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# Content and lessons from SusPack training

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Package Testing & Research



# SusPack (<https://www.sus-pack.eu/>)

## AIMS:

- the project activities aim to promote sustainable consumption habits
- and build a positive attitude towards sustainable fresh food and takeaway packaging
- by improving consumers' knowledge about the level of sustainability of food and take-away packaging

## ORGANIZERS:

- ADOC – National Association for Defense and Consumer Orientation
- Package Testing & Research (PTR) consultancy and research agency
- MARTHA association specialized in home economics



# Contents of the training

1. Pre-survey
  2. Session 1: Packaging of fresh food 2 + 2 hrs (FIN/ITA)
  3. Session 2: Packaging of takeaway food 2 + 2 hrs (FIN/ITA)
  4. Session 3: Sustainable food packaging 4 hrs (FIN & ITA)
  5. Session 4: Future food packaging 4 hrs (FIN & ITA)
  6. Post-survey
  7. Session 5: Summary and evaluation of the learnings 2 +2 hrs (FIN/ITA)
- Total: 14 hrs + pre- and post-surveys



# TRAINING CONDUCTED ON HOWSPACE PLATFORM

[Welcome](#)
[Privacy Statement](#)
[Session 5: Summary \(FIN\)](#)
[Vocabulary](#)
[Post-survey](#)
[Previous sessions](#)




## SESSION 3: SUSTAINABLE FOOD PACKAGING

**SPEAKER 1:** Heli Satuli, Finnish Packaging Recycling RINKI Ltd  
 Topic: Packaging recycling in Finland

**SPEAKER 2:** Fabio Scorza, CONAI Consorzio Nazionale Imballaggi Attività Internazionali  
 Topic: Packaging recycling in Italy

**SPEAKER 3:** Liisa Lehtinen, Turku University of Applied Sciences  
 Topic: Circular economy & evaluation of packaging sustainability

Virpi Korhonen: The results of the Pre-Survey - Recycling



# Target audience of training

The target group consisted of 20 consumers, 10 from Italy; 10 from Finland.

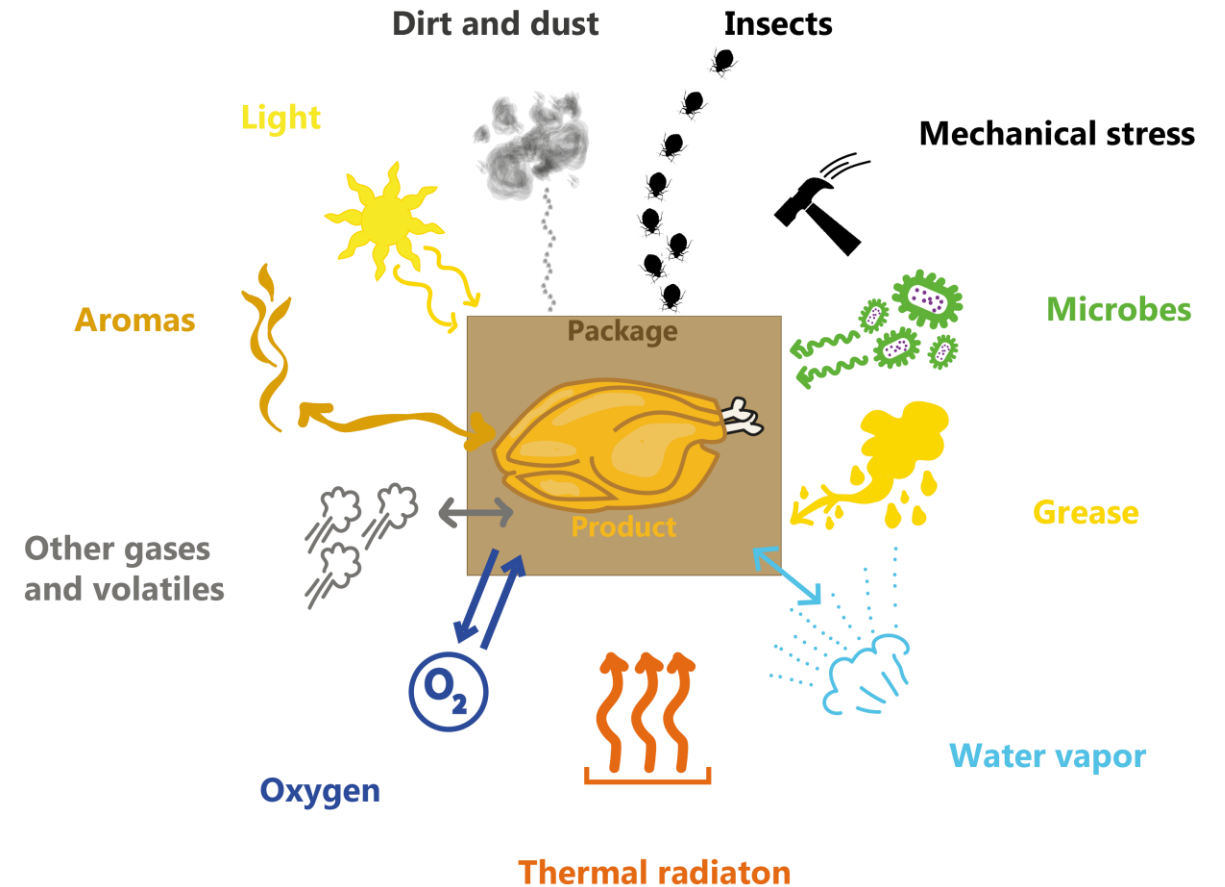
- A diversity of social/professional and educational backgrounds
- Purchase takeaway from restaurants and fresh food from supermarket.
- Score above an average of 5 on the following (LOHAS) scale (1= not at all; 7=very much):
  1. I strive to eat healthily.
  2. My personal wellbeing is important for me.
  3. I pay attention to the ethics and ecology of products.
  4. I pay attention to the environmental sustainability of packaging.
  5. In my household, packaging waste is sorted as accurately as possible.
  6. I feel guilty of producing too much packaging waste.

LOHAS = Lifestyle of health and sustainability

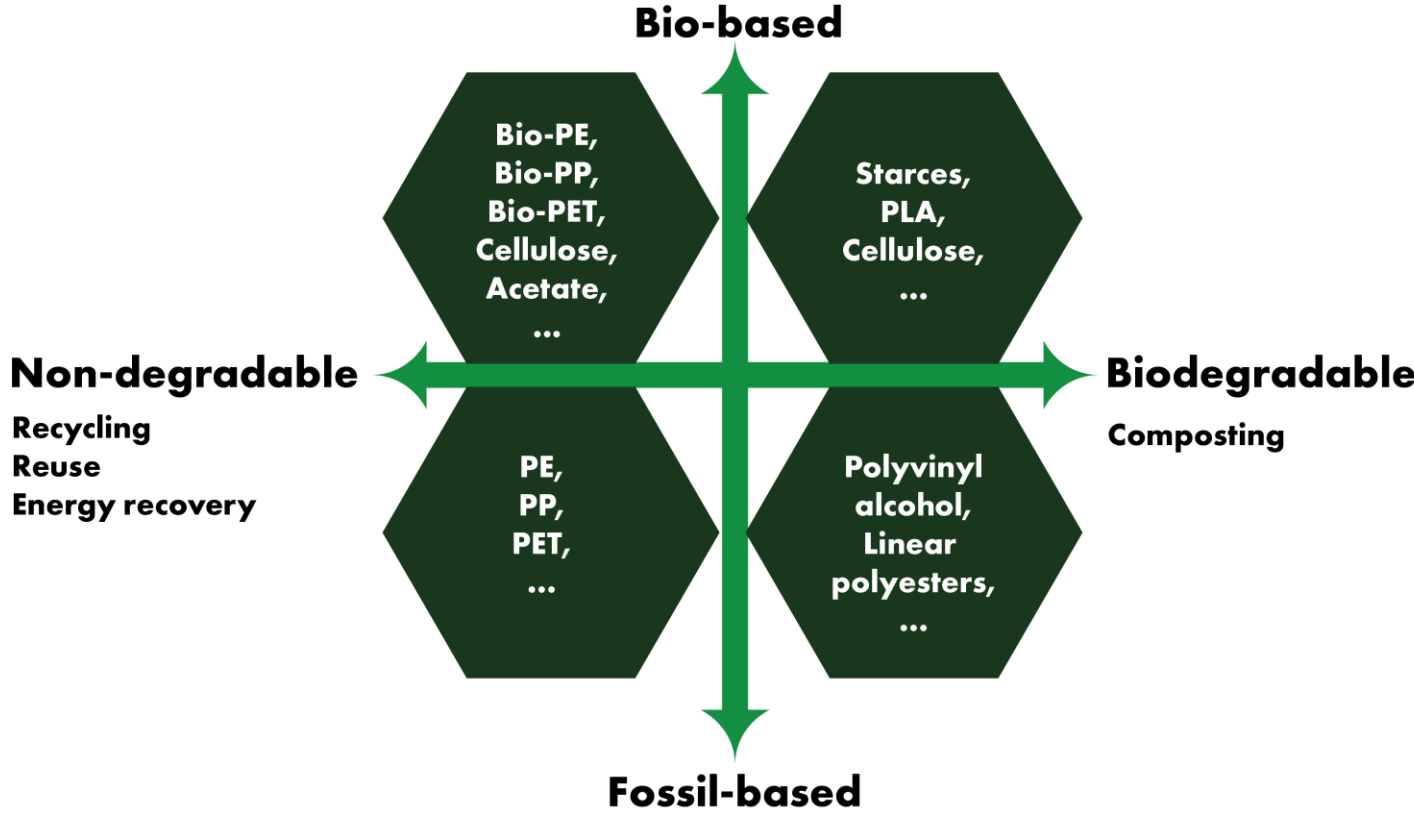


# SESSION 1. PACKAGING OF FRESH FOOD

- Results of the Pre-survey (Virpi Korhonen, Package Testing & Research)
- Packaging of fresh food and its value chain (Hanna Koivula, University lecturer, University of Helsinki)
  - Basic functions of food packaging
  - Basic types of food packaging
  - Basic materials of food packaging



# Classification of plastics



Foot print of plastic packaging



Note! Not all biodegradable materials are bio-based.

Note! Composting is not regarded as recycling.

Note! All compostable materials are biodegradable but not all biodegradable materials are compostable.

Then what are bio-materials?

PE: Polyethylene, PLA: Polylactic acid, PP: Polypropylene, PET: Polyethylene terephthalate

# Key takeaways of Session 1

- Protection of food is the most important function
- The functions may contradict each other and the package is the best possible compromise to fulfil them
- Materials have different benefits and drawbacks – the optimum is strongly dependent on the food system

# SESSION 2. PACKAGING OF TAKEAWAY FOOD

- Evaluation and discussion of takeaway packaging based on a video (evaluation of Smart Set & PP trays)
- Basic requirements for takeaway packaging and its value chain (Leena Kauppi, LK Consultants)
  - Basic requirements and challenges in takeaway packaging
  - Factors influencing choice of takeaway packaging materials

[Watch the video](#)



# Evaluation attributes of takeaway packages for dining restaurant food

## Performance

Handy	Clumsy
Easy-to-use	Hard-to-use
Tidy	Untidy
Durable	Weak
Safe	Risky
Cost-efficient	Expensive

## Status value

Elegant	Inelegant
Prestigious	Everyday
High-value	Standard value
Reliable	Unreliable
Appropriate	Inappropriate
Confident	Unconfident

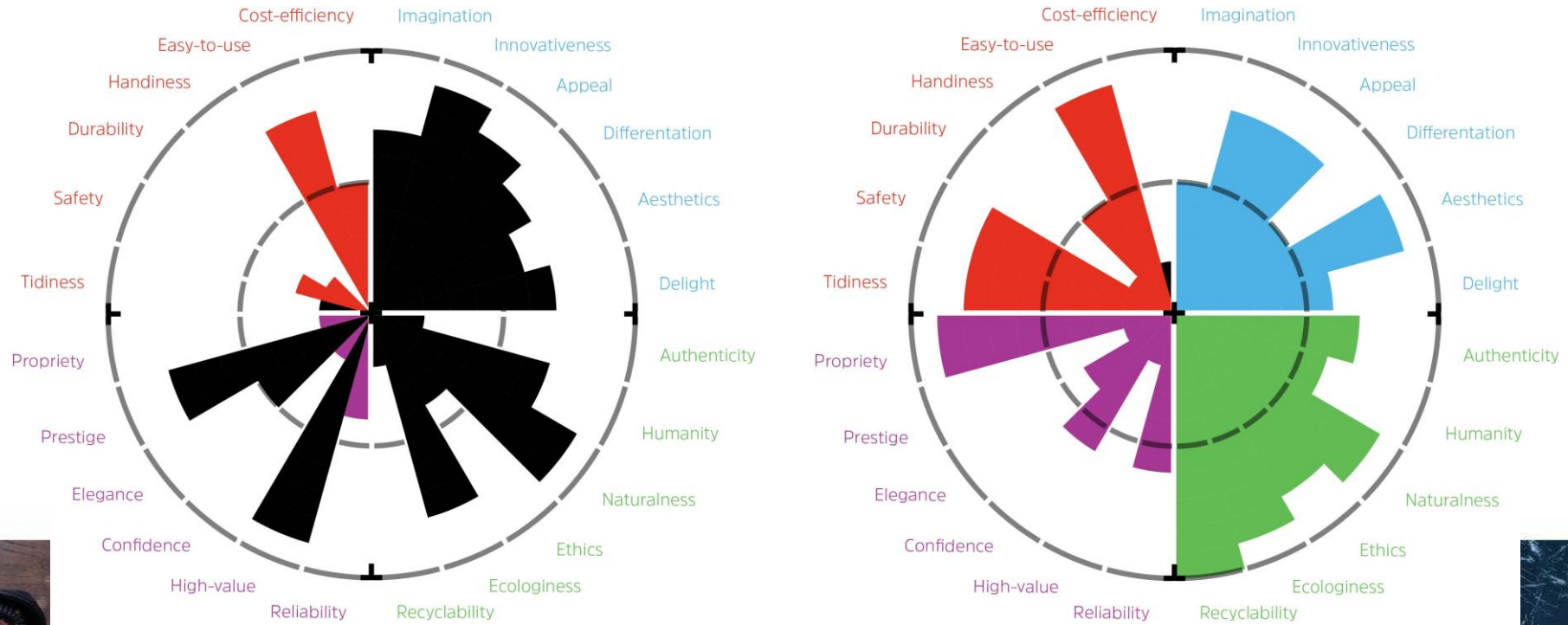
## Experience

Delightful	Boring
Innovative	Bland
Imaginative	Unimaginative
Aesthetic	Unaesthetic
Appealing	Unappealing
Distinguishable	Indistinguishable

## Responsibility

Authentic	False
Ethical	Unethical
Humane	Technical
Natural	Unnatural
Easy-to-recycle	Difficult-to-recycle
Ecological	Unecological

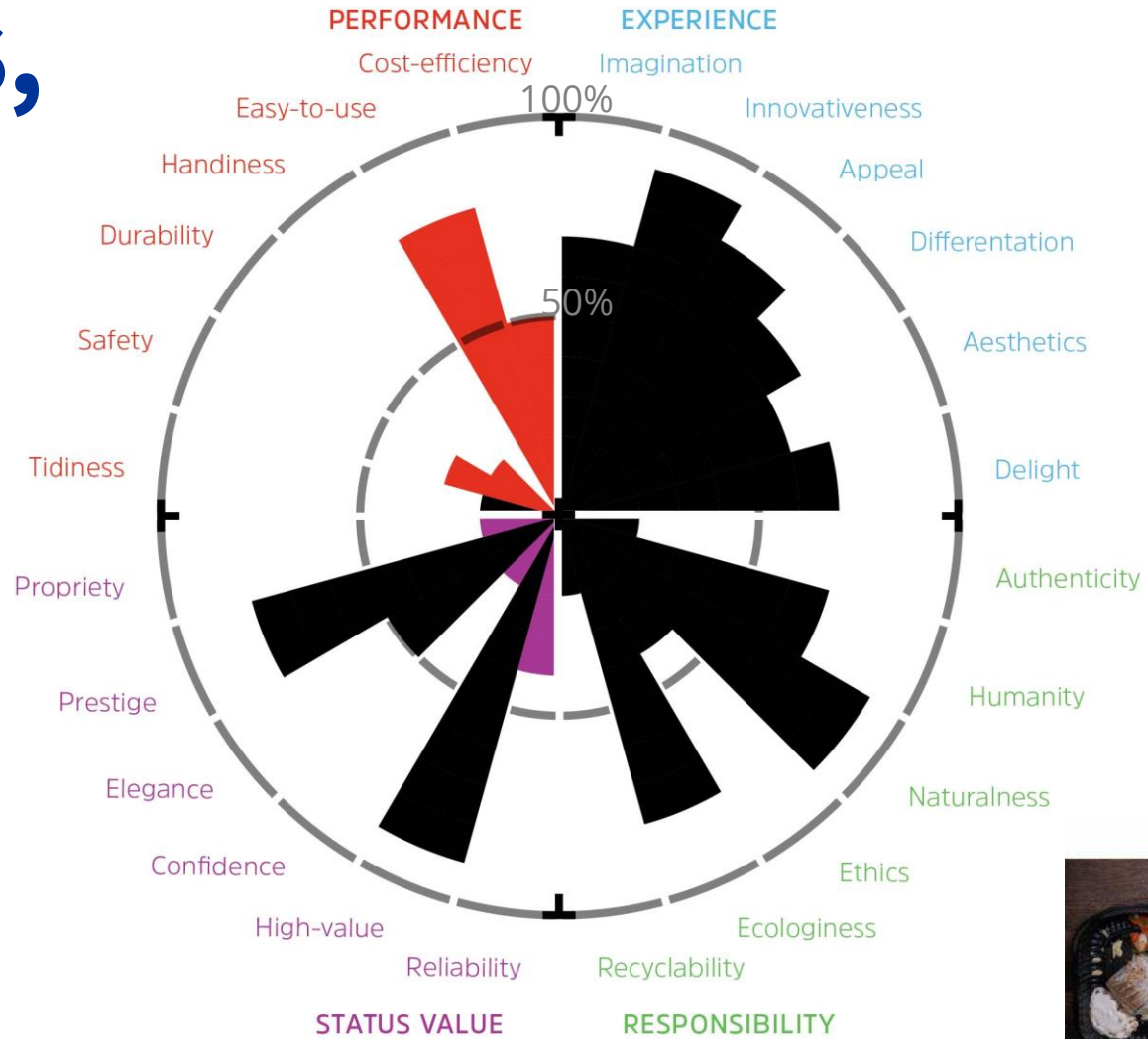
# Evaluation of takeaway packages: Smart Set performed strong in all dimensions



- PERFORMANCE ● (Red)
- STATUS VALUE ● (Purple)
- EXPERIENCE ● (Blue)
- RESPONSIBILITY ● (Green)
- NEGATIVE ● (Black)

# PP tray TOP ATTRIBUTES, n=17

Standard value	94 %
Easy-to-use, Bland, Everyday, Unnatural	88 %
Unappealing, Unecological	82 %
Unimaginative, Unaesthetic	76 %
Indistinguishable	76 %
Boring, Inelegant	71 %
Cost-efficient, Reliable, Technical	65 %
Appropriate	53 %



# PP tray – basic, old-school packaging that disregards the environment

## Finnish:

The package looks like an ordinary, everyday lunch package. –Woman (Fin), 28

Meals look delicious, but the overall feeling is a bit cheap or maybe the restaurant does not care about the changing values around it.

–Woman (Fin), 36

I wouldn't want to eat it. A festive meal should be on a plate-like surface. It should feel like it's an actual plate when you eat from it.

–Woman (Fin), 52

Basic. A bit old school. –Woman (Fin), 36

## Italians:

It evokes an image of a restaurant that it's not environmentally friendly. –Woman (Ita), 28

It's a standard package that makes the food look cheaper and of lower quality. –Woman (Ita), 32

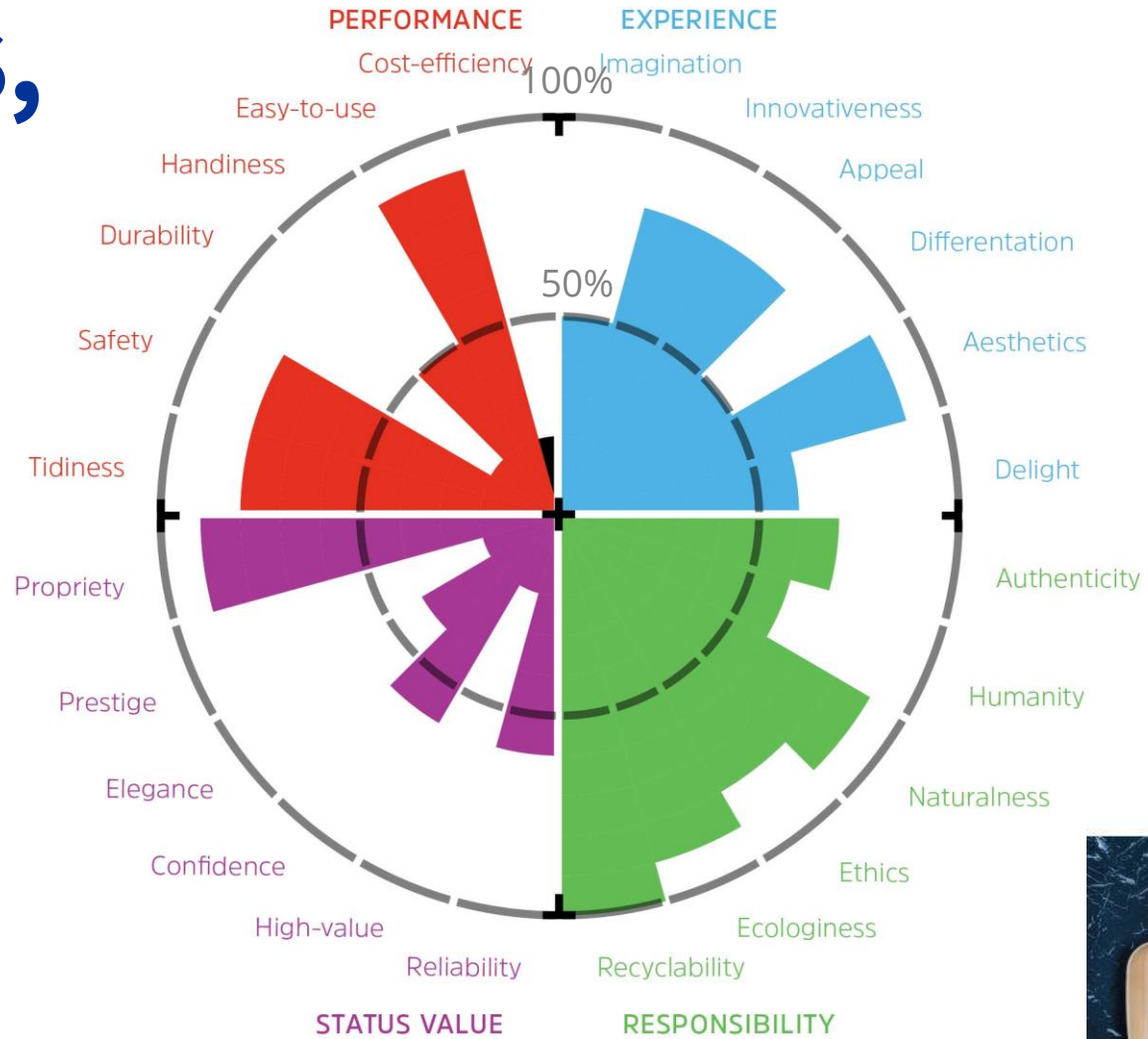
Disregards the environment; low quality of the food. –Woman (Ita), 38

Old and boring. –Man (Ita), 25



# Smart Set TOP ATTRIBUTES, n=17

Easy-to-recycle	100 %
Easy-to-use, Aesthetic, Appropriate, Natural, Ecological	94 %
Tidy, Safe	88 %
Innovative, Appealing, Ethical	82 %
Handy, Delightful, Authentic, Humane	71 %
Imaginative, Elegant, Reliable, Confident	65 %
Distinguishable, Prestigious, High-value	59 %
Durable	53 %



# Smart Set – contemporary and sustainable

## Finnish:

High-class, contemporary, tasteful, designed. –Woman (Fin), 39

Looks nice, but how do you eat from those deep boxes? The high edges ruin the feeling of dining when you have to dig for your food. –Woman (Fin), 52

This does not flatter the food but the feeling is a lot more environmentally friendly. –Woman (Fin), 36

If I were about to design that cardboard box myself, I would put it on a dark tray. It should not be the way that if it looks boring, then it is always ecological. Yes, even darker ones can be ecological. The light packaging looks clumsy. –Woman (Fin), 65

## Italians:

On the positive side there is certainly the fact that it can be recycled more easily, maybe the aesthetics is not the best. –Woman (Ita), 38

It looks more expensive, both the package and the food. It also seems like it has been packaged with more care. –Woman (Ita), 32

It pays attention to the care of the environment and to the health of consumers. –Man (Ita), 27

More premium restaurant and food, more consideration for health/environment issues. –Woman (Ita), 44

The food seems to be of quality; and an innovative restaurant. –Woman (Ita), 28



# Key takeaways

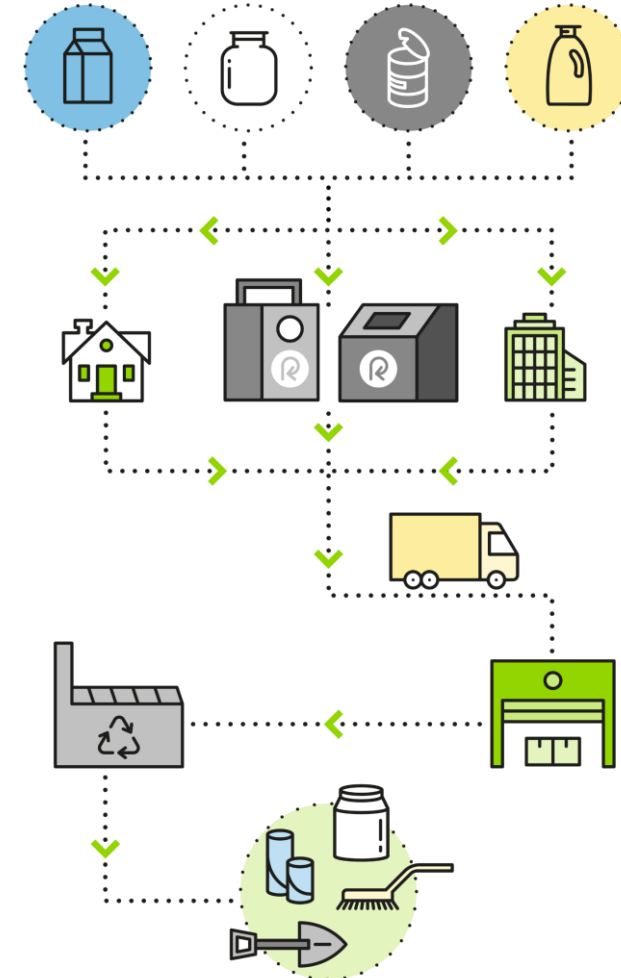
- Choice of ecological packaging based on proven, reliable sustainability and social responsibility
- Recycling / reuse of packaging to be considered and renewable materials to be preferred
- Food safety and food waste minimization not to be compromised by 'high degree of sustainability' of packaging
- Skilfully designed take-away packaging with carefully made raw material choices guarantees a great consumer experience



# SESSION 3. SUSTAINABLE FOOD PACKAGING

Packaging material recycling in Finland and Italy (Heli Satuli, Rinki & Fabio Scorza, CONAI)

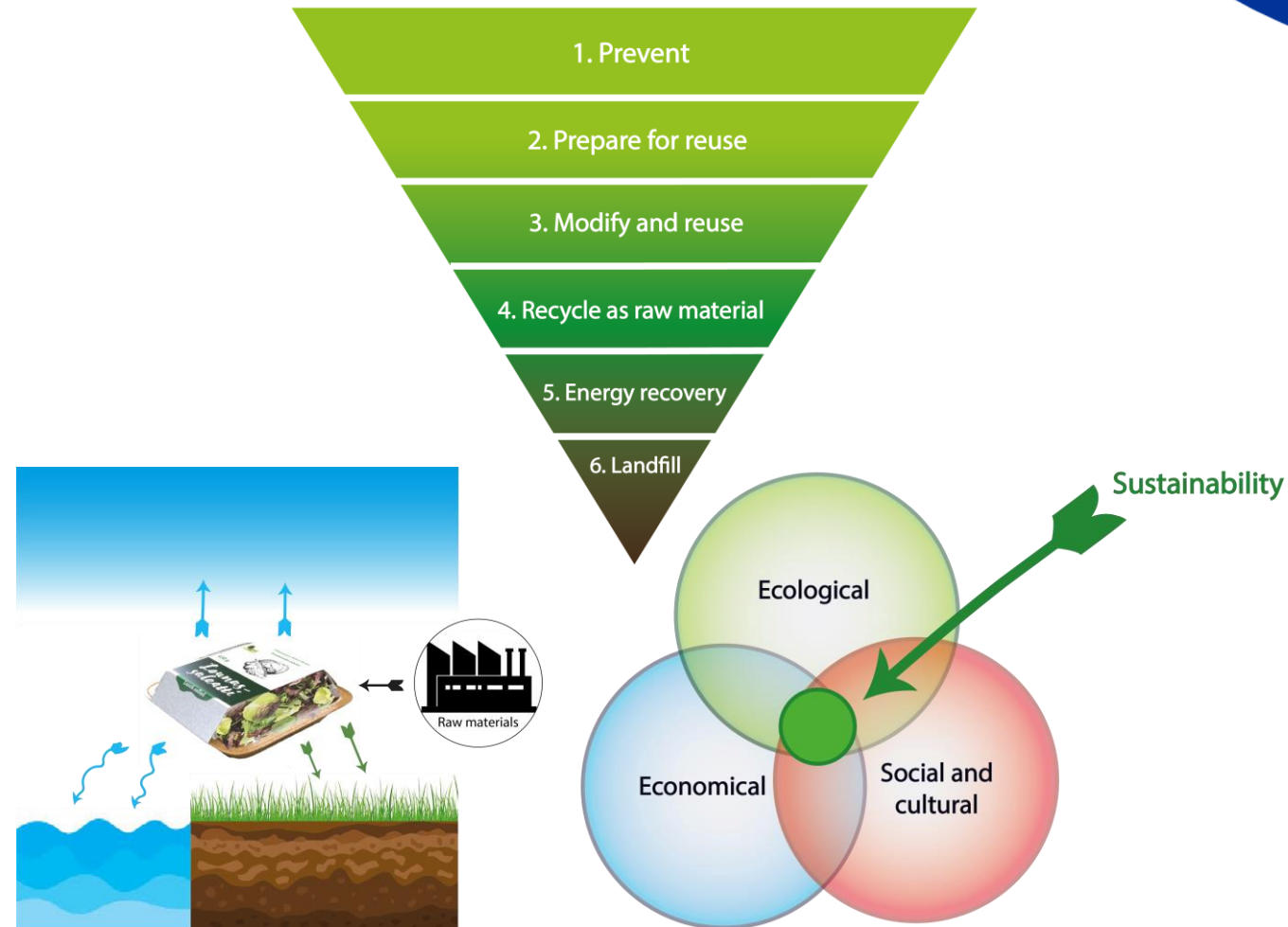
- EU legislation regarding packaging recycling and how it is typically organized in the EU Member States
- What happens to recycled packaging materials
- How much packaging material is recycled in Finland/Italy



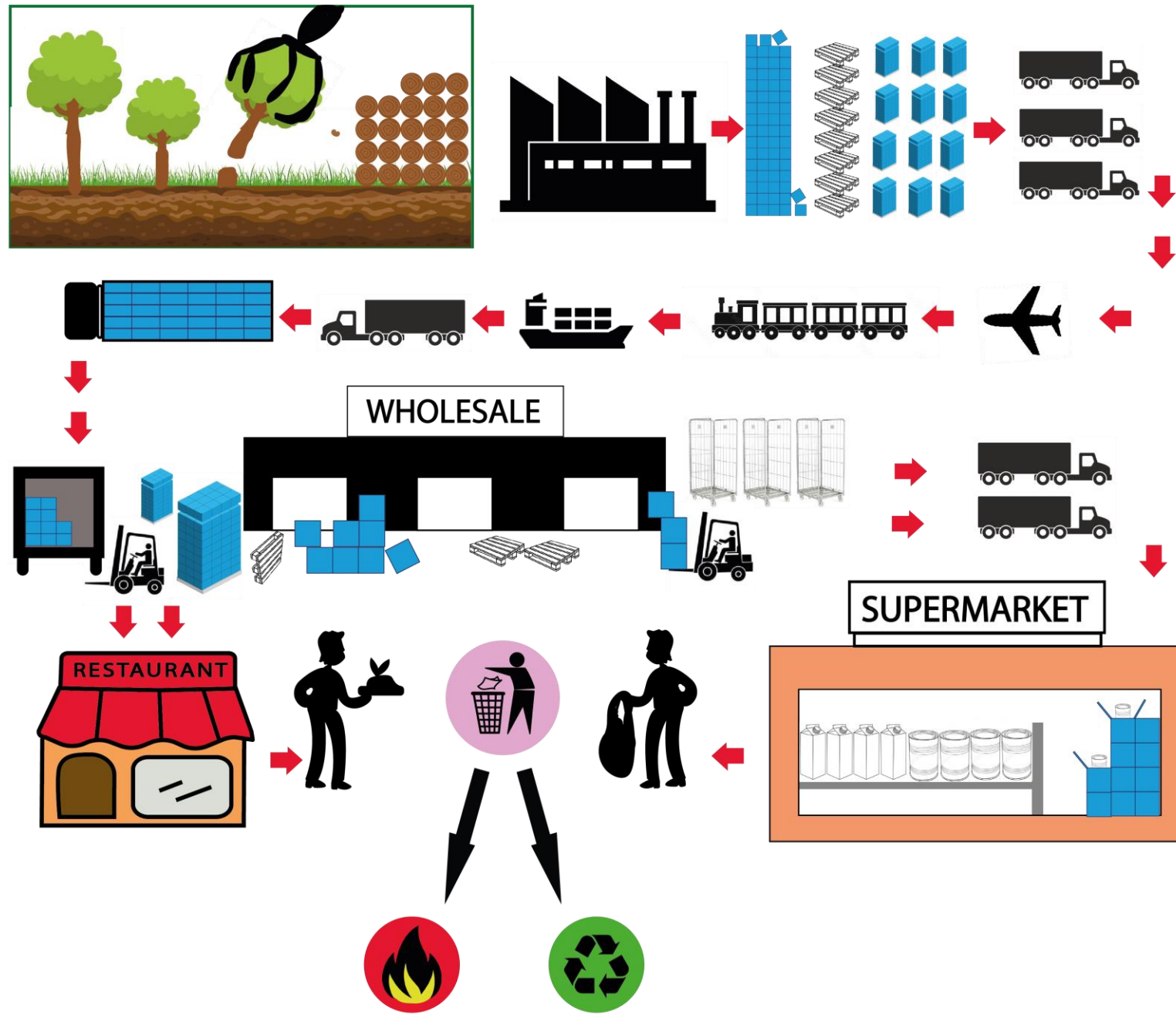
# SESSION 3. SUSTAINABLE FOOD PACKAGING

Circular economy and evaluation of packaging sustainability (Liisa Lehtinen, Turku University of applied sciences)

- Principles of circular economy
- Sustainable development and packaging's role on it
- Packaging logistics' role in circular economy and sustainability



# Cradle to grave



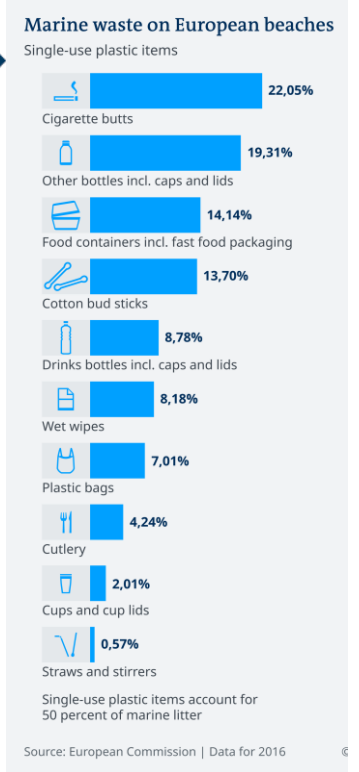
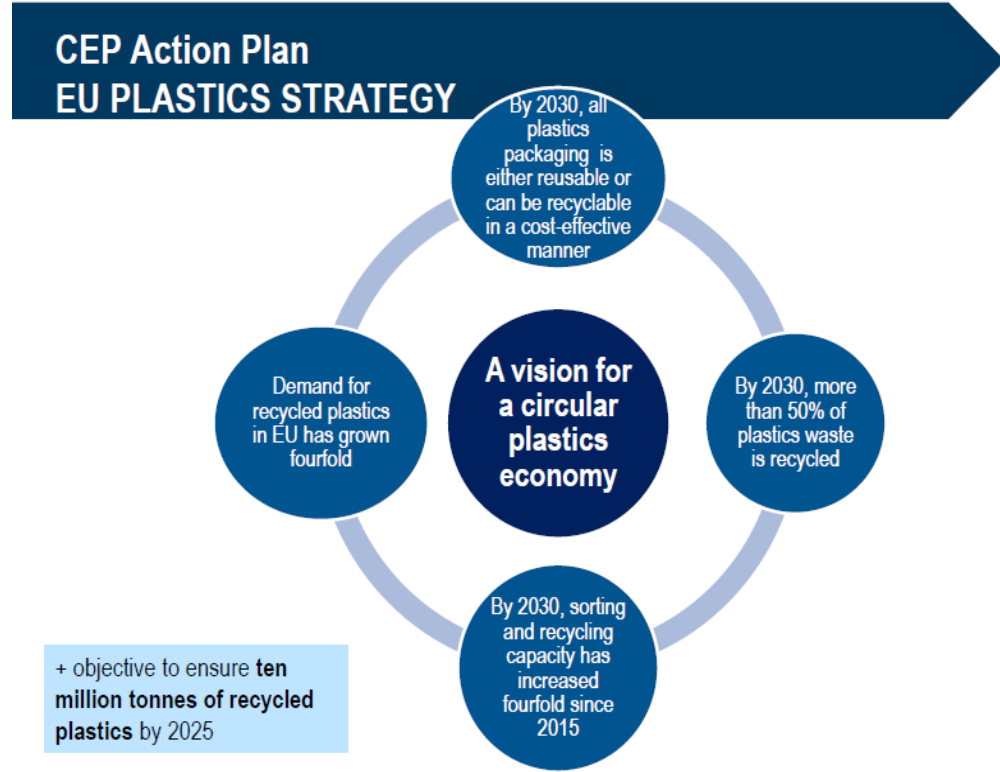
# Key takeaways

- Modern packaging is designed based on circular economy. All packaging is designed for recycling and minimising material consumption.
- Sustainability of packaging can be evaluated by using LCA, and carbon footprints, among other metering technologies. However, these analyses are complicated and require high levels of know how. LCA is a good tool for the purposes of industry, not for marketing. Transparency is required.
- Packaging is essential in modern logistics and retail. It is saving work and energy at each step of the food chain. Overpacking or packaging waste generation is regulated by law. Thus packaging is always a sustainable solution.

# SESSION 4. FUTURE FOOD PACKAGING

## EU legislation on packaging (Antro Säilä, The Finnish Packaging Association)

- Why is EU proposing so much environmental regulation on packaging?
- What are the main objectives for packaging regulation?
- What are the implications to EU citizens?



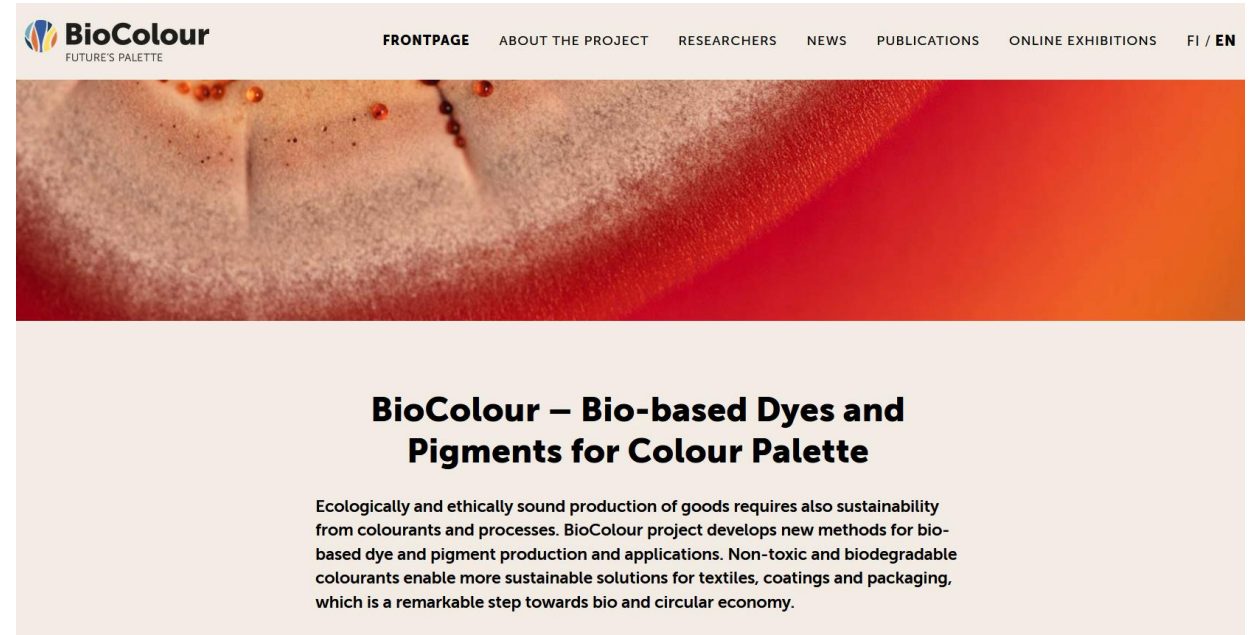
# Key takeaways

- **The packaging industry welcomes more ambitious environmental regulation. Adaptation takes time.**
- **There is a serious lack of reliable data about packaging.**
- **Politically ambitious but unrealistic objectives can result in:**
  - Damage to the competitiveness of European companies
  - Shortage of investments in Europe
  - Increase of total environmental impact of the industry due to insufficient packaging – instead of targeted decrease
- **Consumer empowerment is one key objective but the measures are still unclear**

# SESSION 4. FUTURE FOOD PACKAGING

Packaging communication through colour  
(Minna Autio, Professor, Home Economics  
Science, Faculty of Educational Sciences,  
University of Helsinki)

- Understanding the role of packaging in consumers' everyday life context
- The meaning of packaging colour for consumers; The visual vs. material aspect of colour



The screenshot shows the BioColour website. The header includes the BioColour logo (a stylized 'B' with a color gradient) and the tagline 'FUTURE'S PALETTE'. The navigation menu consists of: FRONTPAGE, ABOUT THE PROJECT, RESEARCHERS, NEWS, PUBLICATIONS, ONLINE EXHIBITIONS, and FI / EN. The main content area features a large image of a textured surface with a color gradient from light beige to deep red. Below the image is the article title: **BioColour – Bio-based Dyes and Pigments for Colour Palette**. The article text reads: 'Ecologically and ethically sound production of goods requires also sustainability from colourants and processes. BioColour project develops new methods for bio-based dye and pigment production and applications. Non-toxic and biodegradable colourants enable more sustainable solutions for textiles, coatings and packaging, which is a remarkable step towards bio and circular economy.'

# Key takeaways

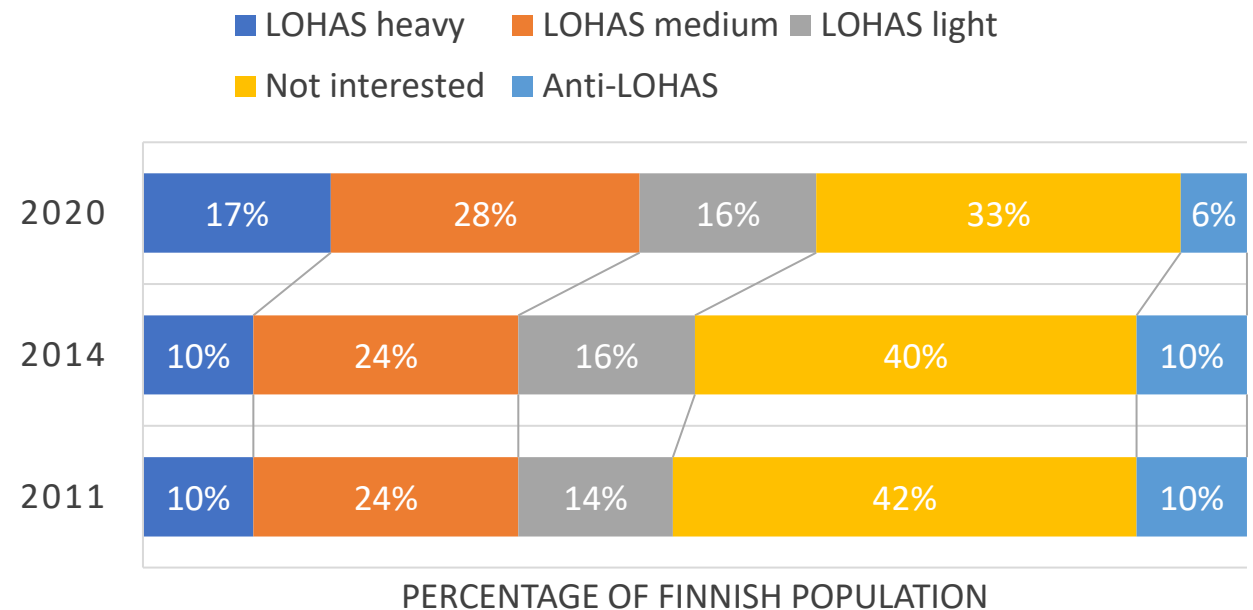
- Color has both: **visual** and **material** aspects in packaging – ”Colour is a material in itself”
- During the package journey the meaning of the colour is evolving
  - ➔ Colours serve different purposes

# SESSION 4. FUTURE FOOD PACKAGING

Consumer value for packaging and future applications (Virpi Korhonen, Package Testing & Research)

- What do future consumers value in packaging?
- What kind of value can the new packaging applications offer to consumers?

The share of LOHAS heavy and medium groups has increased from 34% to 45% in the Finnish population



# Key takeaways



**Packaging is a very important source of value for the food business and restaurants, the consumer viewpoint should never be neglected.**

**Communicates  
brand values 24/7**

**Increases  
consumer loyalty**

**Increases  
likelihood of  
repurchase**

**Increases  
willingness to pay**

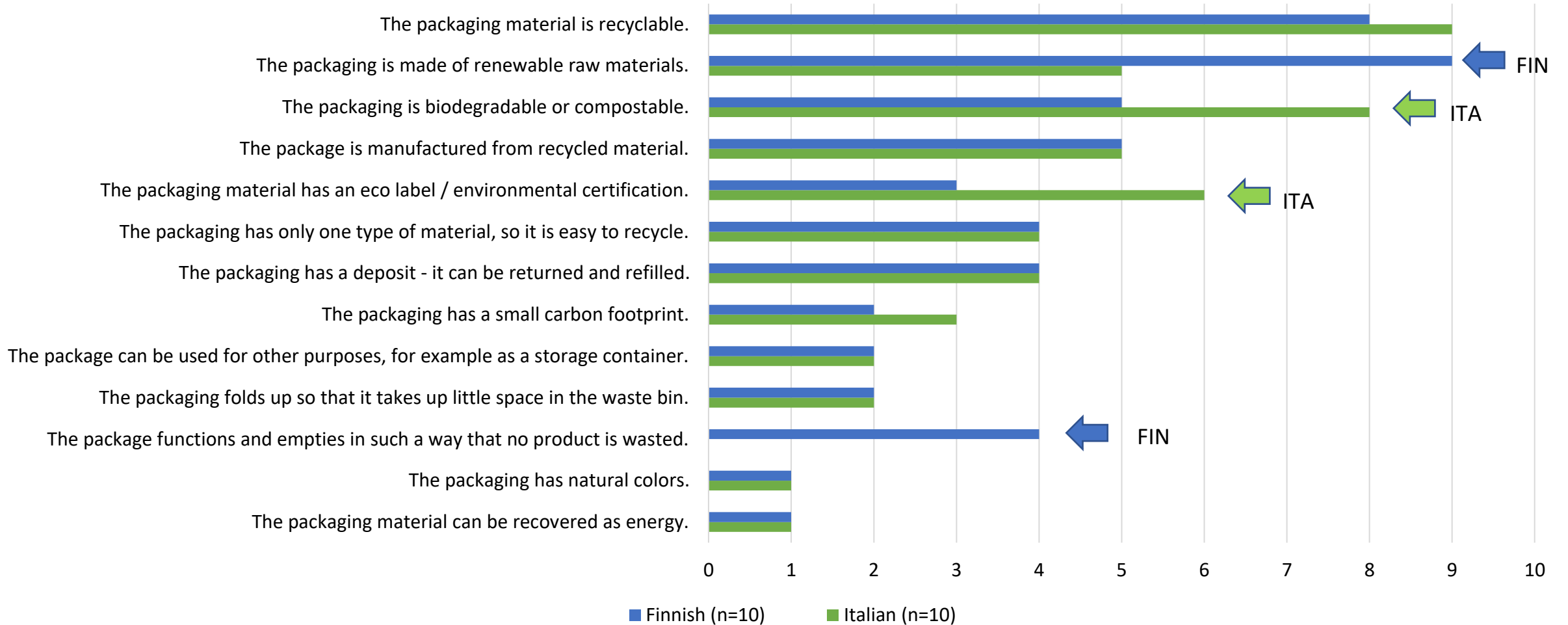
Photo by [Toa Heftiba](#) on [Unsplash](#)



## Findings of the pre-survey

# Finns emphasised renewable materials and decreased food waste, Italians biodegradability and eco labels

Top 5 characteristics of sustainable packaging



# Evaluated materials for fresh food



PP



rPET



PLA (plant-based)



Wood-based plastic



Bagasse



Paper



Paperboard



Formed fibre



Carton+bioPE



Cardboard+film

## Evaluated attributes (7-point scale):

- Old-fashioned - Modern
- Everyday - Premium
- Inexpensive - Expensive
- Ordinary - Beautiful
- Unnatural - Natural
- Unhygienic - Hygienic
- Unsafe - Safe
- Environmentally harmful - Environmentally friendly

# Pre-study: Plant-/fibre-based materials were perceived as more modern, natural, safe and environmentally friendly

Material perceptions, scale 1-7, SusPack training 2022, n=20

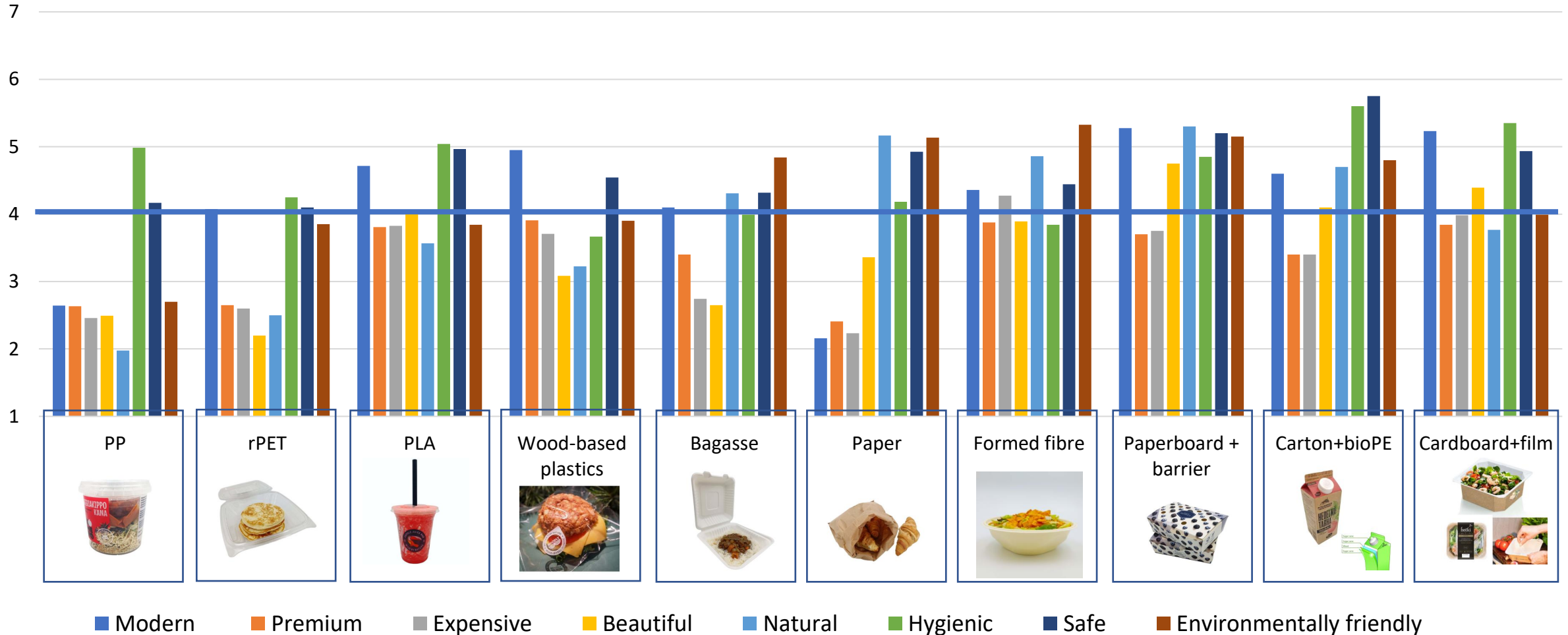


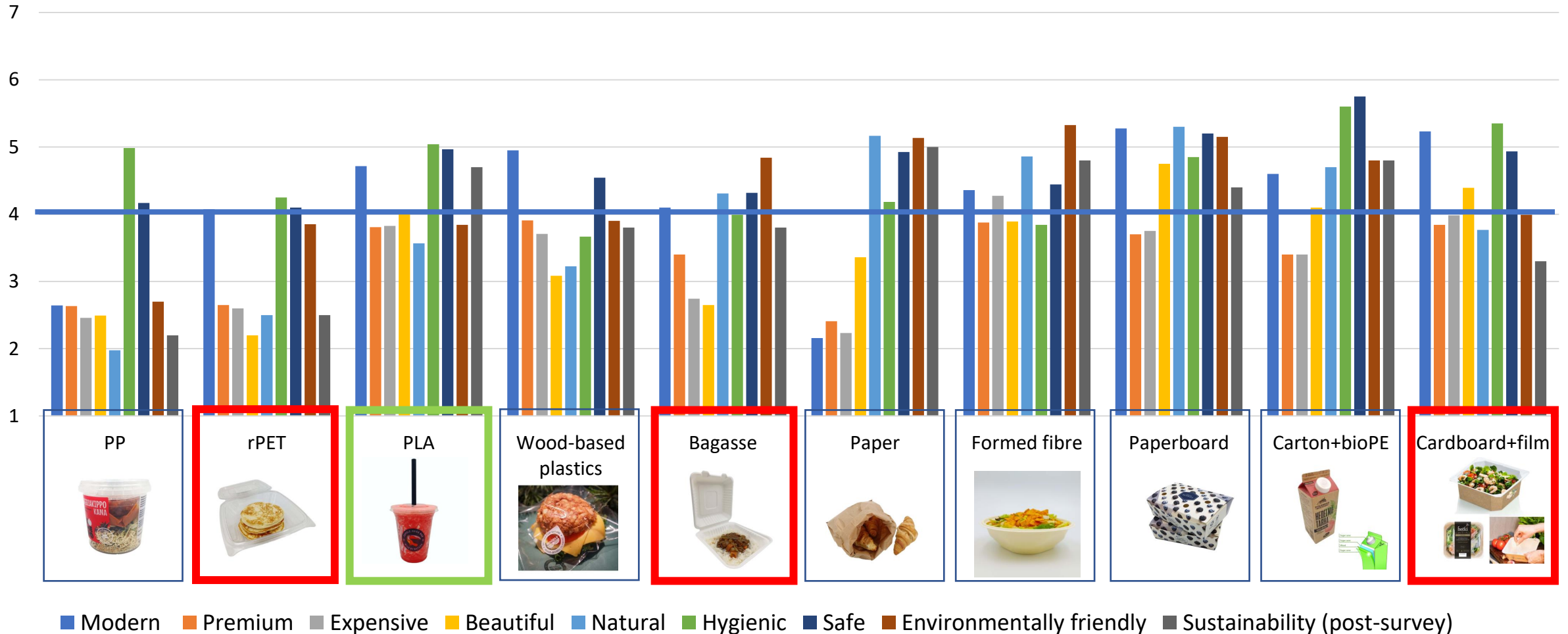
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## Findings of the post-survey

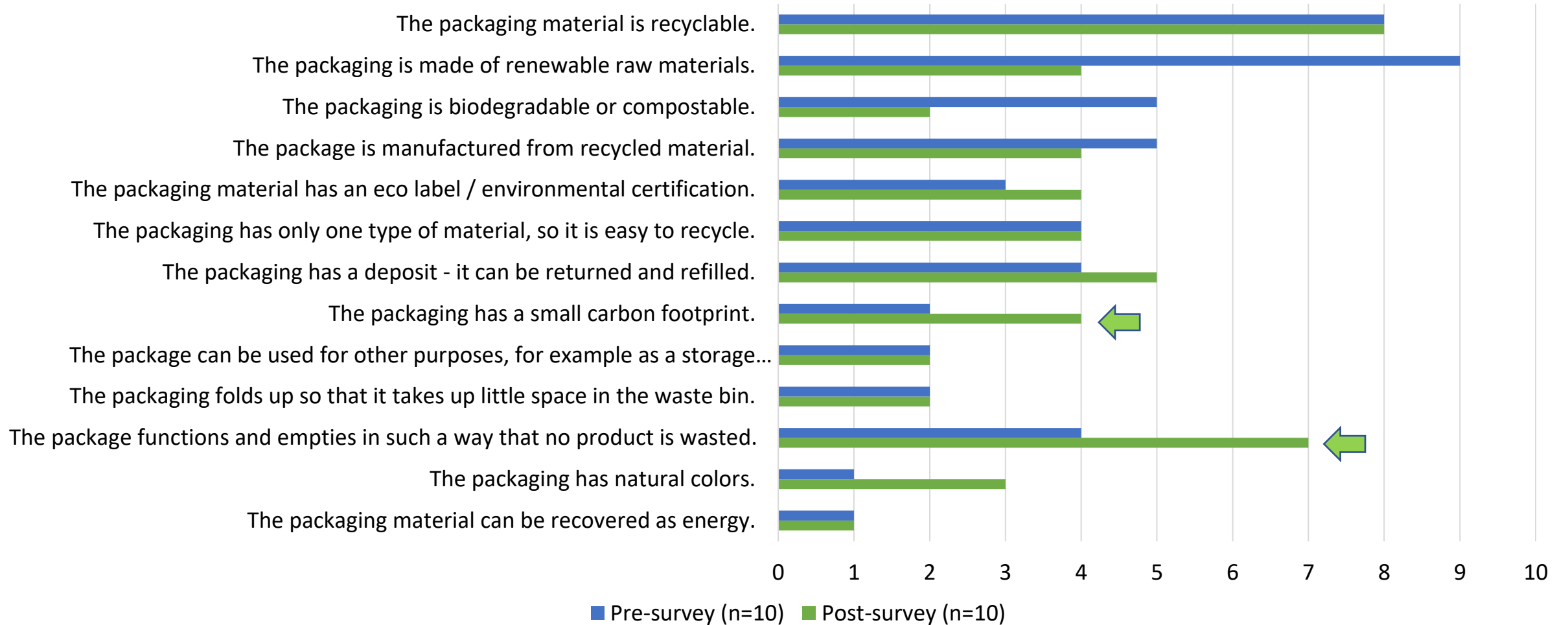
# Post-study: rPET, Bagasse and Cardboard + film were rated lower in sustainability, while PLA was rated higher

Material perceptions, scale 1-7, SusPack training 2022, n=20



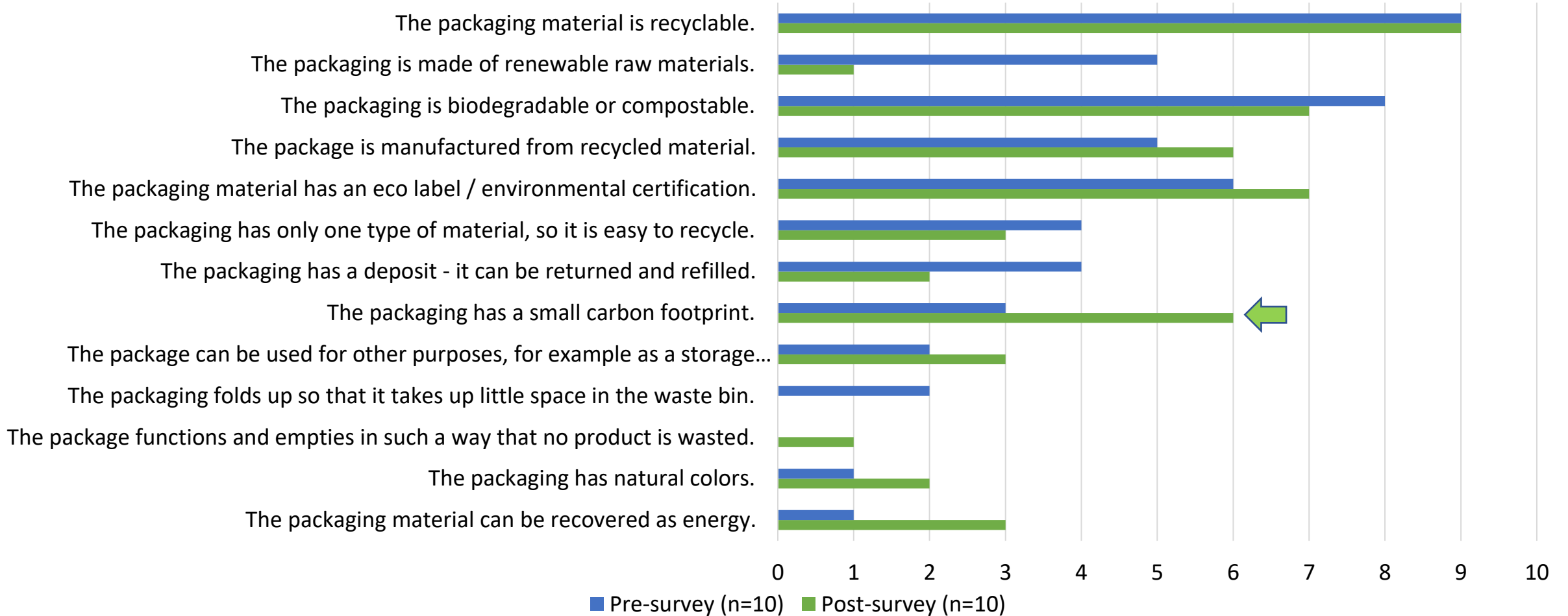
# Decreased food waste and small carbon footprint and natural colors gained most importance among Finns

Top 5 characteristics of sustainable packaging by Finnish participants



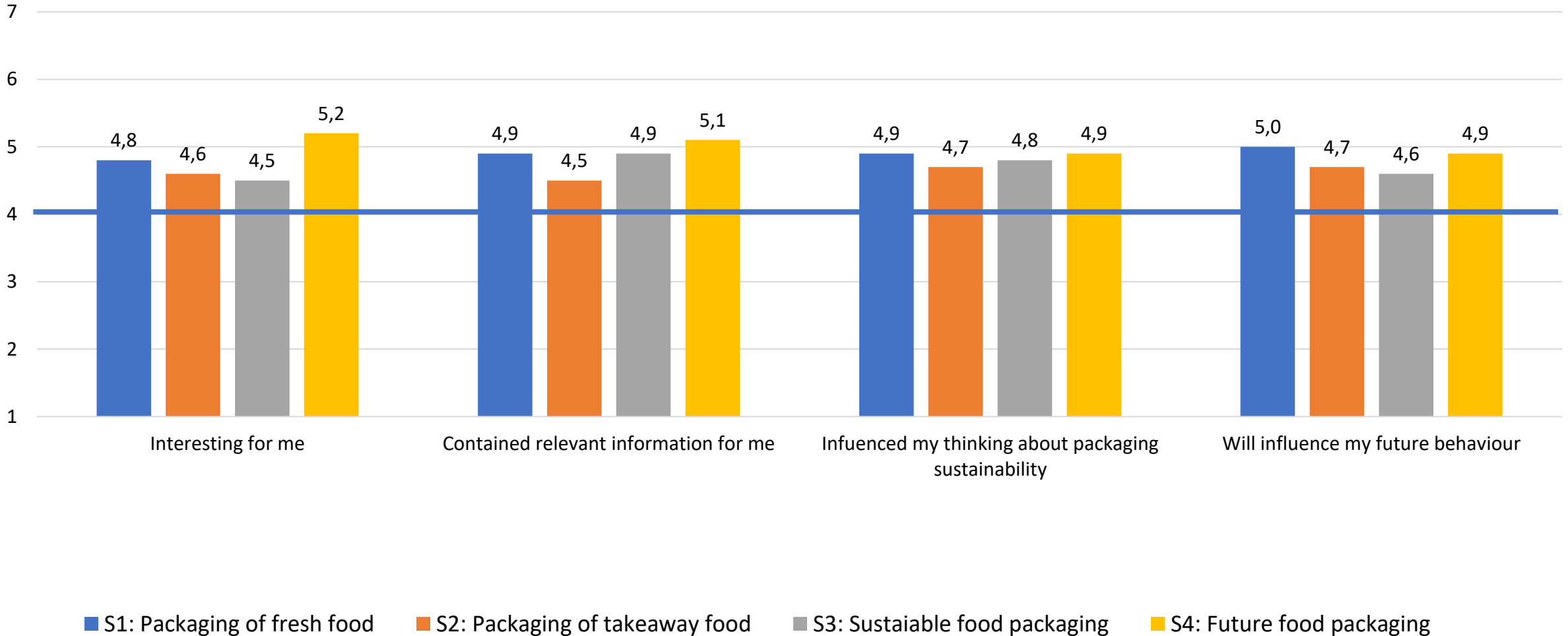
# Small carbon footprint gained most importance among Italians

Top 5 characteristics of sustainable packaging by Italian participants



# Sessions 1 and 4 were found most interesting

Evaluation of sessions, scale 1-7, SusPack training 2022, n=20



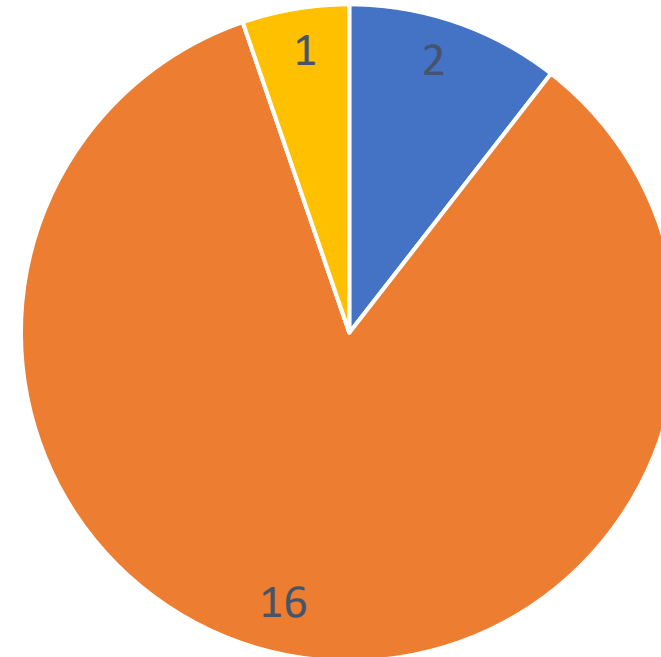
## Majority of the participants preferred the 2-hour sessions

*The 4-hour session is still a 4-hour session even though you add breaks in the between of every speaker. It is a way too long session to listen many speakers with interest after a workday. I expected the sessions to be more easygoing.*

*The 4-hour sessions were absolutely exhausting after working for 8 hours.*

*The second 4 hour went nice with the pauses!*

Preferred length of the sessions (n=19)



- All the sessions were too long
- I preferred the 2-hour sessions
- I preferred the 4-hour sessions
- All the sessions were optimal length

*“I think the training really gave me some new perspective about some things that I thought I knew (but I was wrong) and things that I didn't even think about.*

*It was also interesting to hear about Finland and the differences there are between our countries.*

*I really liked the practical example of the two different packages from the same restaurant that made me realize how I see the quality of the food based on the packaging. I also found interesting the statistical data showed.”*

*“I was expecting more technical lessons and I was a bit worried that I might not be able to follow along. However, even though we did see some technical aspects (both legal and of the materials), I found the lessons very well explained and accompanied by some more practical examples.”*

*“The training covered every argument way better than I expected, it was necessary because I think that food packaging has a lots of viewpoints and divided arguments. This training was able to explain every part with a high level of knowledge.”*

*"My understanding of plastic has become more versatile. There is not just "bad plastic" or "good plastic". Plastic clearly has its place and there are different types of plastics. When plastic is said to be "biodegradable" or "bioplastic", I know now that it can mean quite a few different things."*

*"The first thing that came to mind is that consumers are being blamed for plastic, that it's terribly bad. At the beginning of the training, I learned how much worse is food loss. I thought to myself that we should get out of this guilt somehow. I live in a rural area where there is no plastic recycling. The sense of guilt is usually awful when you start talking about plastic recycling. Considering food waste is important how the packaging is made so that there is as little waste as possible."*

# Lessons from the training

**Sustainability of packaging** is a multi-dimensional and technical concept for consumers. The retail and food industry must choose the most sustainable packaging solutions, considering the entire product life cycle and logistics. The retail and food industry should communicate these decisions clearly to consumers to increase their trust.

# Lessons from the training

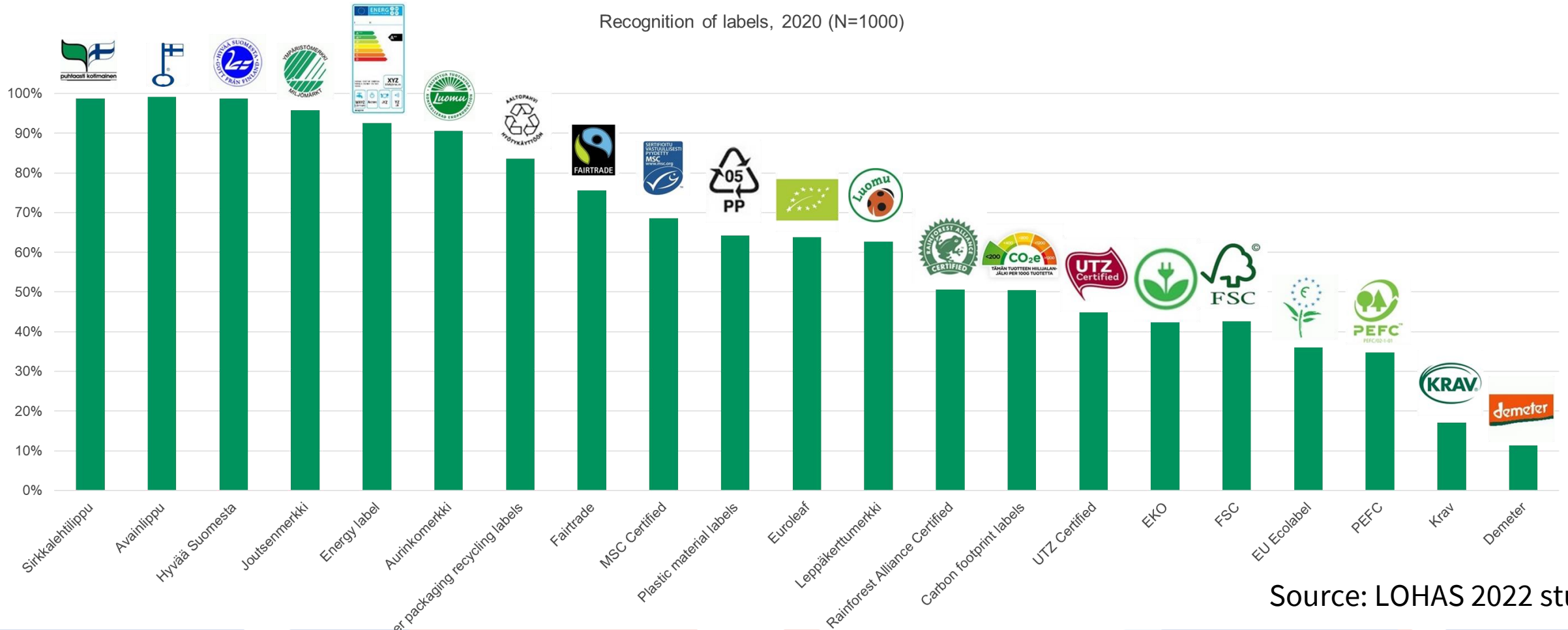
**Renewability and recyclability** are difficult concepts for consumers. Especially in takeaway packaging, when a lot of packaging is not recycled, even if there is an opportunity to do so. A carbon footprint calculation that considers the prospected life cycle of the packaging and the shelf life of the product could be more understandable to support decision making. On the other hand, the **sustainability labels should be standard and comparable** with each other.

# Lessons from the training

Development of new sustainability labels requires a lot of communication and cooperation between the retail and food industry. Sustainability labels should make everyday life easier for consumers and support sorting and recycling.

# Sirkkalehtilippu, Avainlippu and Hyvää Suomesta are recognised by 99%, carbon footprint label by 50% and FSC label by 43%

Recognition of labels, 2020 (N=1000)



Source: LOHAS 2022 study

# Lessons from the training

The concept of **bioplastics** should be clarified for consumers so that they would know how to sort packaging correctly and learn to recognize different types of plastic.



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