Perceptions and challenges – bioplastics at their turning point to consumer communications

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BiNa „Communications“
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Please use the following citation style:
Introducing: BiNa Project

<table>
<thead>
<tr>
<th>Political framework</th>
<th>Sustainability</th>
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<tr>
<td>Ecology</td>
<td>Socio-economy</td>
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<th>Communications</th>
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<th>Public perception &amp; communication</th>
<th>Information &amp; consumer</th>
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</thead>
<tbody>
<tr>
<td>TU Dortmund/Hochschule Hannover</td>
<td>Hochschule Weihenstephan-Triesdorf</td>
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<tr>
<td>Prof. Dr. Wiebke Möhring</td>
<td>Prof. Dr. Klaus Menrad</td>
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<td>M.A. Julia-Maria Blesin</td>
<td>Dr. Agnes Emberger Klein</td>
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<td>Florian Klein</td>
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Perceptions of bioplastics among the German public and economic, political and society actors

Consumers perception and product-experience regarding bioplastic products, means of communication, strategies

- public survey via online-access-panel (n=1,673)
- focus groups (n=24)
- website analysis (n=31)
- expert interviews (n=20)
- expert group (n=8)
- focus groups (n=14)
- experiment (n=276)
Introducing: Bioplastics

Based on renewable raw materials
Bioplastics

Renewable raw materials

biobased and biodegradable

non-degradable

Conventional Plastics

degradable

Petrochemical raw materials

are (bio-) degradable

IfBB
Institute for Bioplastics and Biocomposites
FINDINGS & CHALLENGES

PUBLIC PERCEPTIONS OF BIOPLASTICS
Public perception: Low awareness, media No. 1 source.

„Did you ever hear of bioplastics before?“
(n=1.673)

- 7% No
- 57% Yes, I have heard of them before.
- 36% Yes, I have heard of bioplastics, and I know exactly what they are.
- 69.2% Where did you hear of bioplastics before?“
  multiple choice; n=725
  - media: 69.2%
  - friends & family: 24.4%
  - product/product information: 21.0%
  - NGOs: 15.4%
  - advertising: 7%
  - political organizations: 3%
  - others: 7%

■ Yes, I have heard of bioplastics, and I know exactly what they are.
■ Yes, I have heard of them before.
■ No, I have never heard of them.
Low level of knowledge, but high expectations.

“What comes into your mind first, when you hear “bioplastics? Name up to three associations.” (n=3.499)

18 % biodegradability
16 % environmental protection
8 % recyclability
8 % raw materials
6 % product applications
6 % organic farming
13 % Answering mostly correct
Four to five correct answers, n=223
43 % non-assignable at least n=300
25 % Answering more likely incorrect
Three to five incorrect answers, n=418
19 % Answering more likely with “I don’t know”
Three to six “I don’t know” answers, n=732

“Please rate the following statements about bioplastics as wrong or right. In case you are not sure, we kindly ask you to not guess, but choose the „I don’t know“ option.” (n=1.673)
What to keep in mind when developing messages about biobased products – the example of bioplastics

WORDING

• „Bioplastics“ lead to misunderstandings and high expectations – especially regarding sustainability/environmental benefits. Expectations will most likely be disappointed.
• Plastics labelled with „biodegradable“ are assumed to be compostable. Compostability is associated with disposal in the bio-waste bin or home compost. Expectations will most likely be disappointed.

Note: Choose your wording based on target group perceptions.

CHANNEL

• Media are the number one information source regarding bioplastics. Within the media discourse different actors present different perspectives of bioplastics. The perspectives that win sovereignty of interpretation inforce either positive or negative evaluation of bioplastics.

Note: Take a stand within media discourse to communicate messages to the broader public.
FINDINGS & CHALLENGES

CONSUMER EXPERIENCE & PERCEPTION OF BIOPLASTIC PRODUCTS
PERCEPTION
Usage of terms in communication I

Confusion/comprehensibility of terms

“…for example biodegradable, to me that sounds like I could throw it into the home-compost, but I think that is not meant here.” (female, age ≈ 25)

“…moreover I find this term kind of confusing. Also that is what I heard consistently. “Bio” and plastics, it actually doesn’t fit together.“ (female, age > 50)

Preference for separate application of the terms „biologisch abbaubar“ (biodegradable) and „biobasiert“ (bio-based)

“I would also prefer a separation of the two terms in the context of a description, because otherwise it is always unclear whether bioplastics are made from renewable resources or whether they are compostable.“ (female, age ≈ 25)

Usage of the chemical term of the material (+/-)

“…it is very important to let the consumer know what bioplastics are. I mean the chemical contents need to be in the consumers’ memory. For example, these days anybody knows what Styrofoam is.” (male, age ≈ 25)

“I think it would be much more intuitive to consumers, when you could read that it is biodegradable instead of that it is made of PLA.” (female, age ≈ 25)

Wish of standardization of terms

“Another thing is that also the terms should be standardized somehow… .“ (female, age > 50)
Which term would you choose to name plastics made from plant material?

- “Bio-based plastics” 14.2%
- “Plastics made from renewable resources” 85.8%

n = 1.191
Source: S. Rumm (2014)
Have you ever consciously made a purchase decision for a product made of bioplastics?

- Yes: 88%
- No: 12%

n=1.673
**EXPERIENCE**

**Bioplastic products II**

*What kind of bioplastic products have you ever reached a consciously purchase decision for?*

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>carrying bag</td>
<td>25%</td>
</tr>
<tr>
<td>litterbag</td>
<td>20%</td>
</tr>
<tr>
<td>tableware</td>
<td>17%</td>
</tr>
<tr>
<td>food packaging</td>
<td>16%</td>
</tr>
<tr>
<td>packaging</td>
<td>14%</td>
</tr>
<tr>
<td>clothing</td>
<td>12%</td>
</tr>
<tr>
<td>don’t know</td>
<td>9%</td>
</tr>
<tr>
<td>bottle</td>
<td>7%</td>
</tr>
<tr>
<td>furniture</td>
<td>5%</td>
</tr>
<tr>
<td>toys</td>
<td>3%</td>
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n=1,673
Get in touch…

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