The Importance of Sustainability in Packaging:
Major brand owners and retailers in 5 key European markets speak up

An independent assessment of the importance of sustainability in packaging by Smithers Pira
PACKAGING FOR A BETTER WORLD
Content

Intro: Tony Hitchin, Pro Carton 4
Key Findings: Adam Page, Smithers Pira 5

Importance of Sustainability in Packaging 6
Importance of Sustainable Packaging to Business 7
Changing Importance of Sustainable Packaging 7
Sustainability Strategies 8
Impact of Consumer Attitudes 9
Criteria to be ‘Sustainable’ Packaging 9
Future Growth 10
Key Drivers of Growth 10
Factors Determining Sustainability 11
Effects of Multi-Channel Retailing Growth 12
Most Versatile Packaging Type 13
Most Sustainable Packaging Material 14
Sustainability Credentials by Packaging Type 15
Advantages 16
Disadvantages 17
Impact Cartonboard vs Bio-Plastics 18
Key Messages 19
Intro

Pro Carton is pleased to present the key findings from the study it commissioned from Smithers Pira into brand owners and retailers’ perception of sustainability in packaging.

It is intriguing to see how the environmental benefits of cartonboard packaging have been perceived by our target audiences and I am delighted to note that our strengths of recyclability and renewability are now well appreciated.

Almost all the respondents felt sustainable packaging was important to their business. However, it was interesting to see that a lot of emphasis is put on reducing packaging weight. This, of course, makes good sense, especially when talking about a non-sustainable packaging material, but there are times when a sustainable material could be used instead. Trying to use less of a non-sustainable material (e.g. plastic) is still a bad choice for the environment when an alternative more sustainable material could be used!

Quite rightly, folding cartons are seen as being the most sustainable packaging format. It would be good to think that cartonboard will, therefore, always be brand owners’ first choice as a packaging medium.

I hope you find the research thought provoking and useful.

Tony Hitchin,
General Manager, Pro Carton

Outline of the Study

This study was conducted in the five major European markets: Germany, United Kingdom, France, Italy and Spain. This research was aimed at investigating views and attitudes amongst major European brand owners and retailers on sustainability in packaging and its importance to the retail business. The main fieldwork for this project consisted of a series of 100 telephone interviews with leading decision makers.
Key Findings

The survey revealed that 96% of respondents felt the use of sustainable packaging was important to their business with just over half (52%) saying this was either ‘very important’ or ‘critical’.

The top criteria for packaging to be considered ‘sustainable’ were a) that it is a recyclable material (29.2%), b) that it uses renewable & abundant materials (19.6%), c) that it uses minimal lightweight materials (15.5%), d) that it has a low environmental footprint (8.2%) and e) that it is biodegradable or compostable (5.1%). Respondents expected the expansion of multichannel retailing to drive strongest growth in folding cartons over the next five years; these were perceived to be not only the most ‘versatile’ but also the most ‘sustainable’ form of primary packaging for more complex distribution channels. Brand owners’ choice of folding cartons as the ‘most sustainable’ packaging format was based on their unique ability to meet a combination of key environmental considerations:

- They can be made from renewable forestry (and FSC Certified) resources
- They are widely collected and easily recycled many times over
- They usually incorporate a high percentage of recycled materials
- They are lightweight, offering good product protection and low (transport) costs
- Over time they are bio-degradable
- Even if incinerated to generate energy, they can be considered ‘carbon neutral’

Adam Page,
Global Director
Reports and Consultancy
Smithers Pira
Importance of Sustainability in Packaging

Recyclability is the most important factor: 81% find it important, 48% even say it is critical.

Unsurprisingly the brand owners and retailers interviewed in our survey rated ‘protecting the product’ as the most important role of packaging. ‘Recyclability’ and ‘cost’ along with providing the required ‘technical performance’ were ranked as the next most important criteria. Recyclability scored more highly than sustainability which suggests that the focus amongst our respondents tends to be on end of life rather than whole life when assessing the suitability of packaging formats. It is perhaps concerning that the holistic view of packaging’s whole life cycle from “cradle to grave” may not be as important a factor as its recyclability.

How important do you consider the following factors to be in your use of packaging?

- Protection of the Product
- Recyclability
- Technical Performance
- Promotion of the Product
- Cost
- Use of Sustainable (Renewable) Materials
- Other Factors

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

GERMANY “We set goals to use only sustainable ingredients and packaging. Since 2014 we have only used certifiable forest products and guarantee that 90% of packaging is from sustainable forestry. We have also set the target of using 100% renewable raw materials and packaging by 2020.”

ITALY “We are trying to achieve 100% of packaging in paper instead than plastic”
“We have added information about recyclability on packs and are trying to use mono-material packaging”
“We are increasingly careful to select suppliers capable to supply environmentally sustainable solutions”

UNITED KINGDOM “We are looking at all our materials at present and aiming to use recycled board”
“We are using more cartonboard and we recycle everything we possibly can”

SPAIN “We use less material and lowered the thickness”
“We are reducing weight in cartonboard and plastic”
Importance of Sustainable Packaging to Business

96% of all respondents felt sustainable packaging was important to their business.

When asked the simple question on importance of sustainable packaging a very large percentage of respondents (96%) said that it was either ‘important’, ‘very important’ or ‘critical’ to their business with just over half saying that sustainable packaging was a ‘very important’ or ‘critical’ part of their overall business. The differences in the five markets reflect the varying historical experience these countries have had with tackling recycling and sustainability. Clearly, virtually nobody feels that packaging sustainability is not important to their business.

How important is the use of sustainable packaging to your company’s overall business?

Changing Importance of Sustainable Packaging

One third of the respondents feel sustainability is already well embedded in their policies, the others say its importance is steadily growing.

Around one third of the sample felt the importance of sustainable packaging was not changing much but this was largely because they considered the issue already well embedded in their corporate policies and change therefore tended to be evolutionary rather than revolutionary.

The remaining two-thirds of the sample thought that there was a steady ongoing increase in the importance of sustainable packaging probably stemming from increasingly stringent environmental regulations, greater consumer awareness and internal company policies.
Sustainability Strategies

Emphasis is on reducing packaging weight and waste as top sustainability goals (and for reducing costs).

The primary strategies used by the brand owners and retailers for achieving their sustainability goals were reducing packaging waste within the plant and reducing packaging weight and volumes. Both these strategies are not only aimed at improving environmental performance by improving yields, reducing wastage and using lighter but stronger materials, but also at efficiency improvements and the drive to reduce costs. Whilst directionally these things are, of course, an improvement on the current situation it is again a very narrow and perhaps misguided view of true sustainability.

Which of the following strategies does your company currently adopt for achieving its sustainability goals?

- Reducing Packaging Weight and/or Volume
- Reducing/Reusing Waste within the Plant
- Using Renewable Materials
- Marketing and Promotion of "Green" Attributes of Packaging or Product
- Using Recycled Materials
- "Eco-Labeling" (Certified Forests, NGO Certificates, Renewable Content, Chemical Content)
- Using of Forest Certification Logos
- Using of Natural Renewable Resources
- Minimizing the Use of/Conserving Energy in Packaging
- Employing Life Cycle Analysis (LCA) Methodologies
- Designing Reusable or Refillable Packaging
- Using Biodegradable Materials
- Maximising the Use of Renewable Energy in Packaging Manufacture
- Using Compostable Materials

GERMANY “The German consumer is very “green-aware”. They know a lot about environmental issues and they care about it all even if they do not really understand things in detail. We make sure that we can use the FSC logo on the packaging and this supports the perception that we are doing our bit for the environment”

FRANCE “Consumers are more and more concerned but should be more informed about the recycling standards”

ITALY “Consumers are becoming increasingly attentive to companies’ environmental behaviours, and firms need to upgrade their strategy to remain competitive, changing procedures and materials, fueling a virtuous circle”

SPAIN “Consumers demand the use of sustainable packaging and minimisation of packaging waste from retailers. They are increasingly critical in this area and the use of social media gives more voice to these views”

UNITED KINGDOM “Consumers are increasingly taking recycling into consideration so will prefer to have sustainable packaging”
Impact of Consumer Attitudes

It is consumers who steadily push for more sustainability.

A majority of the survey respondents said that it was consumers who are steadily pushing retailers and brand owners to use more sustainable packaging with a particular emphasis on recycling and the use of renewable resources. Consumers themselves are being driven by increasing media coverage and concern about waste and resource usage generally. Change at consumer level is, however, perceived to be slow, steady and long term but nevertheless only heading in the one direction – i.e. for more sustainable packaging.

Criteria to be ‘Sustainable’ Packaging

Recyclable, renewable, lightweight are what counts most concerning sustainable packaging.

The respondents ranked the five key criteria for packaging to be ‘sustainable’: a) that it is a recyclable material (29.2%), b) that it uses renewable & abundant materials (19.6%), c) that it uses minimal lightweight materials (15.5%), d) that it has a low overall environmental footprint (8.2%) and e) that it is biodegradable or compostable (5.1%).

Interestingly, France, Italy and Spain ranked using renewable & abundant materials much less importantly than did Germany or the UK. Germany was the only country to rank this as the most important criterion, which suggests that there is still a great deal of educating to be done in the rest of Europe.

What do you consider to be the top 5 criteria required for a packaging type to be considered ‘sustainable’?
Future Growth

62% of the brand owners and retailers expect a growing need for sustainability in packaging.

The consensus of opinion was that the need for more sustainable packaging will grow over the next five years, with 62% expecting growth, compared with 18% expecting the need to remain static and 19% expecting decline. The majority of respondents were expecting ‘slow’ or ‘quite strong’ growth but 15% were expecting growth to be ‘very strong’. The UK was by far most positive about the expectation of strong growth in sustainable packaging.

At what rate do you think the need for more sustainable packaging will grow over the next 5 years?

Key Drivers of Growth

Rising consumer awareness as well governmental policies and local authorities are key drivers of growth.

Most respondents said growth was driven in principle by the rising consumer awareness of environmental issues, waste and packaging with emphasis particularly on increased recycling and the greater use of recycled materials. Specific current issues cited included the strong drive for less land-fill, changes to local authorities' waste collection, rises in land-fill gate fees and government policies on the circular economy.

ITALY “Consumers are starting to pay greater attention to sustainability issues”
“The awareness and need to recycle is booming, consumers are part of a virtuous circle”
“Companies will be pressurised by the market to adopt environmental sustainable policies to remain competitive”

SPAIN “The new generations are more aware of sustainability”
Factors Determining Sustainability

97% say that recyclability is the most important factor in sustainability (very or fairly important).

When asked about the importance of a number of prompted factors in determining the sustainability of a particular packaging type, the three key factors deemed of highest importance were a) ‘use of recycled materials’ (72% rated as very important), b) ‘minimal use of materials’ (65% rated as very important) and c) the ‘use of renewable materials’ (64% rated as very important). Clearly the carbon footprint is now not seen as being quite so important perhaps due to the complexity of measuring it.

How important do you think the following factors are in determining the sustainability of a particular packaging type?
Effects of Multi-Channel Retailing Growth

Folding cartons are forecast to be the fastest growing primary packaging format in multi-channel retailing.

Just over half (51%) of the brand owners interviewed were of the view that growth in multichannel retailing would lead to further growth in sustainable packaging. The other 49% of the respondents said that the growth in multichannel retailing would have “no impact” on the choice of sustainable packaging; their reasoning being that there was no direct connection between the channel and the packaging type. The general growth in multichannel retailing is expected to favour and drive growth in cartons with a less positive effect on glass, metals and rigid plastics over the next 5 years. Corrugated board, which was excluded from the question, is likely to be the big beneficiary as a transit outer.

What impact do you think the growth in multi-channel retailing will have on the main packaging materials over the next 5 years?

<table>
<thead>
<tr>
<th>Packaging Type</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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<td>Total</td>
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<td>Folding Cartons</td>
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<td>Flexible Plastics</td>
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<tr>
<td>Liquid Cartons</td>
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<td>Rigid Plastics</td>
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<td>Metal</td>
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</table>

**GERMANY** “The main consideration nowadays is weight - the cost of freight has been rising in absolute terms as well as relative to other costs: to reduce the impact of the packaging weight on overall costs, the main thrust of R&D has been, to develop products that are suited to be packed in flexible composite materials and avoid the use of glass, metal cans or rigid plastics”

**ITALY** “If used on more distribution channels cartons are surely more versatile”

“The increase of e-commerce will cause an increase of folding cartons for packaging”

**UNITED KINGDOM** “Cartons will be used more as they are bio-degradable so customers will purchase more carton based products”
Most Versatile Packaging Type

Folding cartons are number one as the most versatile primary packaging.

Folding cartons were rated as the most versatile form of primary packaging to adapt to the more diverse and complex distribution channels with flexible packaging rated next best. The main reason for choosing folding cartons and flexible packaging was their ability to adapt to different product types, applications, shapes and sizes. Easier transportation, lower weight and lower transport costs were also important.

Italy and Spain seem less convinced as to the benefits of cartons in these new distribution channels.

Which of these packaging types do you think is the most versatile in adapting to more diverse & complex distribution channels?

FRANCE “I feel that multichannel distribution is in opposition with environmental principles because we will multiply shipment packaging”

GERMANY “Cartons and flexible pouches are definitely versatile as they can be used for many types of food and non-food applications and can be adapted easily to suit different barrier and presentation requirements”

“Folding cartons can be adapted to suit any size requirement”

ITALY “The carton pack can be folded in many ways and has a large print surface so it can be presented in many different ways”

SPAIN “Consumer trends will evolve more and more towards e-commerce”
Most Sustainable Packaging Material

78% chose cartonboard over rigid and flexible plastics as the most sustainable.

When pushed to choose between rigid plastics, flexible plastics and cartonboard as to the “most sustainable form of packaging” an overwhelming majority of respondents (78% across all five countries) chose cartonboard. Perhaps more surprising, however, is that 22% believe that these plastics are more sustainable than cartons. The strongest preference for cartonboard was found in France and Germany, whilst it appears that there is a lower level of understanding of the key issues surrounding packaging sustainability in Italy, Spain and to a degree the UK.

If pushed to choose, which of these packaging types would you consider currently?

FRANCE “Cartonboard is more ecological at its end of life, it can be recycled and it comes from renewable product, such as sustainable forests for instance”

GERMANY “Cartonboard is definitely the most sustainable as it is renewable resource, recyclable and light-weight”

“Cartonboard is from renewable resources and recyclable. Unlike plastics the carton is definitely the most sustainable type of packaging material – renewable + recyclable + can be incinerated”
Sustainability Credentials by Packaging Type

8 out of 9 sustainability credentials are in favour of folding cartons.

Asked how they rated various competitive packaging types on the basis of their sustainability credentials, folding cartons attained the highest average score across all credentials of 6.3 (out of 10).

How do you rate the following packaging types on the basis of their sustainability credentials?

<table>
<thead>
<tr>
<th>Average Score (1-10)</th>
<th>Folding Cartons</th>
<th>Liquid Cartons</th>
<th>Flexible Plastics</th>
<th>Rigid Plastics</th>
<th>Glass</th>
<th>Metal</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Recycle</td>
<td>7.67</td>
<td>6.02</td>
<td>5.67</td>
<td>6.01</td>
<td>7.08</td>
<td>6.24</td>
<td>0.16</td>
</tr>
<tr>
<td>Ability to Refill/Return</td>
<td>4.80</td>
<td>3.74</td>
<td>3.53</td>
<td>4.73</td>
<td>5.57</td>
<td>4.41</td>
<td>0.12</td>
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<tr>
<td>Minimal Use of Materials</td>
<td>6.03</td>
<td>5.28</td>
<td>5.43</td>
<td>5.10</td>
<td>4.47</td>
<td>4.21</td>
<td>0.13</td>
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<tr>
<td>Overall Carbon Footprint</td>
<td>5.68</td>
<td>4.68</td>
<td>4.69</td>
<td>4.32</td>
<td>3.68</td>
<td>3.47</td>
<td>0.14</td>
</tr>
<tr>
<td>Use of Bio-degradable Materials</td>
<td>5.53</td>
<td>4.24</td>
<td>4.24</td>
<td>3.90</td>
<td>2.97</td>
<td>2.39</td>
<td>0.15</td>
</tr>
<tr>
<td>Use of Certified Materials (e.g FSC)</td>
<td>6.79</td>
<td>4.62</td>
<td>3.60</td>
<td>3.46</td>
<td>2.99</td>
<td>2.74</td>
<td>0.17</td>
</tr>
<tr>
<td>Use of Non-solvent Inks &amp; Coatings</td>
<td>6.16</td>
<td>5.67</td>
<td>5.43</td>
<td>5.15</td>
<td>4.66</td>
<td>4.31</td>
<td>0.15</td>
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<tr>
<td>Use of Recycled Materials</td>
<td>7.21</td>
<td>4.97</td>
<td>4.77</td>
<td>5.14</td>
<td>6.71</td>
<td>6.06</td>
<td>0.15</td>
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<tr>
<td>Use of Renewable Materials</td>
<td>6.87</td>
<td>4.74</td>
<td>4.49</td>
<td>4.91</td>
<td>6.01</td>
<td>4.94</td>
<td>0.15</td>
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<tr>
<td>Total</td>
<td>6.30</td>
<td>4.89</td>
<td>4.65</td>
<td>4.75</td>
<td>5.02</td>
<td>4.31</td>
<td>0.15</td>
</tr>
</tbody>
</table>
Advantages

Cartons are number one in all sustainable criteria and number 2 in lightweight.

When asked to compare the advantages of rigid plastics, flexible plastics and cartonboard-based packaging from a sustainability perspective, the brand owners rated the fact that cartonboard is ‘recyclable’, made of ‘renewable resources’ and ‘lightweight/uses minimal materials’ as its three key advantages overall (respondents had to choose one answer). For flexible plastics, the use of lightweight/minimal materials was considered its most important advantage, with rigid plastics scoring highest on ‘recyclable’ (even though often in practice it is not actually recycled).

Thinking of rigid plastics, flexible plastics and cartonboard packaging, what would you consider to be their key advantages from a sustainability point of view (select one)?
Disadvantages

Plastics are seen as being difficult to recycle, may use non-sustainable resources and may contain dangerous chemicals.

The two main disadvantages of cartonboard from a sustainability point of view were perceived to be ‘Durability & Strength’ (39.5%) and ‘Poor Moisture Barrier’ (20.9%) but neither of these criteria are really about sustainability but purely the inherent nature of the material. Plastics on the other hand were seen as difficult to recycle, may contain dangerous chemicals and use non-renewable resources.

Thinking of rigid plastics, flexible plastics and cartonboard packaging, what would you consider to be their key disadvantages from a sustainability point of view?
Impact Cartonboard vs Bio-Plastics

Biopolymer packaging will have little impact in the next 5 years.

Generally the knowledge and understanding of the topic of bio-plastics was quite low across the entire EUS sample. Overall more than one third of all respondents felt that bio-derived polymers would have little or no impact on cartonboard packaging over the next 5 years. Most of those who thought it would have some effect felt that this would lead to growth for cartonboard packaging – especially in the French and German markets.

In what ways do you think the growth in bio-derived polymers will affect cartonboard packaging over the next 5 years?
Key Messages

- 96% of all respondents felt sustainable packaging important to their business.
- Recyclability is the most important factor: 81% find it important, 48% even say it is critical.
- Recyclable, renewable and lightweight are what counts most concerning sustainable packaging.
- One third of the respondents feel sustainability is already well embedded in their policies, the others say its importance is steadily growing.
- Emphasis is on reducing packaging weight and waste as top sustainability goals (and for reducing costs).
- 62% of the brand owners and retailers expect a growing need for sustainability in packaging.
- Rising consumer awareness as well as governmental policies and local authorities are key drivers of growth.
- Folding cartons are perceived as the most sustainable packaging.
- 8 out of 9 sustainability credentials are in favour of folding cartons.
- Cartons are number one in all sustainable criteria except in 'lightweight' where they were ranked number 2.
- Plastics are seen as being difficult to recycle, may use non-sustainable resources and may contain dangerous chemicals.
Pro Carton is the Association of European Cartonboard and Carton Manufacturers with the aim of promoting cartonboard and cartons as an economically and ecologically balanced packaging medium with an important role to play in our society.

For further information please see
www.procarton.com