Recycling on the increase

Latest design innovations

Saving food with the can
Effective from June 3rd, Alexander Mohr has been appointed to the position of Secretary General.

Alexander Mohr joined APEAL in 2012 as Director External Affairs. Previous to this, he headed the public affairs practice for the European container glass industry based in Brussels, worked for a German political think tank on political party consulting issues and lectured on international relations at the Institut d’études politiques de Paris (SciencesPo). He holds a law degree from the University of Tuebingen, Germany.
Editorial

This latest issue of Steel for Packaging Update offers not only an insight into the issues impacting steel packaging across Europe today, but also a wider look at the way steel is impacting EU packaging policy and supply chain requirements.

The sustainability of steel packaging has many faces.

It’s about the increasing steel recycling rate figures, going from strength to strength, saving ever more energy and resources.

It’s about the relevance of steel as an effective and sustainable packaging material for all actors in the supply chain, contributing to their sustainability objectives whilst protecting and preserving products like no other.

It’s about the design and differentiation possibilities of steel packaging, continuing to protect and endure but in ever-more innovative ways.

And lest we forget why the can is one of the most impacting discoveries of the past 200 years, we begin a series to revisit defining moments in the rise of Steel for Packaging and discover why all that made the tin can such a great invention is still relevant to steel today.

Explore and enjoy!

Patricia Mobbs
Editor

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Europe has taken yet another step in the direction of a truly recycling society. The latest figures released by APEAL show that European households recycled more steel packaging in 2011 than the previous year, increasing the percentage of steel packaging recycled for the 12th successive year.

2.6 million tonnes of steel packaging were recycled by European households in 2011, corresponding to an average rate in Europe of 74%.

If that volume were to fill a freight train, the train would need to stretch all the way from New York to Berlin! In terms of weight, that’s enough steel to manufacture 246 Eiffel towers.

What do these recycling figures mean for the planet?
A tonne of recycled steel saves over one and a half times its weight in CO₂ emissions. The emissions saved by steel recycling in 2011 are equal to almost 2 million flights from Brussels to Tokyo.

2011 reinforces the long term trend for steel as the most recyclable and the most recycled packaging material in Europe. Indeed the last 20 years have seen a threefold increase in packaging steel recycling thanks to a combination of steel’s natural properties, well-established collection and recovery routes across Europe and recognition for the resource gains of recycling.

Steel recycling is sustainable: The nature of steel as a “Permanent material” means it can be used again and again to form new packaging and other product applications, losing none of its strength or qualities no matter how many times it is recycled.

Steel recycling is easy: Steel is magnetic and is easily and economically separated from other household waste.

Steel recycling saves resources: Scrap is an integral part of the steel manufacturing process, so recovered steel is easily integrated, reducing energy use and emissions.
Recycling steel creates value. Value from the raw materials it saves, but also value from energy and emissions savings too. It’s important that recycling is pushed at every policy level to drive Europe to become a true recycling society. Every European citizen can make a difference. And with less emissions and greater energy savings, every European citizen can feel a difference.

Recycling rates for packaging material in Europe in 2011

<table>
<thead>
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<th>Material</th>
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<tr>
<td>Plastics</td>
<td>33%</td>
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<tr>
<td>Beverage carton</td>
<td>37%</td>
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<tr>
<td>Aluminium cans</td>
<td>67%</td>
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<tr>
<td>Glass</td>
<td>70%</td>
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<tr>
<td>Steel</td>
<td>74%</td>
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Sources: Industry experts - PlasticsEurope, ACE (Alliance for beverage cartons & the environment), FEVE (European Container Glass Federation), APEAL (European Association of Producers of Steel for Packaging) & EAA (European Aluminium Association).
The Interview
Arno Melchior, Global Packaging Director of Reckitt Benckiser

This article is the first in a series demonstrating the advantages of Steel for Packaging in terms of supply chain efficiency.

APEAL: You are Global Packaging Director for Reckitt Benckiser, one of the world’s leading fast-moving consumer goods companies. Can you explain Reckitt Benckiser’s approach to product packaging?

Arno Melchior: Our Packaging Development is based on several pillars. The most important ones are, in alphabetical order, convenience, cost-efficiency, product protection and sustainability. In terms of sustainability we choose materials which are not only recyclable but which are also actually recycled. From these materials we choose the one which provides the best product protection/cost-efficiency ratio. Other requirements like protection of the consumer, ease of use etc. are then designed into the pack.

How relevant is Steel for Packaging for your business in each of these areas?

This approach is in terms of recyclability and recycling a very big plus for steel. Steel is magnetic. So it can be easily separated in the waste stream. Steel is recyclable and, unlike plastics or paper, you can recycle steel again and again without degradation.

Reckitt Benckiser’s “betterbusiness” approach to sustainability reveals a profound understanding of the global pressure on natural resources and waste. What are your concerns about resource efficiency and how can steel make a positive contribution?

We developed “betterbusiness” by examining the key sustainability-related trends that will present the greatest risks and opportunities for our industry and focused on the ones where we can make the biggest difference. For example, one of the trends we decided to focus on was water scarcity, which is relevant to all of our products and many of our consumers. Resource efficiency will become more important as the world’s appetite for steel grows. This means that the recycling of world steel will need to increase in future to meet projected demand. In this respect it will be very important for the steel industry to support local authorities to increase recycling levels to rates above 90% like we have in Germany and Belgium.

Reckitt Benckiser’s Air Wick aerosol snapped up the top prize for the 2011 UK Packaging Awards Environmental Initiative. Can you detail the contribution of the tinplate packaging to your success there?

The 100% natural Air Wick with compressed air propellant helped us to reduce the carbon footprint by 40% which is equivalent to taking 13000 cars off the road. The tinplate can is a well-known packaging format to consumers. So we made sure in this respect that consumers could still recognize the new airfreshener as an Air Wick product. Steel also protects the perfume from degradation and it makes sure that the pressure of the compressed air will remain until the final use.

Was the recyclability of tinplate a key factor in your choice of packaging material for this product?

Of course. We compared not only recyclability but also actual recycling rates of tinplate aerosol cans vs aluminium aerosol cans. Steel is, in this respect, by far the better choice.

“In terms of sustainability we choose materials which are not only recyclable but which are also actually recycled.”
Reckitt Benckiser manufactures an extensive range of home and hygiene products. Can I assume the barrier and protection properties of steel are important factors when it comes to choosing a packaging material for this segment?

Absolutely. For aerosols, for example, we use mainly steel. Only very small cans are made from aluminium. For many products like shoe paste or floor polishes, steel provides a barrier not only against oxygen and moisture but also against UV light.

Reckitt Benckiser has been repeatedly recognised globally for its sustainability initiatives, notably its life cycle approach to reducing the carbon footprint of its products. Are data for packaging materials included in your Carbon20 and Sustainable Innovation Calculators, for example the APEAL 2011 LCI dataset for tinplate production in Europe?

RB does take a total life cycle approach to measuring the sustainability impacts of our products. Packaging and Raw Materials contribute 23% of our Total Carbon Footprint and are the second largest impact area behind consumer use. Our life cycle approach is grounded in the science of Life Cycle Analysis and we use a variety of third-party, verified LCI datasets. RB’s Sustainable Innovation Calculator does capture packaging and references the same robust dataset as our Total Carbon Footprint.

Finally, on a more general note, do you believe that there is a shift of perception in the market away from packaging as a source of waste and towards recognising the importance of packaging’s fundamental role, i.e. to protect and preserve goods?

The recent campaigns by several governments to tackle the food waste issue have opened the eyes of many consumers with respect to the very important function of packaging not only to protect and preserve but also in the very basic function to transport food from the farms to the shops without major wastage. 25 years ago I had to defend my job in private discussions when friends accused me of generating waste. Now people are much more open to recognise packaging as a crucial element of our society.

How well does steel packaging fulfil that role for your products?

Steel packaging fulfils the role of protecting and preserving products very well. As already mentioned steel provides barrier not only against oxygen and moisture but also against UV light. Steel will remain very high on the list of packaging materials which we use at Reckitt Benckiser.

For more information: www.rb.com

“40% less climate change impact compared to regular aerosols”, RB Sustainability Report 2011
Reach out and touch

The best steel packaging innovations of 2012

With new embossing, shaping and printing techniques today’s steel packaging designers are pushing back technical limits and providing their customers with endless possibilities for product differentiation.

Today’s steel containers don’t just catch the eye, they make the consumer want to reach out and touch...

Steel is one of the most reliable and sustainable packaging materials available. Yet these award-winning designs demonstrate the extent to which steel is also a material for design and innovation excellence.

Showcasing real design and manufacturing achievements, The Canmaker’s “Can of the Year” awards have recognised the best innovations and initiatives in global metal packaging for 17 consecutive years.

Images by courtesy of The Canmaker
For more information: spgevents.com/coy2012winners.htm
2012
Cans of the Year

Decoration & Print category
Gold winner
Luxury tinplate container from Virojangler (France), an outstanding example of the deep embossing decoration that only steel packaging can offer.

Aerosol category
Gold winner
Innovative polymer-coated steel can demonstrating a waste-reducing, printing technique without water or alcohol.

Food three-piece category Gold winner
Eye-catching mini oil barrel design from Massilly (France), which also gives a real advantage for stacking.

Beverage three piece category Gold winner
Elaborate beaded can using expanded molding for a glass-cut design and easy-to-hold grip.
A master of decoration and embossing for tinplate packaging, Virojnglor also snapped up the Silver Award in the “Can of the Year” Fancy Can category, the “Pentawards 2012” Silver award and the “Emballage 2012” Pack Experts Innovation award for its Veuve Cliquot Ponsardine gift pack on a design based on 3 sardine cans.

**General Line category Gold winner**

Quality tinplate pail for industrial paints from Emballator (Sweden), whose patented safety lid is both easy to open and reliable (UN-approved for safe transport).

**Fancy Cans category Gold winner**

Retro-design barrel with step and metal knob cover, whose round shape also offers great stacking possibilities.

**Food two-piece category Gold winner**

Drawn tinplate metallic-effect can for tuna from Ardagh group.
Lighter cans are the future

The prototype and sustainability awards both recognised cans demonstrating new light-weighting achievements, a clear indication of the industry’s commitment to resource efficiency and reduced material use.

Sustainability award
Gold winner

Currently the lightest steel can on the market.

Prototype category
Gold winner

The world’s lightest three-piece steel beverage can, available in 2013.
Back to basics

10 dates that define Steel for Packaging, Part 1

Since the first cans were designed to sustain world powers in their quests around the globe, Steel for Packaging has innovated and evolved as fast as consumer demand; always adapting, innovating and satisfying whilst preserving the qualities that first defined its value – inherent strength and unrivalled protection.

Steel protects and preserves the products we use, making them safer, easier and more reliable. Because steel packaging functions as such an important part of our everyday lives, we barely notice it anymore and might tend to forget its noble beginnings.

Here starts a new series revisiting and remembering the defining dates in steel’s journey to becoming the longest and strongest of all packaging materials, as well as the most recycled packaging material in the world.

1795

French emperor Napoleon Bonaparte offers a prize to anyone devising a new way to preserve food.

Over 200 years ago, traditional methods of preserving food did not keep it edible for long enough to reach France’s armies in their far-flung quest for military supremacy and colonial expansion. Napoleon’s troops were being decimated by the hunger and scurvy that were proving more deadly than combat. France needed to discover a way of keeping food unspoiled over distance and time.

Food cans continue to deliver that same reliability today. They provide long storage and safe food relief in modern world tragedies such as floods and earthquakes. They allow the balancing of bumper harvest with less productive years, and the regulation of production supply to consumer demand inside today’s market economies.

1809

Nicolas Appert invents the first system to preserve food by heat sterilisation.

A confectioner by profession, Nicolas Appert discovered that heating food to high temperatures inside sealed glass jars stopped it from ‘going off’. He received a prize from the French government and publicized his findings in a book that became the reference in canning for many years.

The world would wait until 1860 for Louis Pasteur to provide the explanation for canning’s effectiveness, by being the first to demonstrate how the growth of microorganisms is the cause of food spoilage.

The canning process still allows capturing the freshness and nutrients of food from the harvest, and virtually eliminating food spoilage during transport and storage.

In the next issue of Steel for Packaging update: the rise of canning.
Food for thought

How the can saves resources

In EU27, 179 kg of edible food is thrown away per year, per citizen, whilst 79 million European citizens live below the poverty line¹.

Saving food by preventing waste is a key element of a wider debate on how to feed the world of today and tomorrow. With a world population set to grow 2.5 billion by 2060², society faces new and difficult choices.

In Europe, almost 50% of edible food is lost³. If we include the resources used to manufacture these foodstuffs such as land, water and fertiliser, the total cost is significant and the subject merits its place under the scrutinising eye of government.

Reducing food loss would allow us to improve the global efficiency of food resources and contribute to global sustainability. In order to achieve this, the balance between the amount of food that is grown and that which is finally consumed needs to be improved. Packaging has an important part to play in achieving this objective.

Canned food and drink were vital in ensuring that healthy and safe food could reach victims of the 2010 tsunami in Japan and 2012 cyclone in the US.

Without measures put in place, the amount of food thrown away in Europe will reach 126 million tonnes in 2020, a 40% increase compared with 2006⁴.

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Canned food:
- is collected, cleaned, cooked at high temperatures and sealed close to source when still fresh.
- conserves nutrients and taste INSIDE and leaves impurities OUTSIDE.
- is canned close to source meaning less waste in transport.

Cans:
- remain unbreakable during transport and handing.
- enjoy a long shelf life, with no need of refrigeration.
- allow efficient food stock management, balancing harvest produce with consumer demand.

Towards a sustainable future

With one planet, limited resources and a growing population, how the world will continue to feed itself is an important question. Protecting food stocks from waste is an important step in the right direction. The real cost of lost food, in economic and environmental terms, is largely unknown today.

Cans are an efficient way to bridge the gap between food that is grown and food that is consumed, offering a real solution for saving food.

The food can should be universally recognised as a champion of sustainable consumption!

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Alexander Mohr begins a regular column on Steel for Packaging in European policy discussions

There is a big item on the desk of the European Commission for the coming years; the review of the European Packaging & Packaging Waste Directive (PPWD). APEAL is taking an active role in the discussion, advocating the social, economic and environmental benefits of recycling and highlighting the positive contribution of steel.

The European Commission has already begun the public consultation process on the review of the PPWD, aiming for an amendment to apply in 2014. The PPWD originally came into force in 1994 with a first amendment in 2004. The directive contains provisions on the prevention of packaging waste, on the re-use of packaging and on the recovery and recycling of packaging waste.

The European Union is increasingly looking into possibilities within its policies to enable the decoupling of economic growth from resource use. The core of this approach is the flagship initiative for a resource-efficient Europe under the ‘Europe 2020 strategy’. This flagship initiative supports the shift towards a resource-efficient economy in order to achieve sustainable growth. Here the PPWD will also play an important role as it sets, for example, the packaging recycling targets that European member states will have to achieve in the years to come.

One of the possibilities on the discussion table is to raise the recycling targets for packaging materials. The current target for steel is 50%, a target that European average has surpassed since 2000, with a great many EU countries recycling in excess of 80%. Indeed, steel is extremely easy and economical to sort due to its magnetic properties and has the great advantage of being infinitely recyclable in any desired application.

APEAL promotes higher recycling rates, as more recycling on a European level is key to saving raw materials, reducing emissions and helping to manufacture even more efficiently. APEAL supports this position with concrete actions to raise awareness amongst local and EU policy-makers of the benefits of recycling. The 2011 “Green solutions” conference in Slovakia is a great example of this. An initiative for local authorities in Poland takes place this year.

In all recent policies of the European Union, and its efforts to decouple growth from resource use, Steel for Packaging is perfectly positioned as an environmentally-friendly and resource-efficient packaging material. Indeed, in 2012 the European Parliament endorsed the European Commission’s Resource Efficiency Roadmap, specifically calling for “Permanent materials” to be made a new resource category, thus recognising the positive role of infinitely recyclable “Permanent materials” such as steel in society.

Infinitely recyclable without any loss in quality or properties, Steel for Packaging is perfectly positioned in these upcoming consultations. The discussions on the PPWD will be another opportunity to highlight the positive contribution of Steel for Packaging to European sustainability policy.
Steel Packaging & Sustainability

1. Each item of recycled steel packaging saves over 1.5 times its weight in CO₂.

2. Magnetic separation makes it easy to separate steel packaging from the rest of the waste stream (even from bottom ash).

3. Steel packaging is 100% recyclable.

4. Over the past 30 years, steel packaging has become 40% lighter.

5. Steel packaging's long shelf life and portion sized packaging saves food.

6. Steel packaging recycling saves the CO₂ equivalent of using more than 8 million barrels of oil.

7. Canned food is easily stacked, transported and does not require cold storage, making it sustainable from farm to fork.

8. Over 74% of all steel packaging in Europe is recycled, more than any other packaging material.
Discover the 7 key benefits of Steel for Packaging…
www.steelforpackaging.org

LIST OF FORTHCOMING PACKAGING EVENTS AND EUROPEAN PARLIAMENTARY SESSIONS

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<tr>
<th>DATE</th>
<th>EVENT</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>1-4 July</td>
<td>European Parliament Plenary</td>
<td>Strasbourg, France</td>
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<tr>
<td>3-5 September</td>
<td>PACTEC</td>
<td>Helsinki, Finland</td>
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<td>5-8 September</td>
<td>IPACK</td>
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<td>9-12 September</td>
<td>European Parliament Plenary</td>
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<td>12-15 September</td>
<td>Eurasia Packaging</td>
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<td>23-26 September</td>
<td>PAKFOOD</td>
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<td>15-17 October</td>
<td>Budatranspack</td>
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<td>21-22 October</td>
<td>European Parliament Plenary</td>
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<td>24-25 October</td>
<td>LUXE PACK</td>
<td>Monte Carlo, Monaco</td>
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<td>24-25 October</td>
<td>European Parliament Plenary</td>
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<td>6-7 November</td>
<td>European Parliament Plenary</td>
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<td>7-8 November</td>
<td>The Canmaker Summit</td>
<td>Edinburgh, UK</td>
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<td>18-21 November</td>
<td>European Parliament Plenary</td>
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<td>19-21 November</td>
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<td>European Parliament Plenary</td>
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