Sustainable e-Commerce Shipping

Landscape Study
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Agenda

❏   Introduction
❏   E-commerce Sustainable Shipping Ecosystem
    ❏   Recycling Process
    ❏   Reusable Packaging
    ❏   AI driven package consolidation
❏   Recommendations

Packages received on a single day

All came at different times
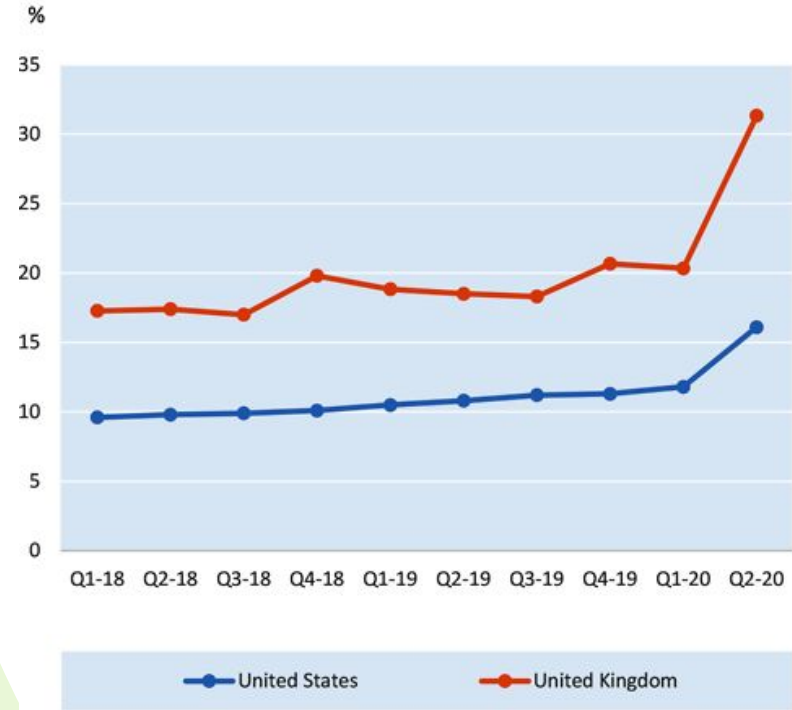
Happens multiple times a week

Introduction

According to UN trade and development experts UNCTAD, the e-commerce sector saw a "**dramatic**" rise in its share of all retail sales

From **16% to 19%** in 2020

Figure 1.a. Share of e-commerce in total retail sales, United Kingdom and United States (2018-2020)

Introduction

Sustainability-marketed products grew **7.1 times faster** than products not marketed as sustainable

A P&G study found that **54%** of the over 5000+ men surveyed across 11 countries cared about sustainability now more than ever
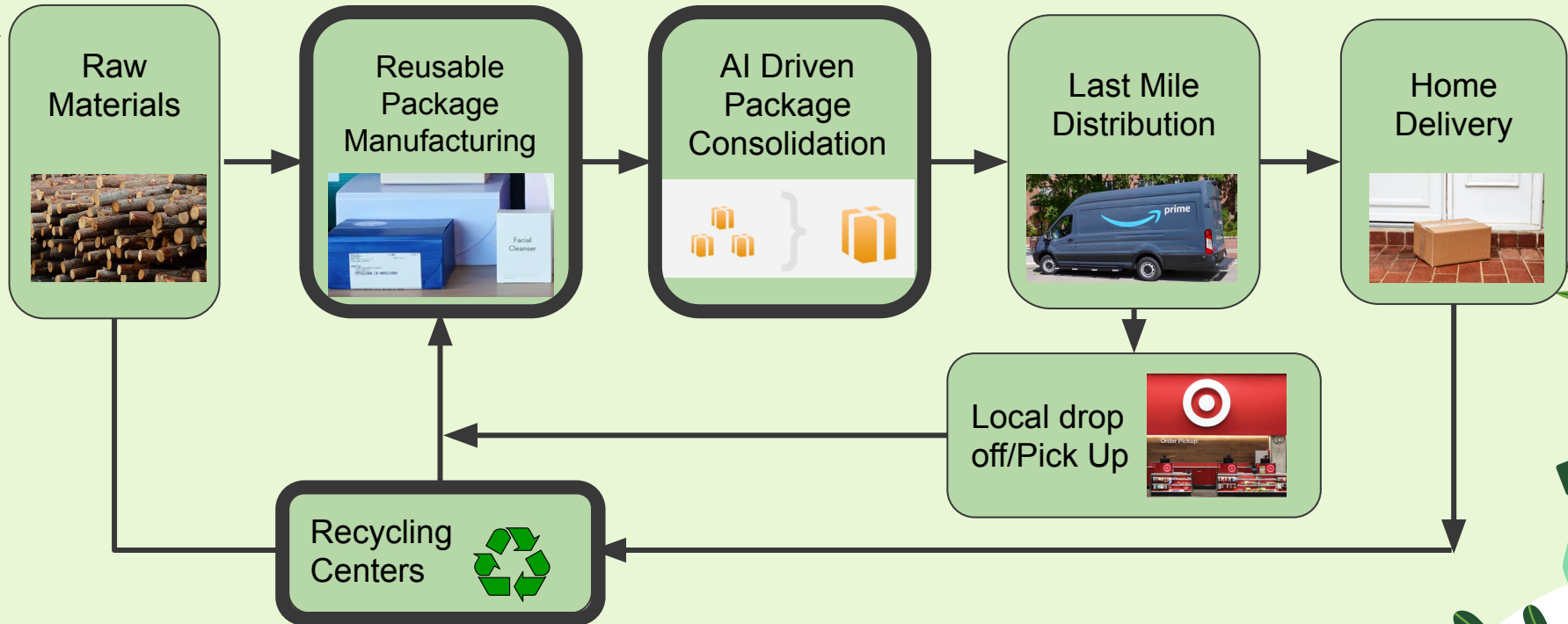
Research found that consumers are even willing to **pay over 10% more** for sustainable packaging

We need a **sustainable shipping ecosystem** to address the high shipping demand and preserve the planet for the next generations

Sustainable e-Commerce Shipping Ecosystem

Raw Materials → Reusable Package Manufacturing → AI Driven Package Consolidation → Last Mile Distribution → Home Delivery

Local drop off/Pick Up

Recycling Centers

Each branch plays a crucial role in providing long term sustainability

Recycling Process

Recycling Process

KEEP THESE ITEMS **OUT** OF YOUR RECYCLING CART.

You have heard the saying, "one bad apple can spoil the bunch." The same goes for recycling. We need your help to keep these items out of the recycling cart.

WM WASTE MANAGEMENT

NO Food, Food-soiled Paper, Waxed Cardboard

NO Plastic Bags & Film

NO Cords/Wires & Hoses

NO Food Wrappers Broken Dishes

NO Electronics & Batteries

NO Yard Waste & Grass Clippings

NO Foam Cups & Containers

NO Diapers & Pet Waste

NO Clothing & Shoes

NO Hazardous or Medical Waste

RECYCLING RULES

1. RECYCLE ALL BOTTLES, CANS AND PAPER
2. KEEP ITEMS CLEAN AND DRY
3. NO PLASTIC BAGS

74% of recyclables end up in landfills (30,000 tons)

- Problems
  - Today's recycling processes don't run exactly as smoothly as they should
  - Percentage of recycling that actually gets recycled is very less
  - Complex rules and poor compliance makes recycling uneffective

Recycled

Contaminated

Never Recycled

Recycling Process

- Fixing the Problem
  - Improve technology for sorting and recovering materials
  - Need more recycled Product materials
  - Enforce Best Practices and awareness

Larger Contributors to Sustainable Shipping

Reusable Packaging

GOOD CLUB

THE BETTERPACKAGING.CO
Packaging for a Zero Waste World

INTELSIUS
A DGP COMPANY

AI Driven Package Consolidation

DHL

OPAS

Walmart

amazon
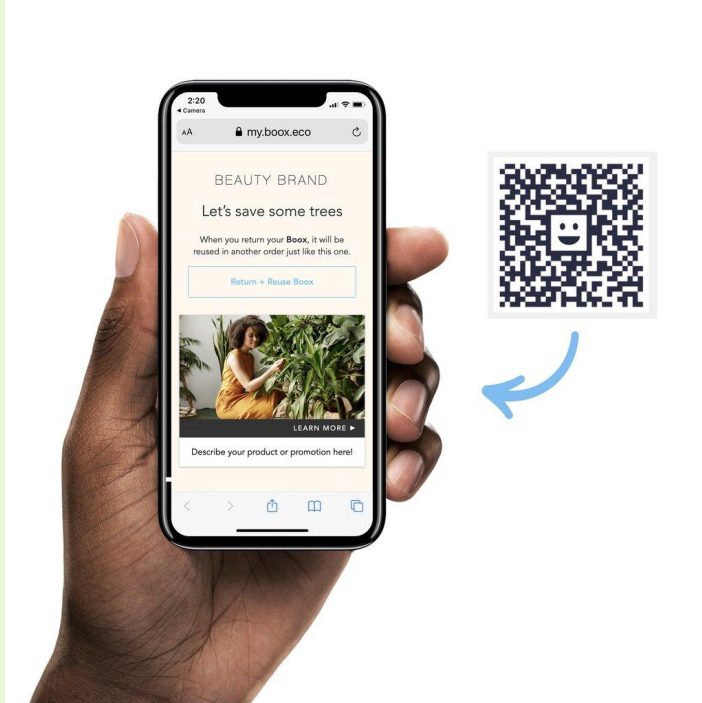
target

ship7

Recyclable & Reusable Packages – Boox

Selected as one of Time's Best Inventions 2021

Constructed from polypropylene

Costs $1–$2.50 per shipment

Can make more than 20 journeys before being recycled

Recyclable & Reusable Packages – Boox

After unpacking their items,

1. customers fold the Boox flat,
2. scan a QR code and
3. send it back to Boox with the included return label

No other box or envelope required

Recyclable & Reusable Packages – Boox

44% lighter than a comparable cardboard box

The manufacturing footprint of a brand new, reusable Boox is less than two single-use cardboard boxes

Recyclable & Reusable Packages – The Better Packaging

Develops sustainable packaging solutions that consider the complete lifecycle impact of a product from raw material sourcing, right through to end-of-life disposal

Customer list already include Rip Curl, L'Oreal, Karen Walker, and AllBirds, to name a few

With month-on-month **growth of 15%** and an expanding catalogue of sustainable packaging options

Recyclable & Reusable Packages – The Better Packaging

THE BETTERPACKAGING.CO
Packaging for a Zero Waste World

comCARRY Bags

comLINERS (Hygiene, Gusset stickers)

comPOLY Bags

comPOST Packs - Black Dirt Bags

comPOST Packs - Stone In the Buff

comPOST Packs - Pink Roses

comPOST Packs - Patterns - Good Time

comPOST Packs - Patterns - Good as Gold

comPOST Packs - Patterns - Spot On
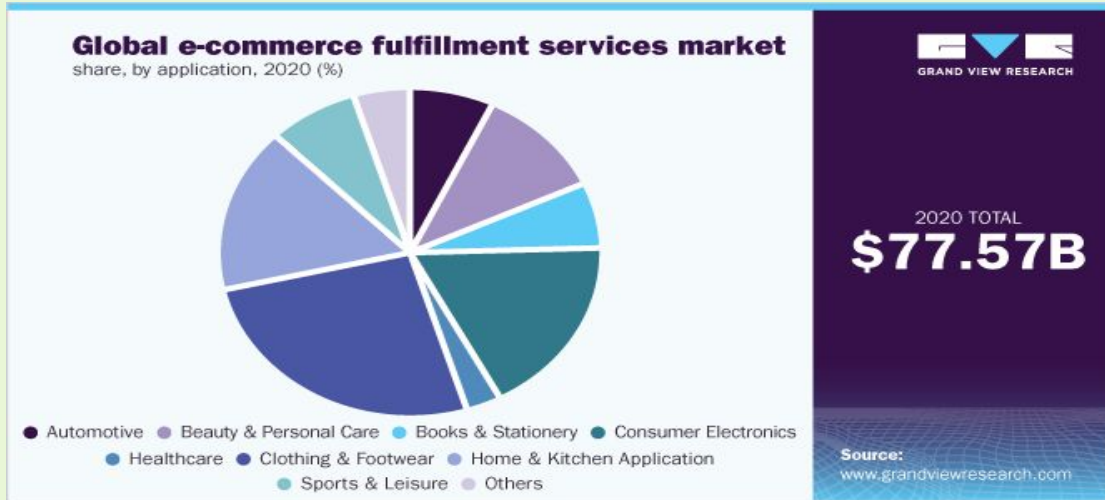
comPOSTape

comPOSTlabels - rolls for thermal printers

comPOSTubble Mailers

Package Consolidation & Delivery

E-Commerce Fulfillment Market

Global e-commerce fulfillment services market
share, by application, 2020 (%)

GRAND VIEW RESEARCH

2020 TOTAL
$77.57B

- Automotive
- Beauty & Personal Care
- Books & Stationery
- Consumer Electronics
- Healthcare
- Clothing & Footwear
- Home & Kitchen Application
- Sports & Leisure
- Others

Source:
www.grandviewresearch.com

$77.57 B in 2020

$168.72 B by 2028

Package Consolidation & Delivery

E-Commerce Retailer Domestic Market

| Company	Common Service	Differentiators	Constraints
amazon	Order consolidation with $1 incentive	Automated process	Items from same fulfillment center
target		Multiple packages from different stores	

Package Consolidation & Delivery
E-Commerce International Shipping

Company	Common Service	Supported Countries
ship7	**How does it work:** 1. Multiple online orders in Country A 2. Ship multiple packages to a centralized address (Country A) 3. Package consolidation 4. Ship one package to shoppers in Country B **Benefits:** 1. Cost efficient 80% cost saving 2. Reduced damage risk 3. Lower fuel emission and expenditure 4. Improved quality control	USA UK
Buyee		USA Japan
MyUS.com		USA UK
easy SHOP		USA UK
OPAS		USA UK

Package Consolidation & Delivery

Walmart built an AI driven supply chain consolidation centers to lower fuel emission and expenditure
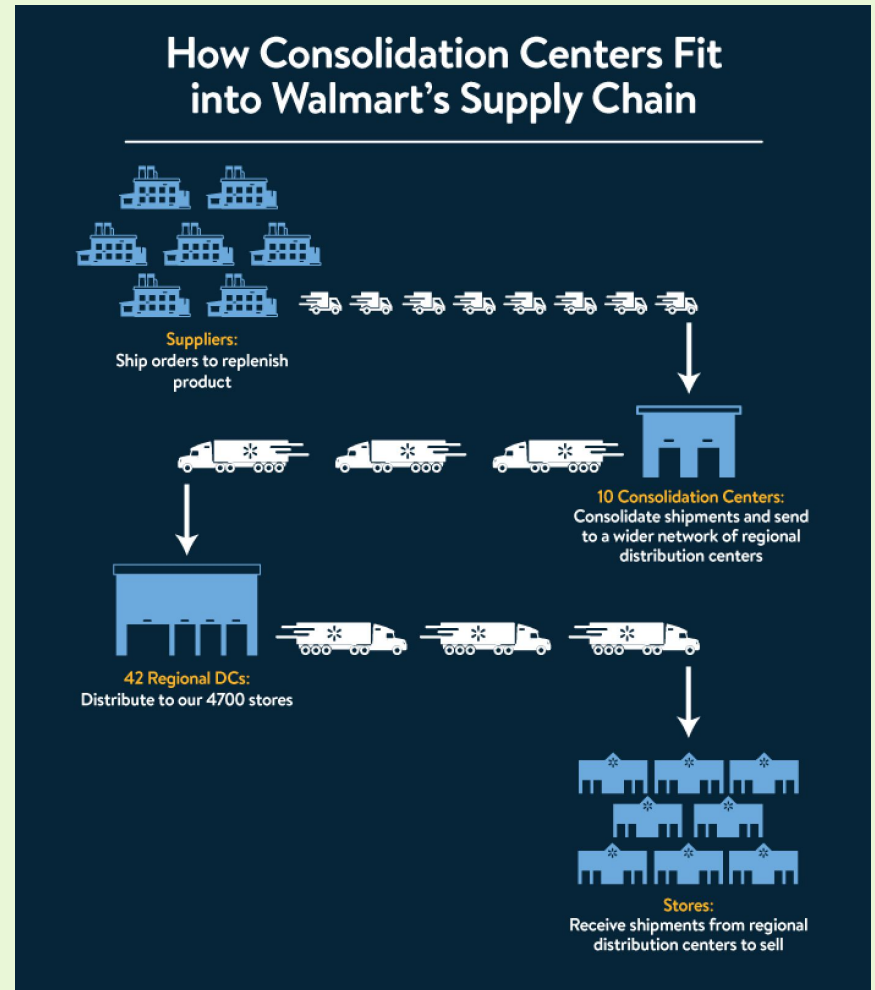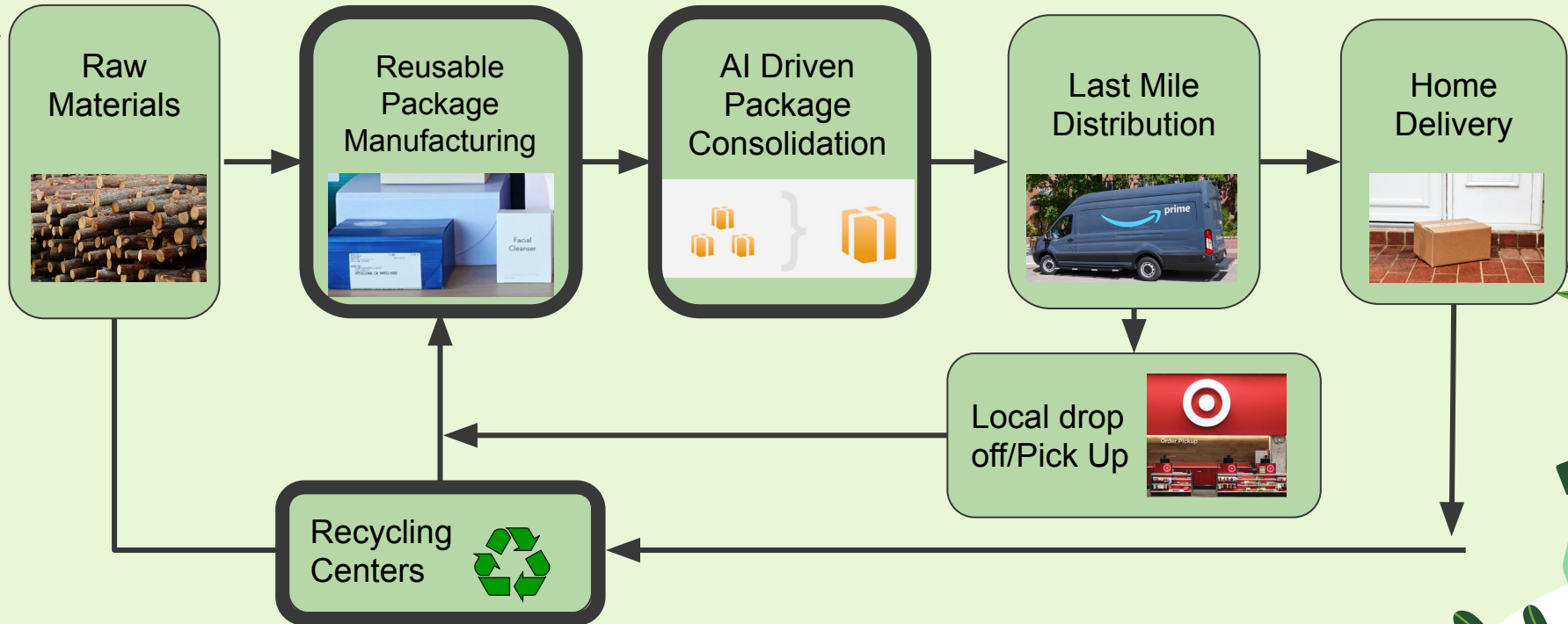
Challenges

Governments are reluctant to add more regulations regarding recycling

Exceptions: San Francisco

Zero waste goal, 80% of its waste out of landfills

City requires residents and companies to separate the waste

Food vendors have to use compostable / recyclable containers

25 cents for checkout bags

Exceptions: Japan

Requires residents to wash items, remove labels, and fold cartons, and waste must be labeled so that individuals are held accountable

Recommendations

Government and non-profit organizations to help raise public awareness through campaigns and mandates

The profit margin is low. Need more government subsidies for infrastructure improvements

Need major e-commerce players and shipping companies to collaborate

Recommendations

Challenge everyone to think of creative solutions for packaging

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Thank you!

Q&A