



# How a “traditional” material can be source of both innovation and sustainability

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President, APEAL (The Association of European Producers of Steel for Packaging)



# APEAL IS THE REFERENCE FOR STEEL FOR PACKAGING IN EUROPE



Founded in 1986

Federation of the 4 major producers of steel for packaging in Europe



**TATA STEEL**



# STEEL FOR PACKAGING IS A TRUE PIONEER OF CIRCULAR ECONOMY



# A MATERIAL THAT IS CIRCULAR BY NATURE

closed material  
loop

a permanent  
material



real recycling  
rates

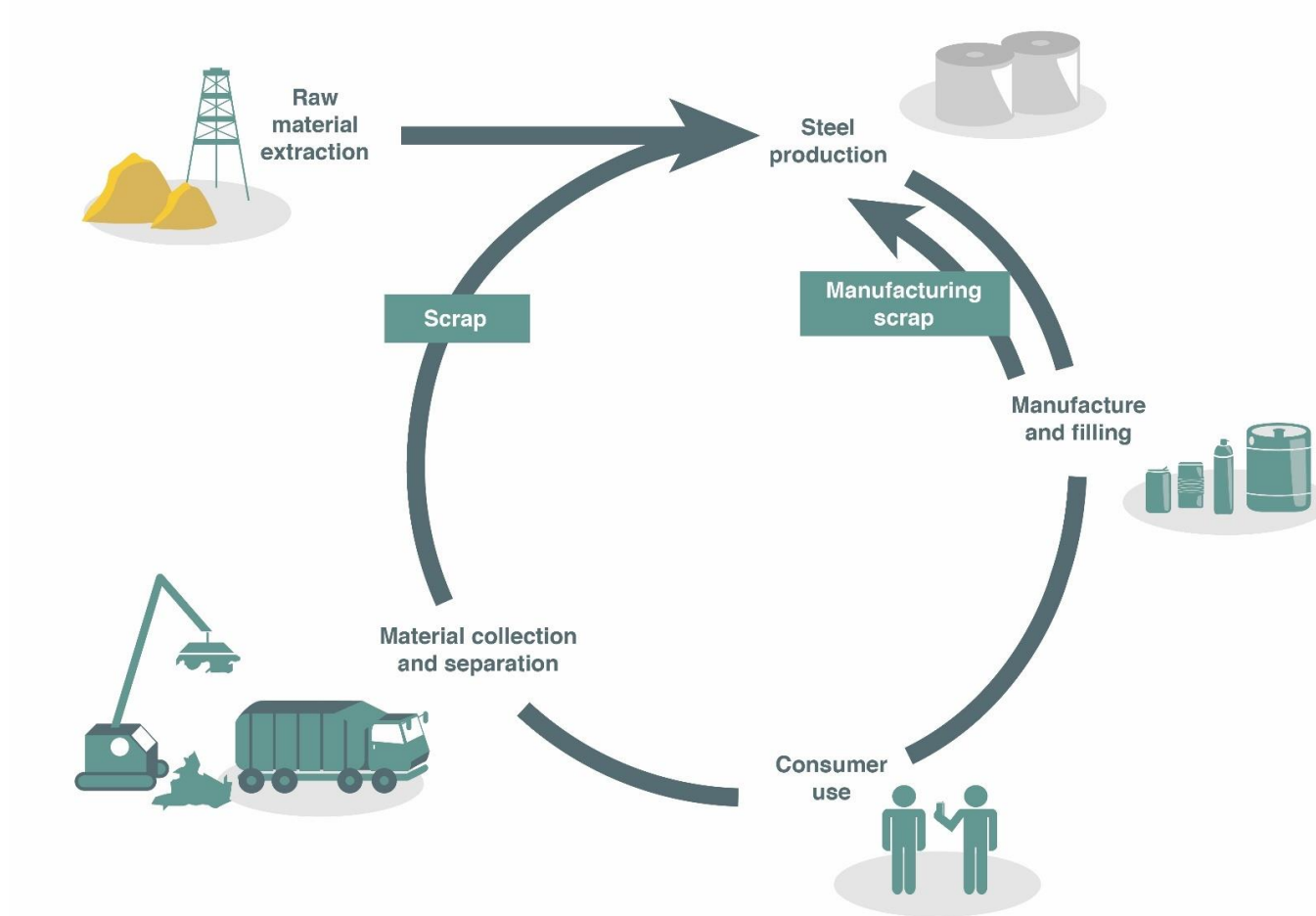
safe, robust  
innovation

# A MATERIAL THAT IS CIRCULAR BY NATURE

closed material  
loop



# STEEL'S CLOSED MATERIAL LOOP IS CIRCULAR BY DESIGN

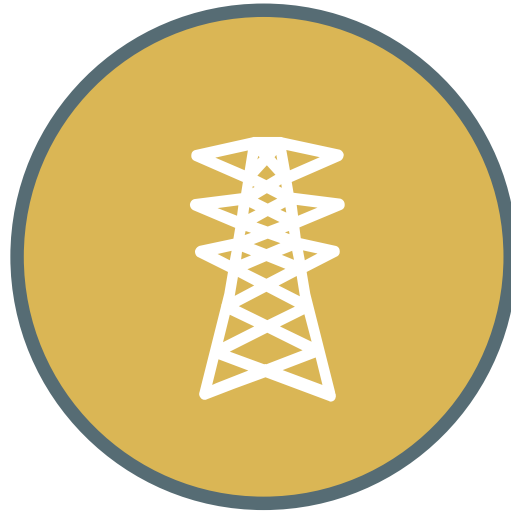


# A CLOSED MATERIAL LOOP SAVES RESOURCES



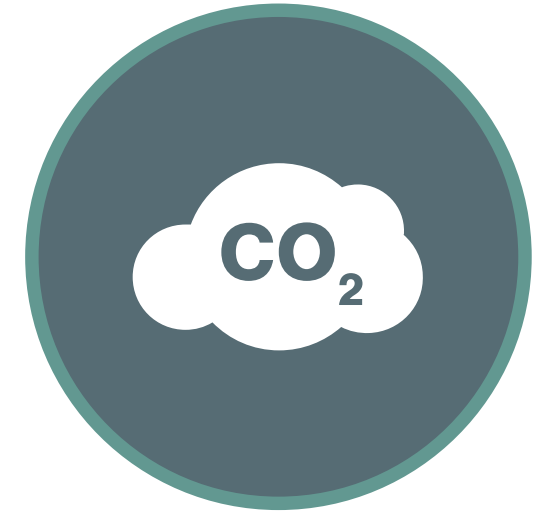
## MATERIALS

each item of recycled steel packaging **saves 2x** its weight in raw materials \*



## ENERGY

using recycled steel **saves up to 70% energy** \*

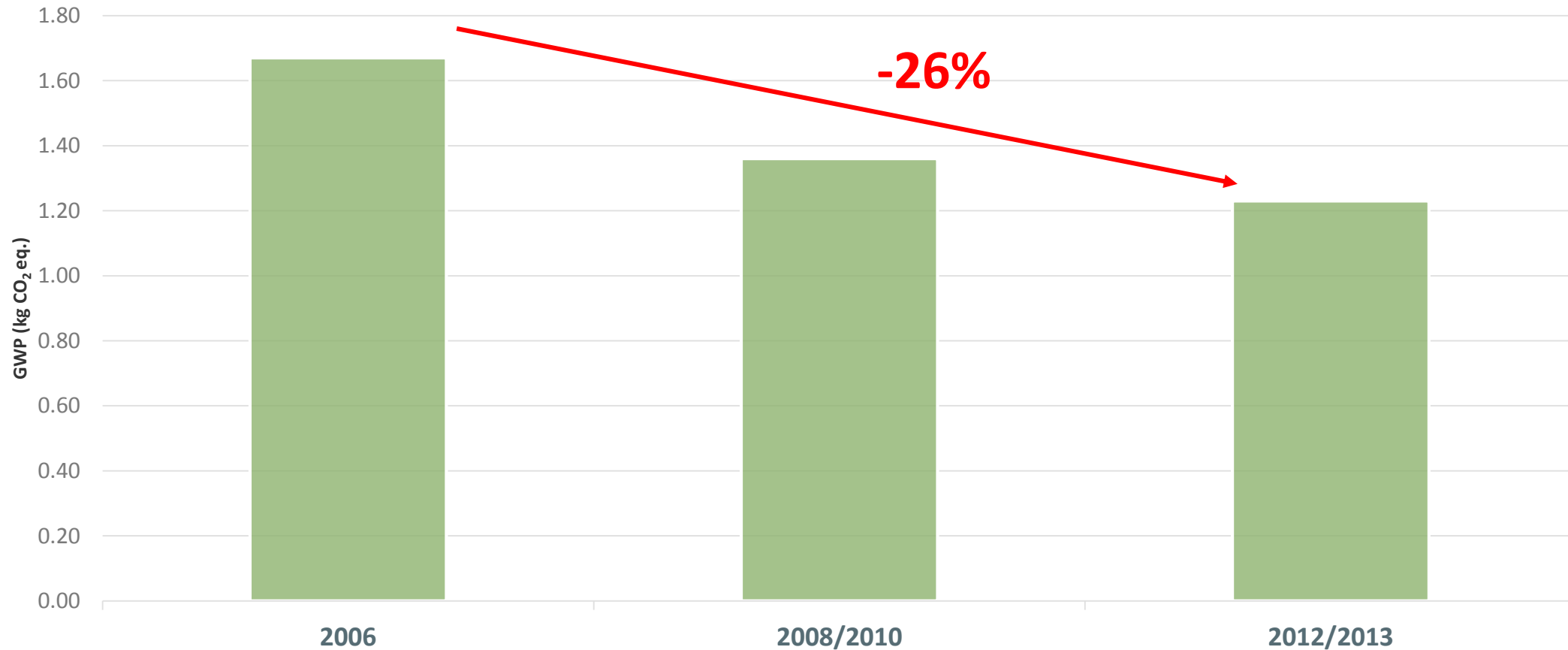


## EMISSIONS

each item of recycled steel packaging **saves over 1,5 times** its weight in CO<sub>2</sub> \*

\* Source Thinkstep LCI for APEAL

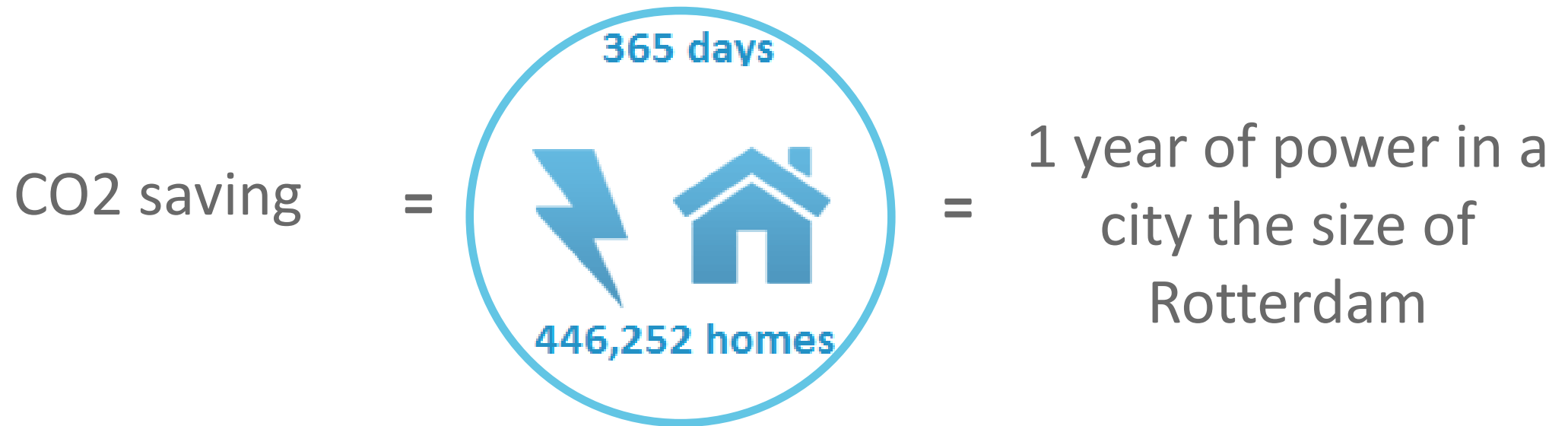
# STEEL IS CONSTANTLY DECREASING CARBON FOOTPRINT



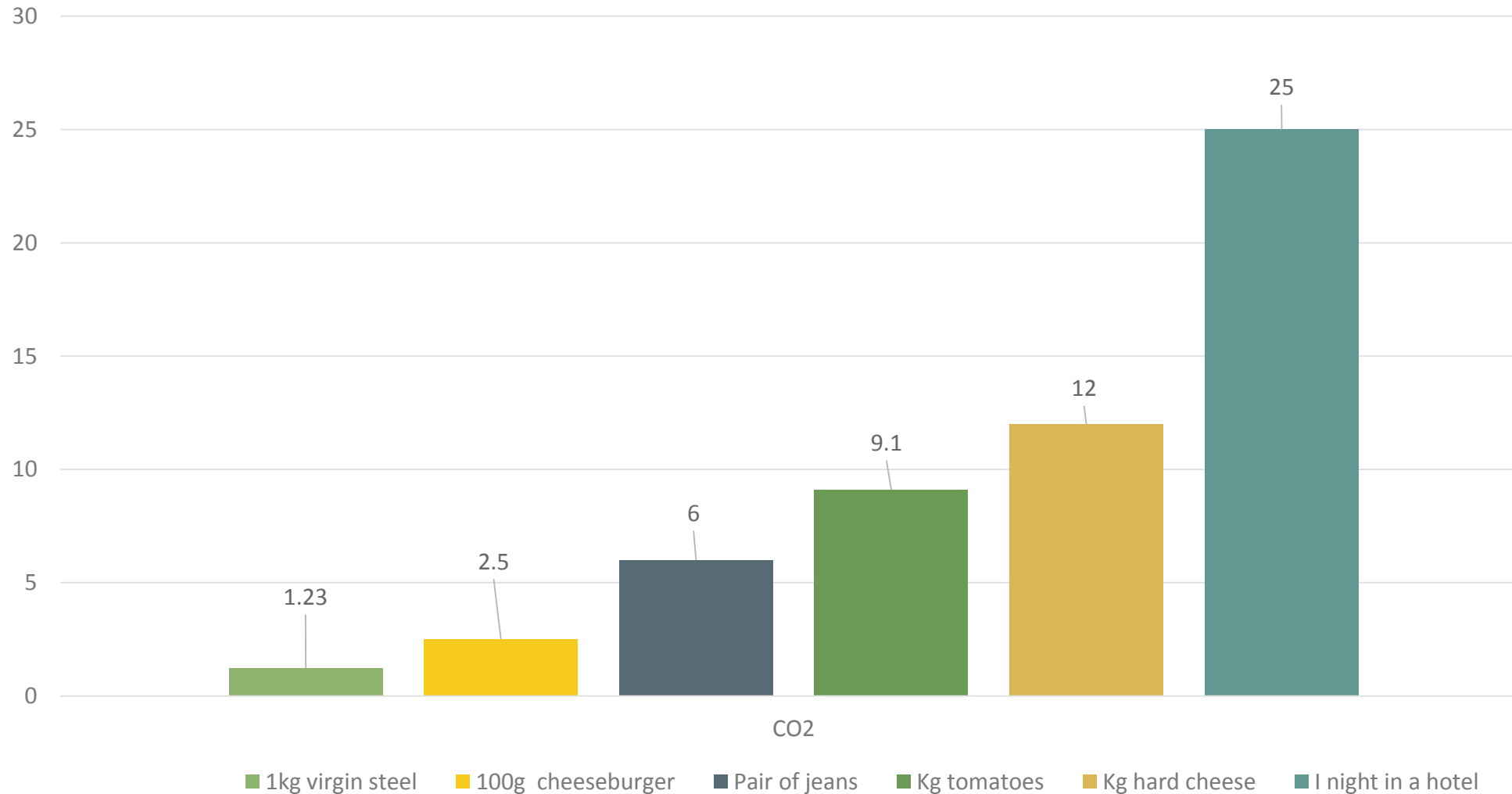
Source: APEAL



# ENVIRONMENTAL IMPACT OF -26% GWP?



# CARBON FOOTPRINT IN PERSPECTIVE



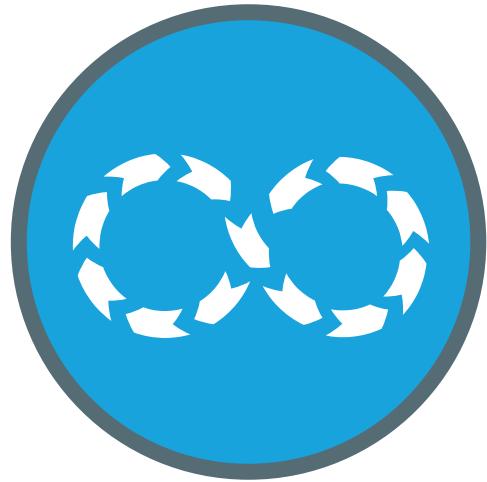
Source: APEAL LCI data, How bad are bananas, Mike Berners Lee

# A MATERIAL THAT IS CIRCULAR BY NATURE



a permanent  
material

# JUST IMAGINE...



... a material that can  
be **recycled forever**

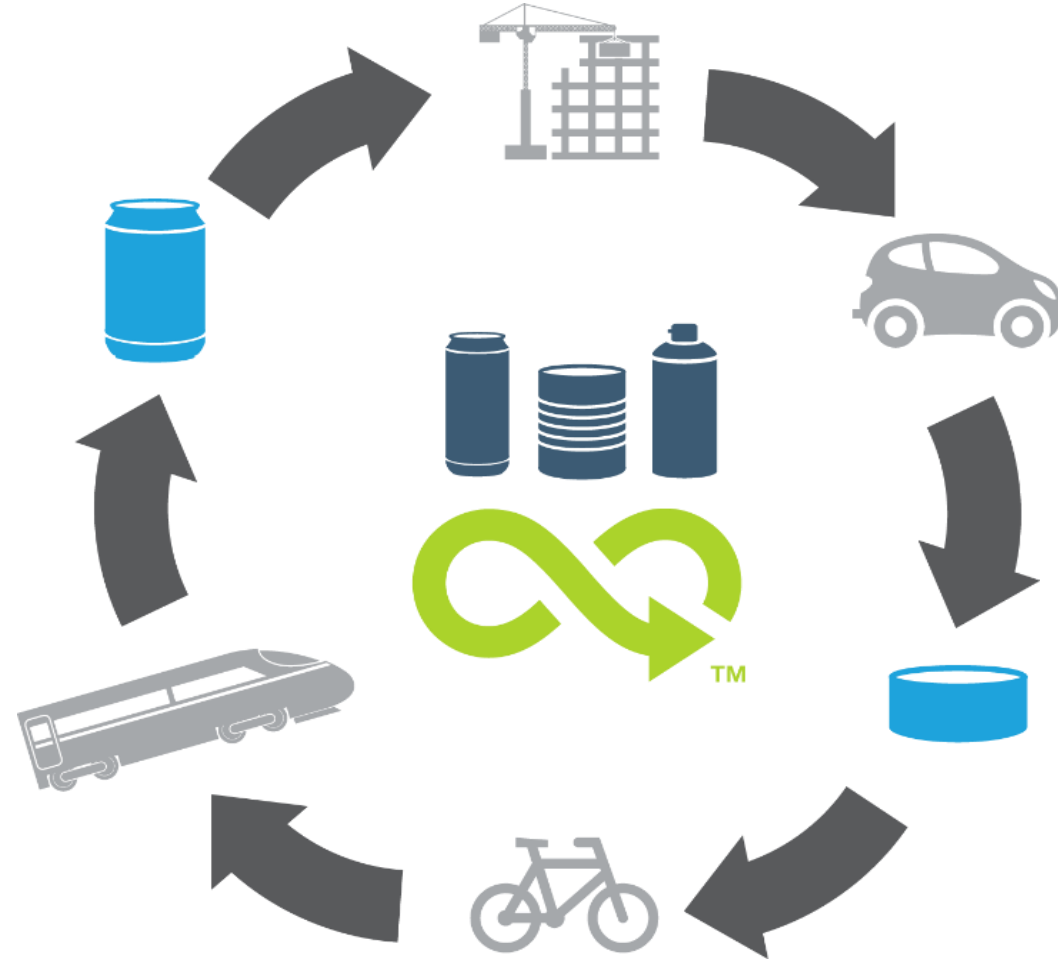


... contributes to  
**sustainable development**



# PERMANENT MATERIALS RECYCLE FOREVER

- permanent materials are used, not consumed
- they can be recycled, over and over again, without loss of properties = **multiple recycling**
- **multiple recycling is true circularity**



WORLDSTEEL ESTIMATES THAT

**75% of steel  
products ever made  
are still in use today**

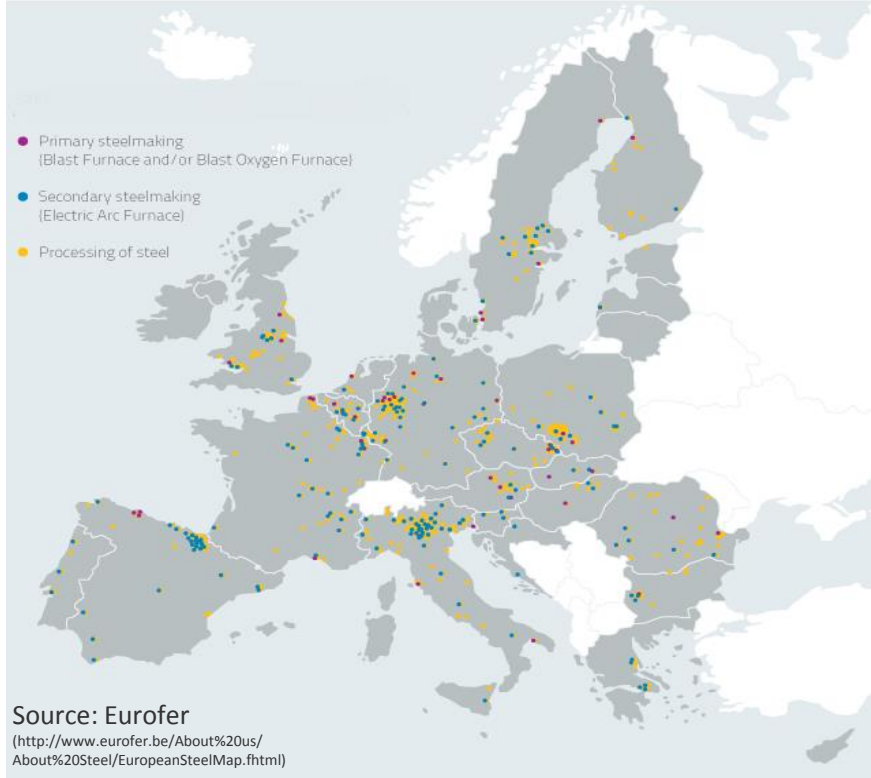
# A MATERIAL THAT IS CIRCULAR BY NATURE



real recycling  
rates

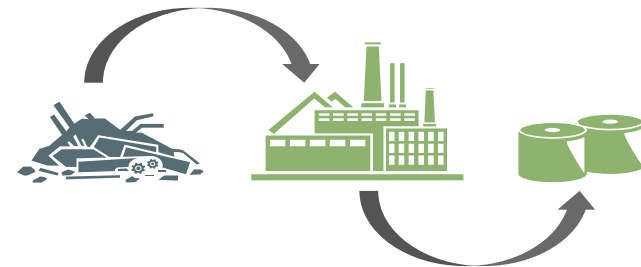
# STEEL IS EASY AND ECONOMICAL TO RECYCLE

## Wide recycling network in Europe (500+)



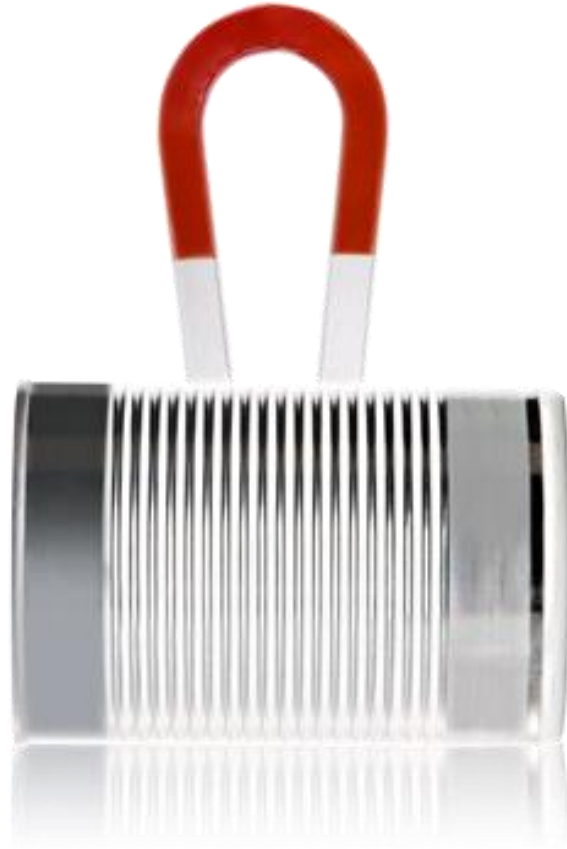
Every steel plant in Europe is already a recycling plant

Steel scrap is needed for the manufacture of new steel

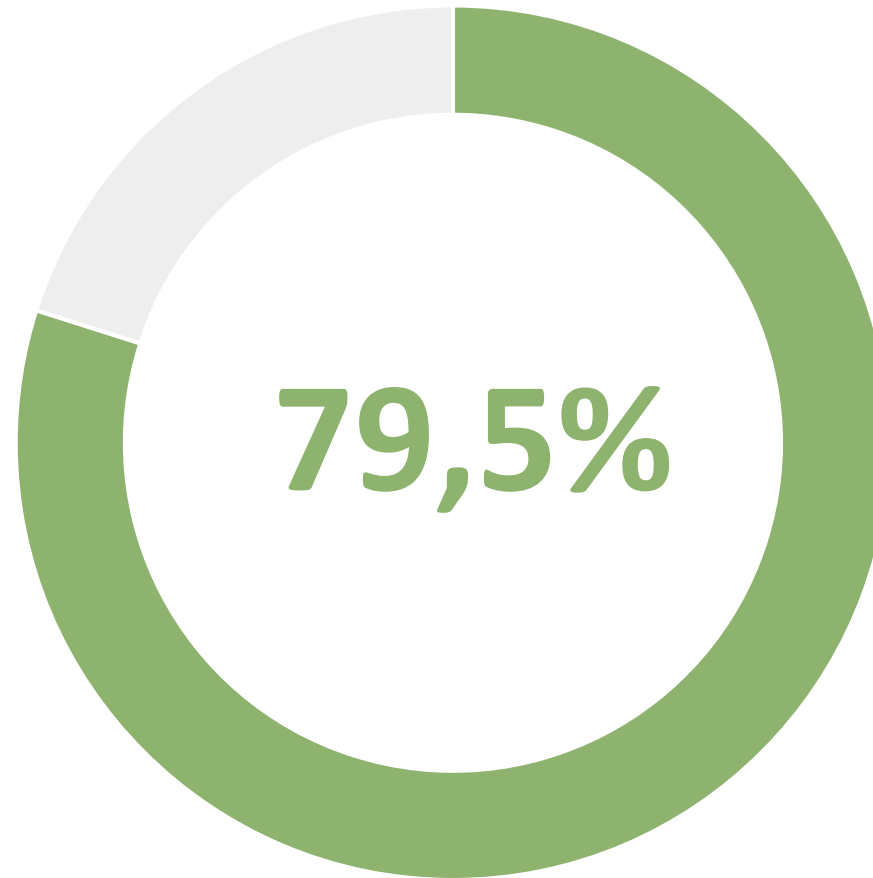




# INHERENT PROPERTIES ALLOW EASY & EFFICIENT SORTING



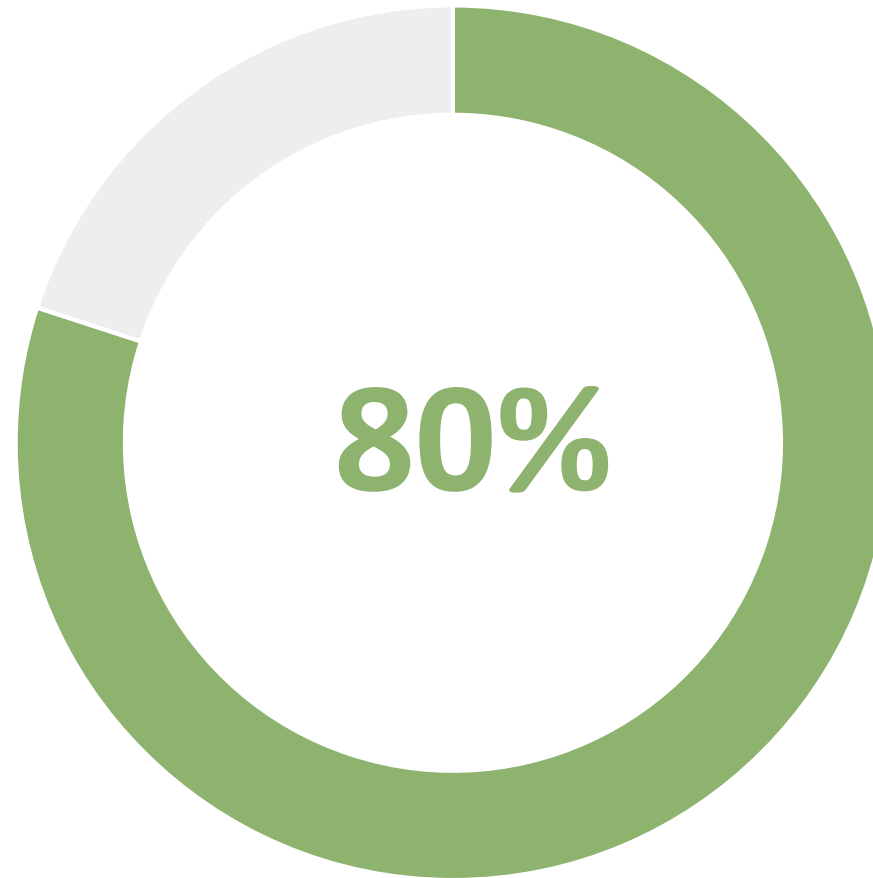
# CONTRIBUTING TO HIGH, REAL RECYCLING RATES



EU steel packaging  
recycling rate  
2016

Source: APEAL

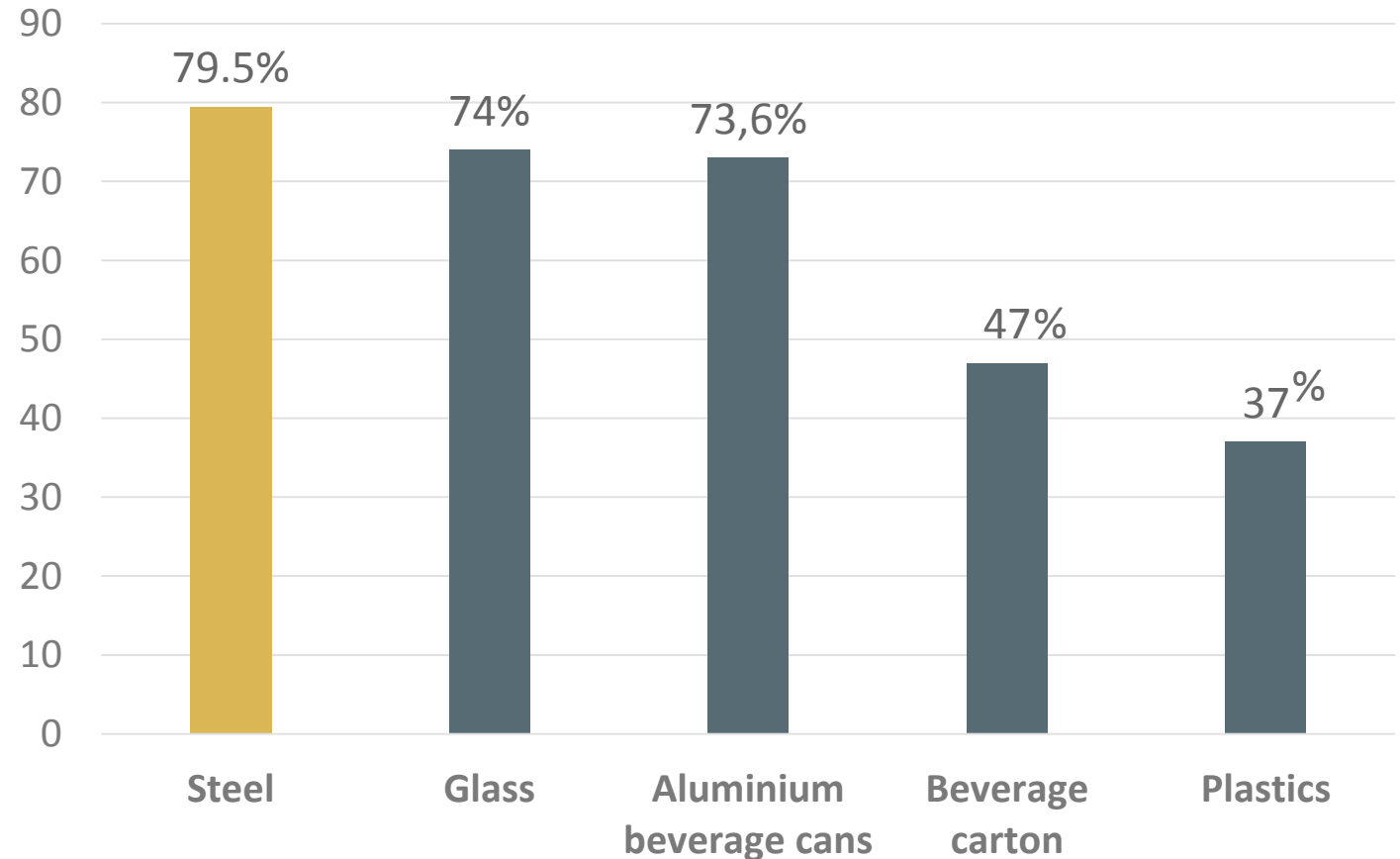
# ALMOST HITTING OUR INDUSTRY OBJECTIVE - EARLY



EU steel packaging  
recycling average  
by 2020

# LEADING OTHER PACKAGING MATERIALS IN EUROPE

**recycling rates** of main packaging materials in 2016 (EU 28+2)



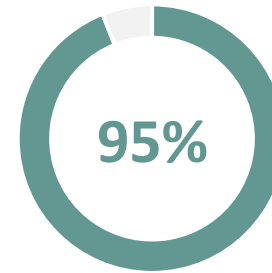
Source: Industry experts – APEAL, ACE (2016 data), FEVE, EA (2015 data); Eurostat



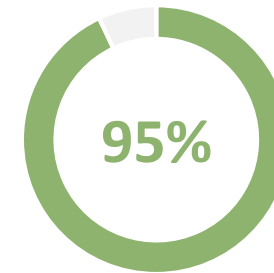
# BEST PRACTICES SHOW THAT HIGHER RECYCLING IS POSSIBLE

top 5 EU steel packaging recyclers recycle an average over 90% today.

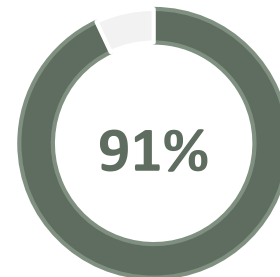
Netherlands



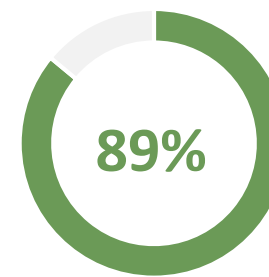
Belgium



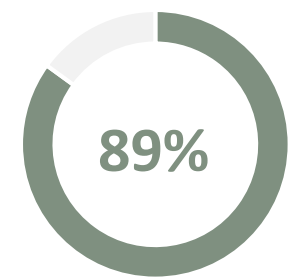
Germany



Switzerland



Spain



# SHARING BEST PRACTICES IS KEY



- launched 2018
- reference point to learn more about a real and successful recycling story
- increasing recycling requires a holistic approach

# A TRADITIONAL MATERIAL THAT IS CIRCULAR BY NATURE



safe, robust innovation

# FRONT END - DELIVERING THINNER STEEL GRADES FOR CANS



425 ml food cans are **29% thinner** than 30 years ago

# JUST ONE EXAMPLE...

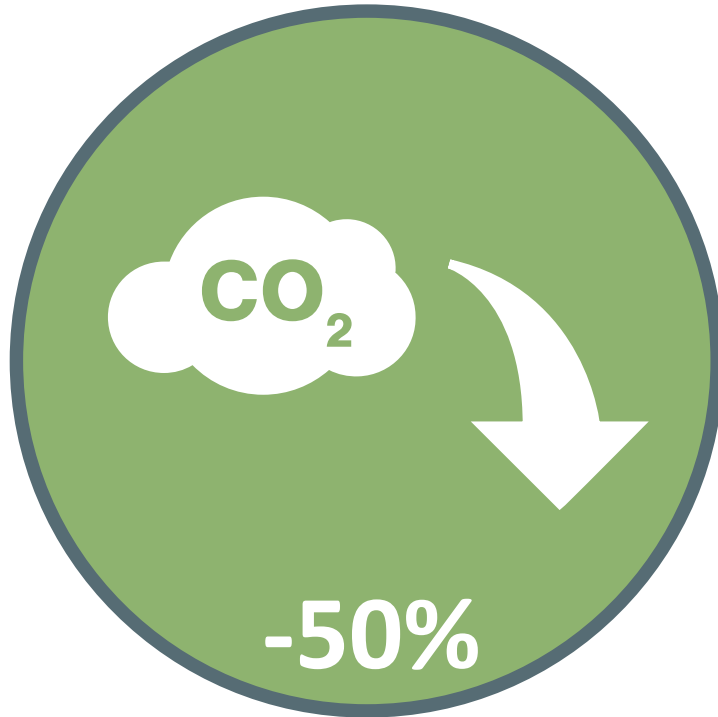
Less material use, just as strong

can wall 0.13mm  
-15% material  
-15% water saving



Source: Ardagh group

# REDUCING ENERGY USE AND EMISSIONS



**CO<sub>2</sub> emissions in production are 50% lower than 40 yrs ago**



**Energy consumption is 60% lower than 50 yrs ago**

Source worldsteel

# BACK END – ENGAGING CONSUMERS WITH RECYCLING

a visual link with consumers

*and*

a means to communicate sustainable packaging use



DELIVERING INNOVATION POTENTIAL IN

**design,  
communication,  
logistics**



# INSPIRATIONAL DESIGNS



high vacuum sealing



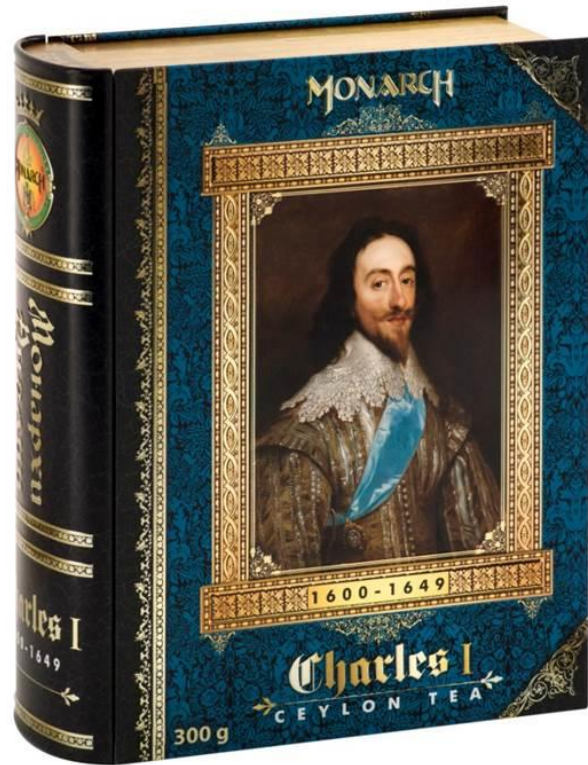
microwavability



ease of use

Source: The Canmaker

# INSPIRATIONAL GRAPHICS



high-end lithography



embossing & printing



holographic effects

# LOGISTICS & SUPPLY CHAIN FEATURES



stackability



security



handling



STEEL FOR  
PACKAGING,  
MODEL  
MATERIAL FOR A  
CIRCULAR  
ECONOMY...



...PACKAGING  
MATERIAL FOR  
THE 21ST  
CENTURY

# THANK YOU



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by an Association with a Secretariat with 10 or less people