

Study of consumer preferences regarding innovative and eco-friendly food packaging

Activity 1.3: Consumer needs and their impact on sustainable food packaging design

As part of the D4Pack project, “*Support the transition of the Central Europe food industry Towards Next-Gen Packaging models*”, funded by the Interreg Central Europe program, a team of researchers from the Krakow University of Economics (Prof. Agnieszka Cholewa-Wójcik, Dr. Agnieszka Kawecka, Prof. Katarzyna Sanak-Kosmowska, and Prof. Mariusz Łapczyński) conducted comprehensive research aimed at identifying consumer needs regarding food packaging and determining to what extent these needs may influence companies’ strategic decisions when transitioning to more eco-friendly packaging solutions.

The presentation of the task results and planned future project activities was delivered during the Steering Committee meeting held on May 15 at the Krakow University of Economics.

The research under Activity 1.3 was conducted in January/February 2025 using a quantitative social research method. The primary tool was a proprietary survey questionnaire prepared in five languages: Polish, Slovenian, Czech, Hungarian, and Italian. The survey was hosted on the Qualtrics platform, and participant recruitment and representativeness control were ensured and supervised by the specialized research agency Norstat.

The questionnaire included, among others:

- an assessment of factors influencing product and packaging choices,
- the importance of specific packaging features,
- willingness to pay extra for “green” solutions,
- and an open-ended question about eco-friendly packaging.

Based on the research results, synthetic recommendations were formulated to support the transition toward more ecological and functional packaging while maintaining market competitiveness:

- **Price and promotions** are the most important factors in choosing innovative products, but **health information and product composition** are also significant.

- **Safety and functionality** of packaging are very important to consumers—they pay attention to systems that extend product shelf life and the ability to reseal packaging.
- **Information on packaging**, such as ingredients, price, and shelf life, is highly valued. In contrast, brand and portioning options are less important.
- **Environmental aspects**, such as the type of material used and recyclability, are gaining importance, though they still rank below price and functionality.
- The most frequently mentioned **packaging inconveniences** include difficulty opening, lack of resealability, and poor readability of information.
- **Willingness to pay a higher price** for packaging is limited—consumers accept only small surcharges for ecological or more functional solutions.
- **Women and older individuals** are more critical and place greater emphasis on health, safety, and environmental issues.

Conclusions for the agri-food sector:

The study results clearly indicate that food producers should focus on designing packaging that combines **functionality, safety, and clear information** with a **gradual, moderate implementation of environmental innovations**—while maintaining an affordable price. Only such an approach has the potential to meet real consumer needs and support the transition toward sustainable development.

The research formed the basis for developing an algorithm to support the packaging redesign process, taking into account consumer needs and environmental aspects. The findings were also used to prepare an action plan and pilot implementations targeted at SMEs in the agri-food sector in Central Europe.