from the German & Austrian panel of Academic Prolific.

*Procedures:* participants were exposed to a product described as handmade vs. machine-made vs. no cues, which was produced in the Alpine region vs. a non-Alpine region. Then, they were asked to rate such product in terms of product attractiveness (6 items from Fuchs et al., (2015); Cronbach alpha = .890), symbolic love contained in the product (3 items from Fuchs et al., 2015; Cronbach alpha = .905), perceived length of the production process (2 items ad hoc created; Cronbach alpha = .949), and perception of the production place as a 'romantic' environment (3 items ad hoc created items; Cronbach alpha = .644).

*Product stimuli:* wool scarf – as per the paper by Fuchs et al. (2015)





## EXPERIMENTAL STIMULI\*

In the following, we introduce you a product from a small company in the Alpine region [vs. *no mention of the place of production*]. We are interested in how you evaluate this product. There are no right or wrong answers. Please answer the questions based on what you think and what you feel.

**[handmade condition]** This small company [is located in a town on the Alps] solely relies on handwork. Thus, the product is completely handmade.

**[machine-made condition]** This small company [is located in a town on the Alps] solely relies on machine work. Thus, the product is completely machine-made.

**[no production cue condition:** no information about production mode was added]

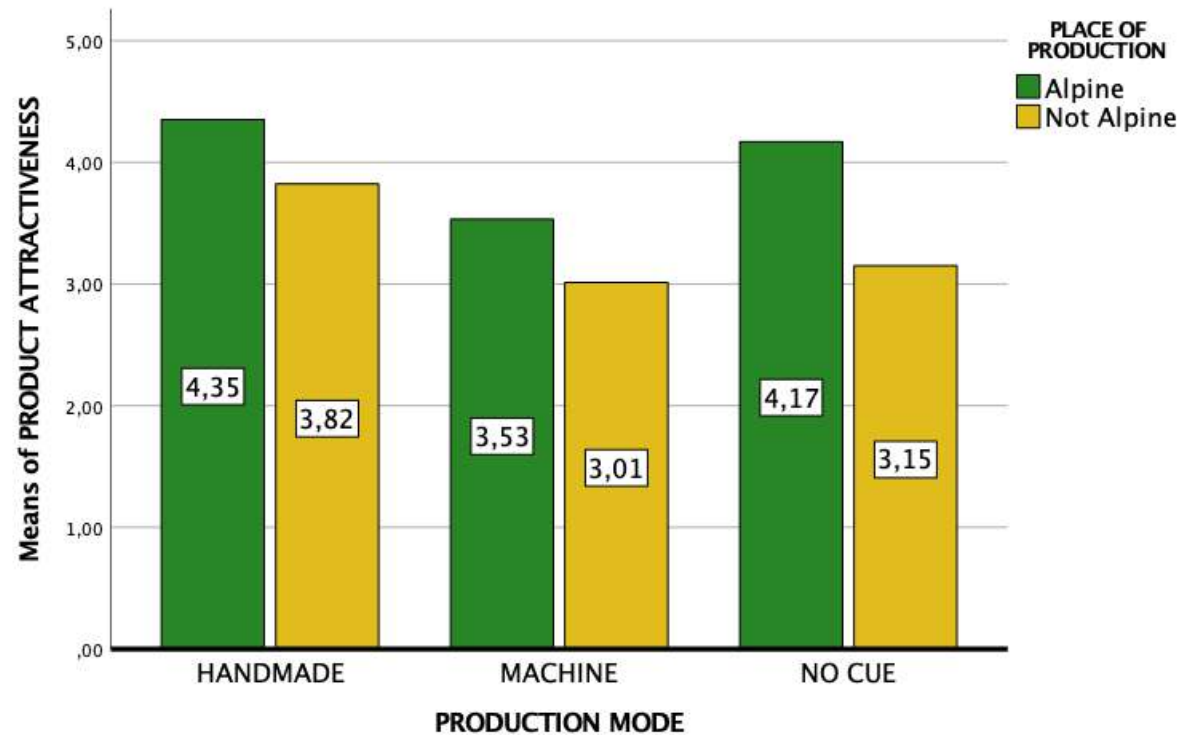
[production mode] scarf [produced in the Alpine region] (100% wool, unisex, also available in blue: 70 Euros)



\*procedures and stimuli were adapted from Fuchs et al., 2015

# FINDINGS STUDY 3

**Product attractiveness:** Alpine products (Mean = 4.02 out of 7) are 9.7% more attractive than non-Alpine products (Mean = 3.34)\*\*. Handmade production increases product attractiveness\* of Alpine products (Mean = 4,35), which are 7.6% more attractive than non-Alpine (M = 3.82). Moreover, Alpine handmade products are 11.7% more attractive than Alpine machine-made products (Mean = 3.53)\*\*.

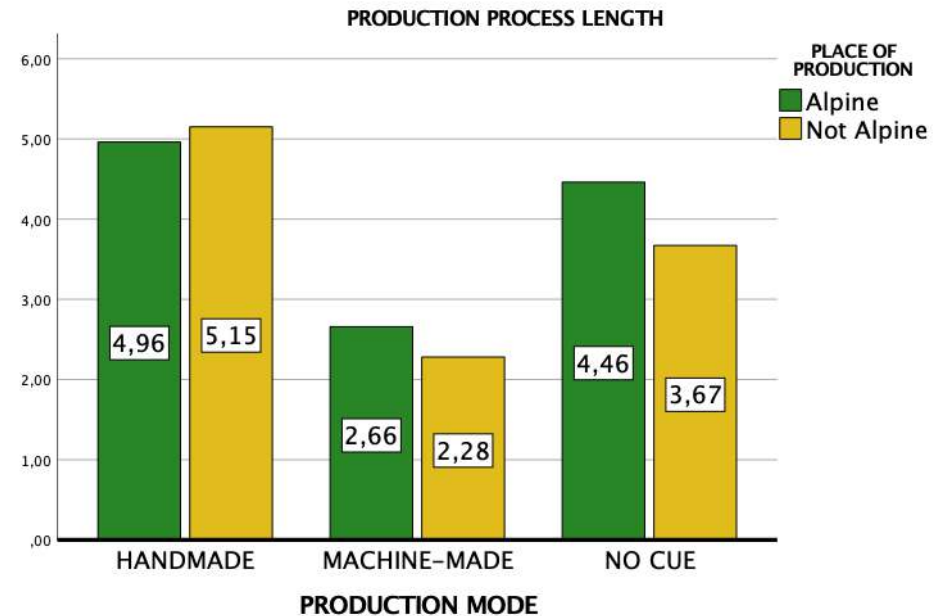
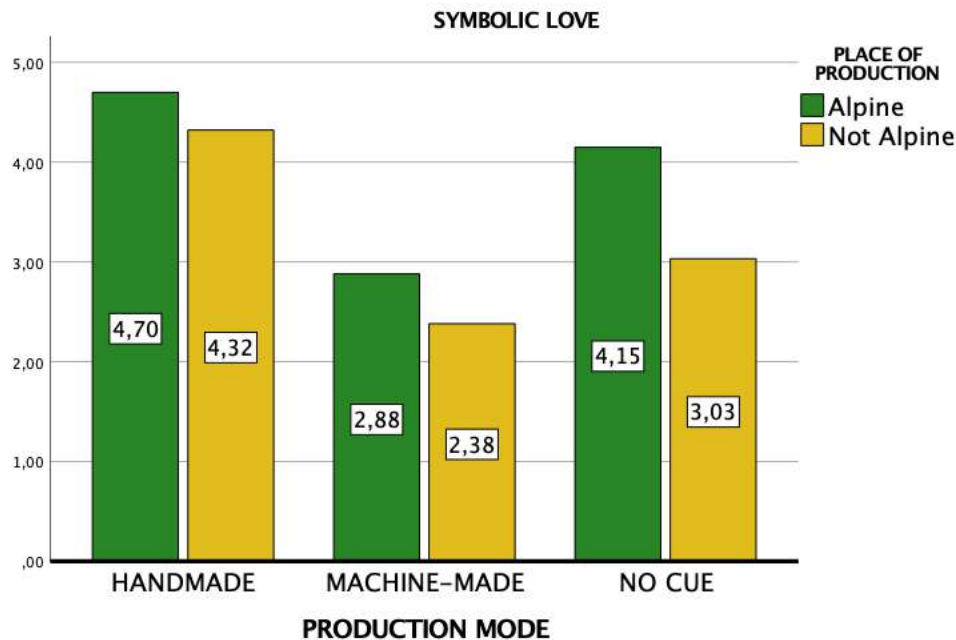


\*means are statistically different ( $p < .05$ ); \*\*means are statistically different ( $p < .001$ )

# FINDINGS STUDY 3

**Symbolic love:** Consumers perceive Alpine products (Mean = 3.92 out of 7) as 9% more imbued by symbolic love than non-Alpine products (Mean = 3.27)\*\*. Symbolic love is especially higher when the Alpine products are handmade (Mean = 4.70).

**Perceived length of the production process:** The production of Alpine products (Mean = 4.05 out of 7) is perceived as 4.3% more time consuming than the production of non-Alpine products (Mean = 3.75)\*. This perception is especially high when the Alpine products are handmade (Mean = 4.96).



\*means are statistically different ( $p < .05$ ); \*\* means are statistically different ( $p < .001$ )





# STUDY 4

**AIM:** generalizing the results of Study 3 (i.e. comparing the different production modes) with other fibers – i.e. linen, wool and hemp.

**DESIGN:** 3 (Production: handmade vs. machine-made vs. no production cues) x 3 (fibers: linen vs. wool vs. hemp) between-subjects experimental design

*Sample:* 301 (33.6% female;  $M_{age} = 31.01$ ) recruited from the German & Austrian panel of Academic Prolific.

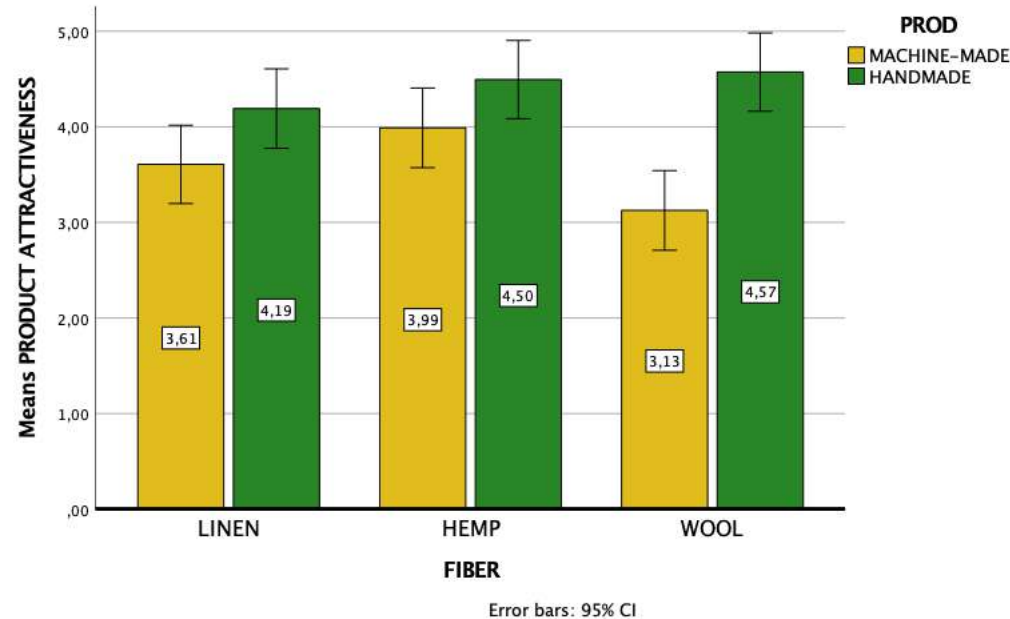
*Procedures:* we employed the same procedures of study 3. The place of production was the Alpine region. Participants were exposed to a product made by linen vs. wool vs. hemp. Then, they were asked to rate such product in terms of product attractiveness (6 items from Fuchs et al., 2015; Cronbach alpha = .890), symbolic love contained in the product (3 items from Fuchs et al., 2015; Cronbach alpha = .919), perceived length of the production process (2 items ad hoc created; Cronbach alpha = .950), anticipated warm glow (6 items from Tezer & Bodur, 2020; Cronbach alpha = .925), and social worth (3 items from Grant and Gino 2010; Cronbach alpha = .922)

*Product stimuli:* scarf – as per Study 2. The description of the product was adapted according to the experimental conditions of the type of fiber.



# FINDINGS STUDY 4

**Product attractiveness:** Handmade production increases the product attractiveness\*\* (Mean = 4.42 out of 7). Handmade products are 12% more attractive than machine-made products (Mean = 3.58). On average, hemp products (Mean = 4.15) were more attractive than linen (Mean = 3.9) and wool products (Mean = 3.85). Handmade production increases product attractiveness of linen (+8.3%)\* and wool scarves (+20.5%)\*\* compared to machine-made products.



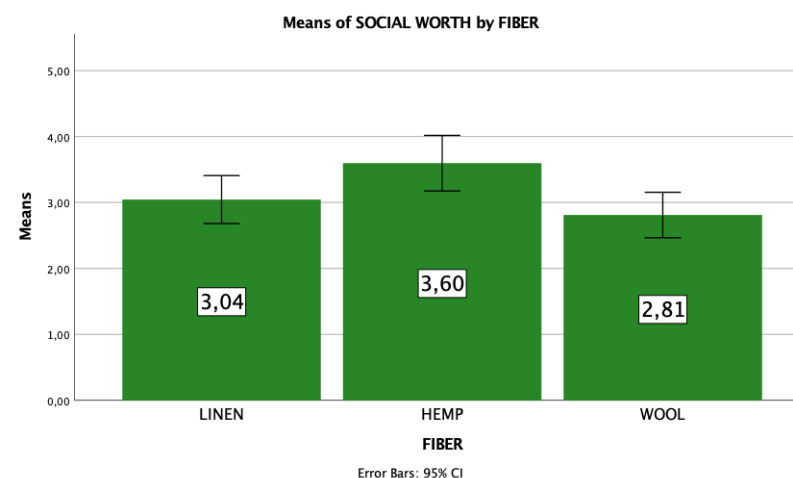
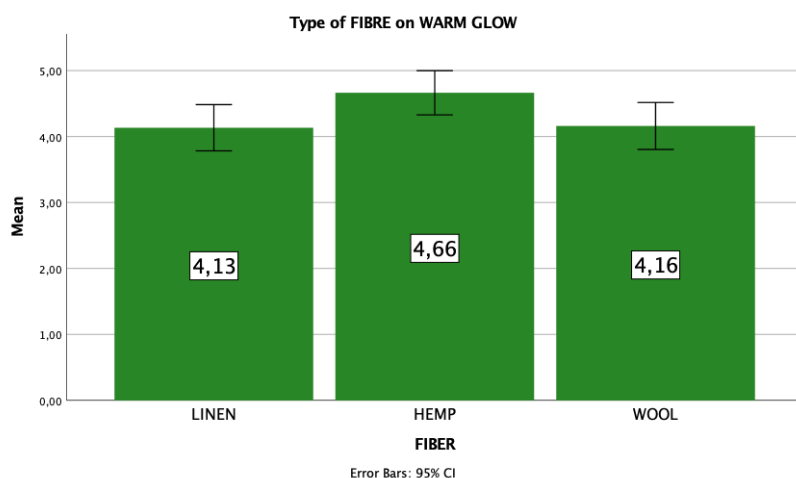
\*means are statistically different ( $p < .05$ ); \*\*means are statistically different ( $p < .001$ )



# FINDINGS STUDY 4

**Anticipated warm glow** refers to the extent to which consumers feel good about themselves after engaging in a prosocial behavior. Consumers indicate higher anticipated warm glow for handmade products (+ 12%; Mean = 4.73 out of 7) compared to machine-made products (Mean = 3.91)\*\*. Moreover, the hemp scarf elicited significantly higher warm glow compared to the linen scarf (+7.6%)\* and the wool scarf (+7.5%)\*.

**Social worth** refers the extent to which individuals perceive themselves as valued as an individual by society. Consumers associate greater social worth when thinking about purchasing handmade products (+ 13%; Mean = 3.61 out of 7) than to machine-made products (Mean = 2.69)\*\*\*. Moreover, the hemp scarf elicited significantly greater social worth compared to the linen scarf (+8%)\* and the wool scarf (+11.3%)\*\*.



\*means are statistically different ( $p < .05$ ); \*\* means are statistically different ( $p < .01$ ); \*\*\*means are statistically different ( $p < .001$ )



## STUDY 5

**AIM:** investigating consumers' responses to circularity in the textile supply-chain.

**DESIGN:** 3 (circularity: upcycled vs. recycled vs. control) x 2 (place of production: Alpine vs. control) between-subjects experimental design.

*Sample:* 302 participants (47,7% female;  $M_{age} = 31.27$ ) from the Italian resident panel of Academic Prolific

*Procedures:* we employed the same procedures as in Study 3. The place of production was the Alpine region. Participants were exposed to a product made by linen vs. wool vs. hemp. Then, they were asked to indicate their intention to purchase it (4 items from Eichinger et al., 2022; Cronbach alpha = .900), how risky the product is perceived (5 items from Hamzaoui Essoussi & Linton, 2010; Cronbach alpha = .924), to what extent they perceive a risk of contamination risk (3 items from Magnier et al., 2019; Cronbach alpha = .947), and how pure was the product (6 items ad hoc created; Cronbach alpha = .850). We also assessed a personal characteristic, i.e. eco-consciousness (3 items from Roberts, 1996; Cronbach alpha = .883).

*Product stimuli:* wool blanket.



# EXPERIMENTAL STIMULI

In the following page, we introduce you a product from a company located in the Alpine region/in a European industrial region. We are interested in how you evaluate this product. There are no right or wrong answers. Please answer the questions based on what you think and what you feel.

**[UPCYCLED Condition]** The company (is located in the Alps) and produces high-quality blankets, made 100% by natural wool. The company **purchases the wool from sheep breeders who cannot deal with it and would waste such wool**. The unwashed sheep wool that otherwise would be burned, is then treated and transformed through multiple steps. The result is a 100% natural wool blanket, that is available in different sizes and colours.

**[RECYCLED Condition]** The company (is located in the Alps) and produces high-quality blankets, made 100% by natural wool. The company **collects and transforms old wool garments in new fibers giving them a new life**. These used wool garments that otherwise would be burned, are then treated and transformed through multiple steps. The result is a 100% natural blanket, that is available in different sizes and colour.

**[CONTROL Condition]** The company (is located in the Alps) and produces high-quality blankets, made 100% by natural wool. The company relies on trustworthy suppliers and **purchases natural wool** that does not contain industrial synthetic components. The wool is then treated and transformed through multiple steps. The result is a 100% natural blanket, that is available in different sizes and colours.



The stimulus picture was generated by AI. The scenarios were inspired by real cases (e.g. Rifò lab)

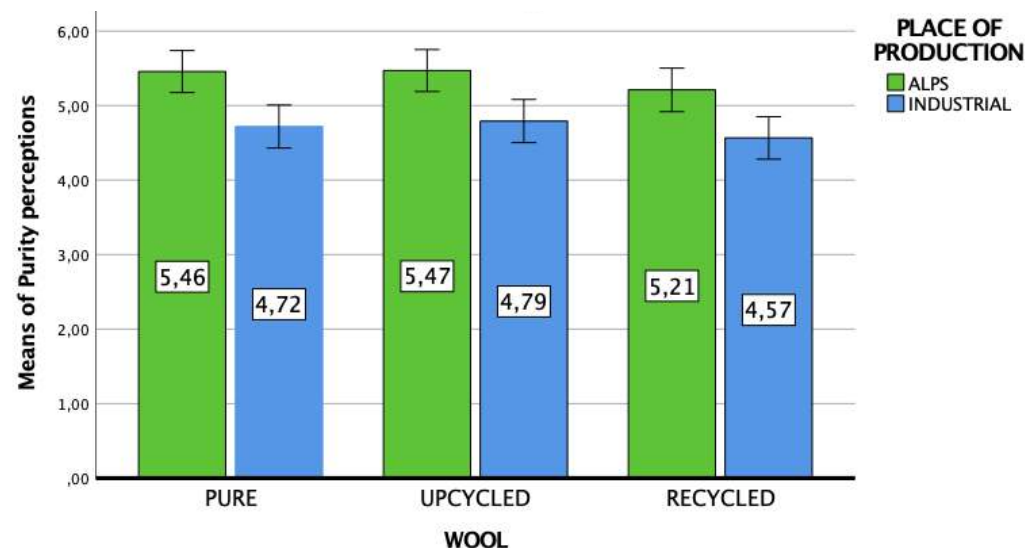


# FINDINGS STUDY 5

**Purchase intention:** On average, we found relatively high means for the products (Mean = 5.5 out of 7) regardless of the wool origin. The highest purchase intent was found for Alpine recycled wool products (Mean = 5.70), and the lowest for Alpine upcycled wool products (Mean = 5.52).

**Risk and contamination perceptions:** In contrast with marketing studies, consumers do not perceive circular products as risky or contaminated. Both upcycled and recycled wool products are not perceived as risky (Mean = 1.66 out of 7) nor contaminated (Mean = 1.58 out of 7).

**Purity perceptions:** Products from the Alps are perceived as purer (+10%; Mean = 5.39 out of 7) compared to products from industrial regions (Mean = 4.69)\*.



Covariates appearing in the model are evaluated at the following values: ECO\_CON = 4,4327

Error bars: 95% CI

\*means are statistically different ( $p < .001$ )





# STUDY 6

**AIM:** investigating whether and how consumers' responses are affected by the use of native wool for the production of textile products.

**DESIGN:** single factor (label: «native wool» vs. control) between-subjects experimental design.

*The study involved two samples:*

100 participants (36% female;  $M_{age} = 30,5$ ) from the Italian panel of Academic Prolific

100 participants (43% female;  $M_{age} = 32,3$ ) from the French panel of Academic Prolific

*Procedures:* Participants were exposed to a product made by native wool vs. control. Participants were asked to indicate their intention to purchase it (4 items from Eichinger et al., 2022; Cronbach alpha = .878), perceived authenticity (3 items from Newman & Dhar, 2014; Cronbach alpha = .877), perceived prestige (3 items from Baek et al., 2010; Cronbach alpha = .905), perceived sustainability (3 items from Gruber et al., 2014; Cronbach alpha = .874), perceived groundedness (2 items from Eichinger et al., 2022; Cronbach alpha = .867)

*Product stimuli:* wool blanket made by ciuta sheep wool for the Italian sample and Merino d'Arles wool for the French sample.



## EXAMPLE OF THE STIMULI

The following scenarios were employed for the French sample

**[Native wool condition]** Imagine that you are browsing online for textile items for your home. You come across a company named Laine Douillette. Laine Douillette items, such as the blanket below, are made with natural wool and are soft and durable. The wool comes from the South of France, from the sheep breed Merino d'Arles, which is an autochthonous sheep breed of Southern France. Autochthonous means that the sheep originally come from Arles. They are one of the oldest merino breeds still in existence.

**[Control group]:** Imagine that you are browsing online for textile items for your home. You come across a company named Laine Douillette. Laine Douillette items, such as the blanket below, are made with natural wool and are soft and durable. The wool comes from Southern France.



The stimulus picture was generated by AI. The scenarios were inspired by real cases

(<https://transhumance.de/en/pages/rohstoffe>)

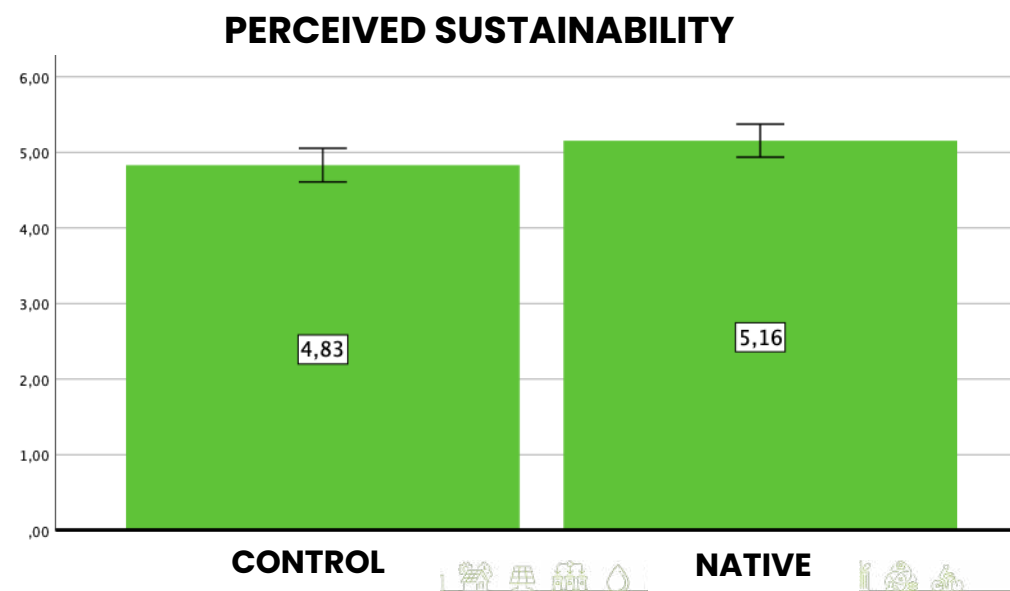
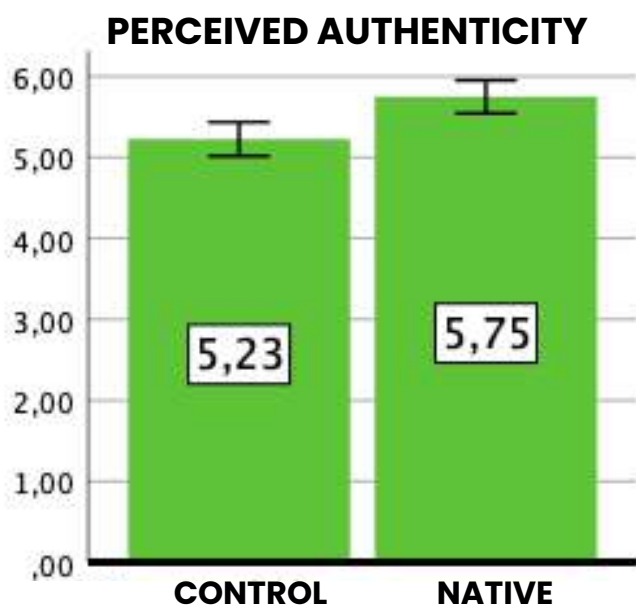


# FINDINGS STUDY 6

**Purchase intent:** On average, consumers were positively inclined to purchase the product, with a slightly higher intent for the native wool product (Mean = 5.24 out of 7).

**Perceived authenticity:** Products made by native sheep breed wool were perceived as more authentic (+7.6%; Mean = 5.75 ) than products made by not native wool (Mean = 5.22)\*\*

**Perceived sustainability:** Companies manufacturing products with native sheep breed wool were perceived as more sustainable (+4.4%; Mean = 5.15 ) than the other companies (Mean = 4.84)\*

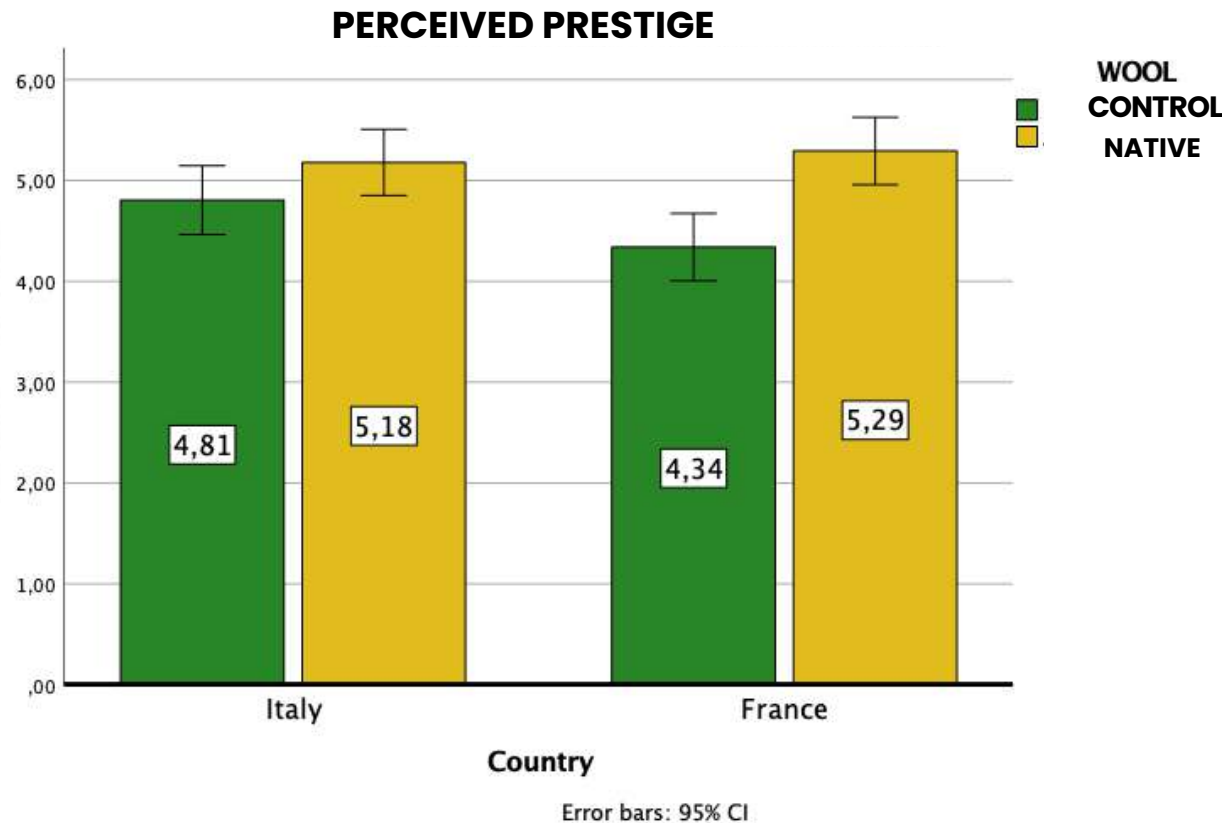


\*means are statistically different ( $p < .05$ ); \*\* means are statistically different ( $p < .001$ )



# FINDINGS STUDY 6

**Perceived prestige:** Consumers perceived the native wool product as more prestigious (+9.6%; Mean = 5.24 out of 7) compared to the other product (Mean = 4.57)\*. Such effect is particularly relevant for the French subsample: for French consumers, the native wool product is 13.6% more prestigious\*. For the Italian consumers, it is only 5.3% more prestigious.



\*means are statistically different ( $p < .001$ )

# STUDY 7

**AIM:** investigating whether and how consumers' responses are affected by the use of natural dyes for the production of textile products.

**DESIGN:** single factor (label: «natural dyes» vs. control) between-subjects experimental design.

*Sample:* 79 (69.6% female;  $M_{age} = 45.7$ ) – convenience sample of consumers from Slovenia.

*Procedures:* Participants were exposed to a product colored with natural dyes vs. control (i.e. eco-compatible chemical dyes). Participants were asked to indicate their intention to purchase it (4 items from Eichinger et al., 2022; Cronbach alpha = .931), perceived market success (1 item from Skard et al. 2021), perceived product quality (3 items from Newman et al., 2014; Cronbach alpha = .831), and perceived ephemerality (5 items from Janssen et al., 2014; Cronbach alpha = .803).

*Product stimuli:* wool blanket.



## EXAMPLE OF THE STIMULI

**Natural indigo dyeing color:** Imagine that you are browsing online for textile items for your home. You come across a company named Laine Douillette. Laine Douillette products are made only with natural materials. The dyeing of the wool that makes up the blankets is completely natural, of vegetable origin, made through eco-compatible processes. The blankets produced are available in a wide palette of colours ranging from sandalwood to blueberry. The wool blankets here below are dyed with indigo, a plant that since Middle Age was used to dye textile products. Indigo plants produce blue dye and have historically been cultivated for its leaves, which contain the blue pigment indigo.

**Control group:** Imagine that you are browsing online for textile items for your home. You come across a company named Laine Douillette. Laine Douillette products are made with wool. The dyeing of the wool that makes up the blankets is made through eco-compatible processes employing eco-friendly chemicals. The blankets produced are available in a wide palette of colours ranging from sandalwood to blueberry and blue as the blankets here below.



The stimulus picture was generated by AI.



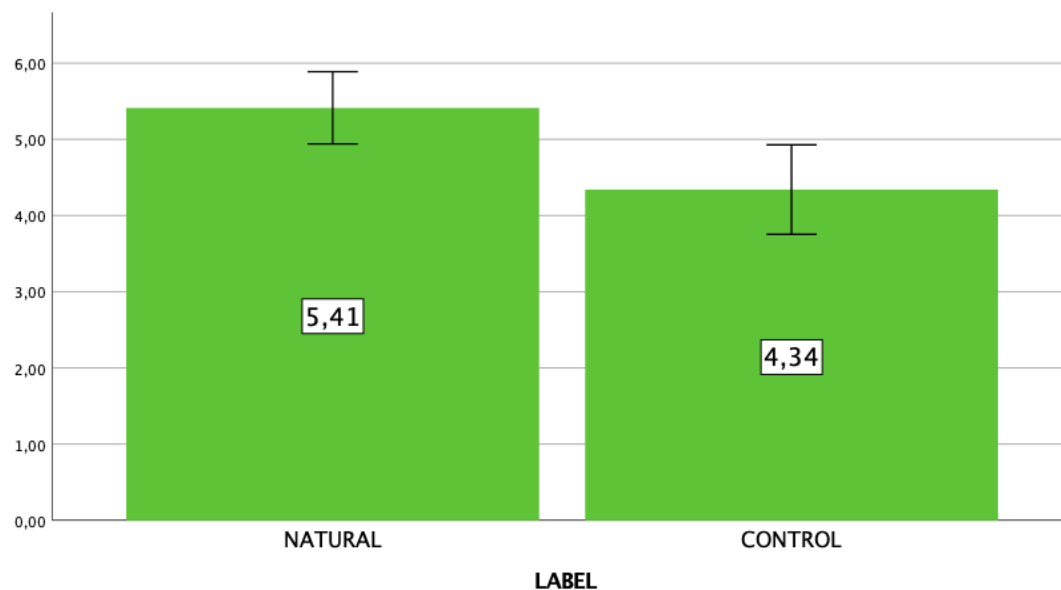


# FINDINGS STUDY 7

**Purchase intention:** Consumers are more inclined to purchase the product coloured with natural dyes (+15%; Mean = 5.41) compared to the product made with chemical dyes (Mean = 4.34)\*\*.

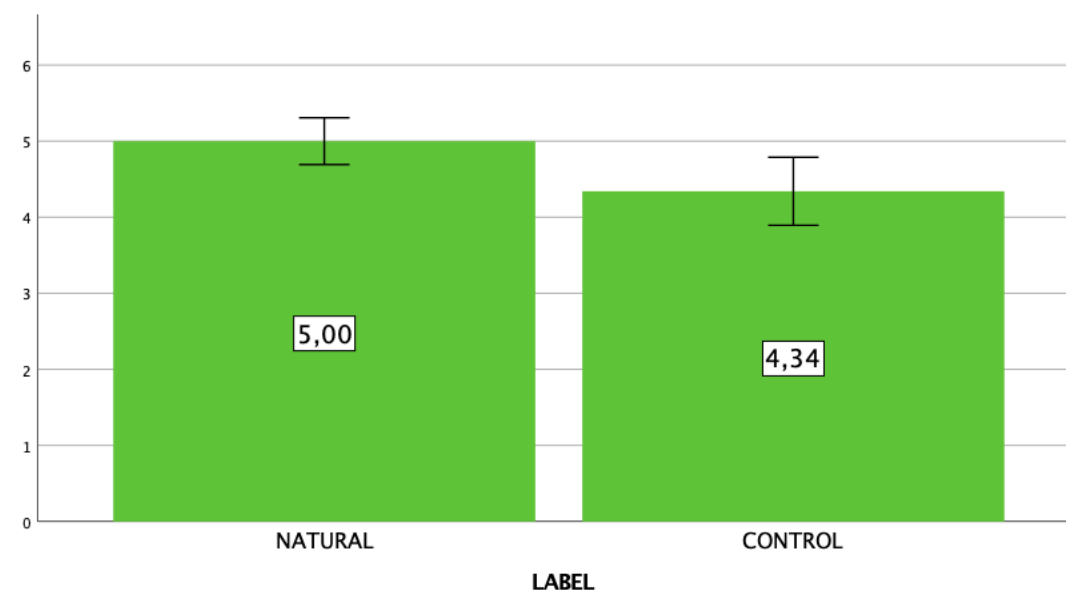
**Perceived market success:** Consumers predict that products made with natural dyes (+9.4%; Means = 5.00) would be more successful in the market than products made with chemical dyes (Means = 4.34)\*.

**PURCHASE INTENTION**



Error Bars: 95% CI

**PERCEIVED MARKET SUCCESS**



Error Bars: 95% CI

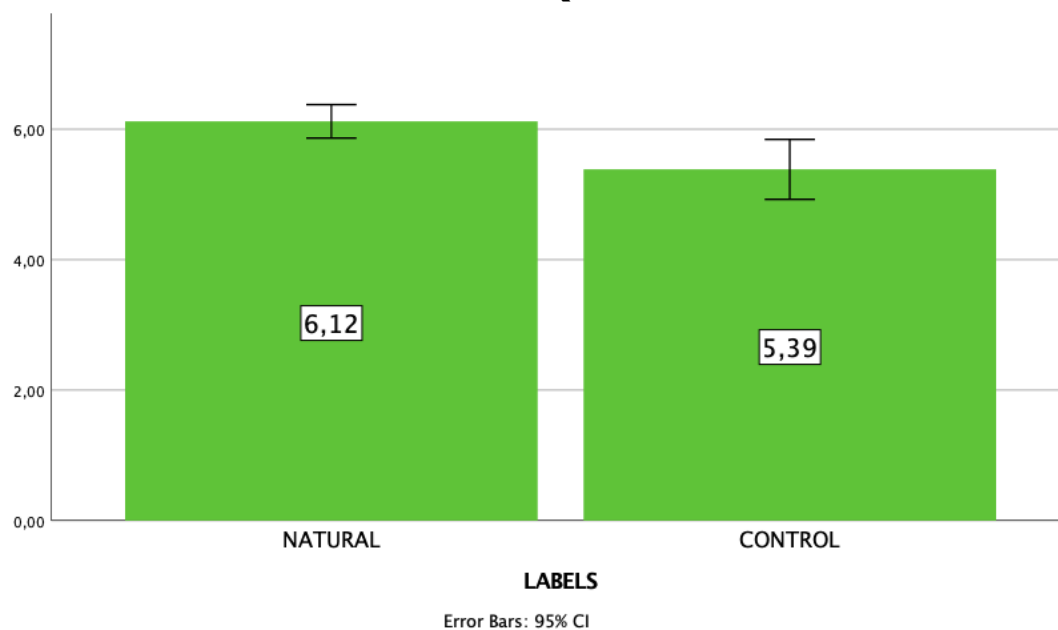
\*means are statistically different ( $p < .05$ ); \*\* means are statistically different ( $p < .01$ )

# FINDINGS STUDY 7

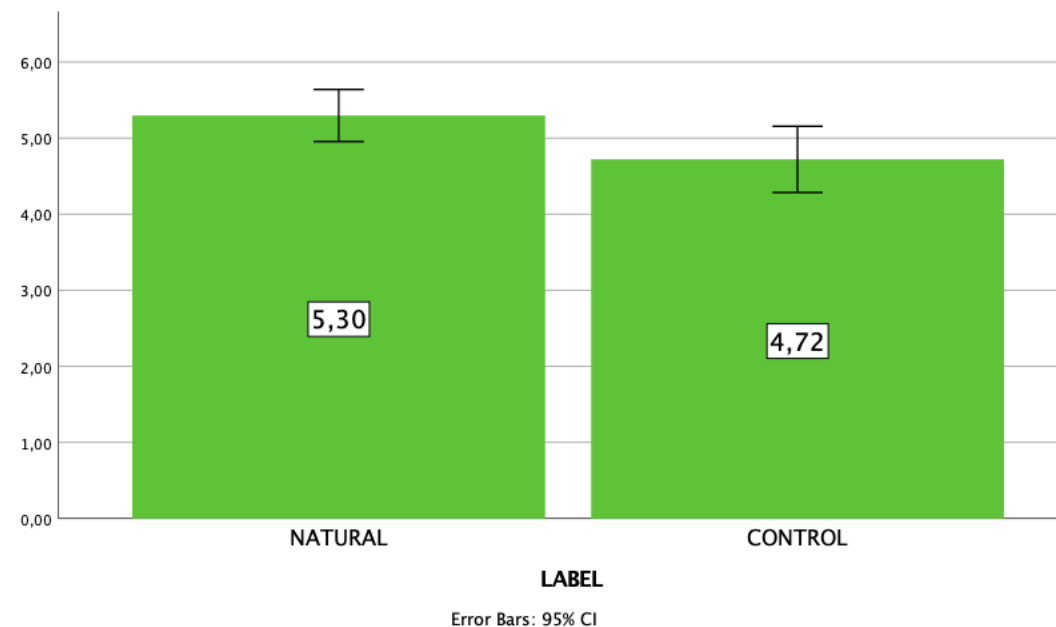
**Perceived quality:** Consumers perceive the product made with natural dyes as having higher quality (+10.4%; Mean = 6.12) compared to the product made with chemical dyes (Mean = 5.39)\*\*.

**Perceived ephemerality:** Consumers perceive that products made with natural dyes (+8.3%; Means = 5.30) would last longer than products made with chemical dyes (Means = 4.72)\*.

**PERCEIVED QUALITY**



**PERCEIVED EPHEMERALITY**



\*means are statistically different ( $p < .05$ ); \*\* means are statistically different ( $p < .01$ )

## STUDY 8

**AIM:** extending the results of study 6 by examining how consumers' responses are affected by the use of native dyeing colorants for the production of textile products.

**DESIGN:** single factor (label: «native dyeing colorant» vs. control) between-subjects experimental design.

*Sample:* 100 participants (48.5% female;  $M_{age} = 31.46$ ) from the German and Austrian panel of Academic Prolific

*Procedures:* Participants were exposed to a product colored with native dyeing vs. control. Participants were asked to indicate their intention to purchase it (4 items from Eichinger et al., 2022; Cronbach alpha = .878), intention to gift the product (3 items from Fuchs et al., 2015; Cronbach alpha = .704), perceived authenticity (3 items from Newman & Dhar, 2014; Cronbach alpha = .877), perceived prestige (3 items from Baek et al., 2010; Cronbach alpha = .905), perceived sustainability (3 items from Gruber et al., 2014; Cronbach alpha = .874), perceived groundedness (2 items from Eichinger et al., 2022; Cronbach alpha = .867). We also measured centrality of the product attribute (i.e. dyeing colorant) with 3 items (Gershoff & Frels, 2015; Cronbach alpha = .713).

*Product stimuli:* wool blanket made.





## EXAMPLE OF THE STIMULI

The following scenarios were employed for the French sample

**[Native dyeing colorant condition]** Imagine that you are browsing online for textile items for your home. You come across a company named Laine Douillette. Laine Douillette products are made only with natural materials. The dyeing colorant of the wool that makes up the blankets is completely natural, of vegetable origin, made through eco-compatible processes. The blankets produced are available in a wide palette of colours ranging from sandalwood to blueberry. The wool blanket here below is dyed with **Alchemilla, a plant native of the Alpine region**. Flowers and leaves were used to dyeing the blanket.

**[Control group]:** Imagine that you are browsing online for textile items for your home. You come across a company named Laine Douillette. Laine Douillette products are made only with natural materials. The dyeing colorant of the wool that makes up the blankets is completely natural, of vegetable origin, made through eco-compatible processes. The blankets produced are available in a wide palette of colours ranging from sandalwood to blueberry. The blanket here below is dyed with Alchemilla flowers and leaves.



The stimulus picture was generated by AI.



# FINDINGS STUDY 8

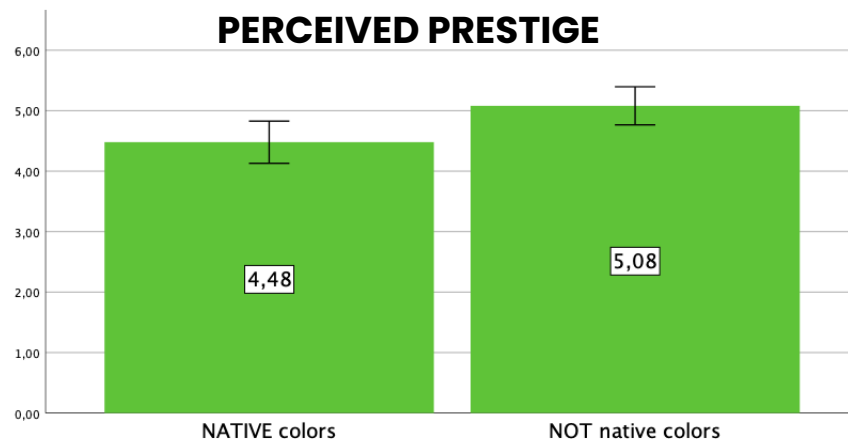
AlpTextyles

Native dyeing colorants do not affect consumer responses. Our results suggest that native dyeing colorants do not positively influence purchase and gifting intentions, nor perceived authenticity and inferred authenticity.

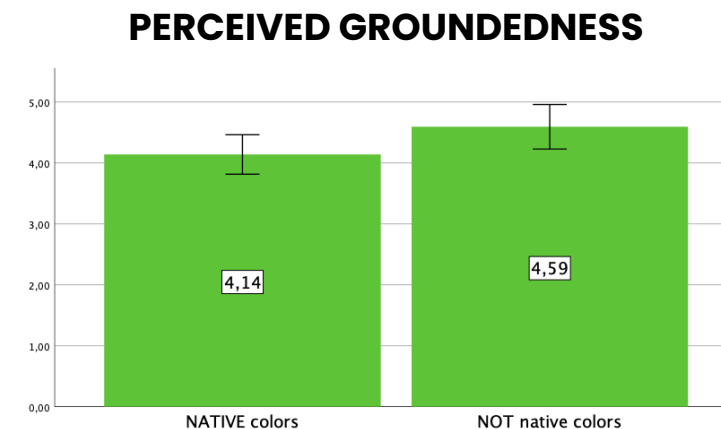
Native dyeing colorants may have a counterproductive effect.

**Perceived prestige:** Consumers perceived the product coloured by native dyeing colorant as less prestigious (-8.7%; Mean = 4.48 out of 7) than the other product (Mean = 5.08)\*.

**Perceived groundedness** refers to the feelings of being connect to a place. When the product was dyed with native dyeing colorant it elicits less the feelings of groundedness (-6.4%; M = 4.14 out of 7) than the same product coloured with a not-native dyeing colorant (M = 4.59).



Error Bars: 95% CI



Error Bars: 95% CI



# Discussion of the findings from the experimental studies

The Alps have a positive influence on consumers: they value the Alpine production, even though they do not distinguish it from products from other mountain chains.

Alpine products are spontaneously associated to artisanal and handwork: consumers recognize the passion and love needed for producing products.

Not only production is valued: consumers like products with materials that come from the Alps, especially when they are native products, such as for the case of native sheep breed wool.

Consumers derive positive feelings from Alpine products: they feel they contribute to the society and feel better.

Sustainability matters to consumers: when products are made in the Alps with circular materials, being them upcycled or recycled, they reduce the negative associations often related to circular products. Similarly, products with an Alpine natural component (i.e. natural dyes) are more valued by consumers.





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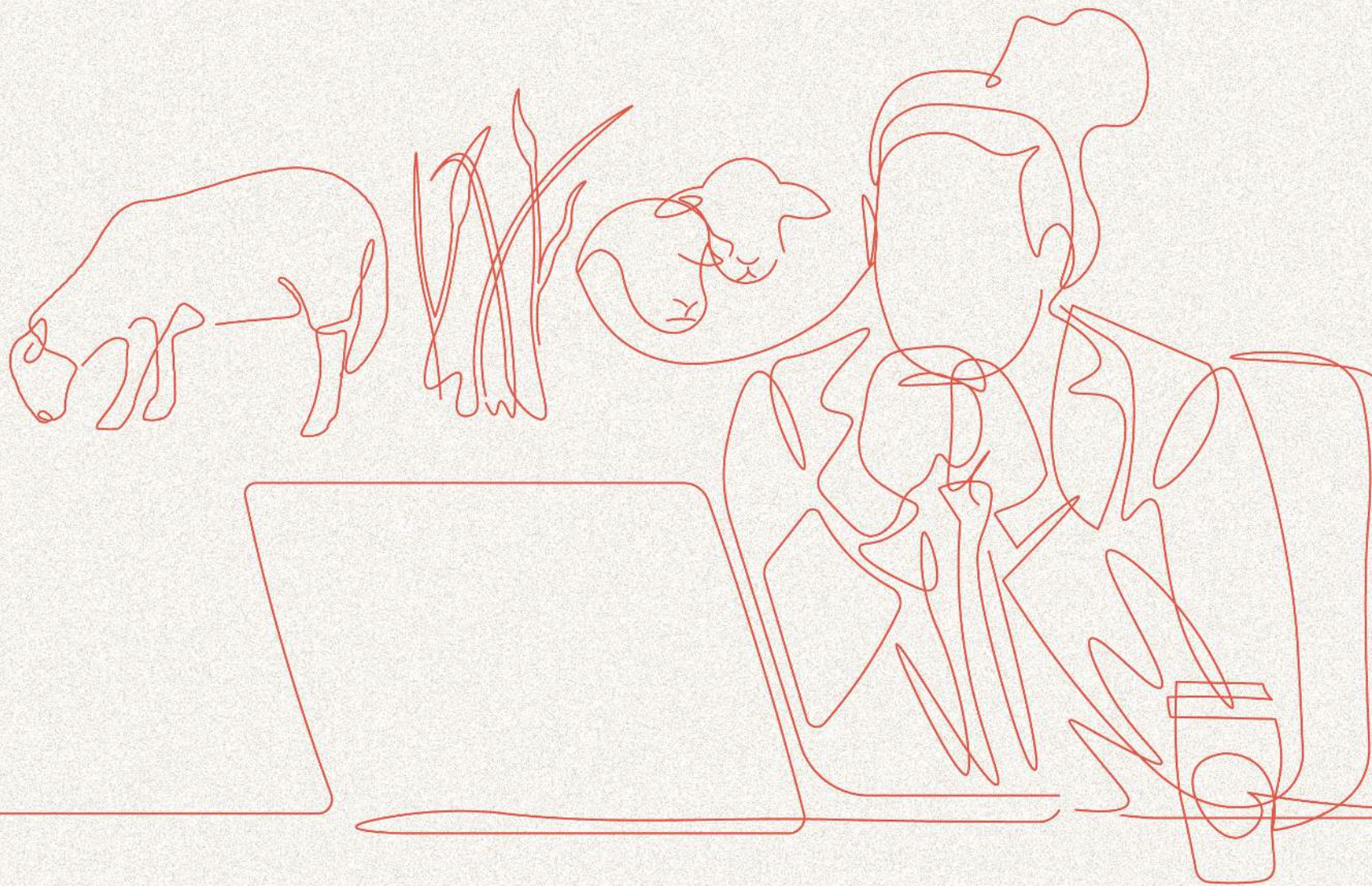
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# Discussion and conclusions



**Priority 2**  
Carbon neutral and resource



# DISCUSSION AND CONCLUSIONS

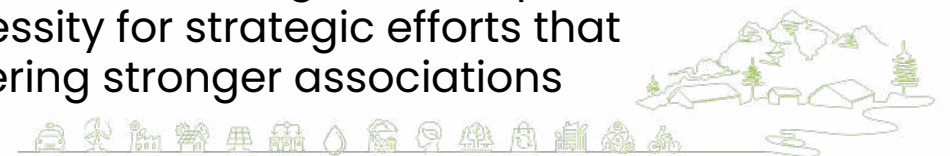
This research report delves into consumer perceptions of textile products 'Made in the Alps'. The findings present a cautiously optimistic outlook for the various initiatives aiming to reestablish textile supply chains within the Alpine macro-region, capitalizing on consumer interest in more sustainable products.

The studies reveal that consumers hold critical views towards the current globalized textile supply chains, with a significant portion expressing a willingness to purchase 'local' products made from natural fibers and produced through environmentally friendly processes.

The image of the Alps is overwhelmingly positive, evoking meanings tied to a 'romantic' vision of nature and nostalgia of the past. Seen as a 'place brand', the Alps create a wealth of symbolic meanings that particularly favor artisanal products. However, it is notable that textile products are not immediately and spontaneously associated with the Alps by consumers.

Our research findings have strong practical implications on the design and promotion of textile products 'Made in the Alps'.

The implications of these findings are substantial for the design and marketing of textile products promoted as 'Made in the Alps'. Our studies underscore the necessity for strategic efforts that highlight the unique attributes of the Alpine region, thereby fostering stronger associations between the region and its textile products.







## 2. Textile products made with native wool generate positive consumer responses

Interview-based data suggest that consumers have little awareness that textile fibers are still produced in Alpine regions today (p. 25). While sheep farming is primarily associated with milk and cheese, consumers might find it intuitive that "if there are sheep, there must be wool" when prompted.

Experiment 6 (pp. 63–66) thus tested whether and how consumer responses are affected by the use of native wool for the production of textile products. We used merino d'Arles wool for our French sample and ciuta sheep wool for our Italian sample.

Results show that positive consumer responses (greater perceived authenticity, perceived sustainability, perceived prestige, and purchase intent) are related to Textile products. These results are very encouraging for the numerous initiatives across Alpine regions that are attempting to valorize local wool from autochthonous sheep breed varieties.

Should these research findings be generalizable to other fibers grown in the Alps, such as flax and hemp, the conclusion is that there is a clear market potential from products made with local fibers – also (see the previous point) when part of the processing happens elsewhere.



### 3. Consumers appreciate fabrics dyed with plants, even when these are not native to the Alps

Before industrialization introduced artificial colors, yarns and fabrics were primarily dyed using colors extracted from plants. This traditional knowledge is experiencing a resurgence in the Alpine regions and beyond, driven by consumer demand for natural textiles produced through more sustainable methods.

Data from experiment #7 (pp. 67-70) show that textile products dyed with natural dyes like indigo are perceived to be of higher quality and longer-lasting than those dyed with chemical colors. This perception increases purchase intention and predicts market success. However, data from experiment #8 (pp. 71-73) indicate that knowing natural dyes come from native plant varieties (in this case, *Alchemilla*) does not add symbolic value. This contrasts with consumer responses to native wool in experiment #6, suggesting a need for further investigation.

Overall, these findings align with consumers' stated preference for more sustainable textile products (see Part 2) and their "romantic" desire for natural production methods rooted in traditional knowledge passed down through generations (see Part 1). Both craft and manufactured textile products can benefit from these consumer perceptions when promoting products that are dyed with natural products – whether or not they are native of the Alps.





## 4. The image of the Alps also generates positive reactions for industrial products, but it is artisanal products that benefit the most.

Interview-based data reported in Part I shows that consumers 'romanticize' products Made in the Alps, considering them artisanal and hand-made by SMEs with more natural production processes. We further tested these perceptions with experimental research designs.

Study #3 (pp. 53-56) shows that both machine-made and handmade Alpine wool products are more attractive than non-Alpine products as they are perceived to be made with love and requiring more work – but this effect is greater for handmade products.

Study #4 (pp. 57-59) investigated the effect of machine-made vs. handmade production for Alpine textile products made with different fibers (wool, hemp, flax/linen). Despite variations depending on the fiber, consumers appreciated more handmade products. The results of this study are also in line with research findings from the Trick project showing that sustainable product help consumers express their identity and make them feel better (pp. 40-41).

Taken together, these studies support the view that the romantic image of the Alps favor artisanal products more than industrial ones. This is excellent news for craft producers, who often lack the resources and marketing skills to promote them effectively. Since place of origin is only one element of product image, industrial producers with strong brands should not be worried by these results.

Note, however, that we did not test the impact of product aesthetics. Considering that consumers often perceive sustainable clothing not to be trendy (p. 42), artisanal producers should try to design their products to be in line with the latest trends.



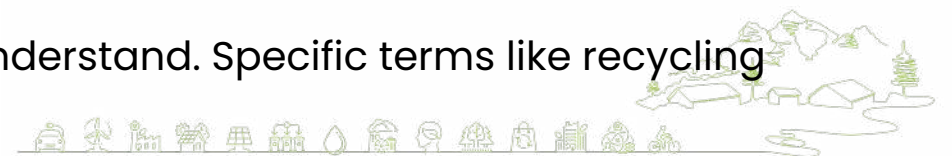
# 5. Circularity: an elusive concept for consumers

Data from the TRICK project shows that there is widespread consumer awareness of the environmental issues related to the textile and clothing industry. This includes understanding that the industry operates on a linear model and generates a large volume of waste that is not recycled (pp. 35-37).

Qualitative data in Part I similarly highlights that informants experience eco-anxiety, feeling torn between their desire to behave responsibly and their wish to continue enjoying the Alps as they have in the past, despite the climate emergency and other environmental problems. Products from Alpine regions are perceived as culturally and environmentally friendly because they highlight local expertise, utilize local resources, protect local jobs, and are often based on short value chains. However, the concept of circularity is rarely associated with products 'made in the Alps'. This term does not spontaneously come to mind, possibly due to the multiple co-existing definitions of circularity, each emphasizing different elements such as limiting resource consumption, using by-products that would otherwise be wasted, or extending product life.

In experimental study #5 (pp. 60-62), we investigated consumer responses to circular textile products. This study focused on wool and considered two circular modalities: upcycling (products made using wool from sheep breeders who would otherwise waste it) and recycling (products made with fibers from old wool garments). We found that consumers appreciate wool products even when they are not described as upcycled or recycled. More importantly, products made from recycled wool are more appreciated than those from upcycled wool. This may be due to the low awareness that most wool produced in Alpine regions is wasted.

In general, circularity seems to be a difficult concept for consumers to understand. Specific terms like recycling might be more evocative and easier for consumers to grasp.

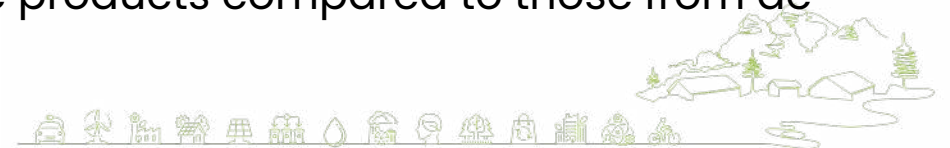


## 6. Storytelling: a remedy to the limited consumer awareness of the textile heritage of the Alps

Interview data (Part I) reveals that except for dirndls and other forms of traditional dress in German-speaking regions of the Alps, consumers have little awareness of the cultural and historical heritage associated with the production, use, and significance of textiles in the Alpine regions. This cultural legacy, which encompasses various fibers (wool, flax, hemp, silk) and the knowledge, practices, skills, traditions, and artifacts related to textile making and usage, is a valuable resource for promotion and marketing communication.

Heritage storytelling is a promotional approach based on conveying the history, culture, values, and traditions of a company, community, or region through narrative forms. It involves using stories to communicate the significance of cultural heritage, making it accessible and engaging to diverse audiences. This approach helps to promote heritage by connecting it to contemporary contexts and personal experiences.

Heritage storytelling can also contribute to fill with meaning both craft and industrial textile products, linking them to place and community in consumers' perceptions. This links to consumers' search for authentic products and can help justify the higher price of these products compared to those from de-territorialized value chains.





# Conclusion: The price of sustainability cannot be paid by consumers alone. Policy matters!

Qualitative insights (see Part I) indicate that consumers perceive textile products 'made in the Alps' as relatively expensive. This perception stems from the belief that these products are produced in small batches by smaller firms using locally sourced raw materials. Our experimental studies (see Part III) further reveal that consumers find textile products from Alpine regions to be more attractive, authentic, pure, and even 'made with love'. These attributes enhance the intention to purchase, driven by heightened perceptions of self-worth and pro-social behavior.

The question thus remains: to what extent do these favorable perceptions and evaluations translate into a higher willingness to pay? Surveys and experimental research often suffer from normative response bias. When faced with actual purchase situations, consumers' willingness to pay for sustainable textile products from Alpine value chains may be limited, particularly when compared to cheaper alternatives from globalized value chains, whose market prices do not fully reflect their negative socio-environmental impacts.

It is therefore unrealistic to place the burden of the ecological transition of textile supply chains on consumers alone. Certainly, companies can communicate better and target the less price-sensitive market segments, but the relocation of textile supply chains disrupted by globalization requires significant collective mobilization efforts by various public and private stakeholders to structure supply and reduce entrepreneurial risk. Consumers and individual firms will have to play their part, but they must be supported by appropriate public policies.





# ALPTEXTYLES

INTERTWINING CULTURES

AlpTextyles is an Interreg Alpine Space project that gathers the heritage of Alpine textile ecosystems to develop collaborative business and cultural solutions toward a circular and sustainable textile industry.

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