

STEEL  
FOR  
**PACKAGING**



# Steel for Packaging: a fresh look at a sustainable industry

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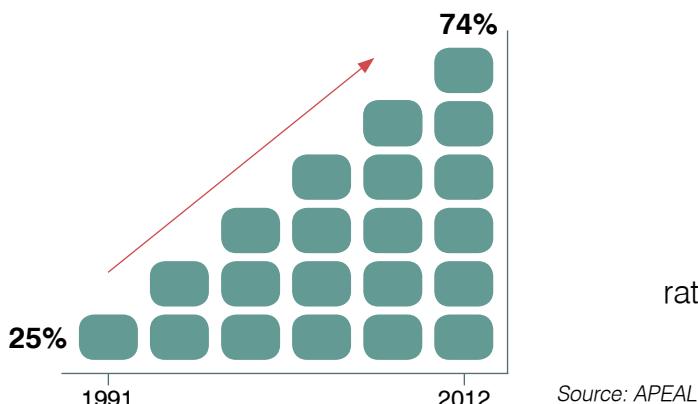
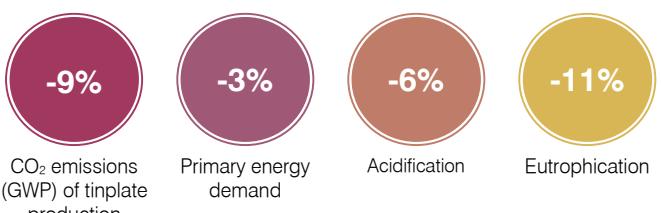
*APEAL Sustainability Report 2014*

# Sustainability indicators

## Life cycle indicators of tinplate

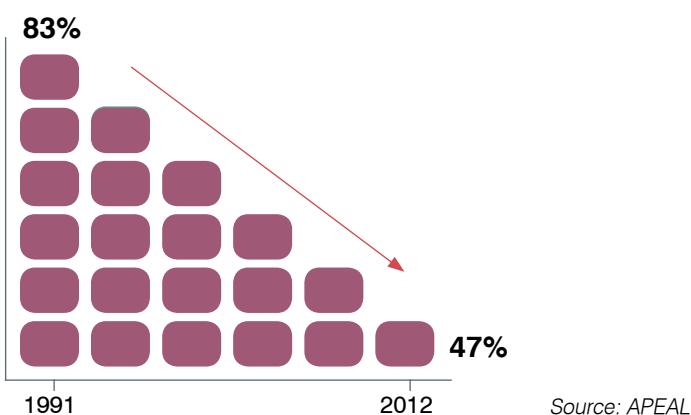
APEAL's latest LCI study measured several standard impact categories. These indicators demonstrate how the European Steel for Packaging industry has continued its trend towards more energy- and resource-efficient production.

Between 2006 and 2008



## Evolution of recycling rate

Over the last 20 years, the average recycling rate in Europe has steadily increased, from 25% in 1991 to 74% (2012).



## Evolution of CO<sub>2</sub> emissions

In that same time, production emissions have steadily decreased, falling from 83% to 47% (2012).

## Key industry commitments

Vision:  
**ZERO**  
steel packaging to  
**LANDFILL**  
by 2020

Objective:  
**80%**  
EU steel packaging  
recycling average  
by 2020

# Foreword

At APEAL, we believe it is time to take a fresh look at the Steel for Packaging industry.

The Steel for Packaging industry is an industry with a very clear approach to driving only sustainable change. By sustainable change we mean that which supports member companies' strong performance, as well as economic and social development, while managing environmental impact.

Inside this report you will find a snapshot of where the Steel for Packaging industry stands in Europe in 2014: our key challenges, our successes, and the ways in which our members are engaging with employees, stakeholders and the community at large to improve development and wellbeing.

Much of the activity described is work currently in progress. Indeed, any efforts to make an increasingly positive contribution to the world must be continuous.

A core editorial committee with representatives from the different member companies has worked together to collect the information for this report.

We hope you enjoy the read.

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# APEAL

## President's message



The Steel for Packaging industry is committed to sustainability in all its forms – social, environmental and economic. But while it's easy to make public statements about sustainability, it's entirely something else to back those statements up with concrete actions.

Steel has already played a vital role in transforming the world into the one we know today. It will continue to be just as important to our future – be it for the infrastructure of our growing cities or the way we protect and preserve food and make any product available to anyone, anywhere, at any time.

With this industrial and economic leadership comes great responsibility. As an industry we support the belief that sustainable development must meet the needs of the present without compromising the ability of future generations to meet their own needs\*.

We have long recognised the importance of reducing our global footprint through continuous improved manufacturing processes, breakthrough technology, development and increased recycling.

At the same time, as individual companies we know that our reach and responsibility extend much further into the communities that we sustain and touch, whether directly or indirectly.

Qualified and motivated employees are key to the sustainable future of our industry, and we support them with a variety of initiatives and programmes.

I am delighted that the European producers of Steel for Packaging, represented by APEAL, communicate their sustainability actions in such an open and transparent way.

These actions, many of which are encapsulated in this report, are yet another example of the commitment of our industry to demonstrate how Steel for Packaging protects today, in order to preserve tomorrow.

*Christian Korn  
President APEAL*

\* *World Commission on Environment and Development, 1987*

# Sustainable thinking: our three-pillar approach

**As a packaging material, steel has many inherent qualities that make it more environmentally friendly than competing products.**

Unique magnetic properties combine to make steel one of the most simple and economical materials to sort and recover from waste streams.

In terms of safety and performance, steel is unrivalled. Virtually unbreakable, steel packaging offers total product protection, even for the transport of hazardous goods. It is also cost-effective and reliable at all stages of the supply chain.

The continued performance and development of steel as a packaging material seeks to strike a balance between the social and economic development required to maintain our industry, and the environmental protection required to maintain our world.

So our sustainability thinking, in the same way as the core attributes of our material, follows a three-pillar approach.



**ENVIRONMENTAL  
RECYCLED  
& EFFICIENT**



**SOCIAL  
TRUSTED  
& RELIABLE**



**ECONOMIC  
VALUE & PERFORMANCE**

# Social sustainability

## Protecting our people, supporting performance, fostering communities

Individuals and communities are at the heart of the Steel for Packaging industry in Europe. The sector protects and supports its workforce, and invests in community and educational initiatives to ensure qualified, motivated employees for the industry and a positive impact on local regions.



### Safety, the Number One priority

Employee health and safety is fundamental to sustainability. The four member companies of APEAL strive towards the ultimate goal of a healthy and safe workplace for both internal and external workers. In order to do this, the companies use varied individual and group-wide initiatives and events to raise awareness of, and share best practices in, workplace health and safety.

Starting 2014, worldsteel will promote and facilitate an annual Safety Day for the entire iron and steel industry, in which all our members will participate.

ArcelorMittal has for the last seven years hosted an annual Health and Safety Day at its sites around the world, encouraging employees and contractors to "Stop, think and act safely in practice". The "Staying healthy at work" project at ThyssenKrupp Rasselstein has won several awards since its launch in 2003.

### Developing talent, advancing diversity

Training and human resources management ensure that APEAL member companies have workforces with the right level of skills. The Tata Steel Academy has 12 faculties.

ArcelorMittal's academy customises training programs according to organisational needs.

To promote diversity, each member company of APEAL individually undertakes measures and initiatives in support of equality, gender diversity and inclusion.

### Targeting the future workforce

Developing and assuring a pipeline of future talent is a continual challenge for APEAL members, who forge close links with specialist universities for recruitment and R&D.

Tata Steel has a European graduate program and strong links to Cambridge University in the UK, and U. S. Steel Košice works in close contact with the technical university of Košice, with which it shares results and data.

### Reaching out to local communities

Outside of education and recruitment, APEAL's members involve themselves with local communities to support development. For example, U. S. Steel Košice undertakes public-benefit activities such as blood donations, as does ThyssenKrupp Rasselstein, who also organises an annual "Rasselstein Cup" for youth football.



# Environmental sustainability

## Protecting today, Preserving tomorrow

### Actually recycled

Steel is a permanent material meaning that it can be endlessly recycled without any loss of quality. Steel is already the most recycled packaging material in Europe, at 74% in 2012, and has set an objective to achieve a recycling rate of 80% by 2020.

### Recycling that creates value

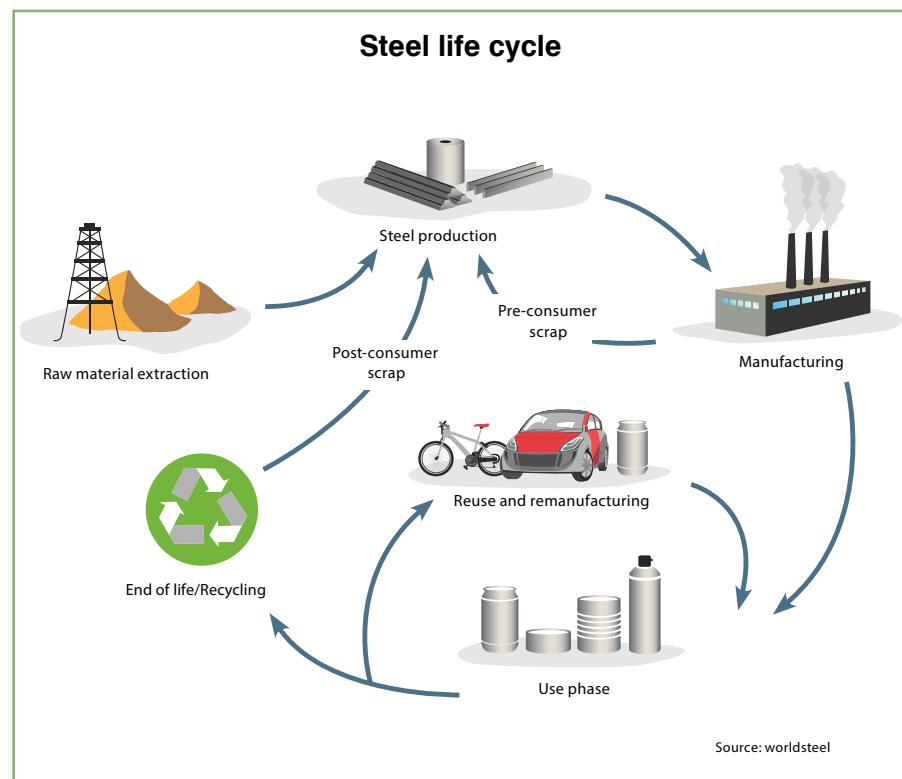
Recycling one tonne of steel saves over 2 tonnes of raw materials and also helps to reduce CO<sub>2</sub> emissions. In fact, each item of recycled steel packaging saves over 1.5 times its weight in CO<sub>2</sub>. In addition, the more steel packaging is properly collected, sorted and recycled, the more material is kept within the material loop, creating value and growing the circular economy.

By integrating recycled steel into the manufacturing process our industry achieves energy savings of 70% and lowers CO<sub>2</sub> emissions – regardless of the final use of new steel being produced.

The industry is strongly committed to the further reduction of CO<sub>2</sub> emissions by actively promoting the recycling of steel, increasing packaging optimisation and eco-design, and applying more sustainable production technologies.

### Proactive industry innovation

The European steel industry already reduced CO<sub>2</sub> emissions from production by 50% over the last 40 years. It is currently investigating breakthrough technologies that would allow for a future emission reduction of a similar magnitude. These techniques could imply CO<sub>2</sub> capture and storage but also less conventional carbon-lean or carbon-free solutions are being considered. In any case implementation of any such technology would imply huge structural changes in the steel industry for the years to come.



APEAL's members might be steel producers, but they are steel recyclers too! Scrap is an inherent component of the steel manufacturing process. APEAL's members work with local authorities and contribute to many national initiatives to increase consumer awareness of the benefits of recycling.

## Trusted efficiency

With its portion-sized packaging, long shelf life and ambient storage capabilities, steel's reliability allows it to save food and resources, including energy.



Portion-sized packaging means consumers can buy according to their needs.

Steel provides a 100% barrier against light, water and air. Contents are protected from the environment, and the environment is protected from packaged contents such as volatile, hazardous or inflammable products.

Canned products have a natural shelf life of up to three years, with no need for chemical additives for preservation. The canning process "locks in" taste and nutrients - in fact, the vitamin content of canned food has been proven many times to be equal to fresh.

What's more, Steel for Packaging reduces energy use too. Products packed in steel require no refrigeration during transport and storage. This makes them more energy-efficient than competing products such as frozen food, which uses up to 70% more energy in the supply chain.



## Versatile performance

From the production to transport and storage, Steel for Packaging offers greater protection, value and performance throughout the supply chain.



The efficiency of steel begins on the filling line where the natural strength and magnetic properties of steel mean that up to 500 food cans can be processed per minute with virtually no product loss.

During transport and storage, multi-layer stacking formats deliver better space use. Virtually unbreakable, the resistance of steel packaging against crushing, perforation and denting is much higher than alternative packaging

solutions, which means no outer packaging is required for added protection.

At the end of the supply chain, customers also benefit from having products made available, in all seasons, in a wide range of dispensing options and a multitude of volumes. Meanwhile, steel's smooth surface makes it easy to use techniques such as moulding, embossing and printing for better brand differentiation and greater shelf impact. Such shaping makes handling the containers easier for young or elderly consumers.



# Economic sustainability

## Industry employment and production

### Creating value, regionally

People are the drivers of development within the Steel for Packaging industry.

Employing 200,000 workers<sup>1</sup> in Europe between them, APEAL member companies, who are active in several steel markets, represent a very significant proportion of

the estimated 355,400 employed by the steel industry in Europe<sup>2</sup>.

The Steel for Packaging sector today accounts for the direct employment of around 5,500 people in Europe.

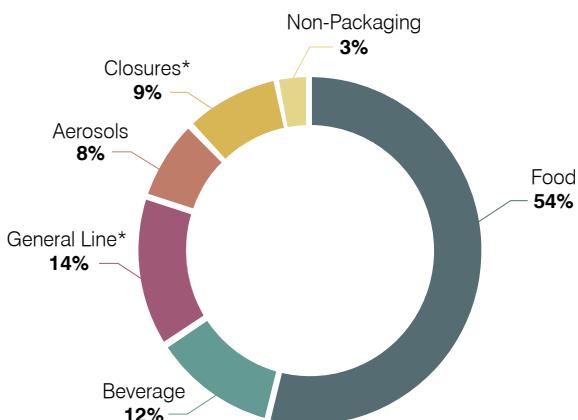
1 - APEAL 2011

2 - Eurofer, 2011

APEAL's members account for some 95% of Europe's total production of Steel for Packaging, destined for the fast-moving consumer goods industry, and a broad range of industrial and consumer products.



### There are 6 key market segments for Steel for Packaging.



\* Closures (eg. lids)

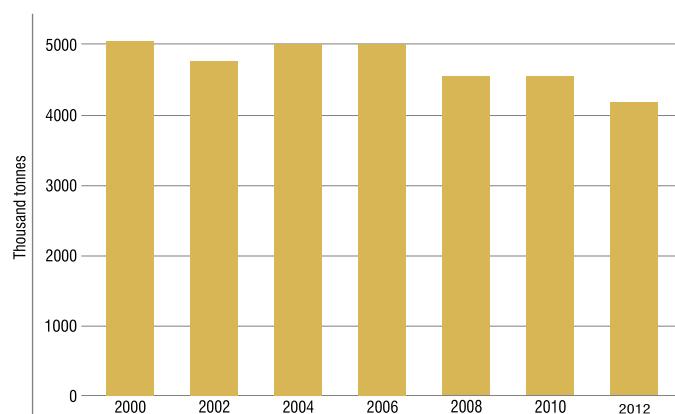
\* General Line (eg. household and industrial)

### Stable production

Each year, 4 - 5 million tonnes of Steel for Packaging are produced (4.2 million tonnes in 2012) by APEAL member companies in 7 EU member states: Belgium, France, Germany, the Netherlands, Slovakia, Spain, and the United Kingdom.

In 2011, the combined turnover of APEAL's member companies represented 3.6 billion euros<sup>3</sup>.

### Steel for Packaging production (tinplate & ECCS) in Kt



3 - Eurofer, 2012

Source: Eurofer 2013

# Commitment and engagement across the supply chain

## Sourcing minerals, responsibly

Given the steel industry uses mined raw materials, APEAL member companies have each established policies to ensure their minerals are traceable and originate from ethical sources.

At an industry-wide level, APEAL members each comply with the OECD Due Diligence Guidance which gives a global framework to responsible sourcing<sup>1</sup>.

*1- Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*

## Engaging with the supply chain

APEAL's focus on customer and supplier partnership programmes, throughout the material life cycle, strengthens its relationships within the value chain and champions steel as a sustainable packaging solution.

Through Empac, the European metal packaging association that brings together more than 200 can manufacturers, suppliers and their national associations,

APEAL contributes to market-focused initiatives to raise awareness of steel's sustainability credentials.

Together with Metal Packaging Europe (MPE), the umbrella organisation for the metal packaging industry in Europe on regulatory issues, APEAL gives steel a stronger voice and makes a more positive contribution in the development of EU policy.

## Raising awareness

APEAL members contribute to a variety of national and cross-industry initiatives dedicated to increasing awareness of the benefits of canned food throughout Europe.

These range from France ('Uppia'), to Germany ('Initiative Lebensmitteldose'), the United Kingdom ('Canned food UK'), Spain ('Centro de información de la Conserva Enlatada') and Italy (initiated by 'Anfima').

This principle, whereby metal producers and canmakers join forces to reach out to specific targets such as consumers, retailers and food professionals, has proved to be a successful recipe to inform about the nutritional, convenience and sustainability benefits of food packed in steel.



# APEAL at a glance

Founded in 1986 APEAL, the Association of European Producers of Steel for Packaging, is a federation of four multi-national steel producers with operations in Europe.

APEAL's mission is to work with all relevant stakeholders to ensure understanding and support for steel as a sustainable and resource efficient packaging solution.

## Key objectives

- Contribute to the development of European Union (EU) policy related to Steel for Packaging, particularly in the areas of packaging, waste, recycling and recovery
- Monitor technical developments
- Document, support and communicate the social, environmental and economic benefits of Steel for Packaging

## EU member states with Steel for Packaging manufacturing plants (APEAL members)



Note: Please note that while care has been taken to ensure the accuracy of the contents, neither APEAL nor its member companies accept responsibility or liability for errors or information that is found to be inaccurate.



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Tata Steel Packaging [www.tatasteelpackaging.com](http://www.tatasteelpackaging.com)  
ThyssenKrupp Rasselstein [www.thyssenkrupp-rasselstein.com](http://www.thyssenkrupp-rasselstein.com)  
U. S. Steel Košice [www.usske.sk](http://www.usske.sk)



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