



BIOSWITCH



## APPENDIX A

### Content of the online focus group discussions

#### WELCOME

Welcome to the online discussion, where we would like to hear your viewpoint on bio-based products and brands, and the main incentives and key barriers in choosing them.

The online discussion is part of the BIOSWITCH project (<https://bioswitch.eu/>), which aims to ensure the continued uptake of the outputs of the bio-based industry by encouraging brand owners to adopt it as a core value. The project is being implemented in cooperation with partners from Finland, the Netherlands, Ireland, Spain, Belgium, and Denmark.

The project is funded by BBI JU (<https://www.bbi-europe.eu/>).

#### DEMOGRAPHIC INFORMATION

1. Gender
  - Man
  - Woman
  - Other
  - I do not want to respond
  
2. Year of birth (age segments)
  
3. Country of residence / City
  
4. Do you live...
  - Alone
  - With my partner or spouse
  - With my partner or spouse and a child/children
  - With my child/children
  - With my child/children
  - Other...?(allow two options)
  
5. Are you...
  - A student
  - Working full-time
  - Working part-time
  - An entrepreneur
  - Unemployed or laid off





- At home with a child/children
- Other...?

6. Who is responsible for shopping consumables in your household?
- I am the main decision-maker of the household
  - I am the joint decision-maker of the household
  - Someone else in my household is the main decision-maker

## QUESTIONS

### Consumer awareness

7. Have you heard about bio-based products and/or brands before?
- I am completely aware of them – I have never heard about them before
- (five-option Likert scale/individual answer)

8. Are the following two definitions clear to you:

Definition 1: The term bio-based product refers to a product wholly or partly derived from biomass, such as plants, trees, or animals (the biomass can have undergone physical, chemical, or biological treatment). (European Committee for Standardization)

Definition 2: The term bio-based product refers to a commercial or industrial product (other than food or feed) that is composed, in whole or in a significant part, of biological products, including renewable domestic agricultural materials (e.g., plant, animal, and aquatic materials), forestry materials, intermediate materials, or feedstocks. Bio-based materials exclude motor vehicle fuels, heating oil, and electricity produced from biomass. (USDA BioPreferred® Program)

I completely understand the definition – I do not understand what the definition means in practice (five-option Likert scale)

- Please specify your answer (open-ended question/open for all)

9. What are the first specific types of words that come to your mind when you think of the term "bio-based product"? Define three (3) words. (word cloud/open for all)

"Organic," "Natural," and "Ecological" were the first word associations related to bio-based products. What thoughts do those words arouse in the context of bio-based products?

10. Are you familiar with any bio-based companies or brands? Please define those and share your experience with others. (open-ended question/open for all)





## Examples and consumer acceptance

### BIO SWITCH

Following are examples of some brands in different sectors and how they exploit bio-based materials. Please read the short explanation of each brand and answer the specific questions related to the brand and product sector in general.

#### FAZER (food)

Fazer focuses on reducing emissions and the amount of food waste, develops more and more sustainable packaging, and increases the use of plant-based ingredients in its products. Now Fazer has brought pralines in a compostable, microplastic-free box for Christmas sales.



11. Please estimate the statements below: Totally agree – Totally disagree (five-option Likert scale)
13. I trust the Fazer brand and their work towards a bio-based future.
- The Fazer brand refers to sustainability.
  - I think that this is only greenwashing with no real effect on sustainability.

Please comment on the following questions about food products in general.

- I would like to buy food products in bio-based packages.
- I already prefer to buy food products packed or wrapped in bio-based alternatives.
- Bio-based packaging materials are environmentally friendly.
- Bio-based packaging materials are less polluting.
- Bio-based packaging materials are easy to recycle.
- Bio-based packaging is suitable mainly for high-quality products.
- Bio-based packaging is suitable for low-quality products
- I would pay more for food products packed in bio-based alternatives.
- I assume that bio-based packaging materials do not affect the taste of the food.

(individual answer/outcome graph available for all)

12. What other food and beverage products would you like to see packaged in bio-based packages? (You can choose among several options.)
- vegetables
  - fruit





- dairy (like milk)
- juice
- meat
- pre-cooked meals
- other – what?

(individual answer/outcome graph available for all)

14. Open discussion about Fazer and bio-based food packaging products.  
(open discussion thread)

#### LUMENE (cosmetics)

Lumene has replaced the exfoliating rinse-off plastic microbeads with salt and silica sand-like ingredients. Many of the Lumene products are also developed from by-products of the food and forest industries. They aim to replace packaging materials with bio-based or biodegradable materials.



14. Please estimate the statements below: Totally agree – Totally disagree (five-option Likert scale)

- I trust the Lumene brand and their work towards a bio-based future.
  - The Lumene brand refers to sustainability.
  - I think this is just greenwashing with no real effect on sustainability.

Please comment on the following questions about cosmetics in general.

- I would like to buy cosmetics produced wholly or partly from bio-based materials.
- I already prefer to buy cosmetics produced wholly or partly from bio-based materials.
- Bio-based cosmetics are environmentally friendly.
- Bio-based cosmetics are less polluting.
- Bio-based cosmetics are easy to recycle.
- Bio-based cosmetics are high-quality products.
- Bio-based cosmetics are low-quality products.
- I would pay more for bio-based cosmetics.
- I assume that bio-based garments are safer for skin and health.

(individual answer/outcome graph available for all?)





15. Open discussion about the Lumene brand and bio-based cosmetics.  
(open discussion thread)

BIOSWITCH

#### NESTLÉ

Nestlé aims to develop 100% bio-based bottles. Focusing on waste biomass such as cardboard and sawdust, the goal is to bring Origin Materials' technology to a commercial scale, making bio-based PET accessible for the entire beverage industry.



16. Please estimate the statements below: Totally agree – Totally disagree (five-option Likert scale)

- I trust the Nestle brand and their work towards a bio-based future.
- The Nestle brand refers to sustainability.
- I think this is just greenwashing with no real effect on sustainability.

Please comment on the following questions about beverage and food products in general.

- I would like to buy beverages in bio-based containers.
- I already prefer to buy beverages packed in bio-based alternatives.
- Bio-based packaging materials are environmentally friendly.
- Bio-based packaging materials are less polluting.
- Bio-based packaging materials are easy to recycle.
- Bio-based packaging is suitable mainly for high-quality products.
- Bio-based packaging is suitable for low-quality products.
- I would pay more for beverages packed in bio-based alternatives.
- I assume that bio-based packaging materials do not affect the taste of the beverage.

(individual answer/outcome graph available for all)

17. Open discussion about Nestlé and bio-based beverage products.  
(open discussion thread)

#### ADIDAS

Adidas aims to produce shoes from 100% biodegradable material created from biopolymers that aim to replicate natural silk. The company has also pledged to eliminate virgin plastic from its supply chain.





18. Please estimate the statements below: Totally agree – Totally disagree (five-option Likert scale).

- I trust the Adidas brand and their work towards a bio-based future.
- The Adidas brand refers to sustainability.
- I think this is only greenwashing with no real effect on sustainability.

Please remark that the following questions are about textiles and clothes in general.

- I would like to buy textiles and clothes produced wholly or partly from bio-based materials.
- I already prefer to buy clothes produced wholly or partly from bio-based materials.
- Bio-based clothes are environmentally friendly.
- Bio-based clothes are less polluting.
- Bio-based clothes are easy to recycle.
- Bio-based clothes are high-quality products.
- Bio-based clothes are low-quality products.
- I would pay more for bio-based clothes.
- I assume that bio-based garments are safer for skin and health.

(individual answer/outcome graph available for all?)

19. Open discussion about Adidas brand and bio-based textiles and garments.

(open discussion thread)

What clothes, garments, and accessories would be suitable for exploiting bio-based alternatives?

## LEGO

Recently called the “world’s most powerful brand,” toy manufacturer LEGO is looking for a bio-based replacement for its iconic plastic bricks. LEGO is developing sustainable raw materials to manufacture LEGO elements as well as packaging materials.







20. Please estimate the statements below: Totally agree – Totally disagree (five-option Likert scale)

- I trust the LEGO brand and their work towards a bio-based future.
- The LEGO brand refers to sustainability.
- I think this is only greenwashing with no real effect on sustainability.

Please comment on the following questions about toys in general.

- I would like to buy toys produced from bio-based materials.
- I already prefer to buy toys produced from bio-based materials.
- Bio-based toys are environmentally friendly.
- Bio-based toys are less polluting.
- Bio-based toys are easy to recycle.
- Bio-based toys are high-quality products.
- Bio-based toys are low-quality products.
- I would pay more for bio-based toys.
- I assume that bio-based toys are safer for children.

(individual answer/outcome graph available for all?)

21. Open discussion about Lego and bio-based toys. What play products (toys and games) are particularly suitable for exploiting bio-based alternatives?

(open discussion thread)





Consumption Habits

22. When I shop (in shopping malls, grocery stores, online stores, etc.) ...  
(Totally agree – Somewhat agree – Neither agree nor disagree – Somewhat disagree – Totally disagree)

- I try to find bio-based products.
- I am usually looking for certain brands.
- I compare products and prefer bio-based alternatives.
- I rely on trusted brands to provide me with bio-based solutions.
- It is easy to find bio-based products.
- Advertisements related to bio-based products lead me to find them.
- I find the bio-based related communication to be clear.
- I find the product labels easy to read and understandable.

(individual answer/outcome graph available for all)

23. Open discussion about the shopping habits, bio-based products and brands, and the communication about bio-based alternatives.

(open discussion thread)

23. When choosing between several products, what makes you decide on a specific brand or company?

(open discussion thread)

24. In which sector are you most likely to buy bio-based products? (You can choose up to three options.)

- Cosmetics and personal care.
- Cleaning, hygiene, and sanitary products.
- Clothing and textiles.
- Packaging products.
- Disposable products (e.g., dishes, cups, straws).
- Children's toys.
- Furniture and home decoration.
- Construction materials.
- Gardening products.
- Vehicles and mobility.
- Sports equipment.
- Other. What?

(individual answer/outcome graph available for all)

25. Why did you select these alternatives? Open discussion about bio-based product sectors.

(open discussion thread)

26. What would be the most influential media or social connection from which you would like to receive or share information about bio-based products? (You can choose several options.)

- Family
- Friends
- Colleagues from the workplace







- Researchers
- TV
- Social media networks
- Influencers
- Brands
- Shopping centers
- Service companies
- Magazines and journals
- Other media
- Other. What?

(individual answer/outcome graph available for all)

27. What made you choose that media or social connection?  
(open discussion thread)
28. Where else would you like to receive more information about bio-based products?
29. Could you share an example of sustainable marketing that you have found to be particularly attractive?  
(open discussion thread)

### Consumption in the future

30. Do you think that you are going to buy more bio-based products in the future?  
(five-option Likert scale: totally agree - totally disagree) (individual answer/outcome graph available for all)
31. Do you think that you will buy more products packaged in bio-based materials in the future?  
(five-option Likert scale: totally agree - totally disagree) (individual answer/outcome graph available for all)
32. What would specifically motivate you to buy bio-based products? (You can choose several options)
- Information campaigns
  - Clear information on a product's end-life
  - Financial incentives (e.g., discounts, tax reduction)
  - Financial disincentives for fossil-based products (e.g., a tax on plastic)
  - More information on bio-based product performance
  - Clear information on the whole value chain
  - For food products: information on the feedstock used
  - Information about the product's carbon footprint or handprint
  - Example from social media influencers or celebrities
  - Higher adoption by brands
  - The possibility to contribute to the product design
  - Price reduction
  - Making them more recognizable (particularly the fossil-based ones)





- Higher product availability in malls, online stores, etc.
- Knowing more about the innovation behind the product
- Supporting regional products and brands

(individual answer/outcome graph available for all)

33. Open discussion about the incentives and expectations  
(open discussion thread)
34. Do you see bio-based materials as a solution to our environmental challenges in the future?  
(open discussion thread)
35. How should the environmental issues be communicated to consumers?  
(open discussion thread)
36. What are the biggest advantages of bio-based products and materials?  
(open discussion thread)
37. Open discussion about the positive impact  
(open discussion thread)
38. What are the biggest concerns or risks related to bio-based products and materials?
39. Open discussion about the concerns, risks, and negative impact  
(open discussion thread)
39. Has the Covid-19 situation made you make more cautious discussions about bio-based products?  
(open discussion thread)



This project has received funding from the Bio-based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation program under grant agreement No 887727.