Platts Steel Market Focus Conference
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Steel Recycling: A Response to the Sustainability Challenge

Philippe Wolper
Managing Director
APEAL

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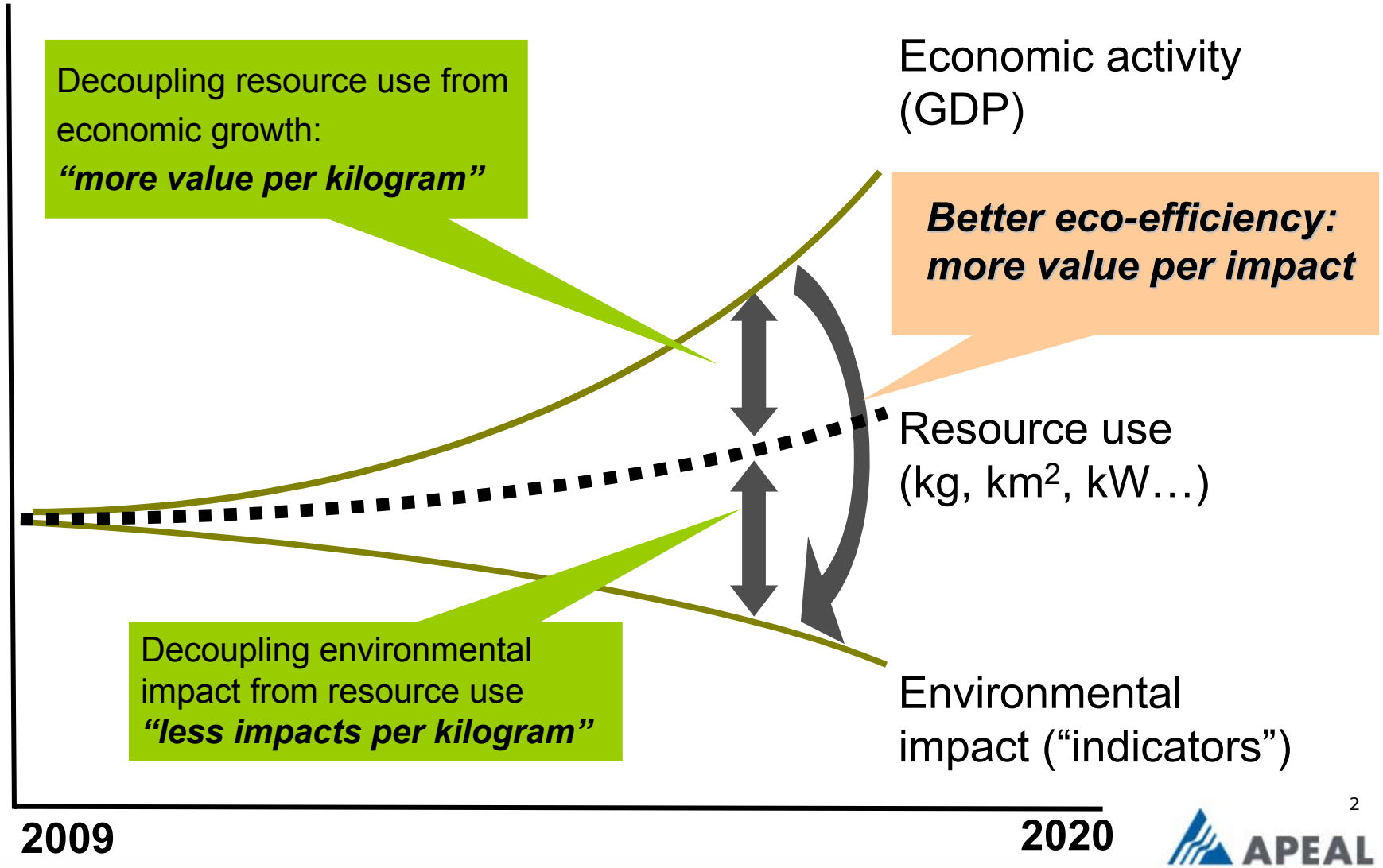
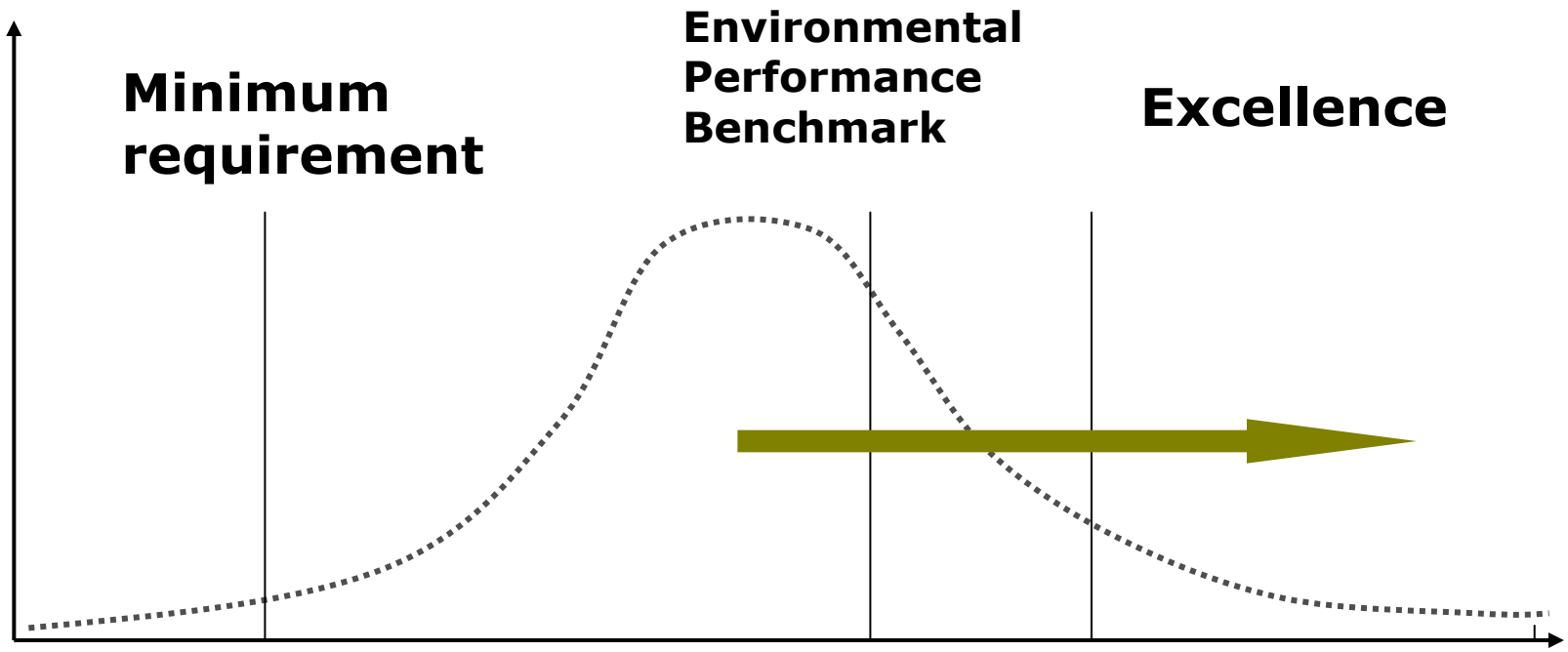
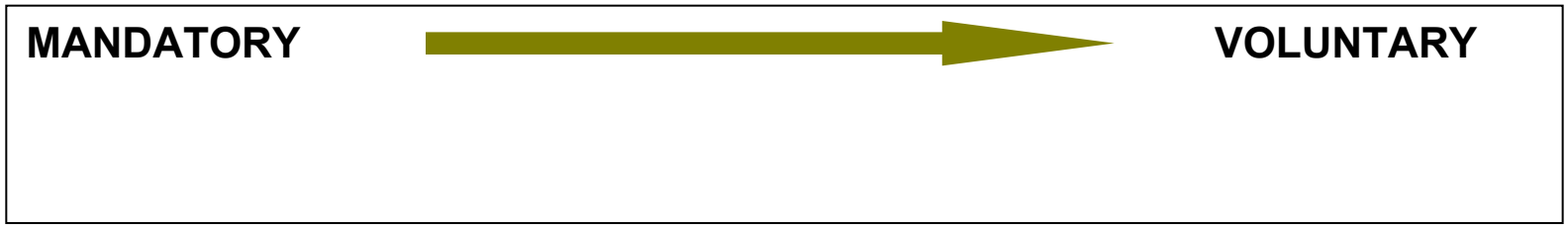
Objectives: Decoupling



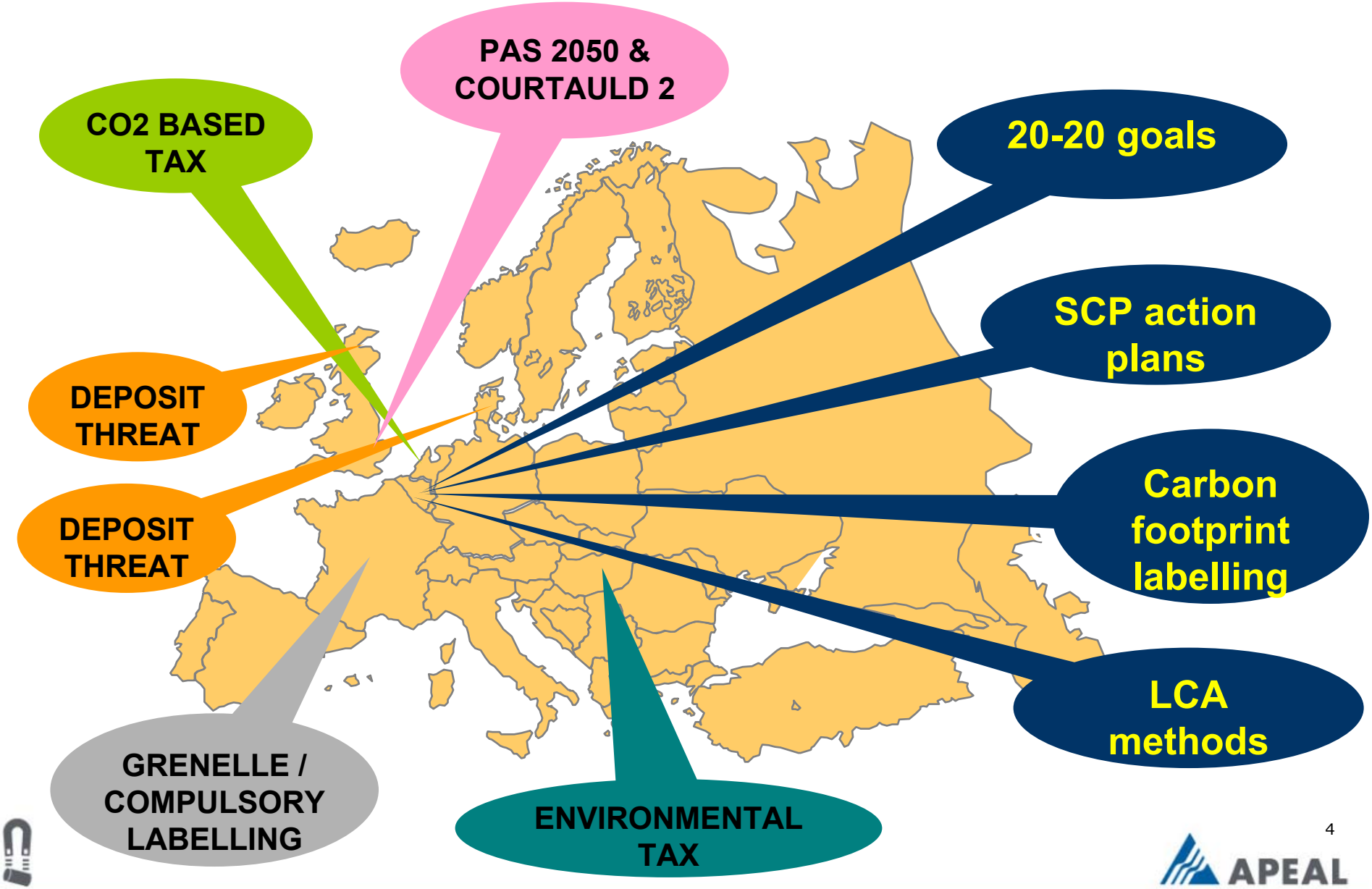
Expected evolution





Bottom up

Top Down



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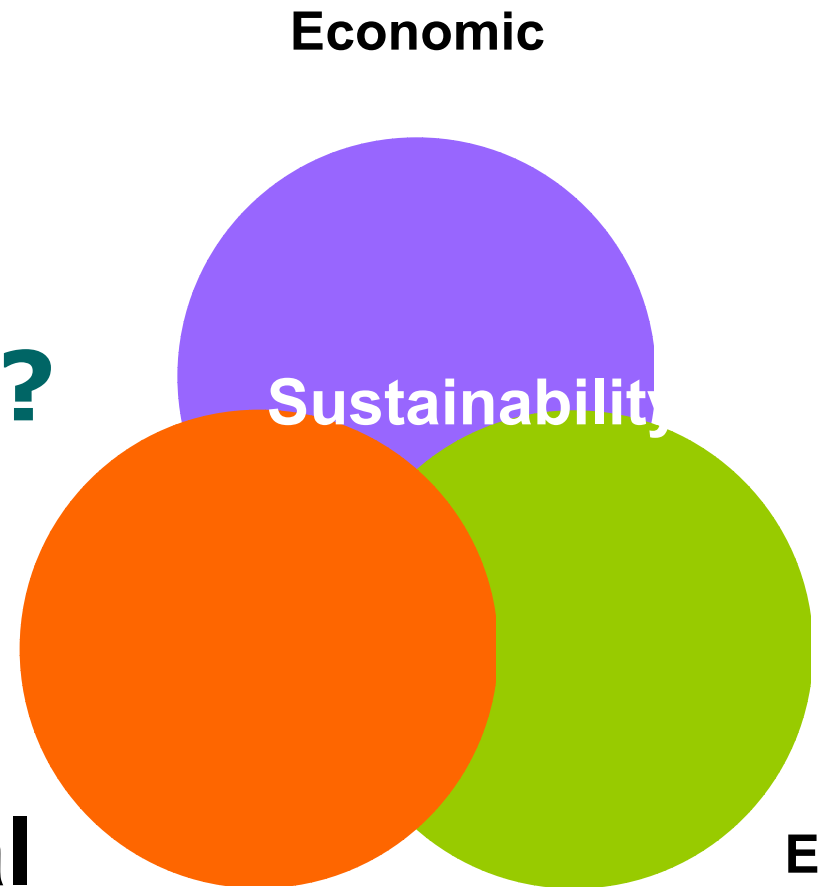
UNIQUE BENEFITS?



Steel cans **prevent product waste** …

Oxygen intake

measured in $cm^3/m^2/day/1$ bar atmosphere, for 100 microns thickness of packaging

1	Steel can	0 + total LIGHT barrier
1	Glass	0
2	Pouch	0 (with aluminium foil of at-least 6 microns) 17.4 (with EVOH)
3	Carton	<0.1
3	Rigid Plastics	1,000

Source: Industry Expert

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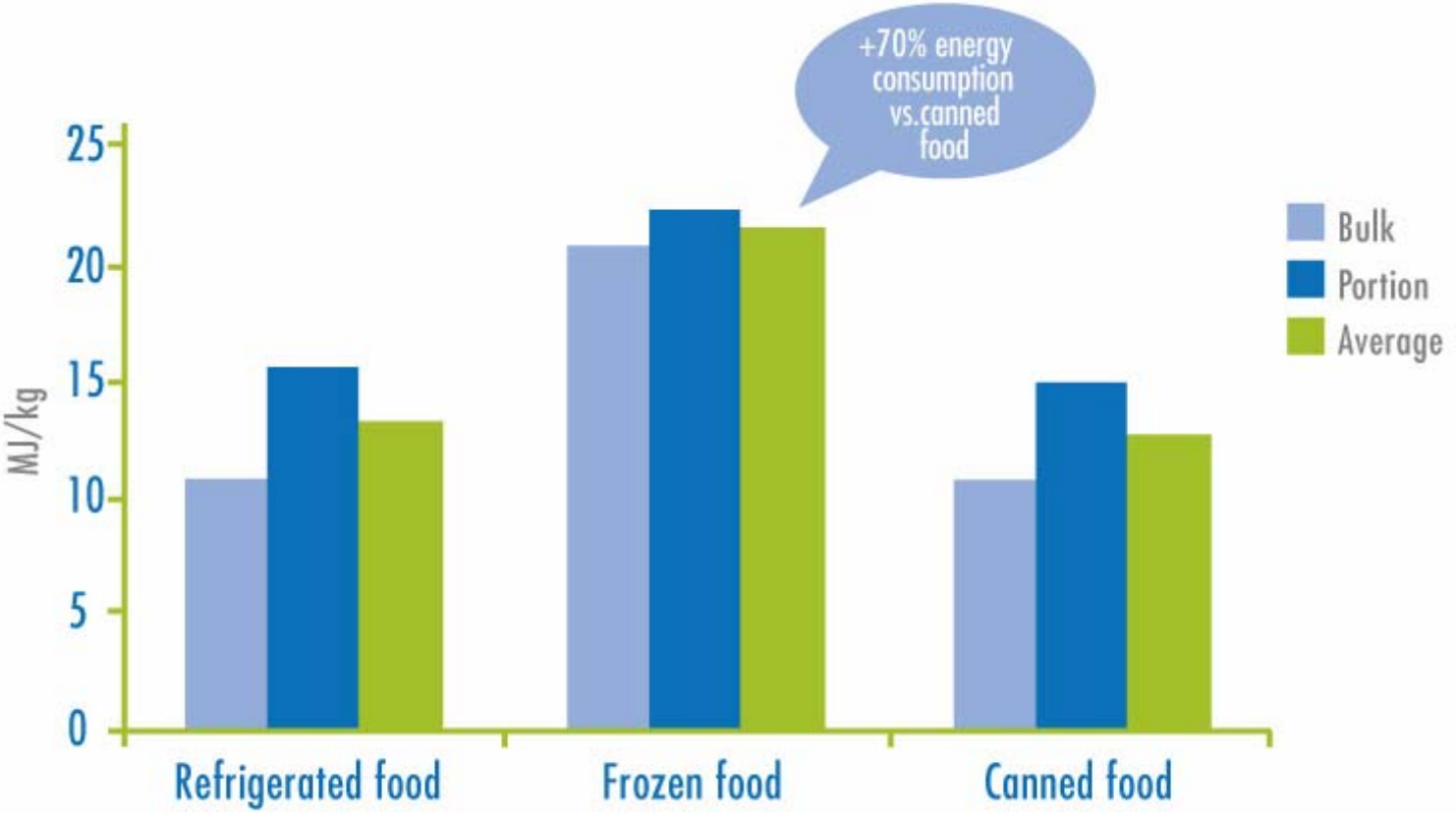
… deliver **highest protection** …

…and allow for **energy free preservation** throughout the supply chain.



Source: Scientific Certification System (scs)

HIGHEST STRENGTH

TOTAL BARRIER PROPERTIES

Protecting products… *Naturally*

- Trusted safety
- Ultimate protection
- Energy free preservation

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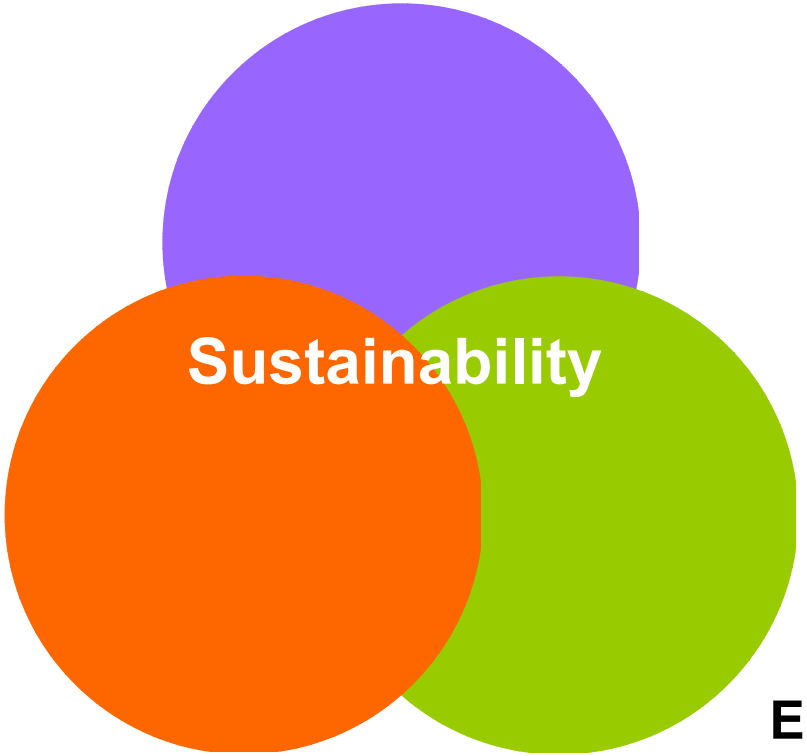
Economic



Social

Environment

Steel cans are best in class for **reliability**…

Failure rate
of closing devices

1	 Steel can	1/1,000,000
1	 Glass	1/1,000,000 (excluding glass breakage)
2	 Pouch	1/10,000
2	 Carton	1/10,000
2	 Rigid Plastics	1/10,000

Source: Industry expert

… and therefore **keep consumers safe** …

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…are **economical through the supply chain**…

Filling speeds

for 400ml soups from major European brand owners

1	Steel can	**500** units/minute
2	Rigid Plastics	**30-400** units/minute (according to filling system)
3	Glass	**300** units/minute
4	Carton	**30-100** units/minute (according to filling system)
5	Pouch	**30-70** units/minute (according to filling system)

Source: Industry expert

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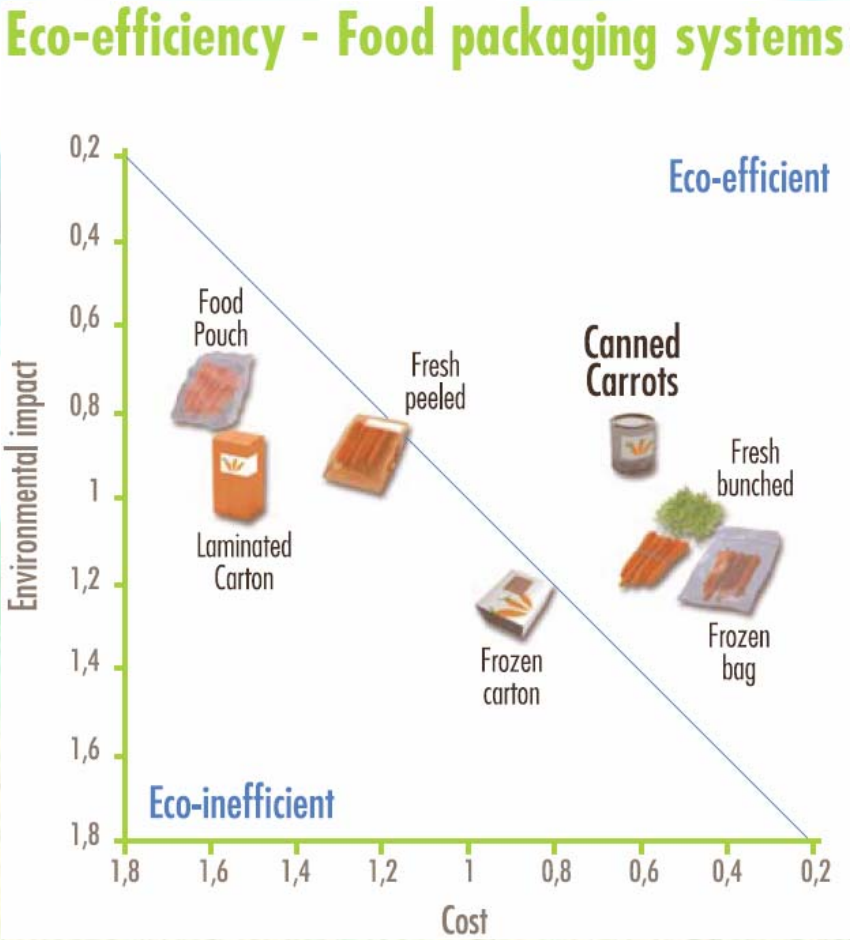
…delivering highest **eco-efficiency**.

Environmental parameters:

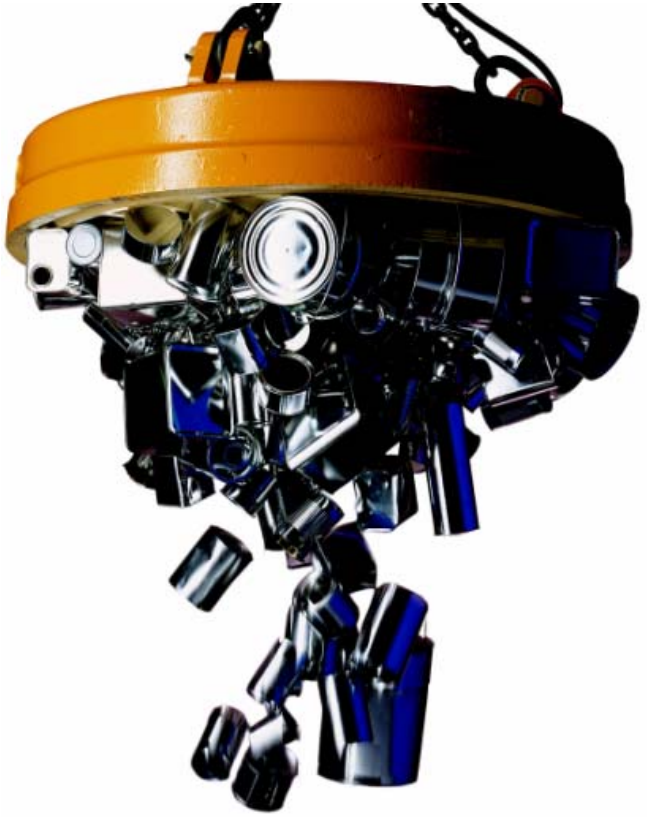
1. Global warming potential
2. Ozone depletion potential
3. Human toxicity potential
4. Fresh water aquatic ecotoxicity potential
5. Terrestrial ecotoxicity potential
6. Photochemical ozone creation potential



Cost analysis parameters:

1. Retail price of product
2. Cost of transportation
3. Storage
4. Preparation
5. Cooking
6. Waste disposal

Source: TNO



MAGNETIC

HIGHEST
STRENGTH

Delivering for business… *Naturally*

- The benchmark for packaging reliability
- Resistant & magnetic: supply chain efficiency at its best
- Highest eco-efficiency

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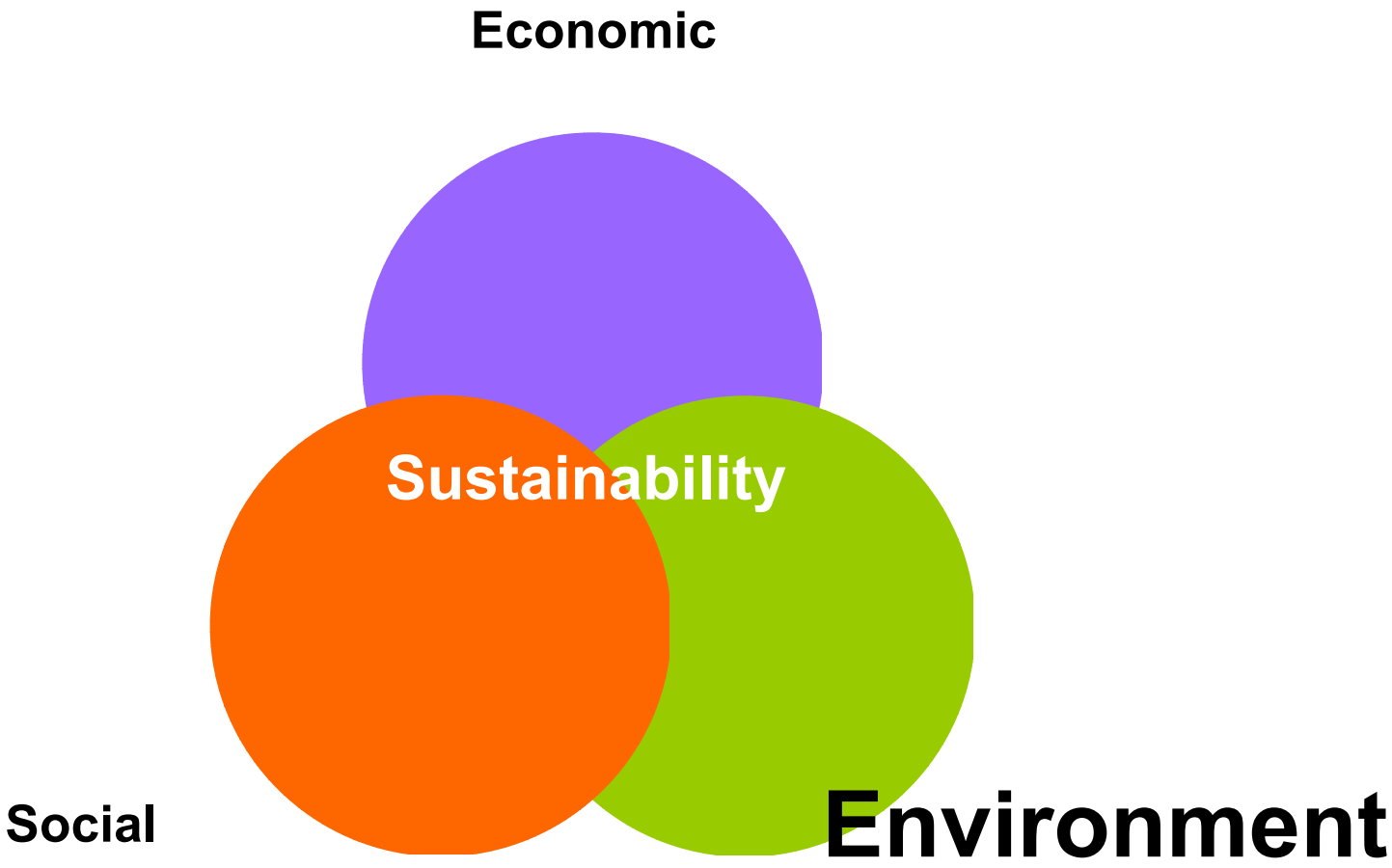
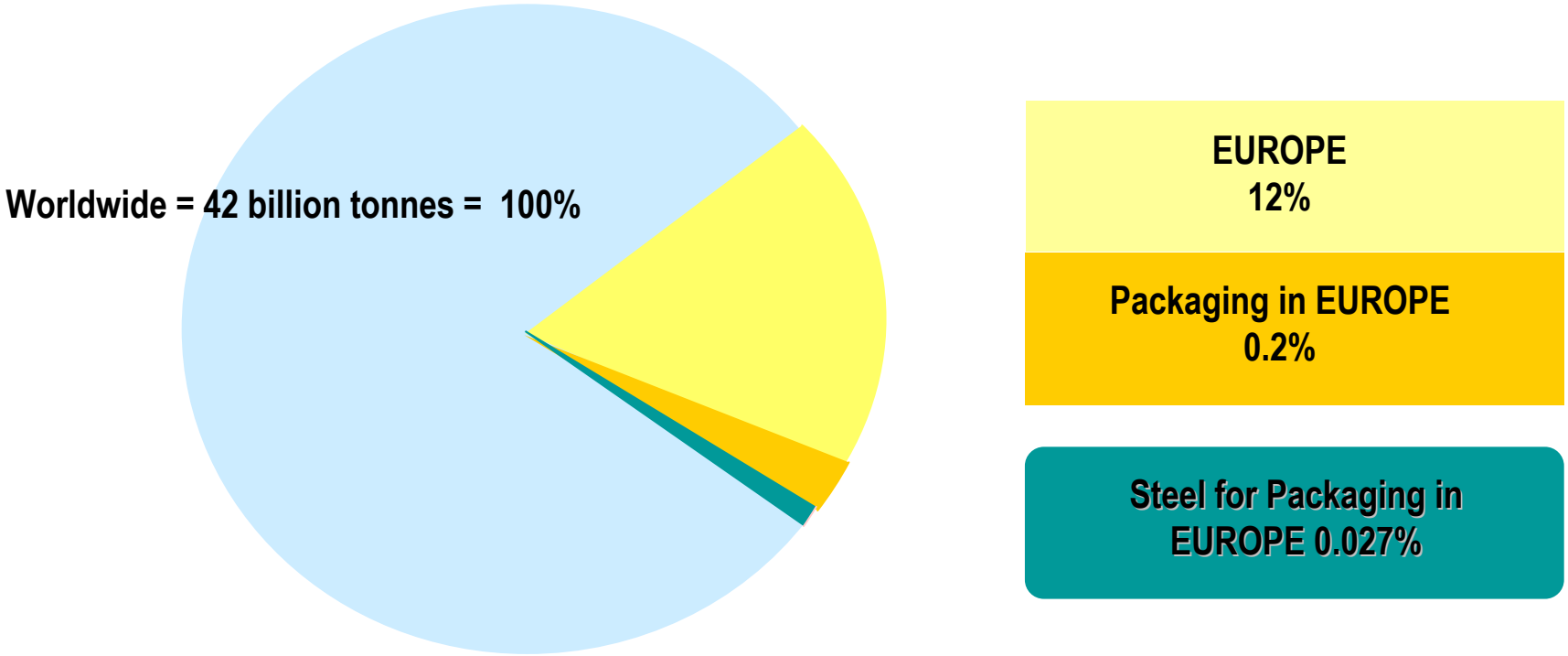

Economic
Sustainability
Social
Environment

Steel for Packaging: 0.027% of global CO_2 equivalent emissions = 11.4 million tonnes



CO_2 EQUIVALENT EMISSIONS
On a yearly basis

Source: Ref. 2000/2003 – World Resources Institute, EEA, EU Commission

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REDUCTION OF FOOD SPOILAGE REDUCES CO_2 EMISSIONS

1 tonne of food = 4.5 tonnes CO_2 eq.*

Source: WRAP – 'The Food We Waste'

Home

Retail

0.240 tonnes steel packaging (0.47 tonnes CO_2 eq.)

Source: TNO

* when thrown away needlessly

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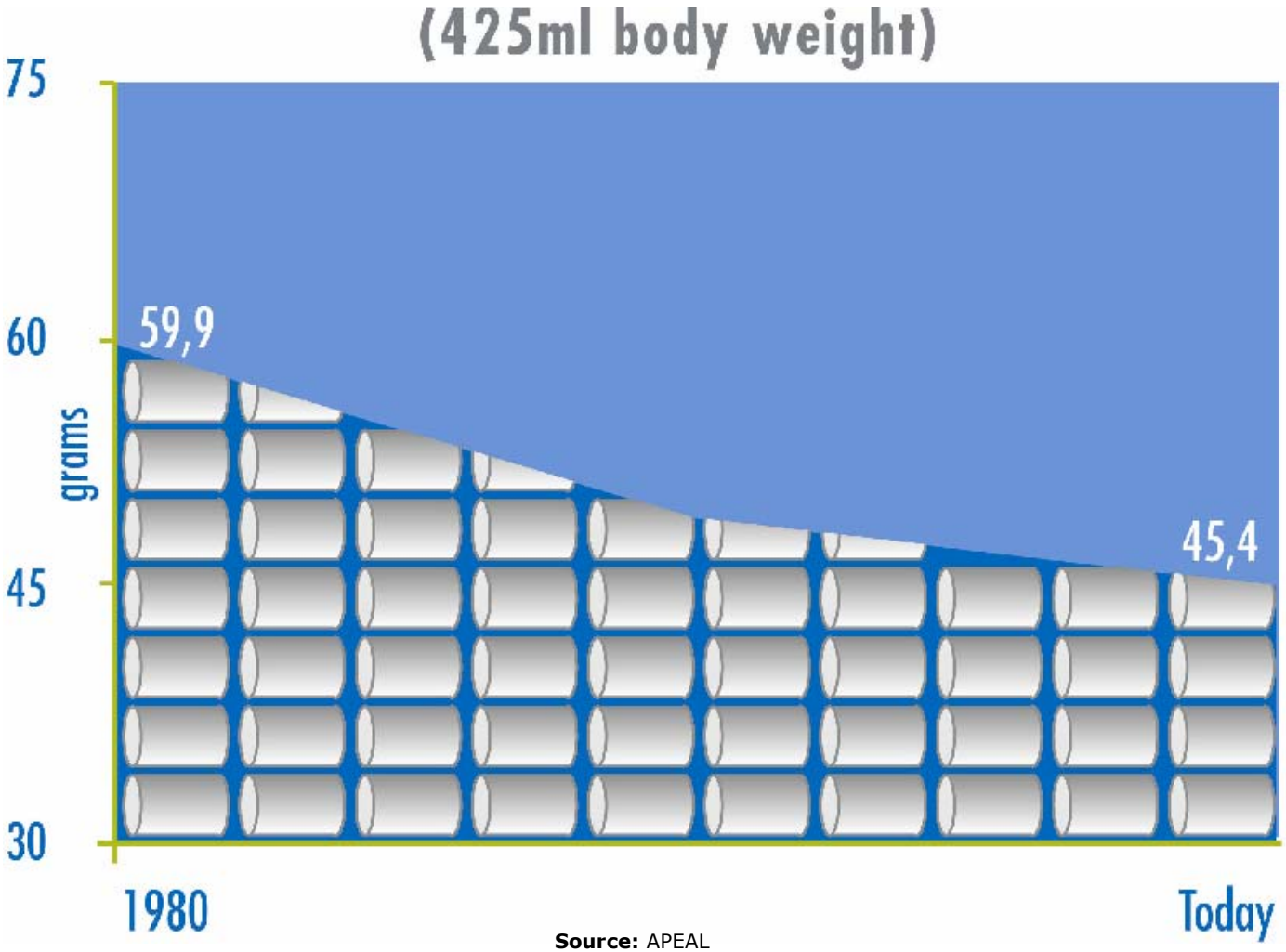
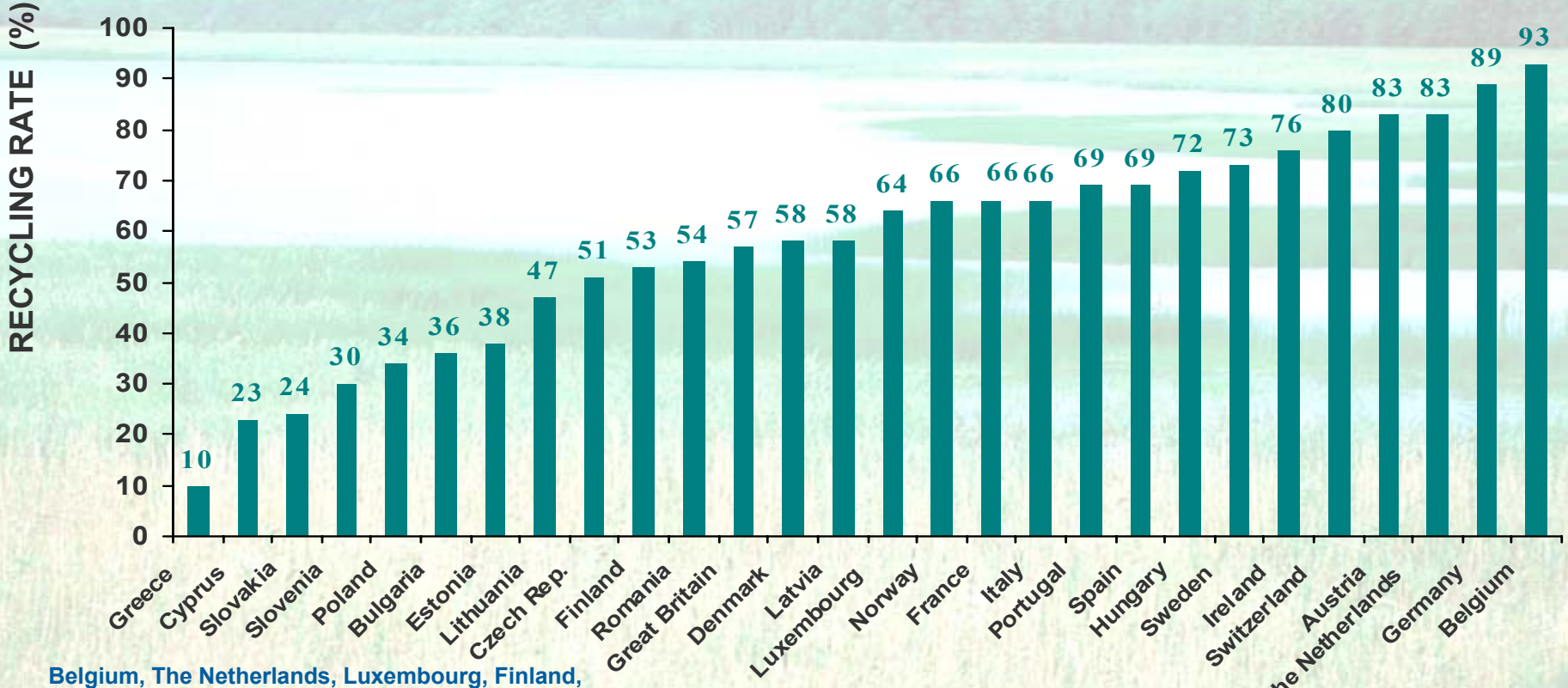
WEIGHT REDUCTION OF STEEL FOOD CANS



Source: APEAL

RECYCLING OF STEEL PACKAGING IN EUROPE

EU27 (+Norway & Switzerland): 66%

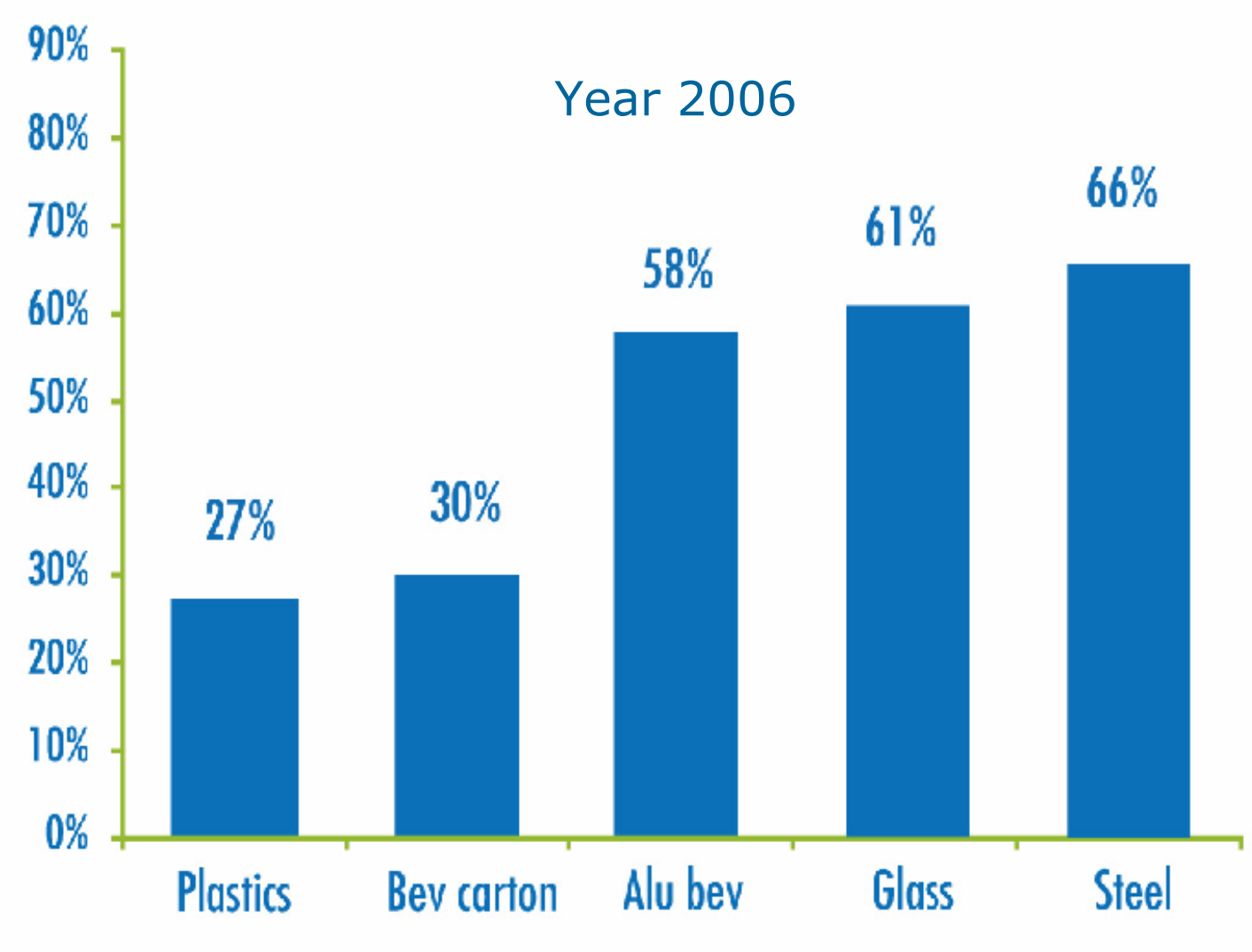


Belgium, The Netherlands, Luxembourg, Finland, Norway, Latvia, Slovenia, Lithuania, Cyprus, Estonia, Bulgaria, Romania: Metal packaging recycling rate (steel and aluminium)

Slovakia, Cyprus, Estonia, Romania, Denmark, Finland (2005 – latest official data)

Source: APEAL

Steel packaging reaches **high recycling** rates in Europe.



Source: Industry expert Association of European Producers of Steel for Packaging (APEAL)- European Aluminum Association (EAA), European Glass Packaging Federation (FEVE) - PlasticsEurope

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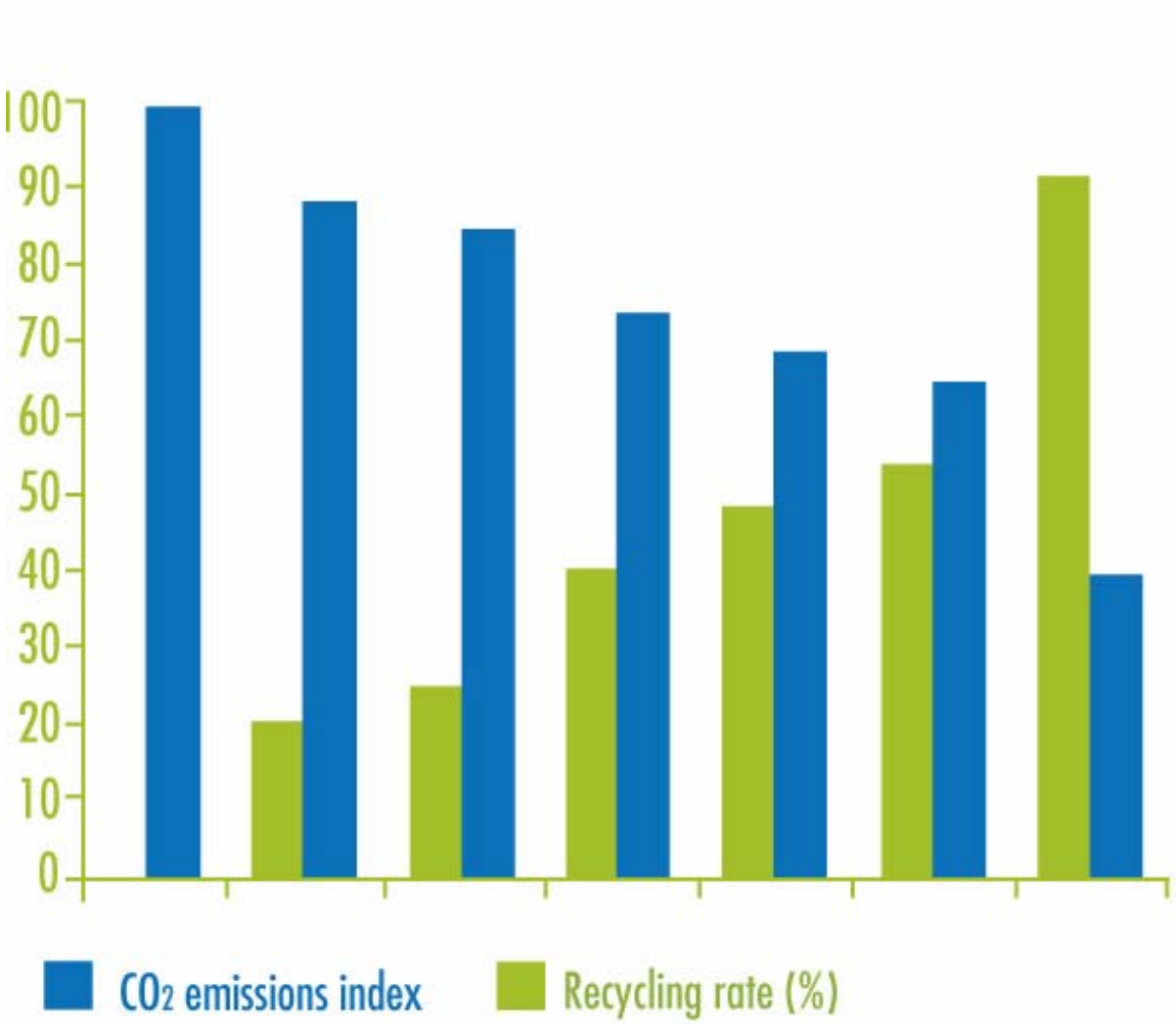
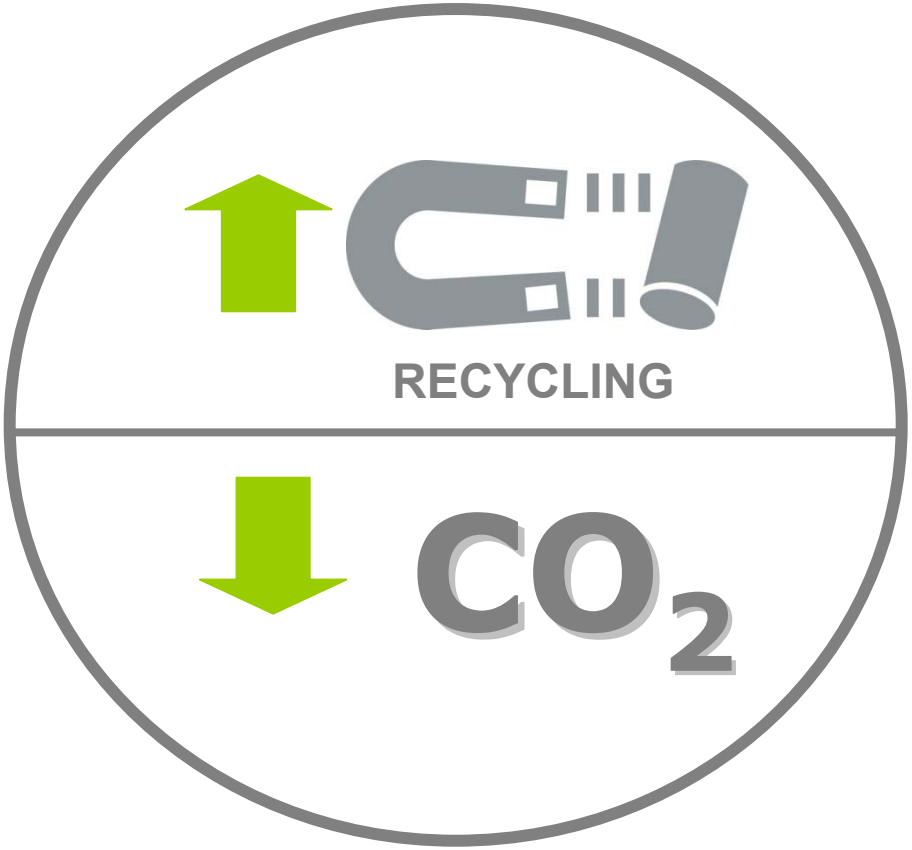
THE HIGHER THE RECYCLING RATE, THE LOWER THE CO_2 EMISSIONS



Source: APEAL


RECYCLING
CO_2


More re-cycling
less CO_2

Allows for **raw material consumption reduction & energy savings**.

- **4,8 million tonnes iron ore**
- **1,7 million tonnes coal**
- **4,7 million tonnes CO_2**
- **Up to 70% energy saving**

(savings from steel packaging recycling EU27, 2006)

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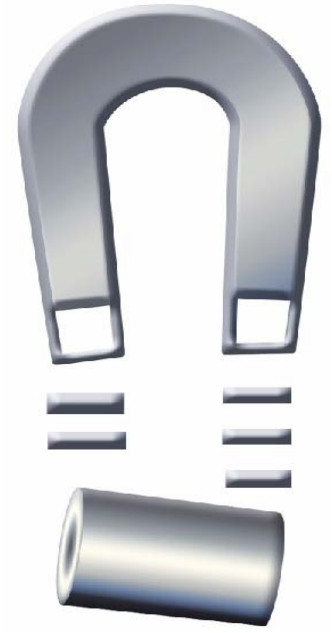
STEEL PACKAGING:
ENDLESSLY RECYCABLE WITHOUT LOSS IN QUALITY



MAGNETIC SORTING

INFINITELY RECYCLABLE

Caring for the environment… Naturally

- Magnetic sorting, highest recycling
- Eternally recyclable
- Higher recycling, lower CO2
- Saving resources & energy

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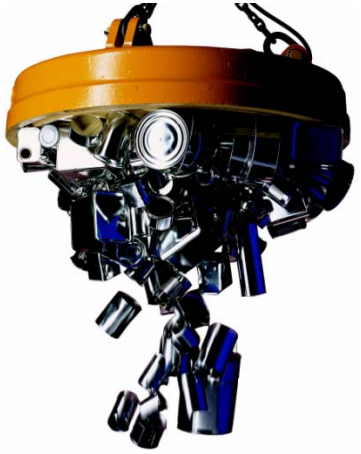
INTRINSIC PROPERTIES OF STEEL FOR PACKAGING



MAGNETIC

HIGHEST STRENGTH

TOTAL BARRIER PROPERTIES

…and **eternally recyclable** without loss of quality.

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Steel for packaging sustainability positioning

UNIQUE?

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STEEL FOR PACKAGING
Naturally®