

# REACH ZERO WASTE & MAXIMUM GAIN



Discover how packaging can help with sustainable  
& cost-efficient business growth

# Challenges we face

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With the challenges we are facing from the beginning of this year we are all looking for efficient solutions, to reduce costs and with that optimize material use and production prices.

Packaging is not an exception, also here the pressure on **cost-effective and more circular packaging solutions** remains.



## Strict regulations

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EU countries are increasingly strengthening their efforts to reduce the use of plastic. The use of plastic straws, cutlery and polystyrene cups, among other things, has already been banned by EU rules.

Since January this year, France prohibited plastic packaging of most fruit and vegetables. In other countries, work is also underway to adapt national regulations to new requirements.<sup>1</sup>

<sup>1</sup> <https://www.bbc.com/news/world-europe-59843697>

# E-commerce on the horizon

In the last 2 years, e-commerce has become an integral part of our lives. One of the areas that benefited the most is of course **fashion**, which has become the largest sector in global online sales and is predicted to remain on its position.



The industry has reached a global worth of **720 billion euros in 2021** and is projected to **exceed the worth of 1 trillion euros in 2025.**<sup>2</sup>

<sup>2</sup> [www.commonthreadco.com/blogs/coachs-corner/fashion-ecommerce-industry-trends](http://www.commonthreadco.com/blogs/coachs-corner/fashion-ecommerce-industry-trends)

# Aircommerce

## Shipping products, not air

Inefficiently used space represents one of the most costly problems of shipping goods. In Europe alone, **over 70 million cubic meters of air** are shipped every year as a consequence of excessive packaging which is greatly impacting the environment. The amount of “air” being transported in packaging that is not fit to the size of the product translates into more trucks on the roads, increasing the financial burden for the company.

Aircommerce is a mostly unexplored area in the world of e-commerce packaging. DS Smith study reveals that as much as **92% of all businesses** involved in the research sell goods online in packaging that does not closely fit the product.<sup>3</sup>

<sup>3</sup> Market research commissioned by DS Smith, conducted by OnePoll



# E-commerce

## Demanding consumers

According to DS Smith and Ipsos MORI research, **85%** of European consumers want to buy **products that are free of redundant materials** and as much as **29%** have stopped buying a particular brand, listing unsustainable packaging as their reason.<sup>4</sup>

When faced with a **box with too much packaging**, **30% of consumers** say it has made them feel **frustrated with the retail brand**.<sup>5</sup>

Discover more from our latest research among 10.000 e-shoppers and 2.000 businesses on the next pages.

<sup>4</sup> DS Smith and Ipsos Mori research

<sup>5</sup> Market research commissioned by DS Smith, conducted by OnePoll



# Consumers speak one voice

## Growing awareness across borders

In the **Czech Republic**, **21% of people**, who took part in the research, stated that they **experience frustration when dealing with redundant, oversized packaging**. The product of wasteful space management translates into almost **10.000 tonnes of excess CO<sup>2</sup> per year** in Czech Republic alone.<sup>6</sup>

In **Romania**, over **600,000 unnecessary delivery journeys** are made because packaging boxes are not optimized or fit to the product size. Romanian consumers frequently expressed their wish to **receive circular ready packaging (46%)** and **packaging suited for irregularly shaped items (33%)**.<sup>7</sup>

A half of **Polish** consumers frequently find themselves irritated over the use of excess plastic adhesive tapes and frustrating difficult-to-open packaging. There is also a high demand for eco-friendly packaging, **as almost half of the people that took part in the research** stated that they want to receive their shipments **in packaging that can be recycled**.<sup>8</sup>

<sup>6,7,8</sup> Market research commissioned by DS Smith, conducted by OnePoll



# Zero waste & maximum gain

## Less expensive, more efficient

According to DS Smith research, excess materials like cardboard are currently costing European companies as much as **47.8 million Euros per year and causing large amounts of excess packaging materials:**

### EUROPE WASTES EACH YEAR

<b>148,757</b> tons of cardboard	<b>437 million m<sup>2</sup></b> of adhesive tape	<b>68 million m<sup>3</sup></b> of filler
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### POLAND WASTES EACH YEAR

<b>88 747</b> tons of cardboard	<b>333 million m<sup>2</sup></b> of adhesive tape	<b>41 million m<sup>3</sup></b> of filler
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### ROMANIA WASTES EACH YEAR

<b>25,218</b> tonnes of cardboard	<b>71 million m<sup>2</sup></b> of plastic tape	<b>9 million m<sup>3</sup></b> of filler
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### CZECH REPUBLIC WASTES EACH YEAR

<b>20,861</b> tonnes of cardboard	<b>61 million m<sup>2</sup></b> of plastic tape	<b>93 million m<sup>3</sup></b> of filler
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# Zero waste & maximum gain

If several materials are used in product packaging, such as problem plastic fillers, the chance of those materials harming the environment is consequently higher. According to Ellen MacArthur Foundation, there will be more plastic waste in the sea than fish by 2050, unless the industry acts upon it.<sup>9</sup>

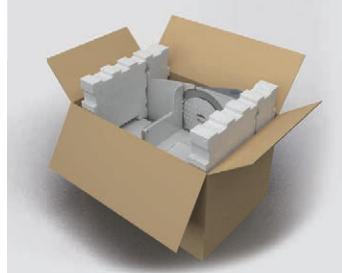
<sup>9</sup> Ellen MacArthur Foundation, Plastics Open Letter

**Discover DS Smith sustainable & cost-efficient packaging innovations on the next pages.**



# From plastics and oversized boxes to cost-efficient, sustainable innovations

**BEFORE**

<p>Standard FEFCO 0201 box Air pillows</p> 	<p>Standard FEFCO 0201 box EPS inserts</p> 	<p>Classic postal box Bubble wrap fillers</p> 	<p>6 different FEFCO 0201 boxes Bubble wrap fillers</p> 	<p>5 different FEFCO 0201 boxes Bubble wrap fillers</p> 	<p>Classic postal box &amp; over box required</p> 
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**AFTER | DS SMITH SOLUTIONS**

<p>▼ <b>ECOMMERCE BOX</b></p> 	<p>▼ <b>SECURE BOX</b></p> 	<p>▼ <b>TILTED CLAMSHELL BOX</b></p> 	<p>▼ <b>MULTI-HEIGHT BOX</b></p> 	<p>▼ <b>MODULAR BOX</b></p> 	<p>▼ <b>REUSABLE DRAWER PACK</b></p> 
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# eCommerce Box

## Reinventing fashion

The unique shape of the **eCommerce Box** is made to perfectly fit the products. Buffered end panels are specially tailored and designed in a way that ensures the extra protection of the articles inside in case of a drop.

- ✓ Easy to adapt to a range of sizes
- ✓ Easy to pack
- ✓ Returnable
- ✓ WOW unboxing

**77%**  
less carbon  
footprint

**68%**  
less  
material

**52%\***  
faster packing  
process



✓ AFTER



✗ BEFORE



\*CO<sub>2</sub> footprint was calculated with the Circular Design Metrics tool based on the FEFCO scale and other sources (Plastics Europe, ADEME, ICE2019, EcoCost, Delft UoT and supplier data)

# Secure box

## Secure and stylish

**Secure box** for electronics is a sustainable alternative to EPS inserts. The unique design ensures extra protection of the goods during the complex e-commerce supply chain.

- ✓ Replacement of problematic EPS inserts
- ✓ Tamper evident
- ✓ Fast packing process
- ✓ Reduced environmental impact

**50%**  
less inbound  
logistic costs

**40%**  
less warehouse  
space

**40%\***  
less carbon  
footprint



✓ **AFTER**



✗ **BEFORE**

\*CO<sub>2</sub> footprint was calculated with the Circular Design Metrics tool based on the FEFCO scale and other sources (Plastics Europe, ADEME, ICE2019, EcoCost, Delft UoT and supplier data)

# Clamshell box

## Beauty on the inside and the outside

**A tilted Clamshell box** for beauty products is an excellent example of an efficient design that promotes brand awareness and uses eco-friendly materials to reduce waste in a manner that strengthens the structure of the box.

- ✓ Box designed for 100% utilization
- ✓ Safer delivery (tilted material in the box, the corrugated cardboard layer is inclined that ensures extra box strength)
- ✓ Tamper evident
- ✓ Improved inbound logistics

**50%**  
increase in  
protection  
rate

**40%**  
less material  
and printing  
costs

**9%**  
less material  
waste

\*

\*CO<sub>2</sub> footprint was calculated with the Circular Design Metrics tool based on the FEFCO scale and other sources (Plastics Europe, ADEME, ICE2019, EcoCost, Delft UoT and supplier data)



✓ **AFTER**



✗ **BEFORE**



# Multi-height box

## Multiple heights, endless possibilities

**Multi-height box** can be folded in 6 different ways achieving 6 different heights. Adjustable height helps with the maximization of the use of space and decreases the amount of air being shipped.

- ✓ Adjustable height in 6 different ways
- ✓ Less waste
- ✓ Fast manual packing process: auto lock bottom
- ✓ Reducing bubble wrap or other void fill usage

**46%**  
less carbon  
footprint

**44%**  
less void fill  
costs

**29%\***  
less air being  
shipped

✓ **AFTER**

✗ **BEFORE**



\*CO<sub>2</sub> footprint was calculated with the Circular Design Metrics tool based on the FEFCO scale and other sources (Plastics Europe, ADEME, ICE2019, EcoCost, Delft UoT and supplier data)

# Modular box

## Adjustable and adaptable

**A modular box** can be easily reshaped in order to better fit the contents of the package. The boxes are stackable and made of recycled paper.

- ✓ 100% recyclable
- ✓ A range of sizes
- ✓ Made to fit a range of products

**41%**  
less void fill  
costs

**34%**  
less carbon  
footprint

**16%\***  
less air volume  
being shipped

✓ **AFTER**

✗ **BEFORE**



\*CO<sub>2</sub> footprint was calculated with the Circular Design Metrics tool based on the FEFCO scale and other sources (Plastics Europe, ADEME, ICE2019, EcoCost, Delft UoT and supplier data)

# Reusable drawer pack

## Made to be reused

**Reusable drawer pack** for apparel, beauty products or electronics gives an amazing unboxing experience. It contains a drawer that can be used as a storage unit.

- ✓ Reducing damage rate: strong construction for the complex e-commerce supply chain
- ✓ Easy to open (ripper tape or zipper rule)
- ✓ Easy to pack and return
- ✓ Tamper evident

**57%**  
less carbon  
footprint

**38%**  
faster packing  
process

**33%\***  
less  
material

✓ **AFTER**

✗ **BEFORE**



\*CO<sub>2</sub> footprint was calculated with the Circular Design Metrics tool based on the FEFCO scale and other sources (Plastics Europe, ADEME, ICE2019, EcoCost, Delft UoT and supplier data)

# REACH ZERO WASTE & MAXIMUM GAIN

- ✔ **With the help of our packaging experts, we are helping brands from all over the world to reach their sustainability targets with cost-efficient packaging solutions.**
- ✔ **We are eager to find effective solutions for any challenges related to e-commerce, sustainability, or cost-efficiency.**
- ✔ **Contact DS Smith packaging experts for more insights. Let us help you reach zero waste & maximum gain.**

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