

E-commerce and Changing Packaging

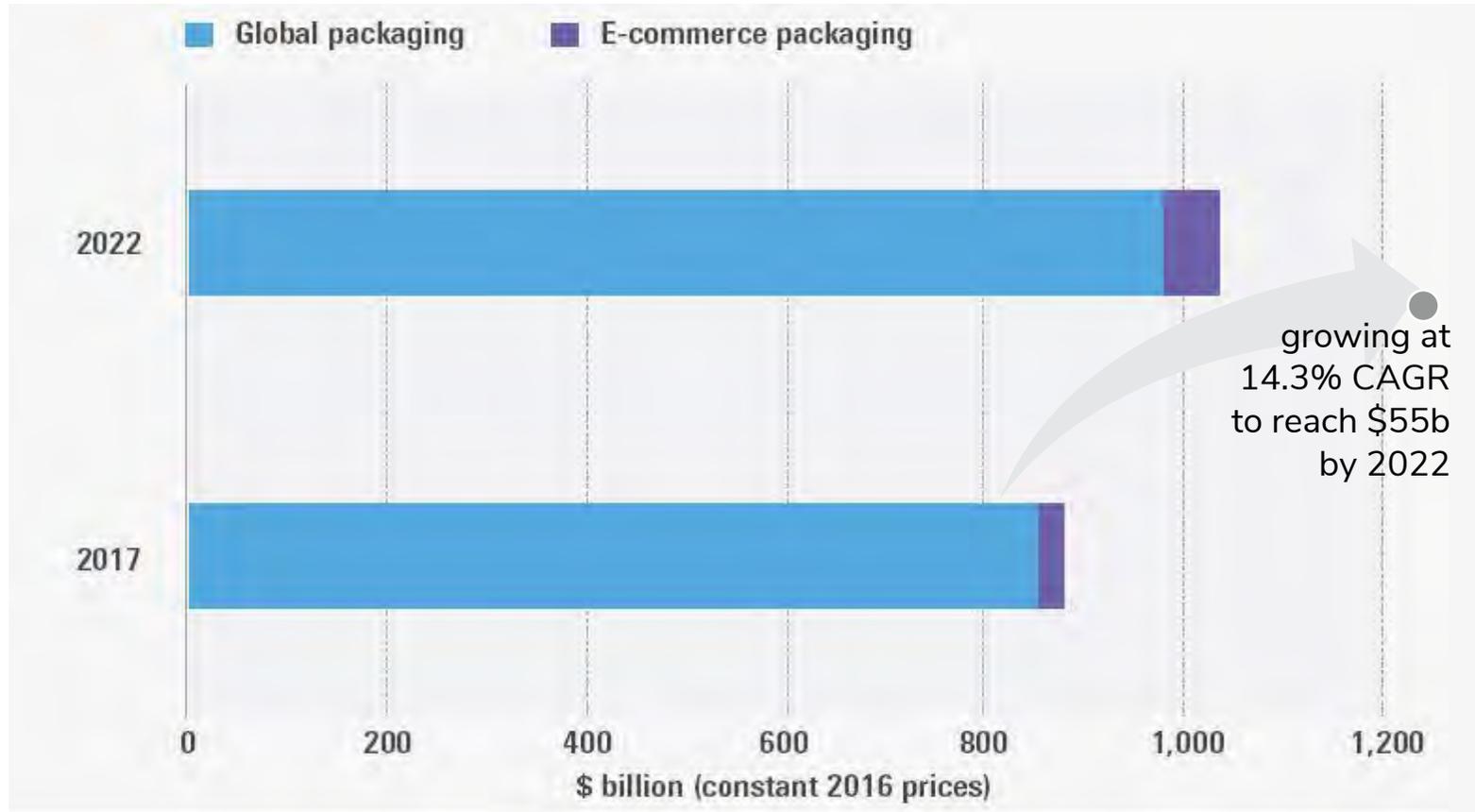
The Future State of the Packaging Industry

James White



The e-commerce picture

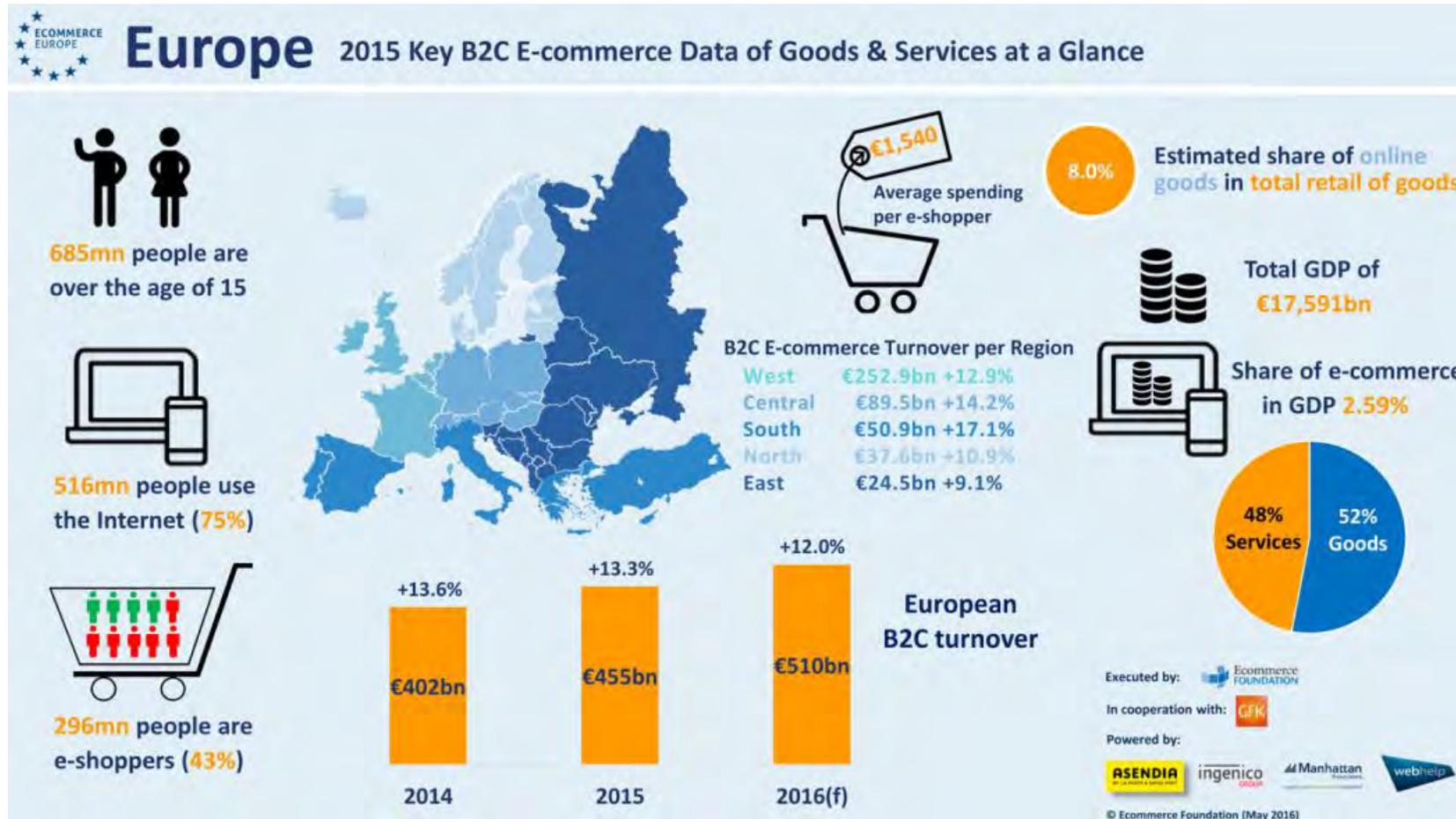
The e-commerce picture



- E-commerce packaging currently valued at \$35 billion
- Majority of consumption in the Asia-Pacific region, followed by USA and western Europe
- Estimated 70% can be considered sustainable

Source: [The Impact of E-Commerce on Packaging: Long-term Forecasts to 2029](#) – Smithers, 2019

The e-commerce picture - Europe



Source: 'Ecommerce News Europe' (www.ecommercenews.eu)

Why is e-commerce changing the packaging industry?

Consumer expectations

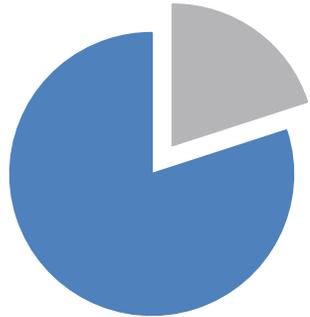
- 95% believe packaging significantly affects online purchase experience
- 49% share their online experience on social media – *'The unboxing experience'*
- Free and easy returns are essential

Source: Smithers Survey 2016 of 100 UK residents making an e-commerce purchase in previous 12 months.



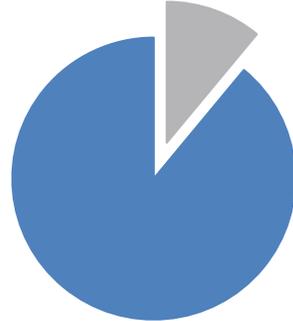
Consumer expectations

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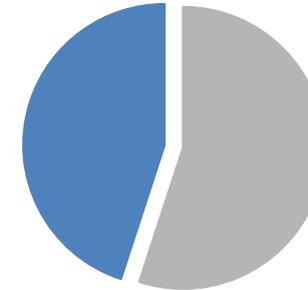
18%

Had received damaged packaging from e-commerce



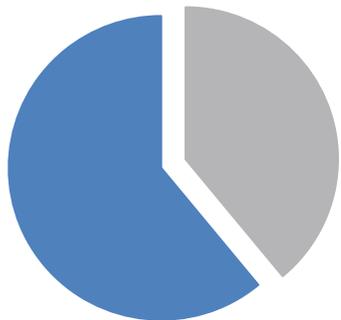
11%

Had received a damaged product from e-commerce



55%

Said that damage to the product would deter them from making another order from the same company



39%

Said that damaged packaging would deter them from ordering from the same company again

Packaging damage can negatively impact the customer perception of the condition of the product and future purchasing choices.

E-retailer expectations

- Change in buying habits causes change in retail landscape towards e-commerce model
- Industry average suggests that half of shipped volume of online orders is air, something e-commerce chains are looking to change

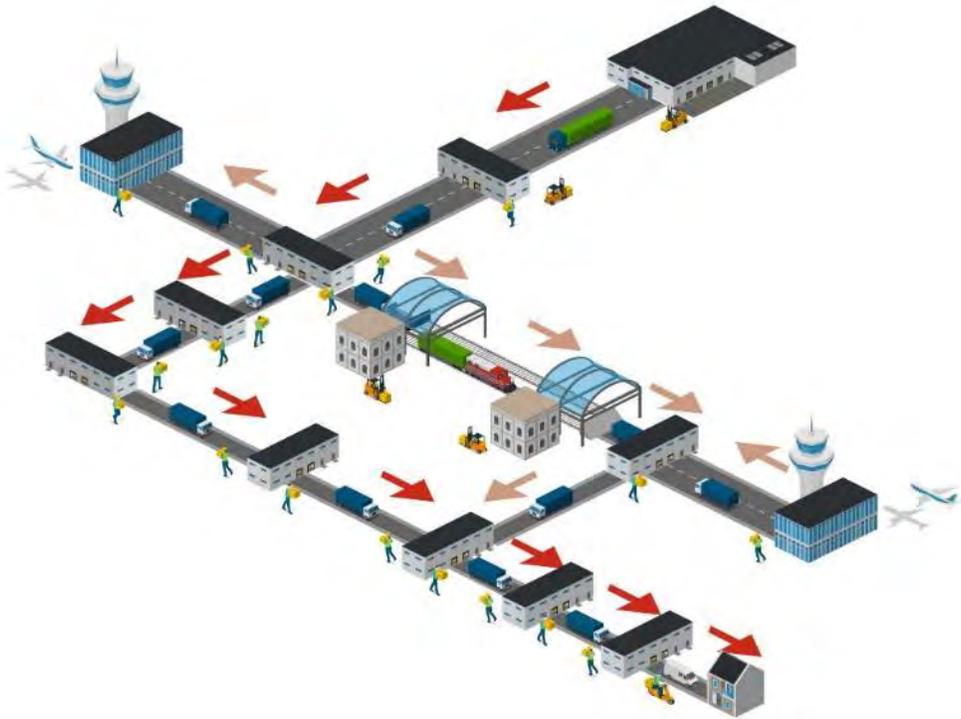


Retail supply chain



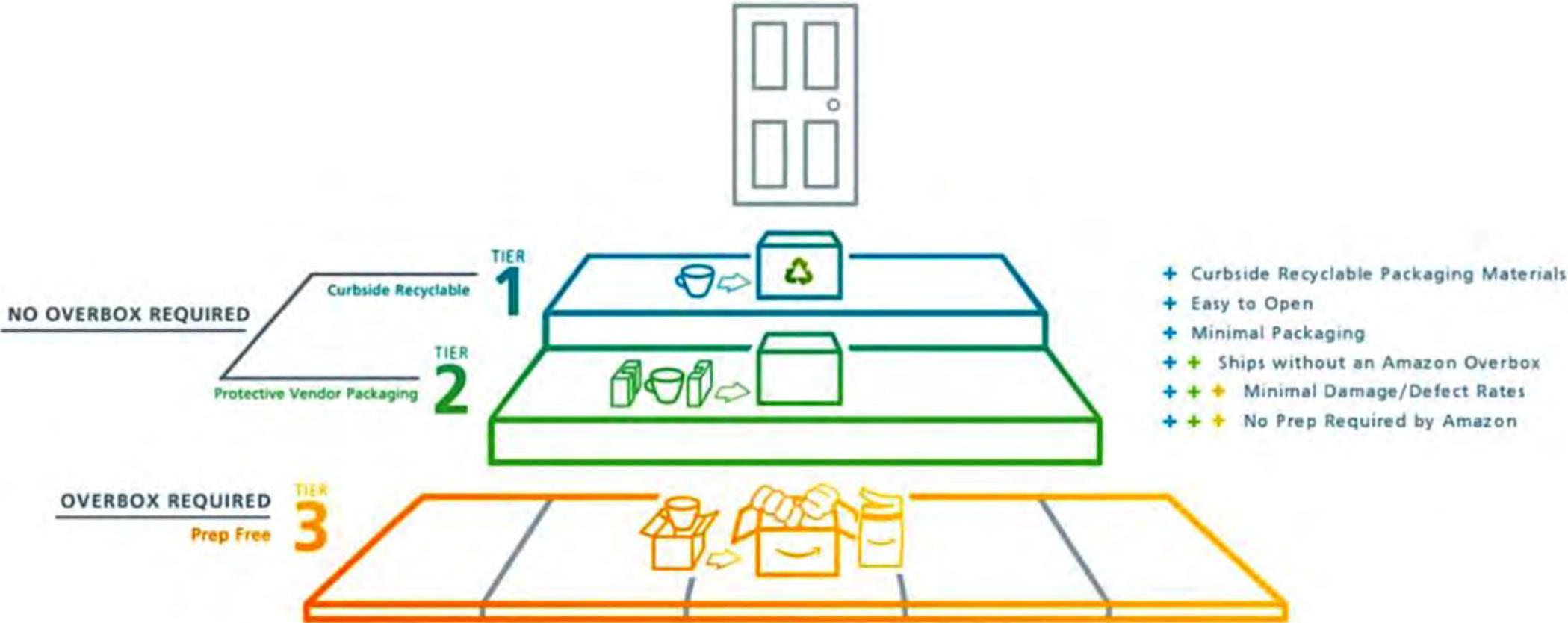
- Relatively few nodes (touch points)
- Mostly mechanical handled
- Palletized for most of the supply chain
- Full truck load shipments

E-retail/e-commerce supply chain



- Lots of nodes (touch points)
- Mostly manual handled
- Individual box through most (often all) of the supply chain
- Mixed load shipments

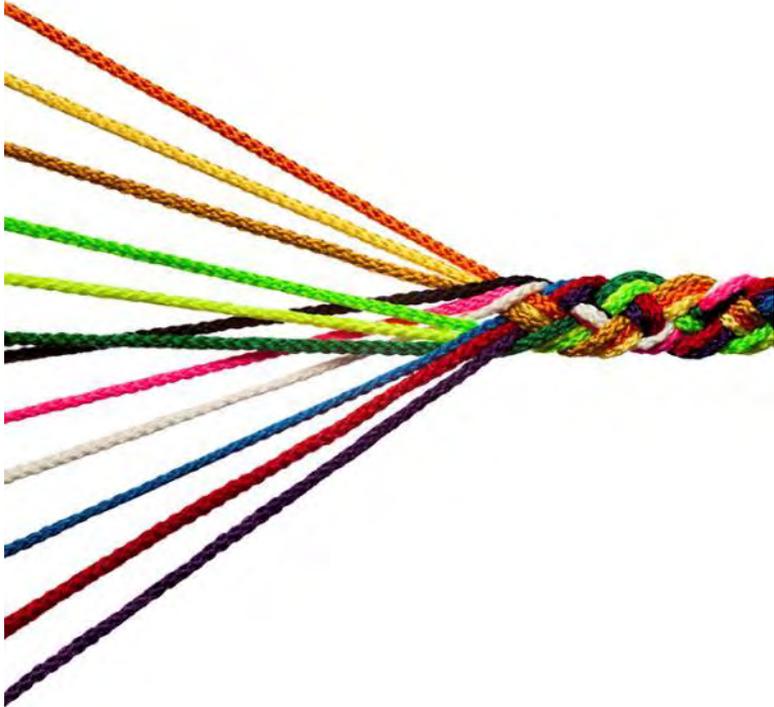
The Amazon model



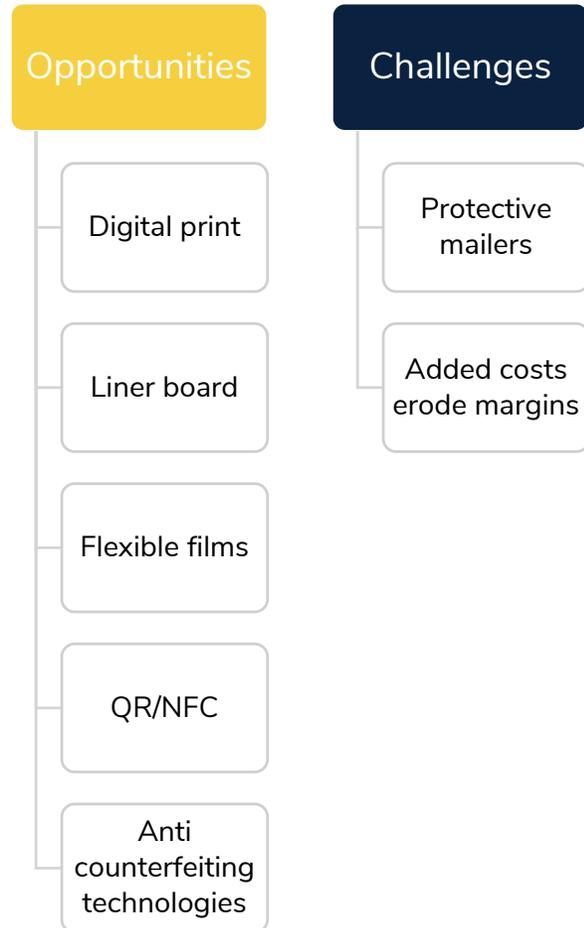


Trends and implications for the industry

Omni-channel



Brand experience



Sustainability

Opportunities

Recyclable fibre based packaging

Flexible packaging

'Bio based' protective packaging

Challenges

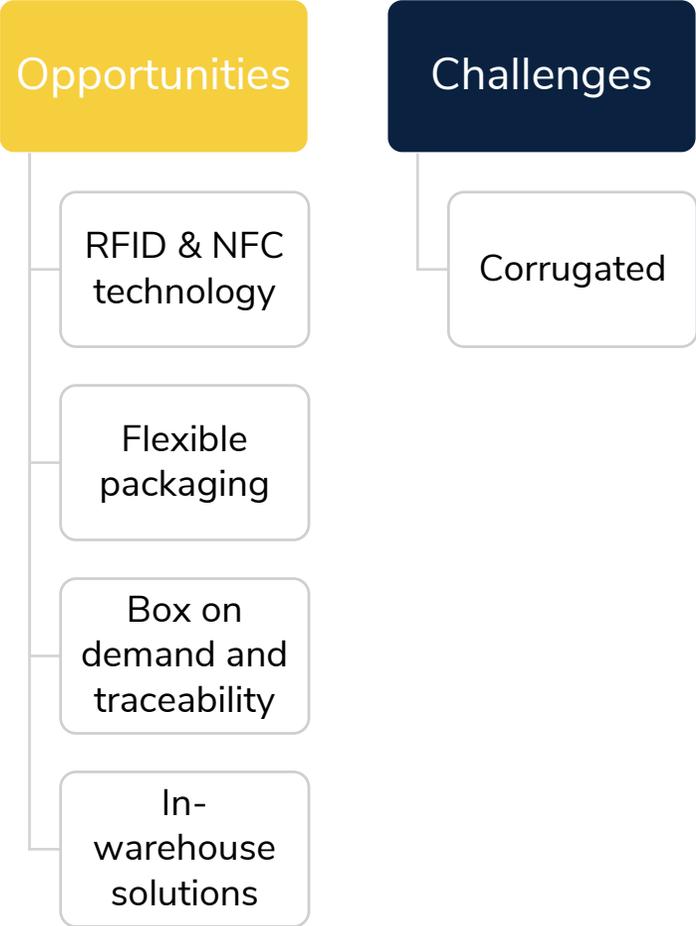
EPS and protection

Multi-material packaging

Protective mailers



Supply chain automation



Trends for packaging

Corrugated



- Growth in fashion
- Growth in Asia
- Fanfold/Box on Demand
- Personalization
- Brand Experience



- DIM Weights
- Frustration Free Packaging
- Return-ability
- Sustainability
- Over-packing Perception



Flexible packaging



- Lightweight
- Reduced warehouse space
- DIM weight
- Barrier and containment
- Re-sealable returns



- Brand experience
- Protection against damage
- Print quality
- Recyclability



Protective packaging



- Reduced cost of damage
- Novel new fibre solutions
- Foam in place
- Meal subscriptions
- Domestic appliances and consumer electronics

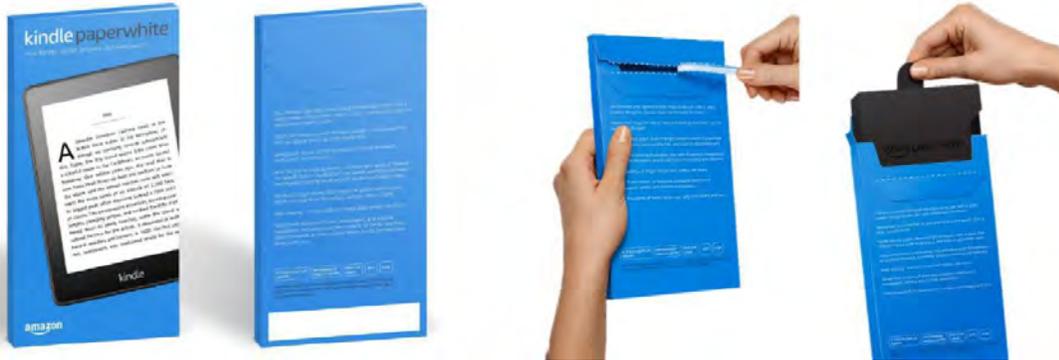


- Sustainability perceptions
- EPS bans
- Box on Demand/Fill on Demand
- Return-ability



Examples of innovation

- Amazon Kindle Boxelope
 - 200% reduction in packaging weight from first generation of Kindle packaging



- Letterbox Wines
 - Recyclable plastic bottle, corrugated and pulp protective packaging



Examples of innovation

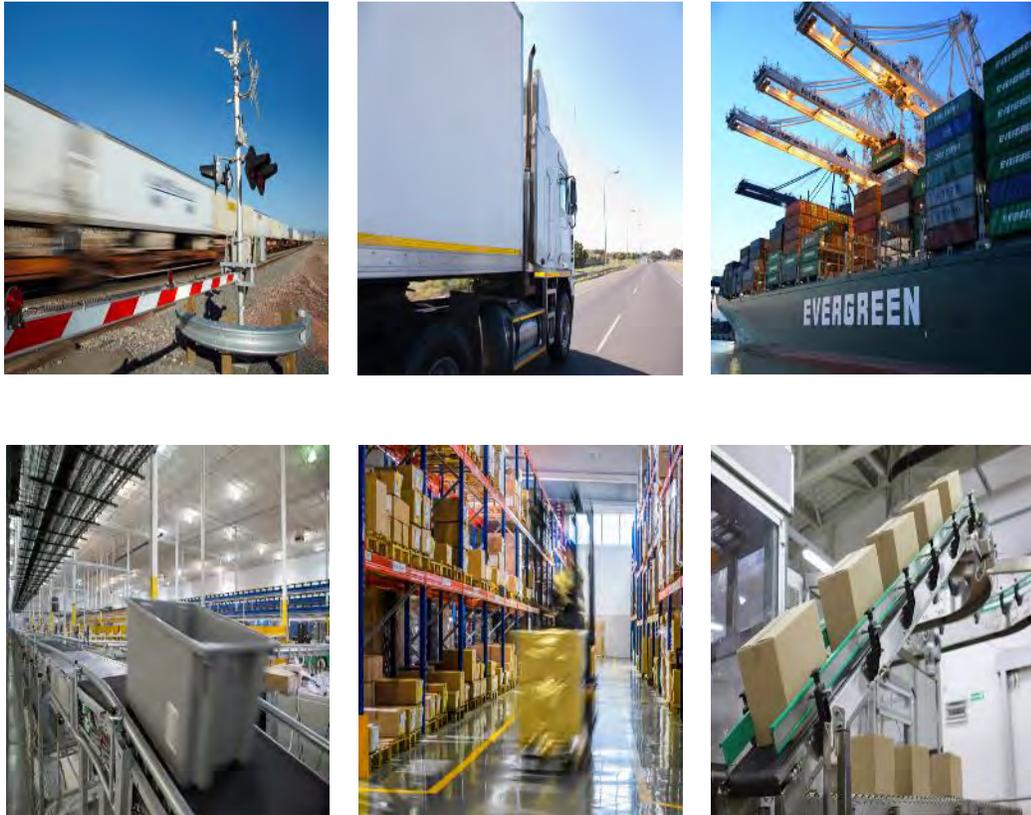
- Ikea
 - Hilver table packaging becomes a stool



- Philips OneBlade
 - Reduction in packaging volume



Prove it works



Drop Impact from manual handling



Pallet Scale Compression



Compression Test



Side Impact from Handling



Pallet Drop



Electro-magnetic Vibration



Reduced Pressure (with Vibration)



Vibration during Transit



Climatic Variation

Simulated testing provides real-world data for how packaging and products can cope with the e-commerce supply chain.

Ecommerce and Omni-channel

Smithers can help you identify packaging weaknesses and reduce product damage

Our experts understand packaging and delivery challenges for ecommerce and omni-channel products including:

- Ecommerce delivery simulated testing
 - Parcel and courier delivery
 - Pallet shipments
 - LTL shipments
 - Roll cage and mixed pallets
- Temperature monitoring and transit of fresh food
- Multi-channel package testing
- Amazon APASS testing
 - Smithers is part of Amazon APASS network

[Contact an expert and find out more about our e-commerce testing at Smithers](#)



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Contact our team with any questions or to request a quote

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