



EnXylaScope



FACTSHEET #1

How do consumers understand sustainable consumption?

Results and trends from mapping consumer awareness and acceptance of xylans for a range of products



Understanding consumers' acceptance or resistance to more sustainable consumption is a complex undertaking, even more so if we consider the multitudes of materials, ingredients and manufacturing processes involved, as well as individual differences and needs among consumers.

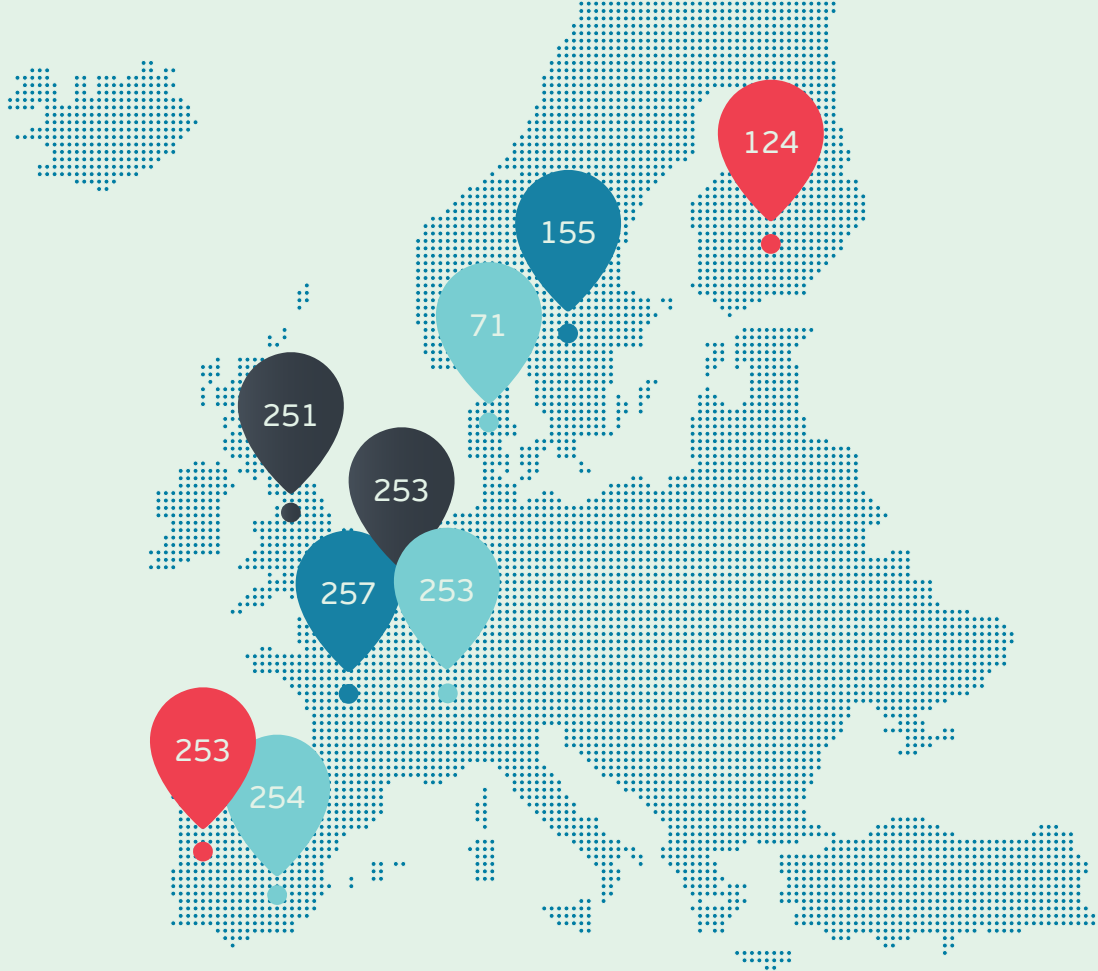
As a first step to obtaining more knowledge on how European consumers view the role of novel components such as xylans in sustainable and responsible consumption, EnXylaScope has launched a multinational online survey targeting these issues. **This factsheet presents some of the key results and trends from the surveys' analysis.**

Deliverable 6.3 available on EnXylaScope's website describes in depth the consultation and its results.

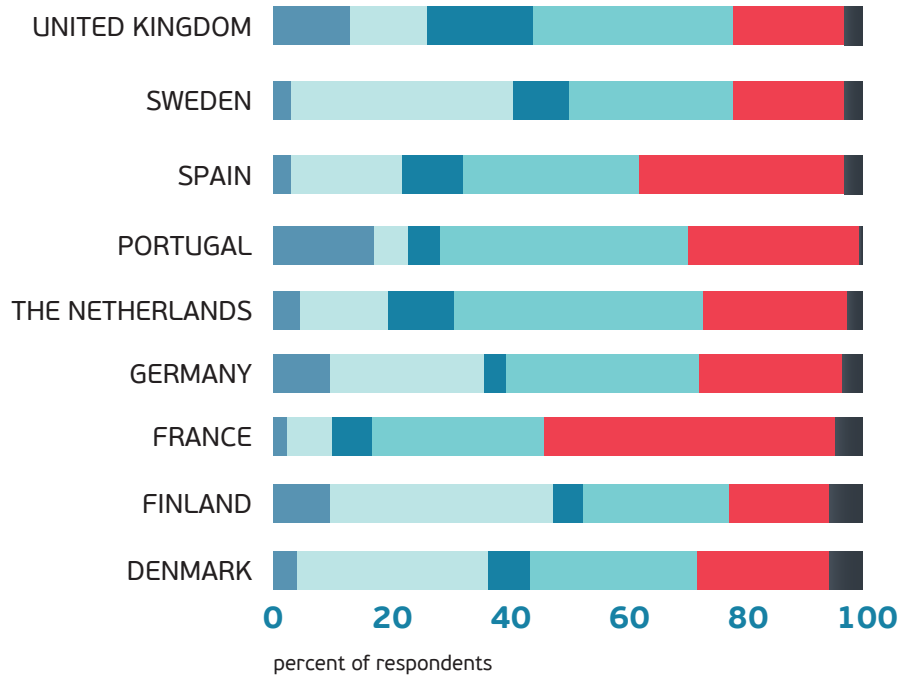


The aim of the online survey was to describe and broadly map opinions about and acceptance of products containing xylans, as well as which demographic, personality aspects and current behavioral patterns, including ethical consumption behavior, may relate to a stronger acceptance.

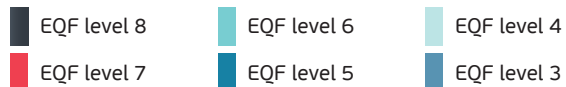
We gathered input from **1871 consumers** from 9 countries across Europe through the online platform Prolific.



*total sample (n=1871)



*EQF - European Qualifications Framework



The participants' answers were framed in several parameters:

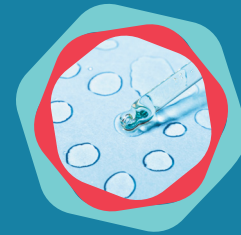
Demographics

age group, gender, education level;



Familiarity

whether or not the participants had previously heard of biopolymers, cellulose, hemicellulose, xylans or enzymes;



Responsible Consumption Behavior

we used the 10-item Ethically Minded Consumer Behaviour scale (EMCB; Sudbury-Riley & Kochlacher, 2016) to quantify consumers' tendency to have habits such as recycling, buying from socially responsible sources, buying and being willing to pay more for environmentally friendly products, and refusing to purchase from socially or environmentally irresponsible sources.



Neophobia

the **10-item Motivation to Eat New Foods** (MENF; Nezlek et al., 2021) was adapted to include a broader spectrum of consumable products, thus producing a two-factor solution quantifying participants' tendency to either accept or avoid new or unfamiliar products.



Trust

Participants graded their trust on the information provided by institutions from the food, cosmetics and agricultural institutions, science and research fields, government agencies, EU Commission (EFSA), and the media, on a scale from 1 (extremely suspicious) to 5 (extremely trustworthy);



Product Acceptance

Participants indicated whether or not they would be comfortable with utilising cosmetic and personal care products, food packaging, functional foods or nutraceuticals that contain cellulose, xylans, active or inactive enzymes;



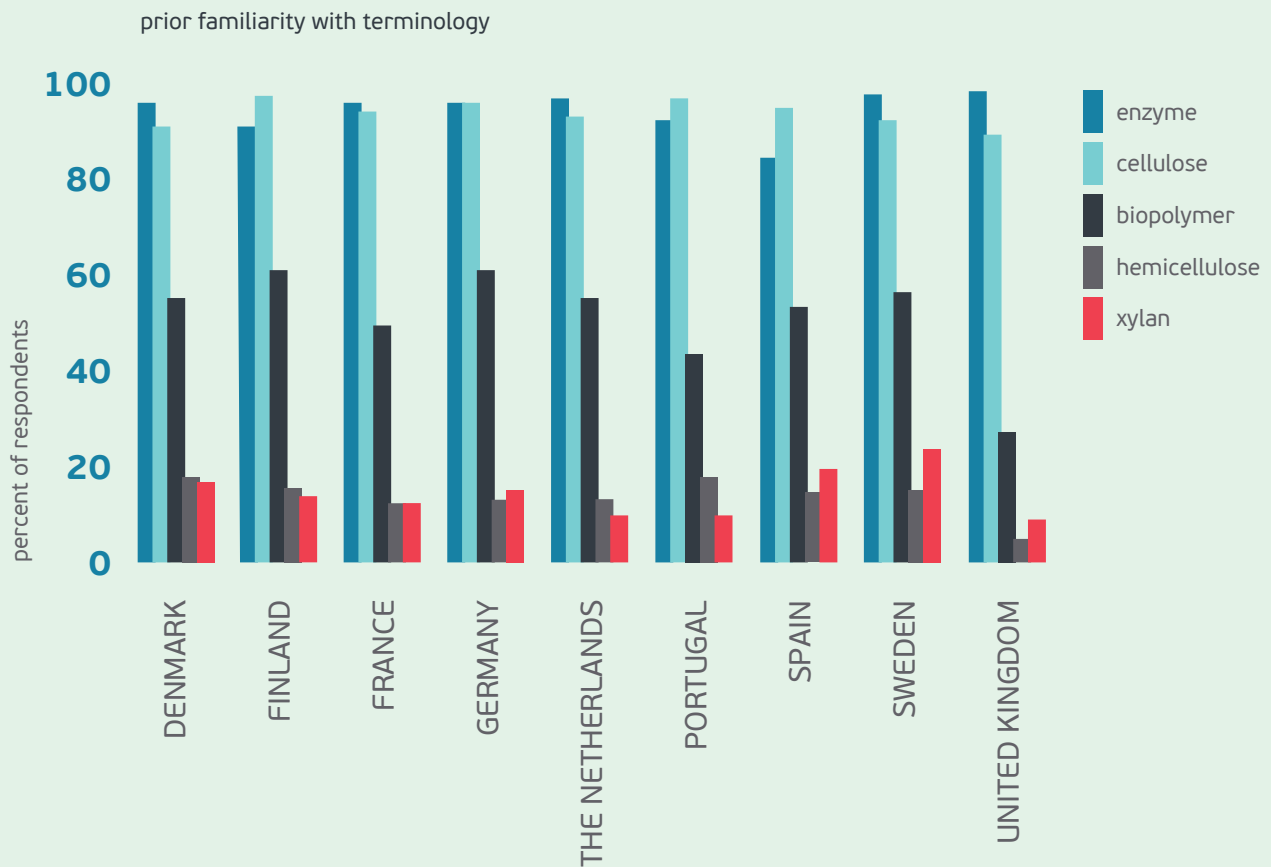
Perceived risks and benefits

After being provided with information about xylans, participants indicated, on a scale from 1 (completely disagree) to 5 (completely agree), whether they agree that xylans are beneficial or risky, if they would buy xylan-containing products, and if these products could reduce environmental harm, for each of the categories listed under the Product Acceptance item.



Results and Trends

The two most common terms that participants were familiar with were **cellulose** and **enzymes**. They were less familiar with biopolymer, hemicellulose, and xylan.



The 253 people that had already heard of **xylan** tended to have higher education and score higher on the ECMB scale.

Those who were prior familiar with xylan had an **increased likelihood of being comfortable with using the it** in all product categories.



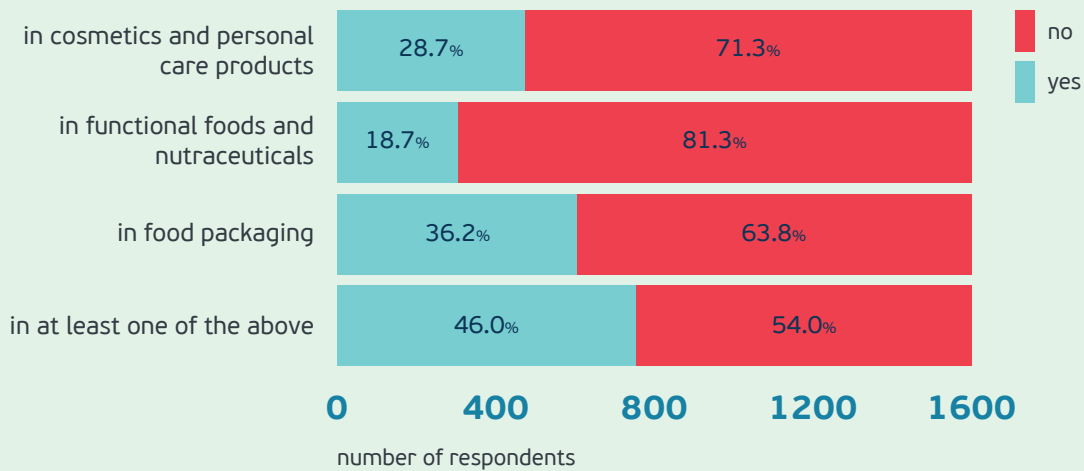


Factors like the lack of trust in institutions and the tendency to avoid new products influenced negatively, even if weakly, the acceptance of xylan use.

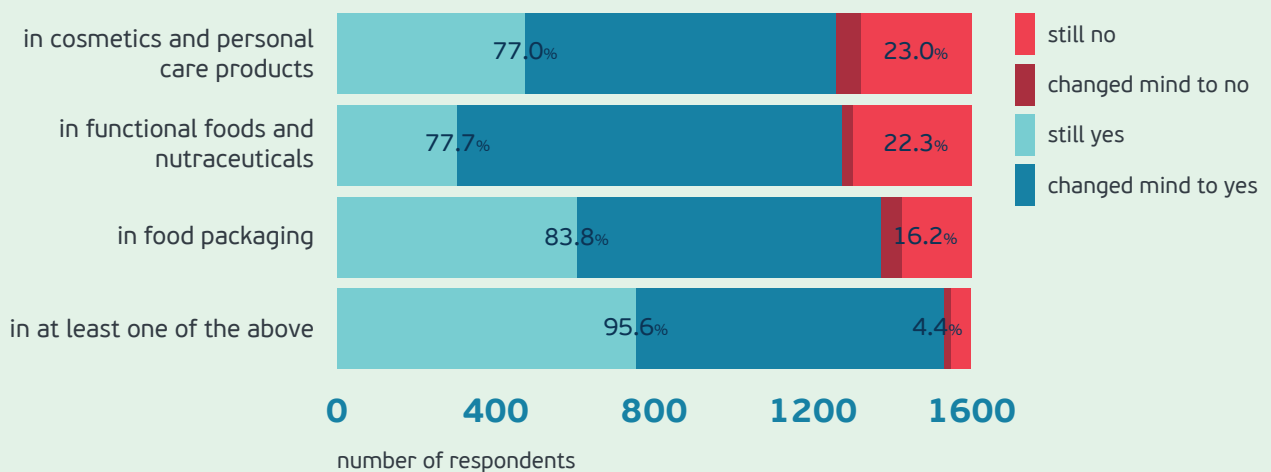
After receiving information, many participants reported **being more accepting of all five potential ingredients in all product categories.** The graphic below shows xylan's acceptance before and after the information provision.



before information provision



after information provision





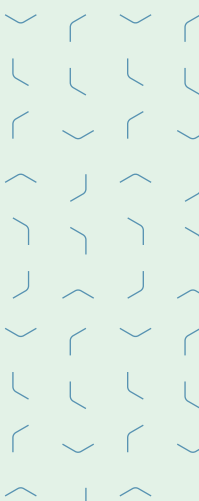
Although some participants still reported that they would not feel comfortable with xylan use in these product categories, and some even changed their answer from yes to no, **the majority of individuals changed their answers from no to yes**, and some who had initially said yes did not change their minds after being given more information about xylans.

Those who reported **not being previously familiar with xylans**, as well as those with a **higher tendency to avoid new products**, tended to be more likely to agree that **xylan-containing products were risky**.

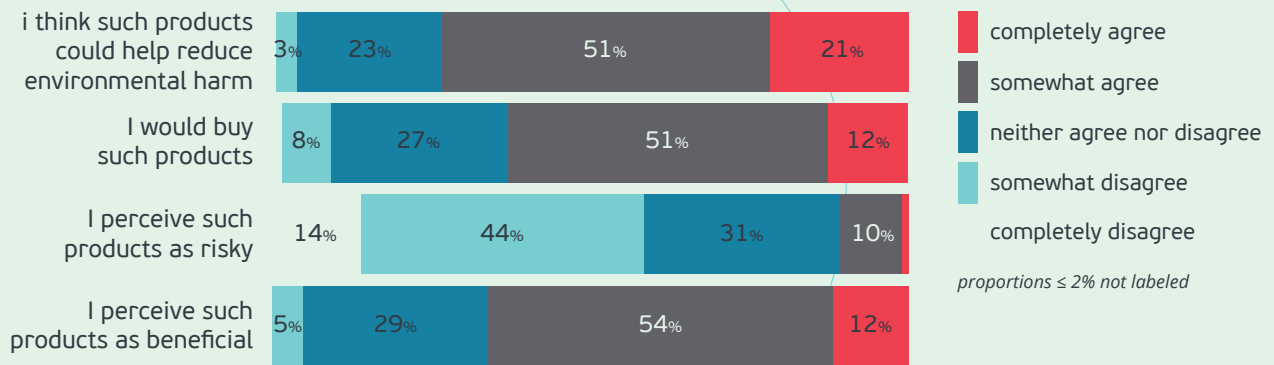


However, being previously familiar was not related to perceiving xylans as beneficial. Again, those with **higher ECMB scores and more trust in institutions seemed to display higher acceptance of xylan and belief in its benefits**. These participants were also more likely to **buy xylan-containing products** and agreed that they could **help reduce environmental damage**. This pattern was seen across all product categories.

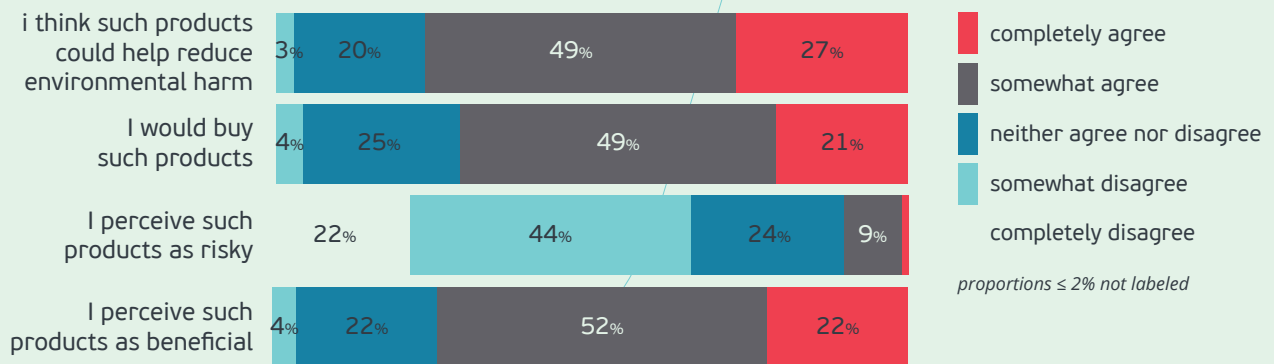
When it comes to xylan's application in 3 different areas - Cosmetics and Personal Care, Food Packaging, Functional Foods and Nutraceuticals - overall acceptance was good, as a percentage ranging from 44 to 54% somewhat agrees that products with xylan can be beneficial or help reduce environmental harm. These participants also admitted they would buy these products. On the other hand, for all 3 areas, a percentage ranging from 13% to 22% of participants perceive products with xylan as risky.



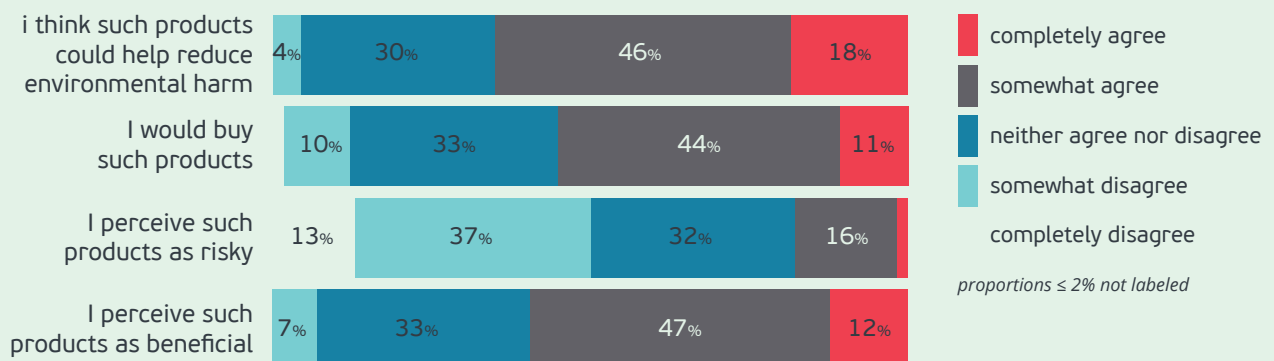
xylans in cosmetics and personal care products

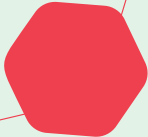


xylans in food packaging



xylans in functional foods and nutraceuticals





For a more in-depth analysis of the survey results, check the Deliverable 6.3, available on EnXylascope's website.

www.enxylascope.eu

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