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Food and beverage sustainability claims What does the future hold?

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Science Group and the food and beverage sector



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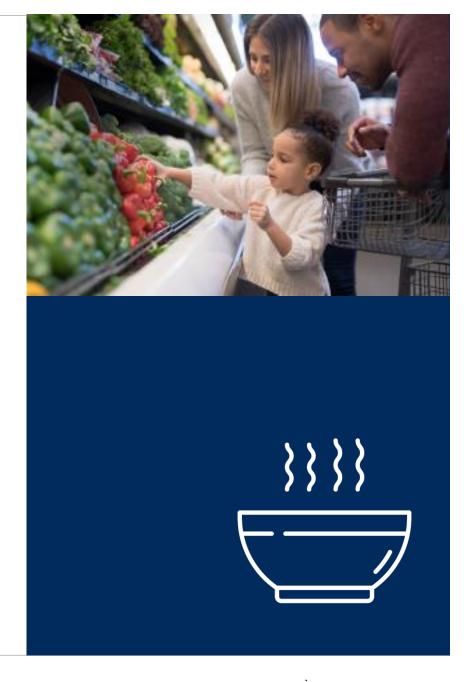
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Sagentia Innovation works with some of the world's leading food and beverage brands, helping them navigate the changing sector landscape and be at the forefront of innovation.

With expertise to support clients across the development cycle we have delivered projects covering food and beverage processing, service disruption, waste and upcycling, health and nutrition, and ingredient innovation.



Sustainability is a key area of focus across industries

Sustainable sourcing



- Natural/plant based ingredients
- Upcycling of waste
- Achieving desired/new functionality with more sustainable materials
- Achieving desired/new functionality with more sustainable chemistry
- Recycling technology

Sustainable design and process



- Sustainability as a design lens
- · Reducing carbon footprint
- Decarbonisation
- Renewable energy
- Reducing and using waste
- · Reducing energy and water usage

Sustainable end use



- Enabling sustainable disposal at end of life (product and pack)
- Enabling intended sustainable behaviour
- Reducing water and energy usage when using products
- Re-use/durability

There are many drivers for increasing the sustainability of food and beverage packaging

Single use plastic packaging in particular, has had extensive media coverage concerning its negative effects on the environment. This has had an impact on consumers and campaigning organisations and led to consumer concern and corresponding pacts and pledges

Consumer perception of plastic and alternative materials

- Consumers are generally concerned about the impact of packaging on the environment – 55% in a US survey responded that they are extremely or very concerned about the environmental impact of product packaging
- Consumers typically view plastic packaging negatively and view alternative materials such as paper, compostable materials or glass more positively



Plastics pacts

There are plastics pacts across the world including UK, Europe and USA. These cover 4 main areas to be achieved by 2025 and have been incorporated in to pledges by many food and beverage companies

1. Design for reusability and recyclability

Ensuring all packaging is reusable, recyclable or compostable

2. Problematic/responsible use

Removing unnecessary packaging, stopping using problematic/unrecyclable packaging, using less virgin material

3. Effective end of life

Ensuring packaging will fit into an available end of life route for recycling or composting. Aim to effectively recycle or compost 50% of plastic packaging in the US and 70% in the UK. In the EU the stated aim is to increase the collection, sorting and recycling capacity by at least 25%

4. Recycled content

Include 30% recycled content across plastic packaging, in the US this is extended to include incorporating responsibly-sourced, biobased content



Solutions are not always obvious and need to avoid unintended consequences, strategies for the application of sustainable packaging need to consider 3 areas

Functionality

Achieving desired/new functionality with sustainable materials

- Food contact
- Moisture barrier
- Oxygen barrier
- Temperature stability
- Rigidity/elasticity
- Resistance to acidic environments
- Processability
- Transparency
- Batch consistency
- Suitability for printing

Sustainability

Defining sustainability criteria and ensuring broad impact is considered

- Sustainability of the source material: renewable sources (bio, upcycled waste etc including alternative uses for the material), incorporation of recycled content
- Intended end of life process: Recycling vs composting and relative impacts of this, circular economy
- Compatibility with the desired route in terms of
 - Technical fit
 - Availability of the route in priority markets
 - Compatibility with collection and sorting
- Timeline/development needed for available end of life route
- Contribution to net zero/GHG emissions/wider environmental impact (LCA, CO₂ emissions vs original material, water usage)

Economics

Any packaging material needs to meet the commercial criteria of the business

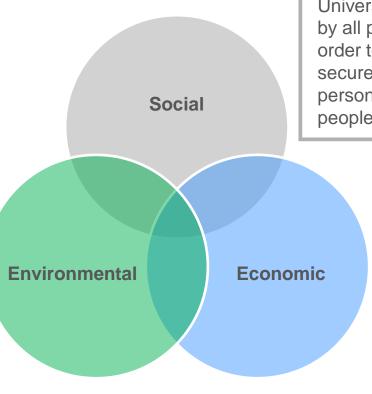
- Cost
- Stage of development
 - · Commercially available at scale
 - Timeline to when materials can be implemented at scale
- Market dynamics
- Availability and scale in key manufacturing locations
- Potential for strong partnerships
- Consumer expectations

The term 'sustainability claims' is legally undefined but is understood to be claims related to one of the pillar of sustainability

ISEAL: A message used to set apart and promote a product, process, business or service with a refence to one or more of the three pillars of sustainability:

- 1. Social
- 2. Economic
- 3. Environmental

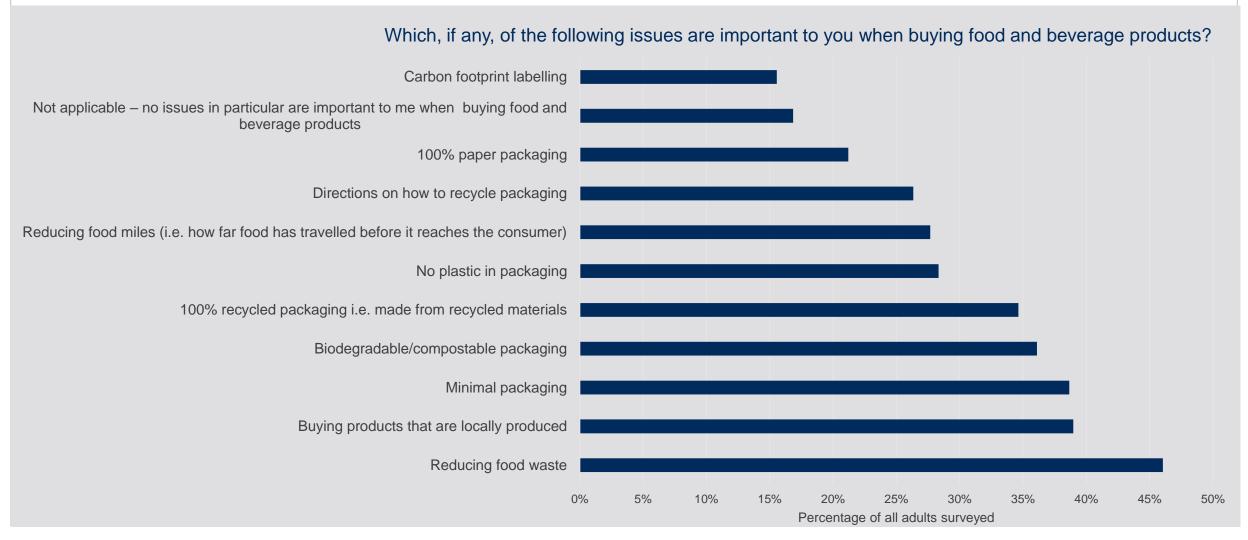
Ecological integrity is maintained, all of earth's environmental systems are kept in balance while natural resources within them are consumed by humans at a rate where they are able to replenish themselves.



Universal human rights and basic necessities are attainable by all people, who have access to enough resources in order to keep their families and communities healthy and secure. Healthy communities have just leaders who ensure personal, labour and cultural rights are respected and all people are protected from discrimination

Human communities across the globe are able to maintain their independence and have access to the resources that they require, financial and other, to meet their needs. Economic systems are intact and activities are available to everyone, such as secure sources of livelihood.

Leatherhead's survey finds that consumers care about 'minimal', 'biodegradable' and '100% recycled' packaging



Most 'environmental'/'green' packaging claims are regulated by the truthful & non-misleading conduct rather than specific rules, globally

Operating under the non-misleading rule can be more difficult than having specific rules to obey.

- To substantiate a 'green' food packing claim, the rules established in the Food Contact Materials regulation and the packing waste would be considered
- In addition, the local waste management system must also be considered



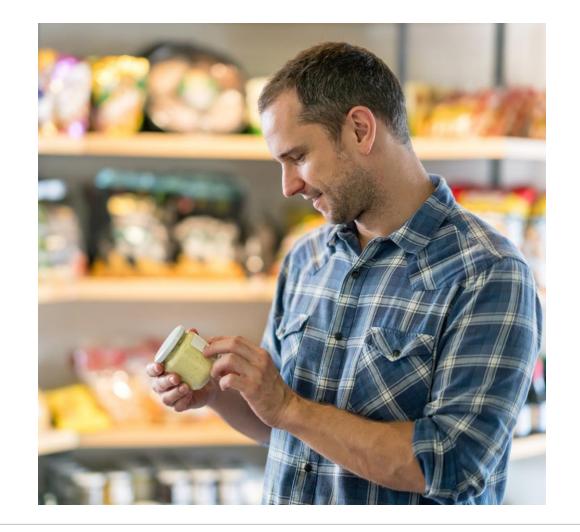
Truthful and non-misleading provisions are very alike globally. There are 5 principles.

Clear F	air	Honest	Specific	Substantiated
Australia 1.Be honest and truthful 2.Detail the specific part of the product or process it is referring to 3.Use language which the average member of the public can understand		1.Make clear what sustainability benefit the product offers 2.Substantiate your sustainability claims with facts, and keep them up-to-date 3.Comparisons with other products, services, or companies must be fair 4.Be honest and specific about your company's efforts with regard to sustainability 5.Make sure that visual claims and labels are useful to consumers, not confusing		1.Claims must be truthful and accurate 2.Claims must be clear and unambiguous 3.Claims must not omit or hide important relevant information 4.Comparisons must be fair and meaningful 5.Claims must consider the full life cycle of the product 6.Claims must be substantiated
4.Explain the significance of the benefit5.Be able to be substantiated				

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Case study 1: General claims – e.g. 'Environmentally friendly' or 'environmentally safe'

- These claims are also vague and could potentially mislead consumers into thinking that the product causes no harm to the environment in its production, usage and disposal
- Few, if any, products could make this claim
- Almost all products have some adverse impact on the environment in their manufacture, packaging, use or disposal



Case study 2: Absolute claims, e.g. '100% paper' and 'plastic free', '100% recycled'

100% paper' and 'plastic free' are very likely to be misleading claims

FCM regulation

- Are all substances in the packaging listed in the positive list of paper material? Or
- Are none of the substances in the packaging listed in the positive list of plastic material

Packaging waste/ waste management

The claims are likely to **imply** that the packaging is paper recyclable

- Does the packing meet the paper recycle criteria?
- Is there the facility to recycle the packing as paper?



Case study 3: Recyclable claims, e.g. 'Recyclable', 'Paper recyclable', 'Compostable'

Packaging waste regulation/rule

Does the packing meet the paper recycle criteria?

- ✓ Minimum fibre content
- ✓ Fatty food residual
- ✓ Laminated layers
- ✓ Size of container

Local waste management system

Is there the facility to recycle the packing as paper?

Country	Minimum fibre content	
	70%	
	85%	
	90%	
	95%	

Case study 3: Recyclable claims, e.g. 'Recyclable', 'Paper recyclable', 'Compostable'

- In Germany and other EU markets the 'green dot' scheme is being expanded to certify specific recycling methods
- Manufacturers are obliged to register their packaging with one of the 'dual systems' which provide certificates for recyclability
- Therefore, the packaging can be marketed with their respective symbols (e.g. green dot 'recyclable')





Case study 3: Recyclable claims, e.g. 'Recyclable', 'Paper recyclable', 'Compostable'

Commonly, criteria for home compostable and industry compostable are established in many markets. Be specific with the claim!

Home Compostable

Biodegradability – Undertaken at temperatures **between 20-30°C** for a maximum of **12 months**. The level of biodegradation must reach 90% of the products mass

Disintegration – Undertaken at temperatures between **20-30°C for** a maximum of **6 months**. The level of disintegration must be above 90%, thus only a maximum of 10% must not pass through a 2mm sieve



Industrial Compostable

Biodegradability – Undertaken **at 58°C (+/- 2°C)** for a maximum of **6 months**. The level of biodegradation must reach a level 90% of the products mass

Disintegration – Undertaken at 58°C (+/- 2°C) for a maximum of 12 weeks. The level of disintegration must be above 90%, thus only a maximum of 10% must not pass through a 2mm sieve



Case study 4: Comparison claims, e.g. 50% less plastic, 20% more recycled materials

Food and beverage sustainability claims

- Ensure it is compared to a representative of the wider range of similar products
- Keep up-to-date, the packing world is changing fast
- Comparative claims should be based either on percentages or absolute values



Claims must consider the full life cycle of the product (UK CMA draft)

Should a green packing claim be made if the



Final thoughts

Producer Responsibility (EPR) programmes by raising public awareness via reporting requirements, <u>labelling of products</u> and information campaigns for consumers about producer responsibility and waste separation.

- 1. Make green packaging claims to educate the consumer
- 2. Consider the principles of truthful and non-misleading from a FCM, waste regulation and local waste management system

It is within the Extended Producer Responsibility to promote public education and awareness with respect to resource recovery and waste reduction



Some markets have specific guidance (Europe)

EU

- Guidelines for Making and Assessing Environmental Claims (European Commission)
- December 2000

Nordic Consumer Ombudsmen

- Guidance from the Consumer Ombudsman on the use of environmental and ethical claims, etc., in marketing
- August 2014

Netherlands

- Guidelines Sustainability claims
 (The Netherlands Authority for Consumers and Markets (ACM))
- Five rules of thumb for companies that wish to use sustainability claims
- January 2021

UK

- Green Claims Guidance (Department for Environment, Food & Rural Affairs) - February 2011
- Making environmental claims (Advertising Standards Authority)
- Draft guidance on environmental claims on goods and services (Competition and Markets Authority) - May 2021

Some markets have specific guidance (international) and there are intentional guidelines

USA

- **Guides for the Use of Environmental Marketing Claims** (Federal Trade Commission)
 - Helps marketers ensure that the claims are true and substantiated.
- State Laws: e.g. California specific rules on claiming "biodegradable", "degradable", "decomposable"

Australia

- **Green marketing and the Australian Consumer Law** (Australian Competition and Consumer Commission) -2011
- Provides broad principles which should be considered when making environmental claims and a framework to ensure the claim complies with the law
- A guick reference for some common and problematic claims

Canada

- **Environmental Claims: A Guide for Industry and Advertisers**
- June 2008

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International guidelines

- International Chamber of Commerce's (ICC)
 - Framework for Responsible Environmental **Marketing Communications**
- **ISEAL**
 - Sustainability Claim Good Practice Guide

Thank you

Questions

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