

# *How do consumers feel about bio-based products?*

## Results from the 3CO Project on bio-based consumer choices

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# Why look at consumers?

## Agenda:

- Different way of thinking
- Golder rules for changing behavior
- What works well and what is missing
- What is the message from consumers

# How we studied it

- Quantitative survey (CAWI): 3,000 respondents, 10 countries
- Focus group discussions: Finland, the Netherlands, Poland, Spain
- Digital mock-up testing: evaluating app prototypes (with interactive platform)

# Three types of consumers

## – three different ways of thinking

	1										2										3										
	Country										Country										Country										
	Belgi	Denm	Finlan	Frans	Grani	Itali	Norve	Polan	Spain	UK	Belgiu	Den	Finla	Frans	Grani	Itali	Norve	Poln	Spain	UK	Belgi	Den	Finla	Frans	Grani	Itali	Norve	Spain	UK		
COEN1	3.93	3.74	4.08	3.52	3.45	3.68	3.7	3.47	3.33	3.25	6.21	5.53	5.89	6.03	5.69	5.79	6.1	5.87	5.90	6.05	5.91	5.94	5.94	5.98	5.75	5.46	6.00	5.16	5.53		
COSO2	5.04	4.33	4.76	4.14	4.93	5.03	5.11	4.58	5.49	4.99	6.51	5.94	6.37	6.50	6.39	6.60	6.42	6.52	6.76	6.70	6.5	5.89	6.29	6.45	6.25	6.39	6.37	6.30	6.66	5.38	
COEC3	4.31	4.17	4.22	3.66	3.79	3.99	4.22	4.0	4.05	3.79	6.18	5.99	6.22	6.23	6.09	6.37	6.35	6.3	6.48	6.37	6.06	5.84	6.07	5.87	5.63	6.02	6.06	5.87	5.97	5.8	
AFEN4	3.75	3.7	3.64	3.57	4.01	4.26	3.39	3.73	3.68	3.62	6.00	6.1	6.25	6.48	6.42	6.54	5.99	6.28	6.53	6.21	6.0	5.50	5.39	5.70	5.79	6.18	4.72	5.53	5.55	5.4	
AFSO5	3.88	4.14	3.57	3.76	4.04	4.33	4.26	4.16	4.76	4.07	6.09	5.66	6.35	6.47	6.45	6.57	6.19	6.38	6.61	6.52	6.74	5.67	5.65	5.90	5.88	6.05	5.59	5.88	6.29	5.6	
AFEC6	4.42	4.26	4.23	3.84	4.47	4.11	4.05	3.76	4.43	4.13	5.97	5.85	6.03	6.42	5.92	6.32	5.96	6.01	6.0	6.35	5.65	5.10	5.47	5.94	5.47	5.70	5.36	5.39	5.86	5.54	
BEEH7	4.90	4.81	4.69	4.16	4.4	4.36	4.46	4.33	4.5	4.50	6.36	6.31	6.45	6.51	6.48	6.51	6.38	6.34	6.4	6.34	6.07	6.1	6.21	6.11	6.07	5.76	5.75	5.73	5.71	5.75	
BESO8	2.8	2.78	2.55	2.93	3.55	2.84	3.17	3.13	3.10	3.10	5.4	5.16	5.34	5.29	5.56	5.47	5.75	5.55	5.65	5.65	2.30	2.38	2.65	2.3	2.34	2.38	2.32	2.92	2.94		
BEEC9	3.7	3.57	3.60	3.16	3.12	3.76	3.06	3.21	3.44	3.09	5.1	5.98	6.07	5.94	5.6	5.91	5.79	5.65	5.48	5.75	4.06	4.45	4.38	4.24	4.21	4.26	3.84	3.36	3.76		
O1 2-1	3.97	3.10	4.22	3.04	3.8	3.43	3.05	3.70	3.54	3.07	4.23	4.52	5.48	4.27	4.21	4.14	4.53	4.74	4.68	5.1	3.02	3.35	4.90	3.29	3.73	2.43	3.47	3.94	3.62	3.25	
O1 2-1	3.25	3.28	3.64	3.11	3.66	3.49	3.22	3.55	3.53	3.08	4.53	4.76	4.73	4.59	4.7	4.60	4.63	4.90	4.57	4.91	3.46	3.46	3.55	3.82	3.59	4.22	3.23	3.85	3.6	3.85	3.37
O1 2-1	3.60	3.81	3.83	3.81	3.73	3.67	3.78	3.66	4.04	3.97	5.55	5.25	5.77	5.53	5.47	5.68	5.60	5.45	5.70	5.73	5.10	4.6	5.46	5.05	5.07	4.92	4.66	4.85	4.66		
O1 2-1	3.59	3.67	3.38	3.68	3.60	3.57	3.62	3.98	4.03	3.8	5.51	5.06	5.44	5.55	5.24	5.59	5.55	5.49	5.53	5.10	4.98	4.90	4.71	4.81	4.68	4.4	4.61	4.78	4.1	4.32	
O1 2-1	3.66	3.99	4.04	3.80	3.51	3.70	3.90	4.03	4.22	3.70	5.66	5.53	5.97	5.68	5.67	5.74	5.91	5.54	5.80	5.6	5.35	4.97	5.80	5.03	5.21	4.7	5.19	4.77	5.36	4.93	
O1 2-1	3.70	4.07	3.79	3.96	3.87	3.25	3.88	3.41	3.74	3.5	4.71	4.85	5.03	4.87	4.83	4.61	4.95	4.73	4.97	4.6	4.45	4.18	4.62	4.58	4.63	4.52	4.14	4.41	4.12		
O1 2-1	4.30	3.96	3.70	4.34	4.06	4.25	4.20	4.04	3.9	3.9	4.58	4.75	4.63	4.62	5.15	4.92	5.06	5.30	4.88	4.90	4.3	4.06	3.77	3.85	4.76	3.98	4.51	4.78	4.45	4.33	
O1 2-1	4.07	4.27	3.9	4.4	4.3	4.54	4.98	4.0	4.89	5.57	5.44	5.20	5.41	5.04	5.41	5.73	5.34	5.38	4.65	5.24	5.24	4.78	5.20	4.08	4.47	5.57	4.98	4.62			
O1 2-1	3.33	3.56	3.37	3.3	3.3	3.3	3.69	3.72	3.2	3.2	4.70	4.73	4.63	4.68	4.77	4.68	4.82	4.73	4.66	4.76	3.76	3.67	3.82	3.59	4.85	2.84	3.76	3.95	3.85	3.6	
O1 2-1	2.85	2.89	2.71	2.65	2.16	2.16	2.15	3.40	2.6	2.6	4.12	4.30	4.72	4.59	4.71	4.4	4.62	4.50	4.31	4.31	2.91	2.86	3.58	3.02	3.55	2.90	2.63	3.16	2.80	2.76	
O1 2-2	2.91	2.70	2.37	2.67	2.55	3.46	2.47	3.02	2.84	2.3	3.13	3.30	3.77	3.3	3.6	3.1	3.90	3.18	3.59	3.59	2.03	1.97	2.43	2.23	2.19	2.07	1.97	2.46	2.09	2.13	
O1 2-2	3.76	3.55	3.41	3.48	3.35	3.44	3.28	3.44	3.80	3.3	4.09	4.20	4.59	4.30	4.01	4.08	4.35	4.57	4.33	4.6	3.47	3.3	3.83	3.43	3.34	2.82	3.7	3.86	3.23	3.37	
O1 2-2	4.22	3.75	3.74	3.75	3.26	4.11	3.58	3.98	4.27	3.5	4.44	4.76	4.86	4.70	4.24	4.81	4.66	5.05	4.53	4.6	4.03	4.26	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
O1 2-2	2.84	2.82	2.41	2.66	2.66	2.77	2.44	3.23	3.25	2.3	3.75	3.94	3.85	3.93	3.90	3.87	3.79	4.16	4.06	3.9	2.51	2.39	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	
O1 2-2	3.73	3.37	3.6	3.63	3.39	3.4	3.92	3.63	3.61	4.05	4.27	4.5	4.43	4.23	4.51	4.85	4.39	4.3	4.3	3.18	3.29	3.34	3.16	3.69	2.95	3.73	3.5	3.55	3.75		
O1 2-2	3.97	3.57	3.58	3.5	3.5	3.5	3.09	3.88	3.51	3.26	4.2	4.4	4.4	4.4	4.4	4.4	4.25	4.90	3.53	3.79	4.03	3.19	4.00	2.94	4.21	4.49	3.86	3.77			
O1 3-2	3.50	3.55	3.32	3.67	3.39	3.50	3.36	3.67	3.62	3.43	3.61	3.5	3.52	3.5	3.5	3.5	5.90	5.61	5.97	4.67	4.65	5.12	4.90	4.69	4.63	4.50	4.94	4.62			
O1 3-2	3.35	3.37	3.36	3.37	3.20	3.31	3.21	3.49	3.24	3.26	5.9	5.21	5.37	5.45	5.41	5.34	5.16	5.41	5.62	3.36	2.25	4.23	4.61	4.31	4.29	4.4	4.33	4.32	4.31		
O1 3-2	2.8	2.84	2.88	2.73	2.43	3.01	2.80	3.05	3.25	2.75	3.1	4.02	4.32	3.97	3.53	4.50	3.97	4.31	4.20	3.88	2.77	3.05	3.05	3.47	3.09	3.09	3.09	3.09	3.09		
O1 3-2	3.07	3.19	3.02	3.35	3.03	3.60	3.25	3.39	3.5	3.21	4.7	5.00	5.12	4.98	5.13	5.61	5.16	5.41	5.6	5.27	4.1	4.23	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	
O1 3-3	3.24	3.32	3.14	3.34	3.28	3.63	3.25	3.79	3.24	3.27	5.07	5.15	5.18	5.26	5.14	5.51	5.24	5.21	5.7	5.07	4.3	4.10	4.34	4.37	4.4	4.4	4.4	4.4	4.4	4.4	
O1 3-3	3.15	3.04	2.86	3.10	3.21	3.23	2.73	3.21	3.42	2.77	4.78	4.90	4.70	5.16	5.07	4.93	4.61	4.98	4.26	4.73	3.31	3.60	3.60	3.85	3.88	3.20	3.27	3.44	3.92	4.16	
O1 3-3	3.19	3.3	3.06	3.27	3.44	3.22	2.84	3.38	3.32	3.00	4.86	5.3	5.07	5.32	5.19	5.09	4.83	4.95	5.09	4.77	3.54	4.73	3.88	4.27	4.08	3.40	3.43	3.49	3.44	3.41	
O1 3-3	3.36	3.37	3.11	3.37	3.49	3.39	3.16	3.3	3.68	3.54	4.86	4.96	5.19	5.19	5.35	5.29	5.23	5.0	5.17	5.37	3.90	4.2	4.29	4.15	4.58	3.65	4.38	4.08	3.4	4.20	
O1 3-3	3.37	3.46	3.17	3.44	3.21	3.34	3.24	3.50	3.60	3.26	4.92	5.06	5.14	5.12	5.13	5.33	5.17	5.35	5.28	5.12	4.01	4.29	4.64	4.33	4.24	4.08	4.06	4.51	4.06	4.29	
O1 3-3	3.42	3.70	3.3	3.47	3.35	3.57	3.5	3.33	3.94	3.63	4.89	4.95	5.25	5.07	4.99	5.34	5.2	5.20	5.27	5.23	4.35	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	
O1 3-3	2.95	3.05	2.82	2.88	2.88	3.12	3.40	3.37	2.89	4.34	4.75	4.84	4.84	4.80	4.73	4.90	5.15	4.86	3.57	3.68	3.55	3.76	3.70	3.88	3.88	3.88	3.88	3.88	3.88	3.88	

1  
Passive  
Sceptics

2  
Active  
Advocates

3  
Convenience  
Seekers

# Behavior



- All segments buy 3CO products with similar frequency
- Active Advocates pay attention to certificates confirming bio-based share of these products however it is not a common practice
- Passive Scepics and Convinince seekers behave similarly, not paying much attention to the certificates
- With purchasing BBP – similar conclusion (even lower frequency)

# The golden rule for changing behavior: Three things must come together

- **Capabilities** – Knowing what and how to do it
- **Opportunities** – Having the chance and access to act
- **Motivation** – Having the desire and drive to act

# What is significantly missing in segment 3 compared to segment 2?

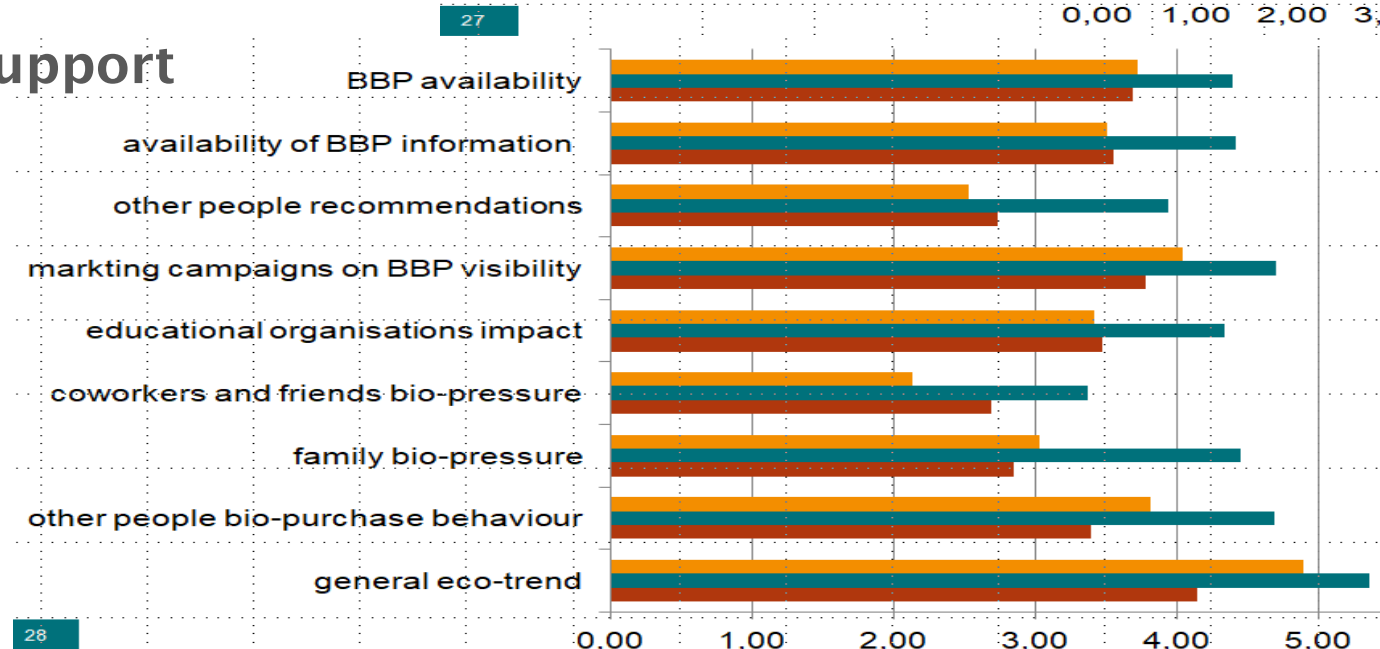
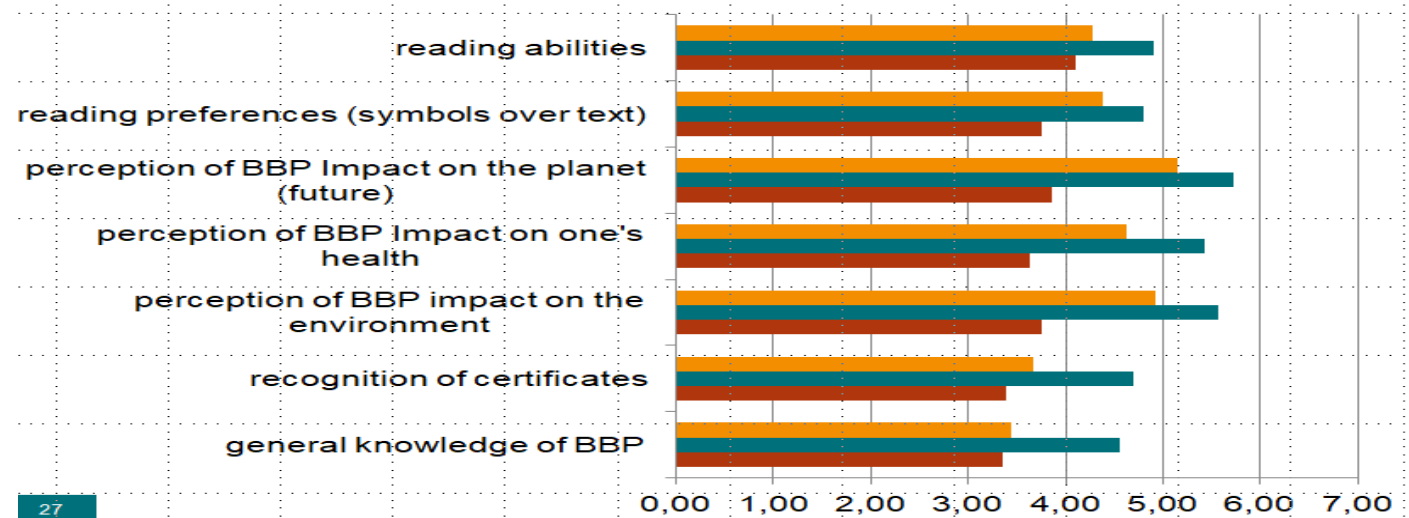


## CAPPABILITIES

- Awareness and Knowledge
- Recognition of Certifications

## OPPORTUNITIES

- Social Influence and Support
- Perceived Availability
- Media Presence



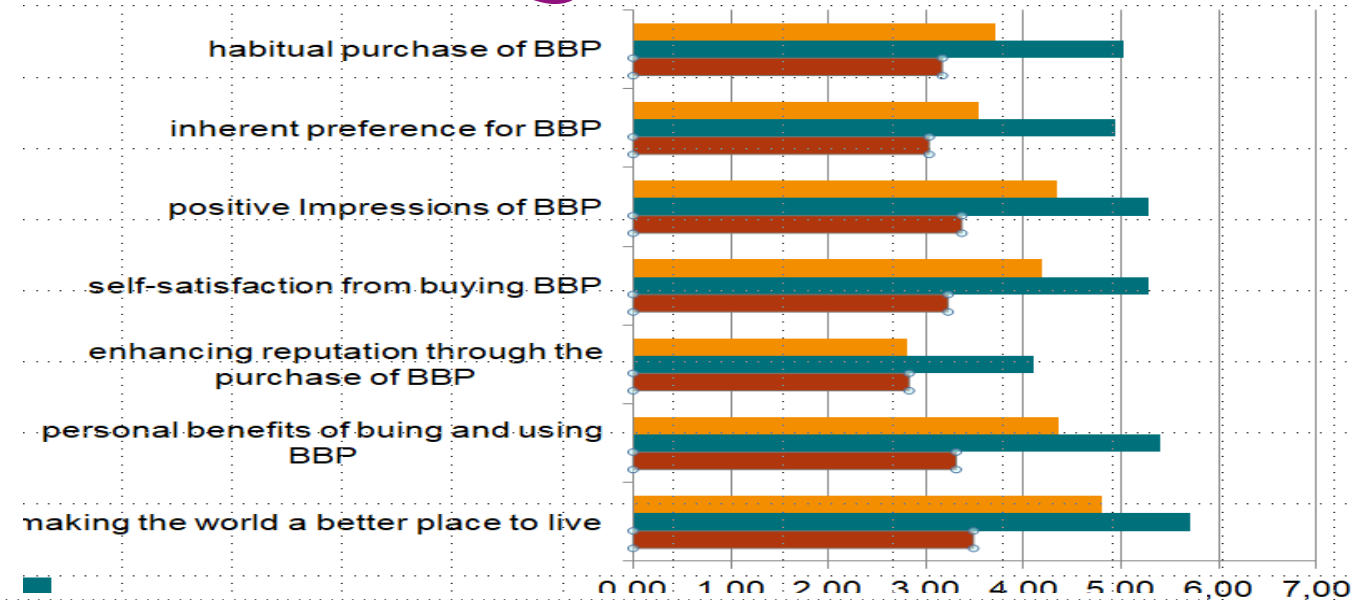


# What is significantly missing in segment 3 compared to segment 2?



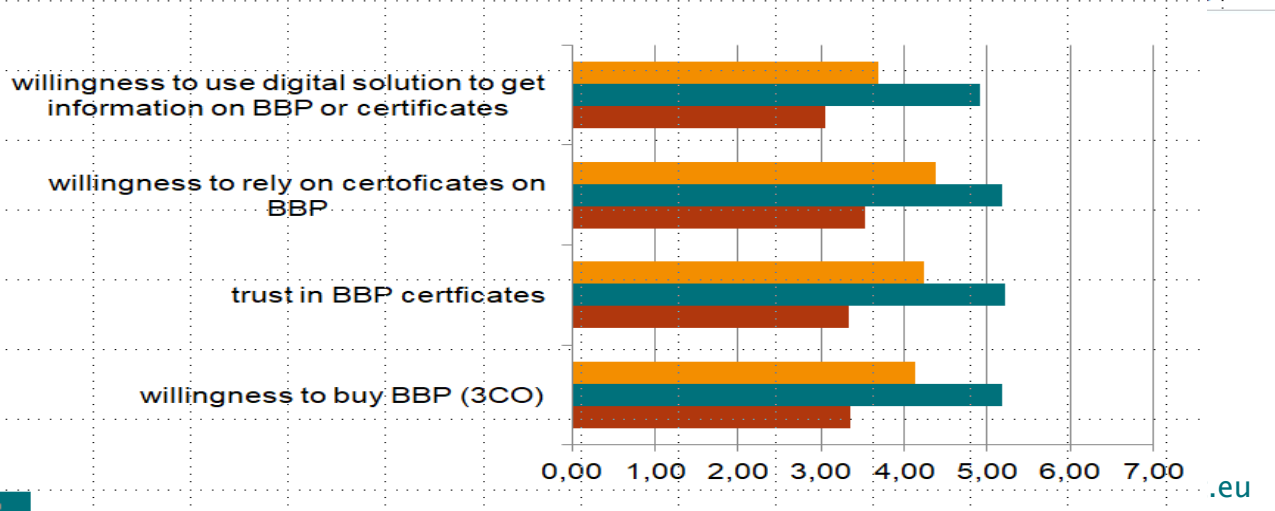
## MOTIVATION

- Personal Benefits and Reputation
- Conscience and Personal Satisfaction
- Habit Formation



## WILLINGNESS

- Low trust to certificates and low willingness to use them
- Willingness to Use Digital Tools for Information





# Bio-based? Sounds familiar... but ....



## Understanding the confusion

### Key findings:

- Most participants had heard the term “bio-based”, but few could clearly explain it.
- Many confused it with “organic,” “biodegradable,” or simply “eco-friendly.”
- The lack of clear and consistent communication makes consumers uncertain.
- After short explanations, understanding improved – showing strong potential for education.

# Too many labels, too little trust.

## Key findings:

- Consumers value labels but find them confusing and inconsistent.
- Many doubt whether certificates are verified or controlled.
- Labels are often too technical, hard to recognize, or not visible enough.
- People want one clear, trusted label that guarantees credibility.

# I'd choose it – if I could find it.

## Key findings:

- Consumers are open and willing to buy bio-based products, but availability, price, and visibility limit their choices.
- Bio-based products are often not clearly displayed or hidden among regular products.
- People want simple, quick cues – visual symbols or app-based info.

# The message from consumers is clear

