



WP5: Market Sustainability Preferences



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Goal and Scope

Taking into account consumer preferences regarding sustainability is a key factor towards the market-uptake of bio-based products. Within a European perspective, WP5 aimed at identifying sustainability preferences of different consumer groups (private consumers, businesses and public procurement) regarding environmental, social and economic aspects. It also studied the propensity to buy bio-based products and the importance of product characteristics, such as performance and quality in influencing buying decisions.

Methodology

The presented results are based on a *Delphi Survey*, a *Focus Group Exercise* and a *Field Experiment*. Professionals participated in a three round Delphi study, providing respectively, 344, 100 and 41 responses. Consumers participated in a two-round Delphi study, with respectively 744 and 80 responses. The experiment was conducted in an IKEA store located in Bari (Italy) in the first week of April 2019. In total, 360 customers participated in the experiment providing 1080 observations.



	"is this sustainability criterion essential?"	Professional		
		Consumer	Total	Procurement
Environmental	Hazardous substances	90%	85%	89%
	Type of raw materials	82%	81%	83%
	Greenhouse Gas Emissions	86%	90%	100%
	Land-Use Change	84%	67%	56%
	Biodiversity	84%	79%	67%
	No genetically modified organisms	35%	29%	56%
	Energy consumption	80%	73%	78%
	Sustainable water use	100%	94%	95%
	Sustainable soil use	94%	84%	79%
	Emissions and other air pollution	96%	65%	67%
Social	Packaging	94%	72%	78%
	Disposal method(s) after useful life	80%	87%	95%
	Key human rights principles and international labour standards	90%	96%	95%
	Local food security	94%	88%	79%
Economic	Not tested on animals	50%	36%	33%
	Availability of a health and safety management system	86%	70%	68%
	Contribution to the wellbeing of local communities by the product manufacturer	60%	55%	44%
Additional	Fair business practices	77%	88%	89%
	Fair land use rights practices	98%	89%	84%
	Promote further development of production technologies that can use other sustainable input materials	69%	44%	61%
	Promote product design that enables a long life, re-usable and repairable	81%	80%	94%
	Functionality/performance of the product	85%	74%	68%
	Producer is known as a provider of bio-based products	15%	14%	28%
	Lifecycle cost	70%	63%	79%
Product useful lifetime	87%	71%	67%	
Influence of the product on people's health	92%	71%	67%	

Table 1: Percentage of respondents judging each criterion as essential (465 consumers and 234 professionals of which 74 in procurement)¹

Results: sustainability preferences

The majority of all target groups regard information related to all three sustainability pillars as relevant for their buying decisions. However, environmental aspects essential for the highest share of respondents. Figure 1 shows how the different stakeholder groups ranked the importance of sustainability criteria.

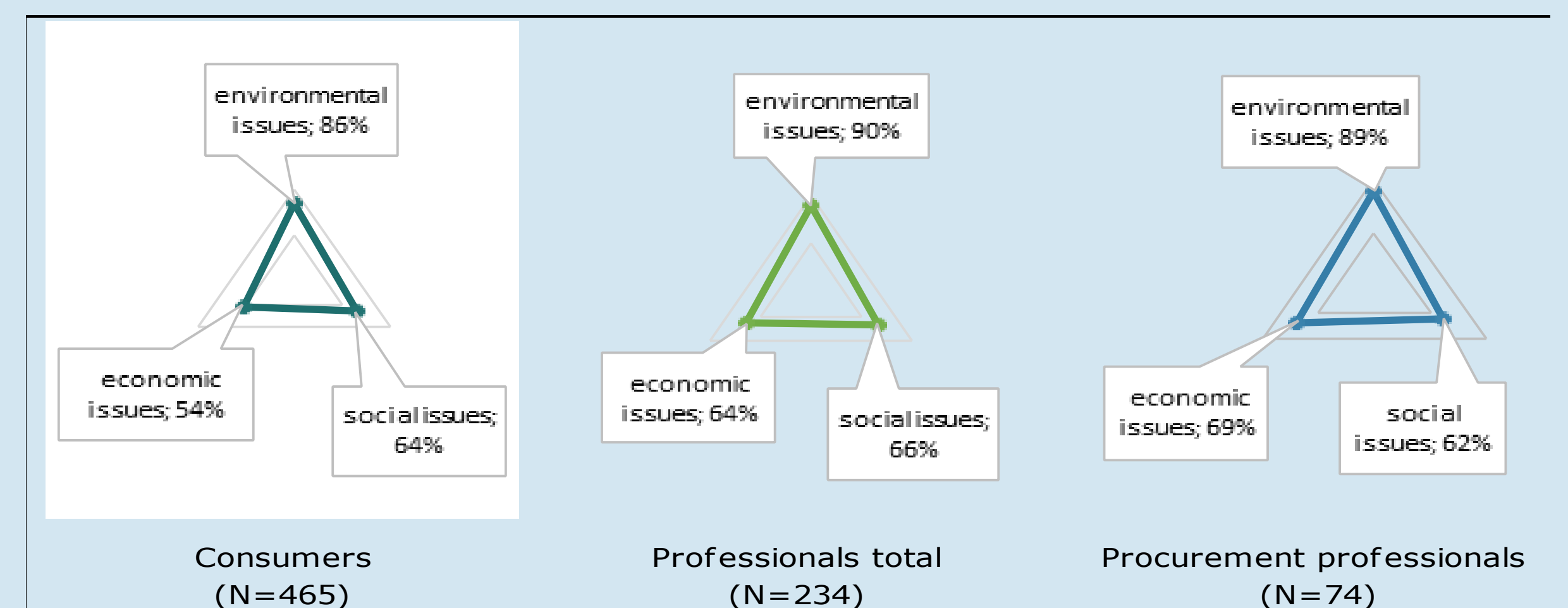


Figure 1: Importance of information on bio-based products for different stakeholder groups¹

Results: Experiment

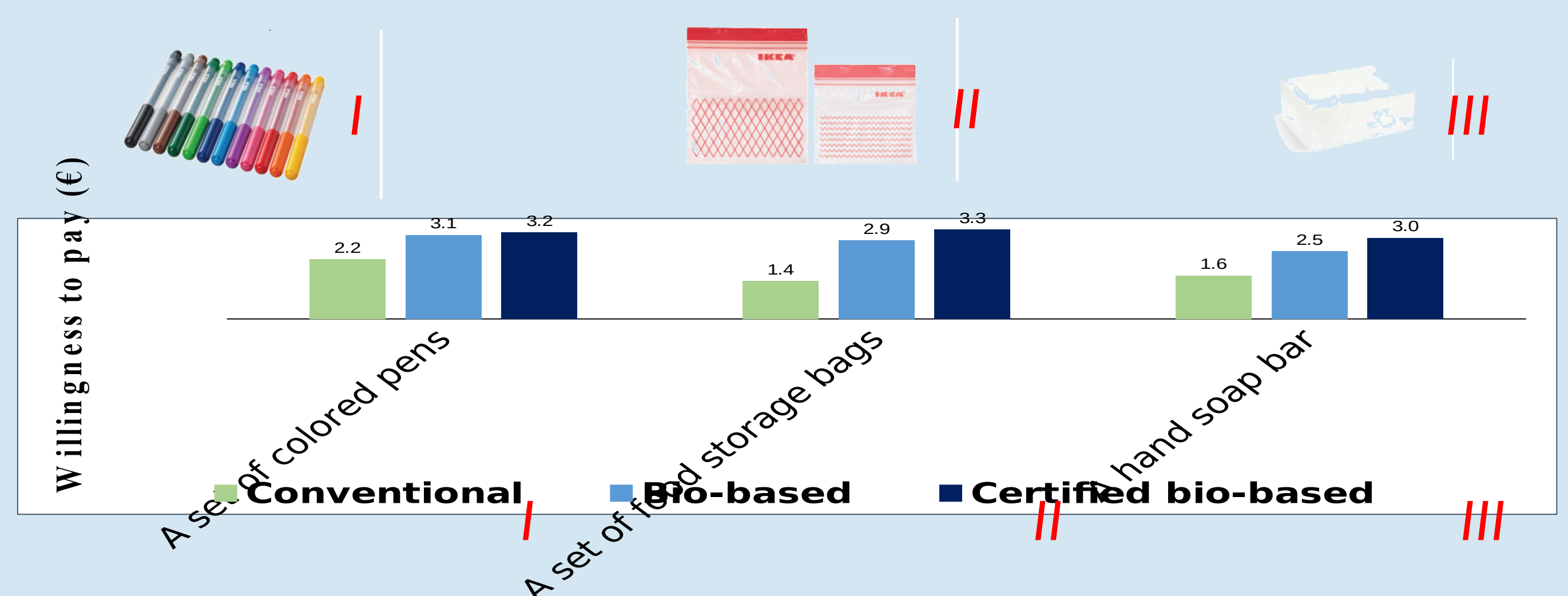


Figure 2: Willingness to pay for product I, II and III²

Policy Recommendations

Policy makers could promote acceptance of bio-based products by:

1. Properly communicating the benefits of bio-based products
2. Public procurement
3. Taxation and subsidies
4. Labels and certificates
5. Legislation including bans
6. Standards
7. Ensuring environmental friendliness
8. Comparisons with fossil-based products
9. Harmonization of definitions

Presence of a green premium

Results show the presence of a "green premium" for both bio-based and certified bio-based products. In particular, the presence of a sustainability certification (label) favours a greater consumers' willingness to pay (WTP) – see Figure 2.

The importance of price

The experiment revealed that the estimated aggregated demand curves for conventional products showed convexity, while the estimated aggregated demand curves for certified goods showed concavity. This means that it is confirmed that the price of bio-based products significantly influences its market share.

WP5 Partners



Publications

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2. E. Imbert, P. M. Falcone, I. D'Adamo, P. Morone, L. Ladu, R. Quitzow, S. Wurster, S. van Iersel, S. Ugarte, M. Voogt, M. Crêpy, STAR-ProBio Deliverable 5.2, Results of the experiment / Case study, 2019.
3. Ladu, L. and Wurster, S. Market Assessment, 2020, Chapter 5 in Green Chemistry Series No. 64 Transition Towards a Sustainable Biobased Economy Edited by Piergiuseppe Morone and James H. Clark. Published by the Royal Society of Chemistry, www.rsc.org



This project is funded by the European Union's Horizon 2020 Research and innovation action under grant agreement No 727740 with the Research Executive Agency (REA) - European Commission. Duration: 36 months (May 2017 – April 2020). Work Programme BB-01-2016: Sustainability schemes for the bio-based economy.

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