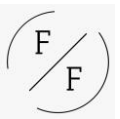


FUTURE-PROOF FASHION
STRATEGIZE, INNOVATE, EXECUTE

AAPN

BILL MCRAITH 2023



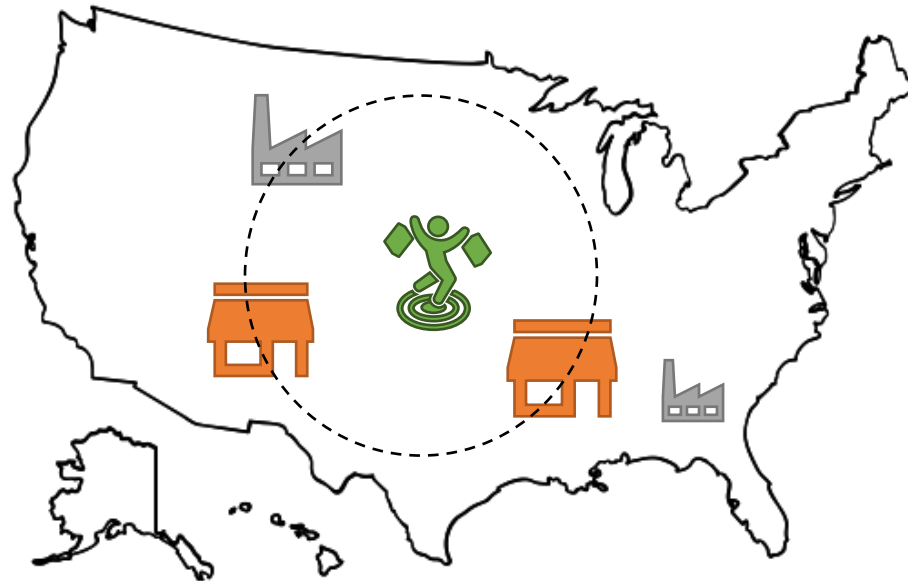
“At no time in history has the last consumer willing to pay full price for an item walked into a store and found the last item available at full price”

-A not so famous quote, by Bill McRaith

GENERATION 1

USA

Operations across the value chain are regionally located



Brand POS and operations

Consumer

Manufacturers



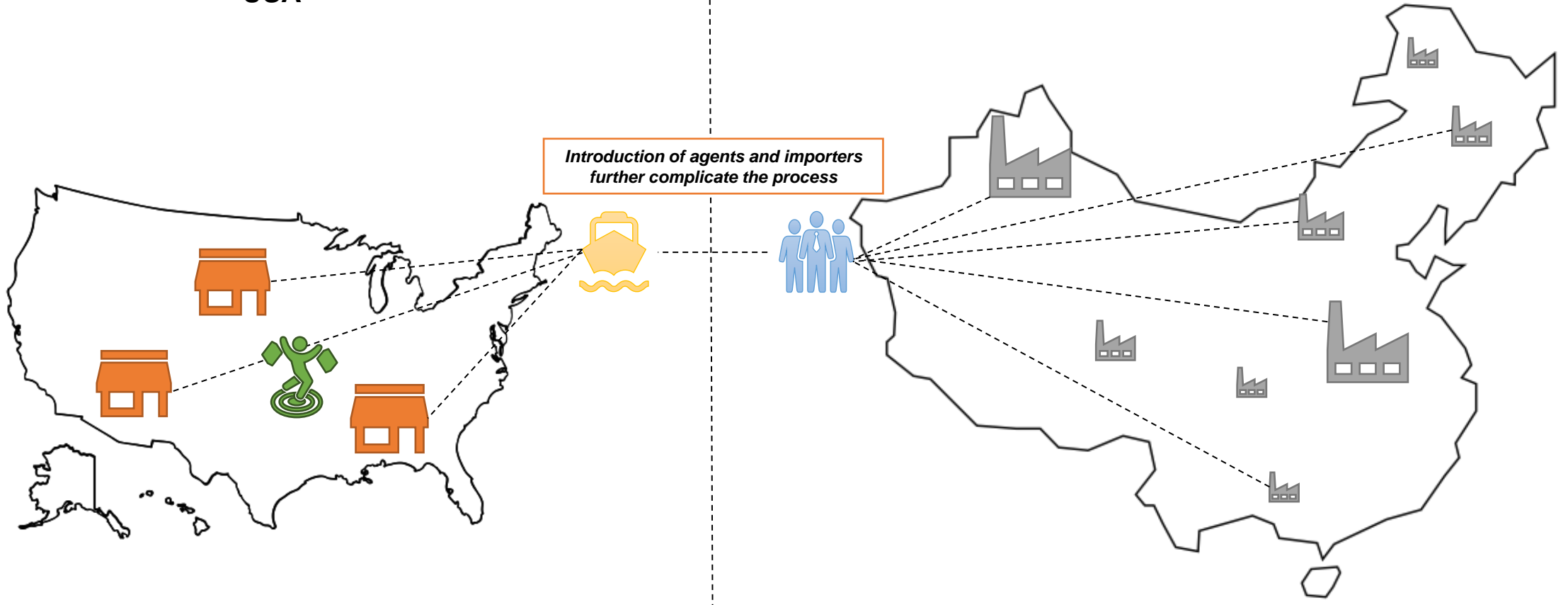
GENERATION 2

Global multi country fractured supply chains occur as a result of the race to the bottom \$

USA

China

Introduction of agents and importers further complicate the process



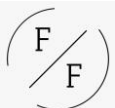
Brand POS and operations

Consumer

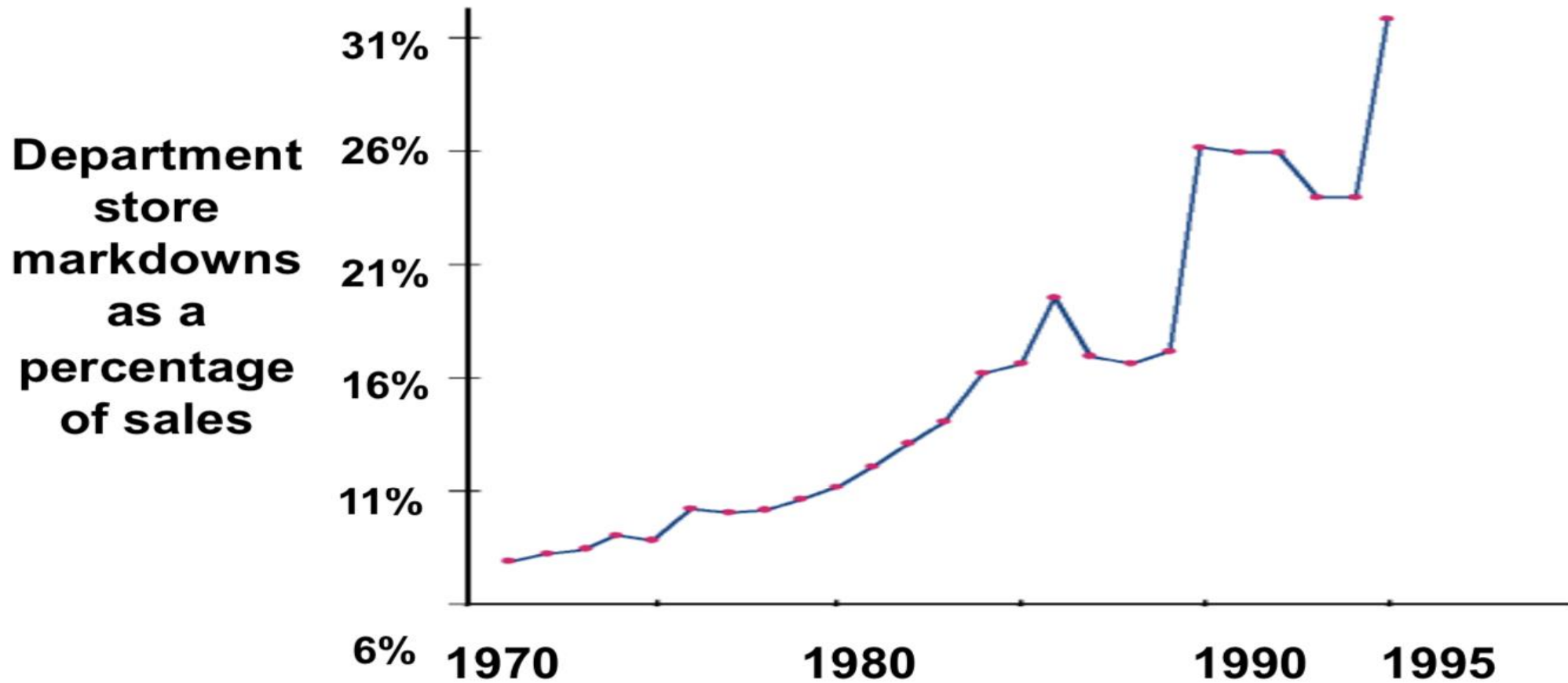
Importer

Agents

Manufacturers



MARKDOWNS (WASTE) INCREASED AS SUPPLY CHAINS ELONGATED

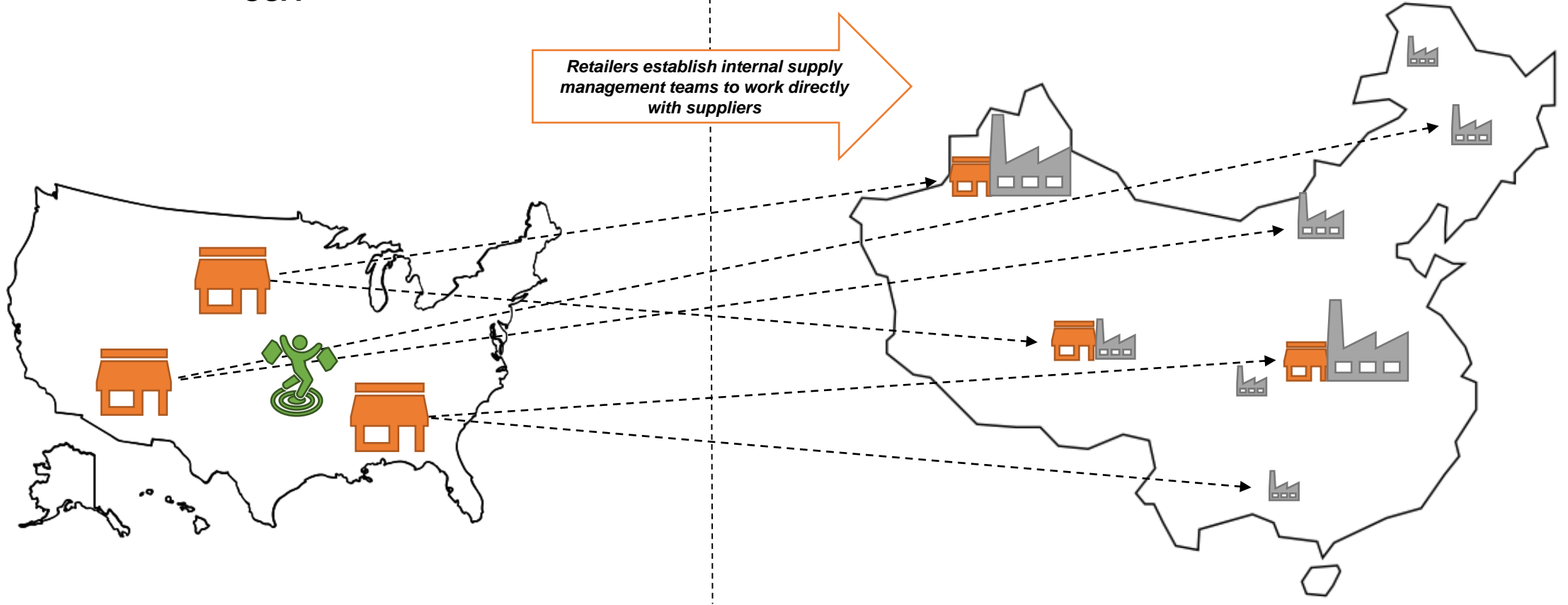


GENERATION 3

USA

China

Retailers establish internal supply management teams to work directly with suppliers



Brand POS and operations

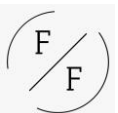
Consumer

~~Importer~~

~~Agents~~

Manufacturers

Brand operations

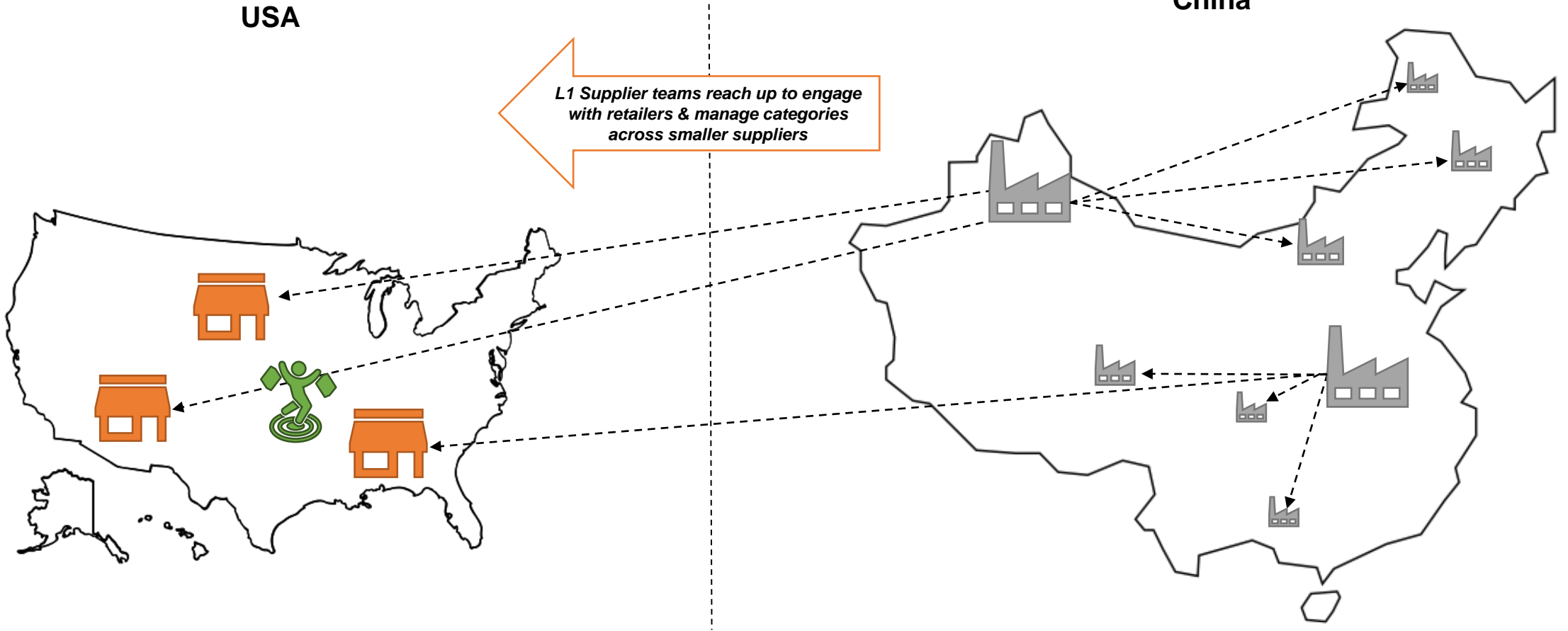


GENERATION 4

USA

China

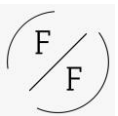
L1 Supplier teams reach up to engage with retailers & manage categories across smaller suppliers



Brand POS and operations

Consumer

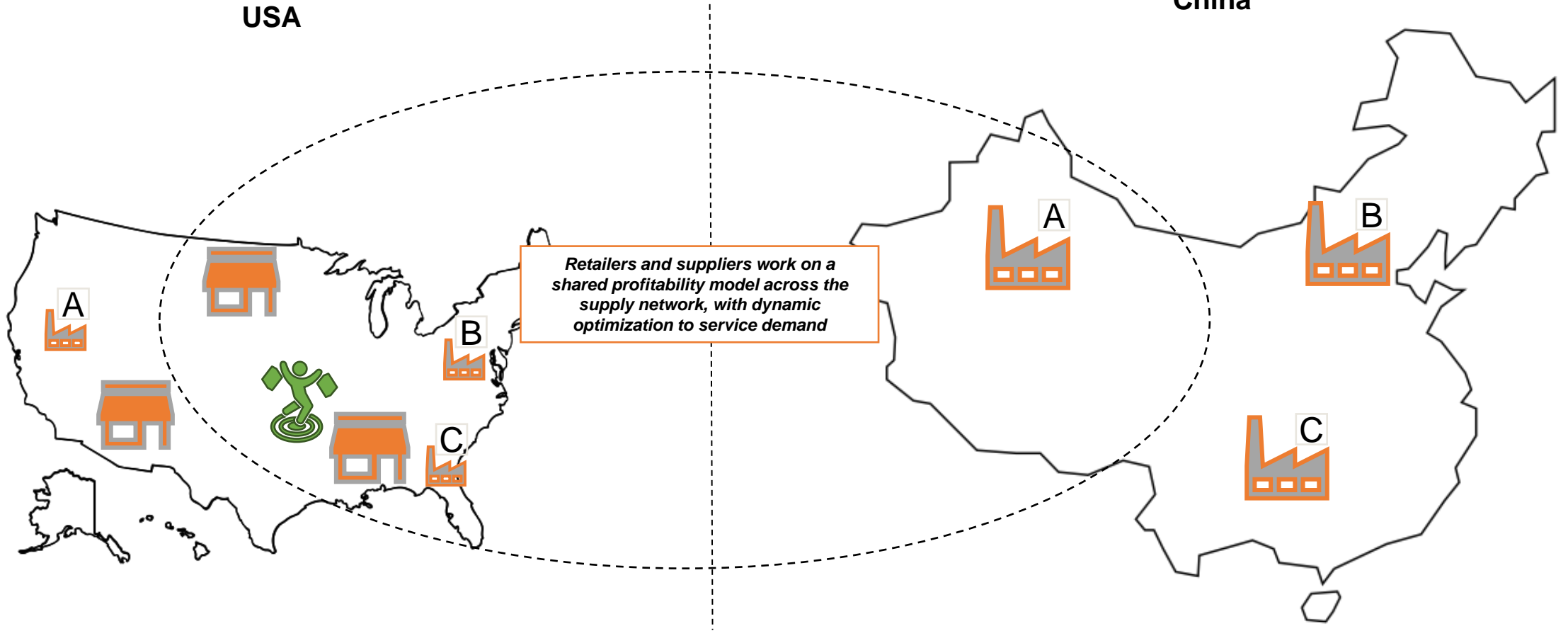
Manufacturers



GENERATION 5

USA

China



Brand POS and operations

Consumer

Manufacturers

Manufacturers



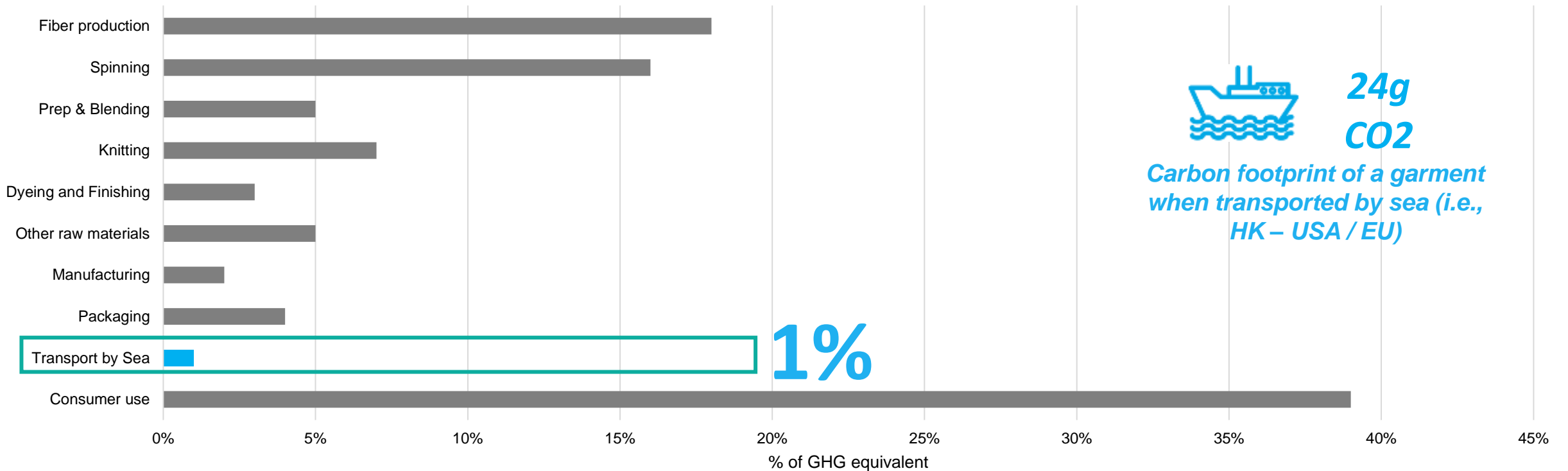
STATE OF THE INDUSTRY

“Digital innovation, rising globalization need & tension, changes in consumer spending habits and new Ultra fast Fashion players have **catapulted the fashion industry into the midst of seismic shifts**. But, thanks to rising inflation and supply chain pressures, the fashion sector is **more unpredictable than ever**”



YOU CAN'T CLAIM TO BE SUSTAINABLE AND TRANSPORT BY AIR

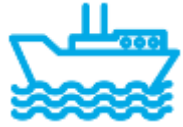
CO2 Emissions in Apparel Lifecycle



Resource: BSR Supply Chain Carbon Report & Alan McKinnon, Heriot-Watt University, Edinburgh, UK

Footnote: Emission related to upstream transport and distribution is 7% of total Scope 3 emission, which results from activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain. Scope 3 emissions, also referred to as value chain emissions, often represent the majority of an organization's total GHG emissions.

SIGNIFICANTLY HIGHER CARBON FOOTPRINT WHEN TRANSPORTED BY AIR



24g
CO2

Carbon footprint of a garment when transported by sea (i.e., HK – USA)

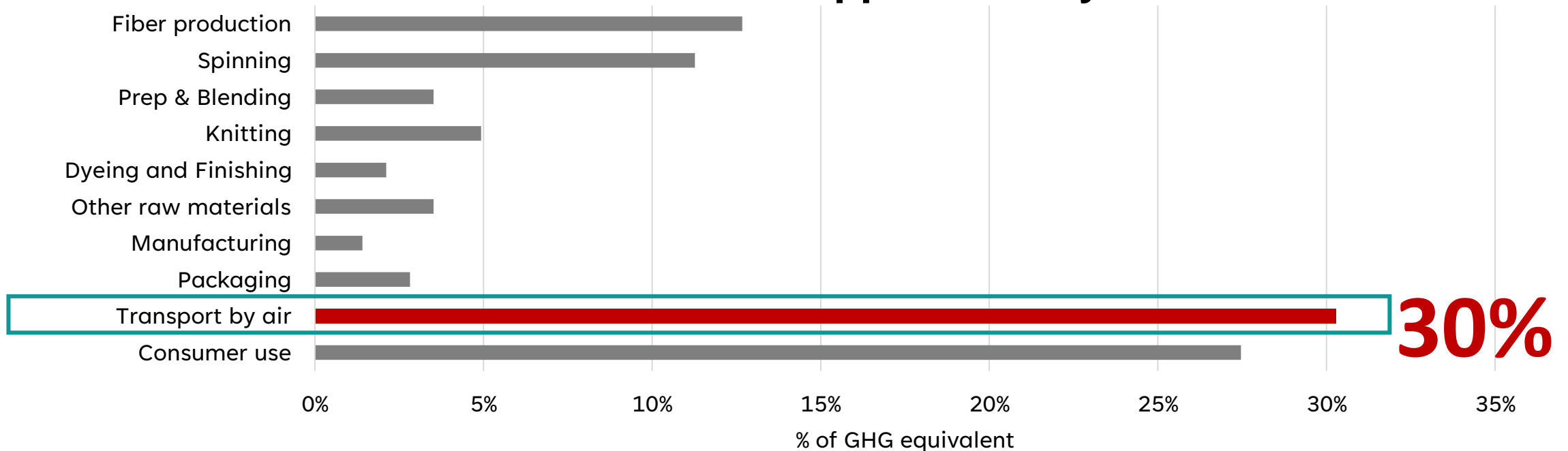
43x



1051g
CO2

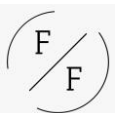
Carbon footprint of a garment when transported by air (i.e., HK – USA)

CO2 Emissions in Apparel Lifecycle



Resource: BSR Supply Chain Carbon Report & Alan McKinnon, Heriot-Watt University, Edinburgh, UK

Footnote: Emission related to upstream transport and distribution is 7% of total Scope 3 emission, which results from activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain. Scope 3 emissions, also referred to as value chain emissions, often represent the majority of an organization's total GHG emissions.



THE FITTEST DON'T ALWAYS SURVIVE!

CNBC

Gap CEO defends air freight investments despite margin hit, says it's about competing for holidays

Gap CEO defends air freight investments despite margin hit, says it's about competing for holidays ... Gap CEO Sonia Syngal on Tuesday defended...

23 Nov 2021



Drapers

VF Corp lowers forecast as revenues drop

It said inventories were up 88% compared with the same period last year, partially driven by an increase of in-transit inventory as VF modified...

1 day ago



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World Business Legal Markets More



Retail & Consumer



2 minute read · November 3, 2022 7:52 AM PDT · Last Updated 4 days ago

Aa

Under Armour cuts forecasts on weak demand, higher discounts

Vogue Business

Retailers, facing an inventory crisis, are cancelling orders again

Brands and retailers are struggling with rising costs, excess inventory and unpredictable consumer demand. Researchers, labour advocates and...

3 weeks ago



its annual forecasts on strong demand for fresh products

UK retailers face 'inventory crisis' in evolution of global supply chain woes

By Rachel Douglass
1 Dec 2022

Twitter Facebook LinkedIn Pinterest WhatsApp



THE FITTEST DON'T ALWAYS SURVIVE!

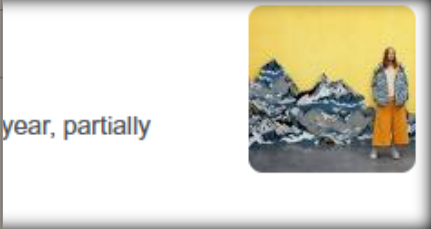
CNBC
Gap CEO defends
says it's about co
Gap CEO defends air fre
for holidays ... Gap CEO
23 Nov 2021

FINANCIAL TIMES

WORLD US COMPANIES TECH MARKETS CLIMATE OPINION WORK & CAREERS LIFE & ARTS HTSI

Shipping + Add to myFT

Air freight demand grows even as supply bottlenecks ease



year, partially

evolution of

global supply chain woes

By Rachel Douglass
1 Dec 2022

Twitter Facebook LinkedIn Pinterest WhatsApp

REUT

2 minute read · November 3, 2022 7:52 AM PDT · Last Updated 4 days ago

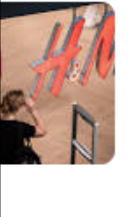
Under Armour cuts forecasts on weak demand, higher discounts

Vogue Business

Retailers, facing an inventory crisis, are cancelling orders again

Brands and retailers are struggling with rising costs, excess inventory and unpredictable consumer demand. Researchers, labour advocates and...

3 weeks ago

A woman wearing a white headscarf and an orange top is working at a retail counter, possibly a cashier or clerk.

THE FITTEST DON'T ALWAYS SURVIVE!

CNBC

Gap CEO defends a
says it's about

Search News & Quotes

Gap CEO defends a
for holidays ... Gap
23 Nov 2021

BARRON'S

Topics ▾ Stock Picks Lists & Rankings Magazine Data



RETAIL | EARNINGS REPORT

Gap Stock Tumbles as the Apparel Retailer Swings to a Loss

By [Sabrina Escobar](#) [Follow](#) March 9, 2023 4:59 pm ET

Gap stock plunged in after-hours trading following a downbeat quarterly report from the apparel retailer.

Vogue Business

Retailers, face
again

Brands and retailers
consumer demand
3 weeks ago

year, partially



evolution of



THE FITTEST DON'T ALWAYS SURVIVE!

March 10, 2023 11:00 AM

US Apparel Companies Can't See a Future Without China

● Brands are finding few factories outside the country that can produce the quality and quantity they require.

By Jeannette Neumann, Olivia Rockeman and Daniela Wei



CNBC

Gap CEO defends its about

Gap CEO defends its about for holidays ... Gap

23 Nov 2021



R



Aa

Vogue Business

Retailers, factories again

Brands and retailers consumer demand

3 weeks ago

partially



olution of

f in p



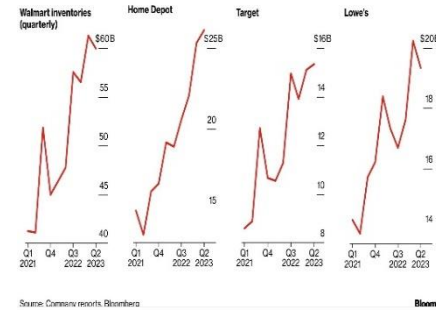
AS IF A PANDEMIC WASN'T ENOUGH



Rise of Ultra Fast Fashion

| | |
|-------------------------|-------------------------------|
| SHEIN | TEMU |
| CAGR = 91% | CAGR = 95% |
| Valued at \$68B | Valued at \$102B |
| Sell thru = +98% | Active users US = 100m |

Source: *Business of Apps*



Excess inventory

- **Bloomberg:** Apparel Companies are struggling with a **Glut of Inventory**.
- Bloomberg: XXXX's **Inventory Glut (up 65%)** send stock down most in 20 years



Apparel waste

- **\$500 billion dollars** of waste clothing per year*
- **OR** the largest **FREE** commodity source to the apparel Industry!
- Waste will increase 250-300% by 2050

*Source: *Ellen MacArthur Foundation*



Circularity

- Resale growing at 39% CAGR globally*
- Brands struggling with acquisition of **their** product.
- New Circular Supply Chain Teams

Source: **Thread Up*



Markdowns

- Markdowns cost **US** retailers **\$300 billion annually**
- **Over ordering** is the **2nd** largest creator of waste in the apparel industry.

Source: *IHL Group*

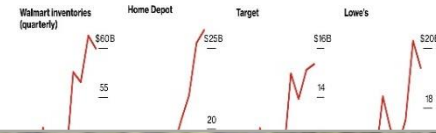


Out of Stock

- **Estimated \$1 trillion dollars** lost to global retailers' inability to respond to higher than planned demand
- Air Freight **Up** on 2019 and 2021
- Air Freight **higher** than planned.



EMIC WASN'T ENOUGH



Excess inventory

- **Bloomberg:** Apparel Companies are struggling with a **Glut of Inventory.**
- **Bloomberg:** XXXX's **Inventory Glut** (%) send stock down most in [unclear] [unclear]



Apparel w

- \$500 billion per year
- OR the largest source to
- Waste will be 2050

Source: Ellen



Markdowns

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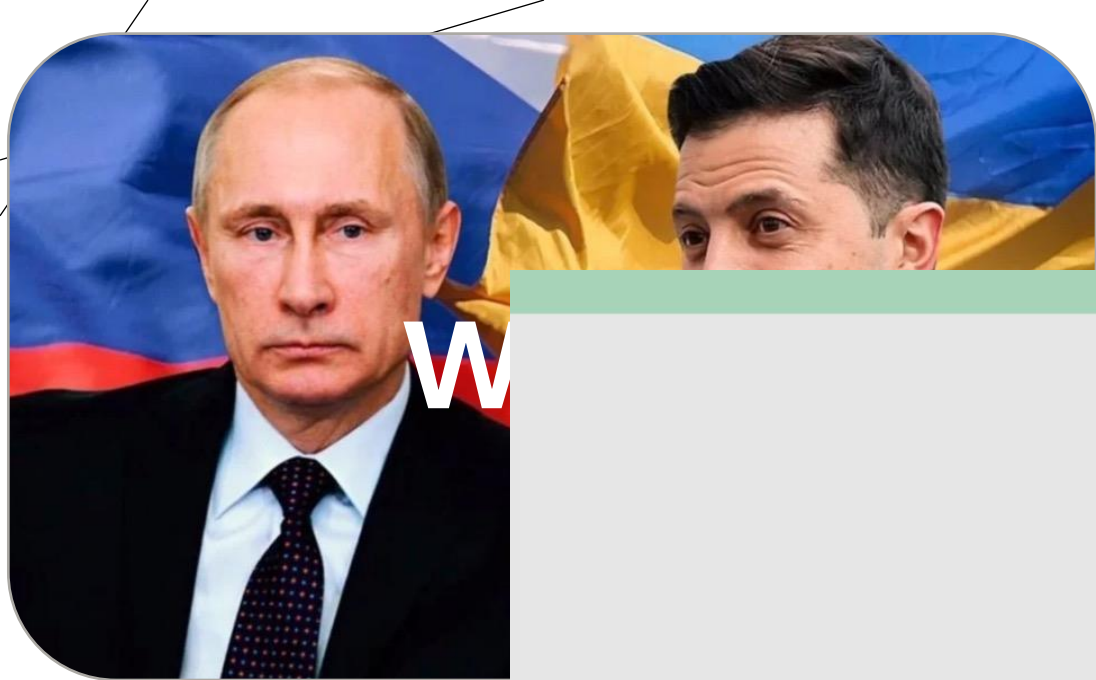
Source: IHL Group



TENSION

CHINA THREATENS U.S. OVER TAIWAN





EMIC WASN'T ENOUGH



Digital Product Passport

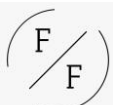
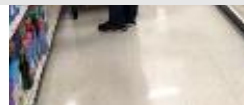
Key elements:

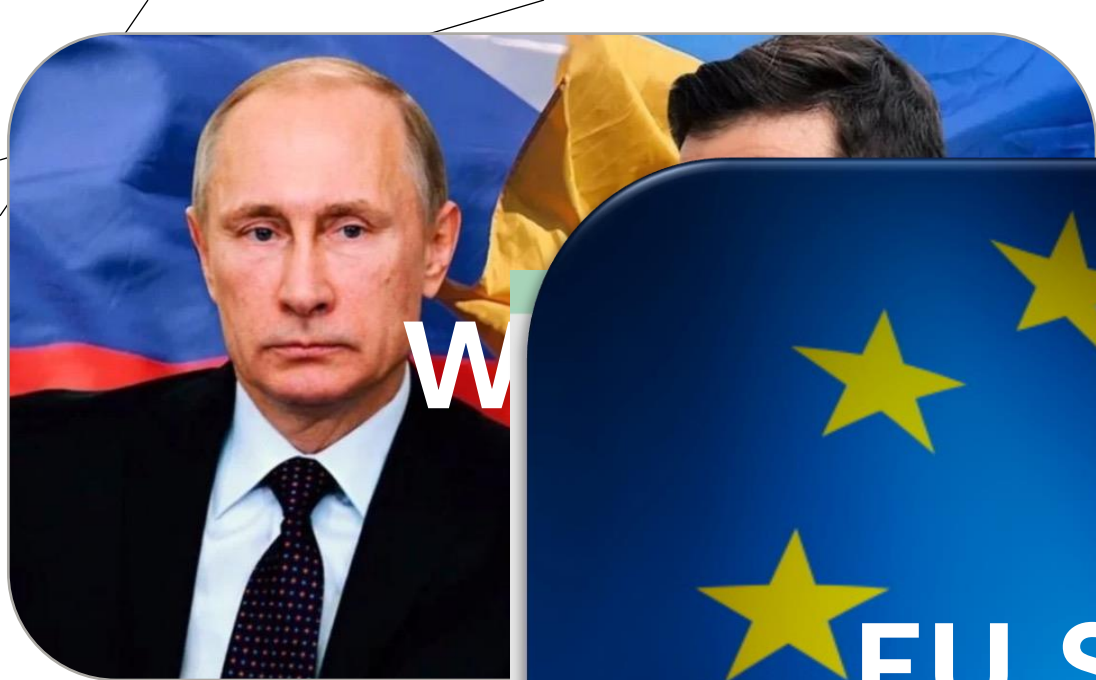
- the unique and at least over the period of use robust product/material identification,
- the corresponding necessary identification technologies,
- the data stored in a database,
- the protocol for the transmission of the data.



...creator of waste in the apparel industry.

Source: IHL Group





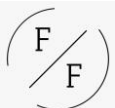
W



EU Sustainability Legislation



Source: IHL Group



WION U.S. OVER TAIWAN

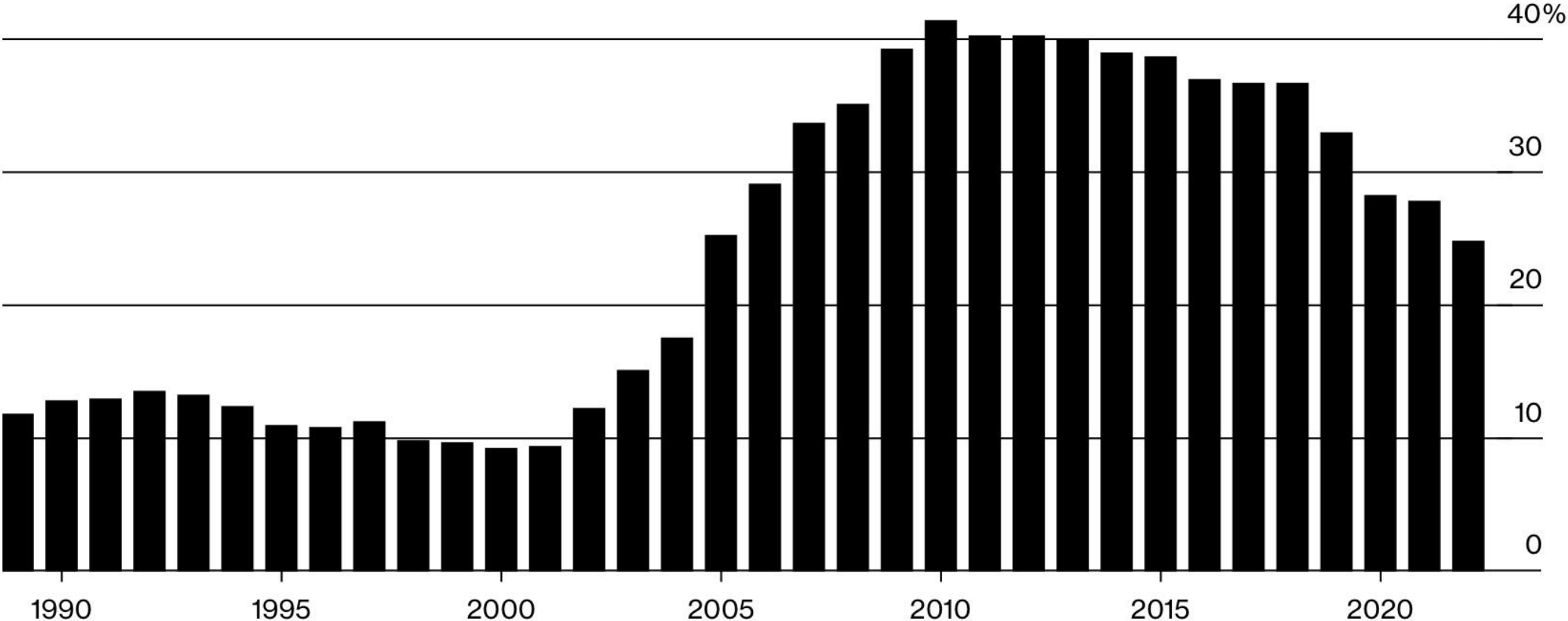
ENS

lly*
of their

THE NEXT CHINA IS NOT A “WHERE” IT’S A “HOW”

Share of US Textile and Apparel Imports From China

By value



Source: US Office of Textiles and Apparel



WHAT IS REALLY DRIVING GLOBAL BRANDS

OF MENTIONS IN LATEST EARNINGS CALL TRANSCRIPTS

| Brand/ Retailer | Sustainability | Inventory | Reactivity/ trend capture | Margin |
|-----------------|----------------|-----------|---------------------------|--------|
| PVH | 2 | 8 | 6 | 19 |
| NIKE | 0 | 51 | 3 | 13 |
| H&M | 6 | 11 | 3 | 16 |
| GAP | 0 | 38 | 3 | 18 |

* PVH Corp. (NYSE:**PVH**) Q4 2022 Earnings Call Transcript March 28, 2023

* NIKE, Inc. (NYSE:NKE) Q3 2023 Earnings Call Transcript, March 24, 2023

* H & M Hennes & Mauritz AB (publ) (HNNMY) Q1 2023 Earnings Call Transcript, Mar. 30, 2023

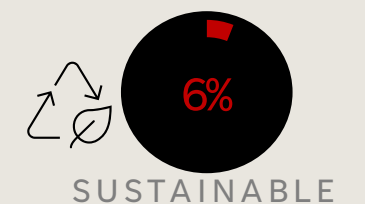
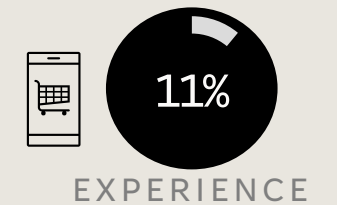
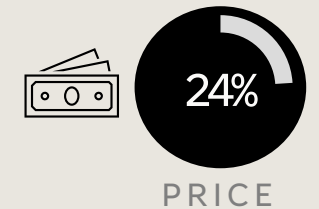
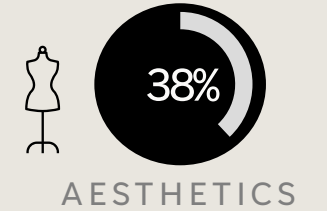
* Gap (GPS) Q4 2022 Earnings Call Transcript, Mar 9, 2023



WHAT IS REALLY DRIVING CONSUMERS

We asked **Gen Z** and **Millennial** consumers, across 10 different countries, 2 simple questions:

1. Where do you shop for fashion?
2. reasons you shop there?



*Source: Future-Proof Fashion survey research May 2023



The industry has failed to self regulate

Governments Introducing:

LEGISLATION

EDUCATION

LITIGATION

WHAT WILL DRIVE SUPPLY CHAINS

BURNING BRIDGE MOMENT



EU Strategy for Sustainable and Circular Textiles



HM Government

Extended Producer Responsibility (EPR)



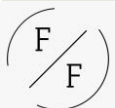
European Green Deal



NY Fashion Sustainability and Social Accountability Act



French Decree 2022-748

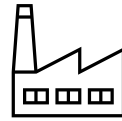


THE SOLUTION



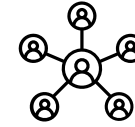
TECHNOLOGY

Connect the software solutions that will allow for a dynamic flow of production across the full supply lattice



INFRASTRUCTURE

Create a network of advanced onshore manufacturing capabilities, that will compliment offshore and nearshore manufacturing

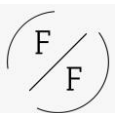
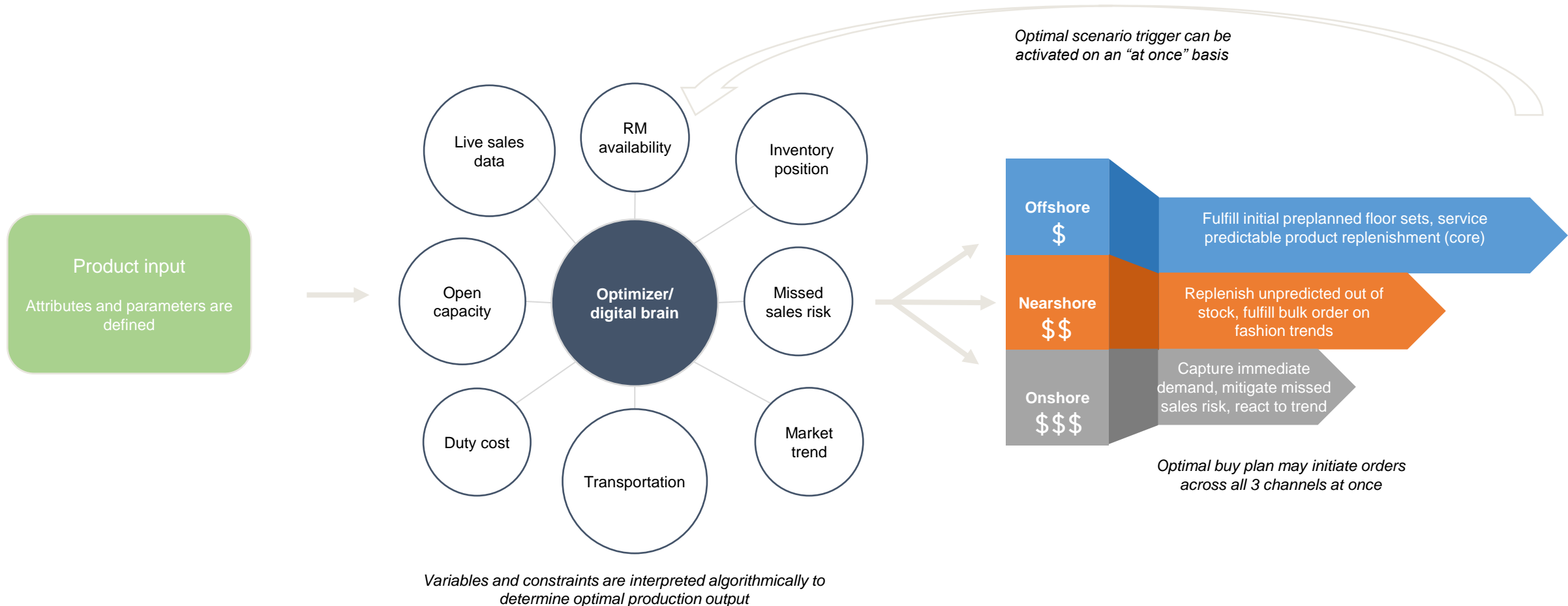


COLLABORATION

Ecosystem collaboration to bring the fully operational and compelling solution to brands and retailers, bringing enough scale to persuade change!

TECHNOLOGY: MDDO

Retailers need a **Multi-Dimensional Dynamic Optimization tool** that will activate production across 3 supply channels simultaneously, based on a set of defined parameters, and constraints. The solution will interpret data inputs and transform this into optimized scenario outputs that **maximize profitability** in a program, by ensuring no out of stocks/ missed sales, whilst reducing excess inventory and markdowns. The solution will require live data feeds into a supply network digital twin, with an AI overlay that becomes the optimizer. The optimal scenario dynamic solution will work on an “at once” basis.

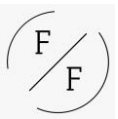


SUPPLY MATRIX: FINANCIAL IMPLICATIONS

Products manufactured on-shore have **higher first costs**; however, maintained margins increase as a result of **higher full price sales, lower markdowns and lower inventory carrying costs**.



| | Onshore | Nearshore | Offshore |
|------------------------------|--|-----------|----------|
| Cost | \$\$\$ | \$\$ | \$ |
| Inventory | Zero | Medium | High |
| Full Price Sales | High | Medium | Low |
| Lost Sales | Zero | Low | High |
| Markdowns | Zero | Low | High |
| IMU (Initial Markup) | Low | Medium | High |
| Program Profitability | Onshore + Nearshore + Offshore = HIGH program profitability | | |
| | Nearshore + Offshore = MEDIUM program profitability | | |
| | Offshore = LOW program profitability | | |



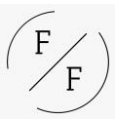
IT'S THE MOST ADAPTIVE THAT GROW AND DOMINATE

News

Trending

Forbes: Why is o9 Solutions growing so fast?

By o9 Solutions | March 10, 2023



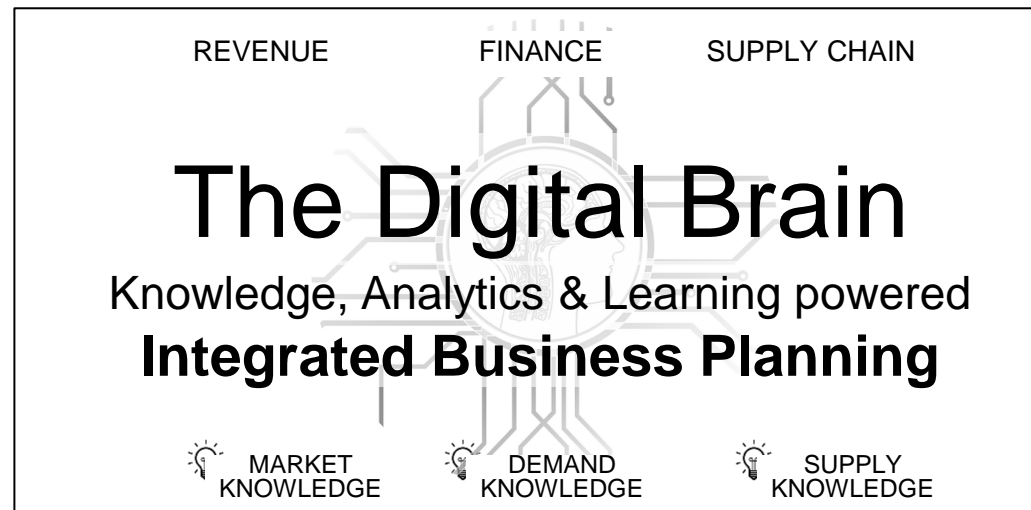
The o9 Digital Brain is helping leading companies across industries transform their planning & decision making capabilities to deliver impact



Name: o9 Solutions, Inc.
Headquarters: Dallas, USA
International offices: Netherlands, UK, France, Spain, Italy, Germany, India, Japan, South Korea, Singapore, Australia, Brazil
Founded: 2009
Employees: 2000+
Unicorn Company, backed by: **KKR**  **GENERAL ATLANTIC**



The **o9 Digital Brain** is enabling large enterprises to connect revenue planning, supply chain planning, and financial planning on a single integrated platform to better drive their business - all based on real-time market and enterprise knowledge.
Today, we have 100+ large clients across industry sectors



Scope Overview

- Merchandising Financial Planning
- Assortment Management
- Demand Planning
- Allocation & Replenishment
- Supply Chain & Logistics
- Integrated Business Planning
- Revenue & Commercial Management

Leading Retail and Apparel companies, among other industries, have selected o9 as the partner for their digital transformation...

Apparel & Footwear



Retail



Consumer Products



Industrial Manufacturing



Automotive



High-tech & Semiconductor



Energy & Resources



Telecommunications



Life Sciences



INFRASTRUCTURE: ECOPARC

Garment creation

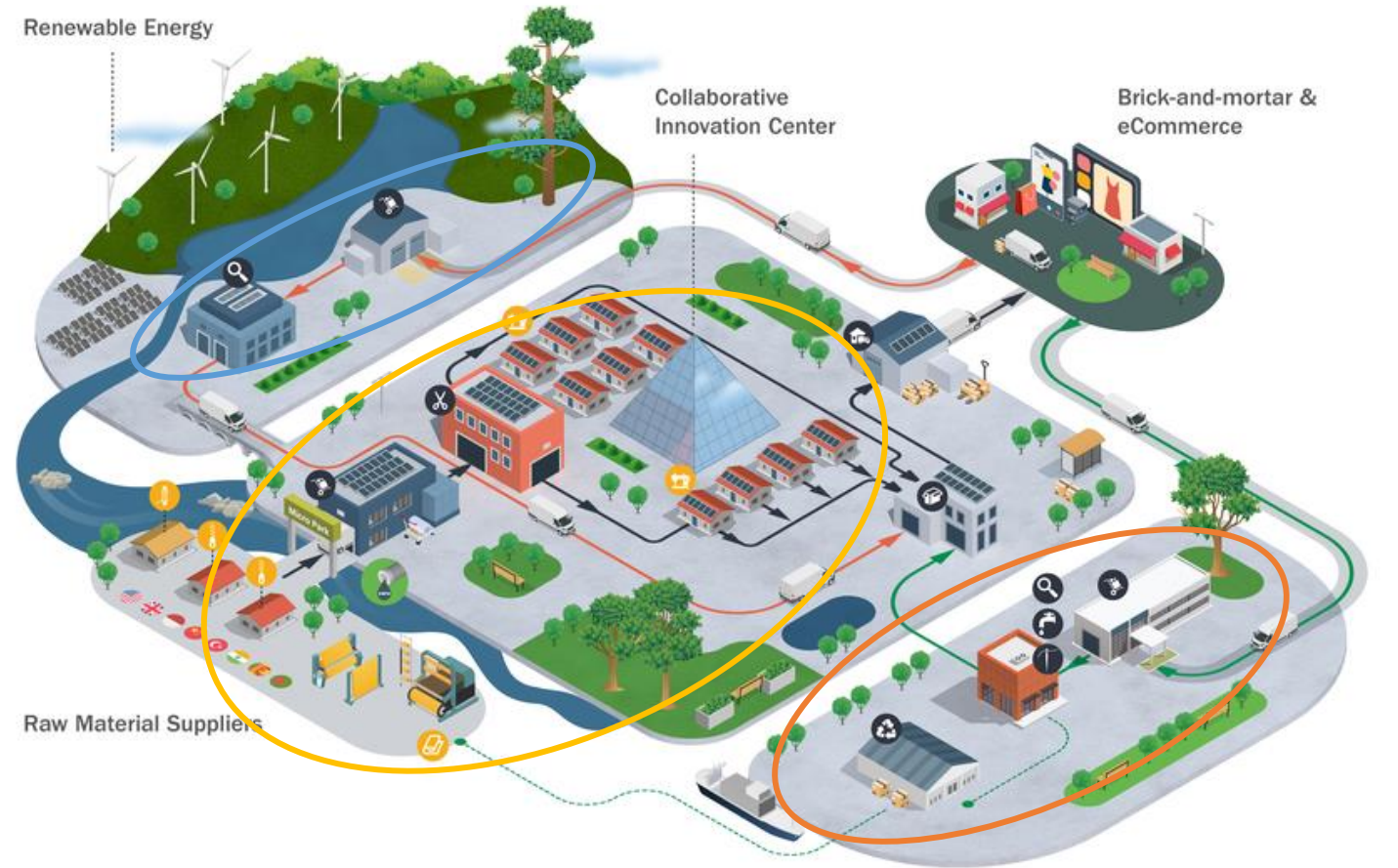
No waste manufacturing focused on last mile processing, reduces the need to take risky inventory positions

Garment lifespan

With the addition of rental and resale logistics in a regional capacity, garment lifespan is extended

Garment EOL

Upcycle, down cycle and recycle capabilities, ensure the EOL process is sustainable and profitable



Zero Liquid Discharge

Receiving warehouse

Sort and inspect

Cutting

Raw Material Suppliers

Fabric Mill

Manufacturers

Packaging

Distribution

Recycle

Sort, grade, clean and repair

New Product

eCommerce Returns

Recycled Product



AMPLIFY BRAND AND RETAIL CAPABILITY

Design and develop in real time 01

Engage Global Value Chain locally in real time

Test local, react global 02

Test locally to inform accurate bulk buys globally

Pulse on "todays" fashion 03

Short cycle capsules, always on trend, never behind TikTok

Read market and react 04

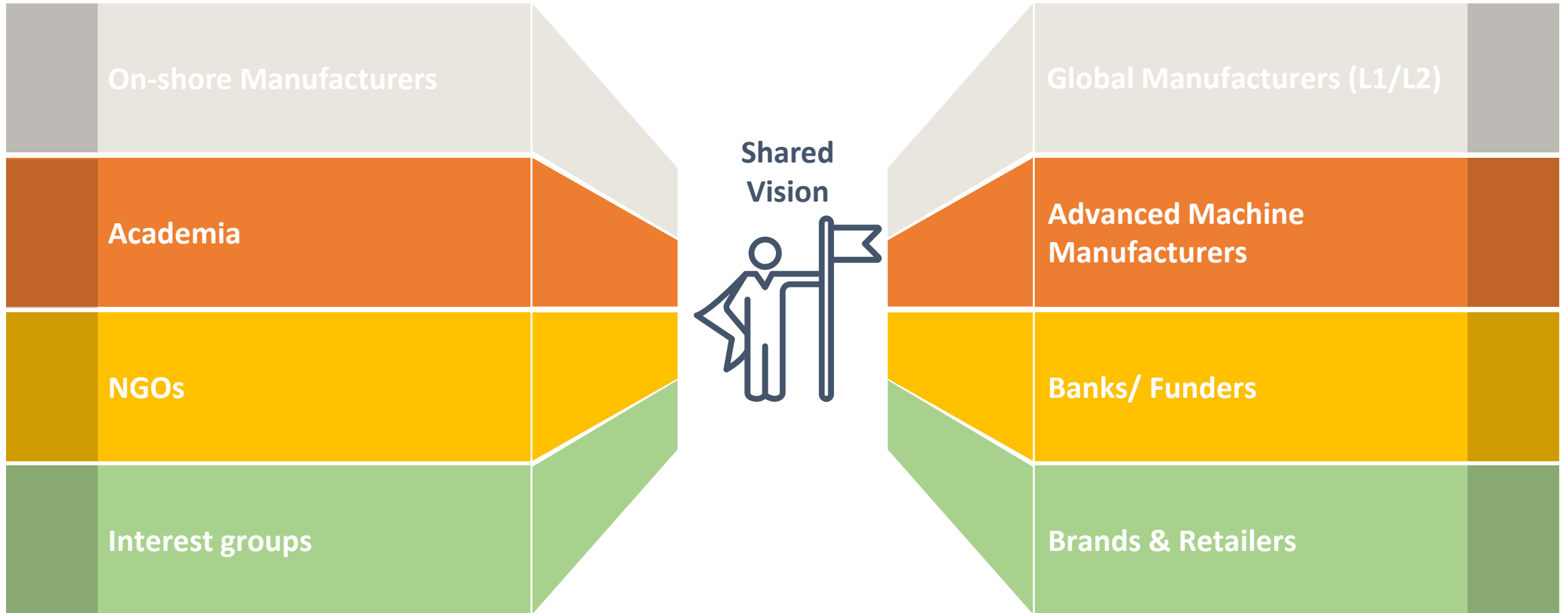
Smaller seasonal buys offshore, react onshore/ offshore

Produce on/ to demand 05

Zero waste, zero inventory, zero risk
Customization possible



COLLABORATE: ECOSYSTEMS



CO



Katie Liebscher · 2nd
Pre-Loved Fashion eBay | ex-
John Lewis
1w · Edited · 🌐

Connect

Starting day 2 of **Global Fashion Agenda** Summit with interesting discussions from **Nike** and **Inditex**.

Both **Noel Kinder** and **Oscar García Maceiras** encouraged the need for pre-competitive collaboration and collective voice of brands to make change and transform.

As **#Nike** say "there's no finish line" when it comes to **#sustainability** and **#circularfashion**, but let's make a commitment to start and learn along the way 🌱👏



MS

On-shore Manufacturers

Global Manufacturers (L1/L2)

Academia

Advanced Machine
Manufacturers

NGOs

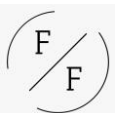
Banks/ Funders

Interest groups

BBC · 2d

Janet Yellen asks China to cooperate on climate change action

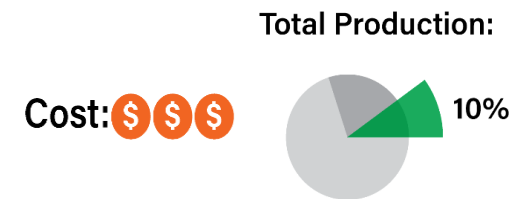
US Treasury Secretary Janet Yellen has called on China to work with Washington to fight the "existential threat" of climate ...



ECOPARC + MDDO

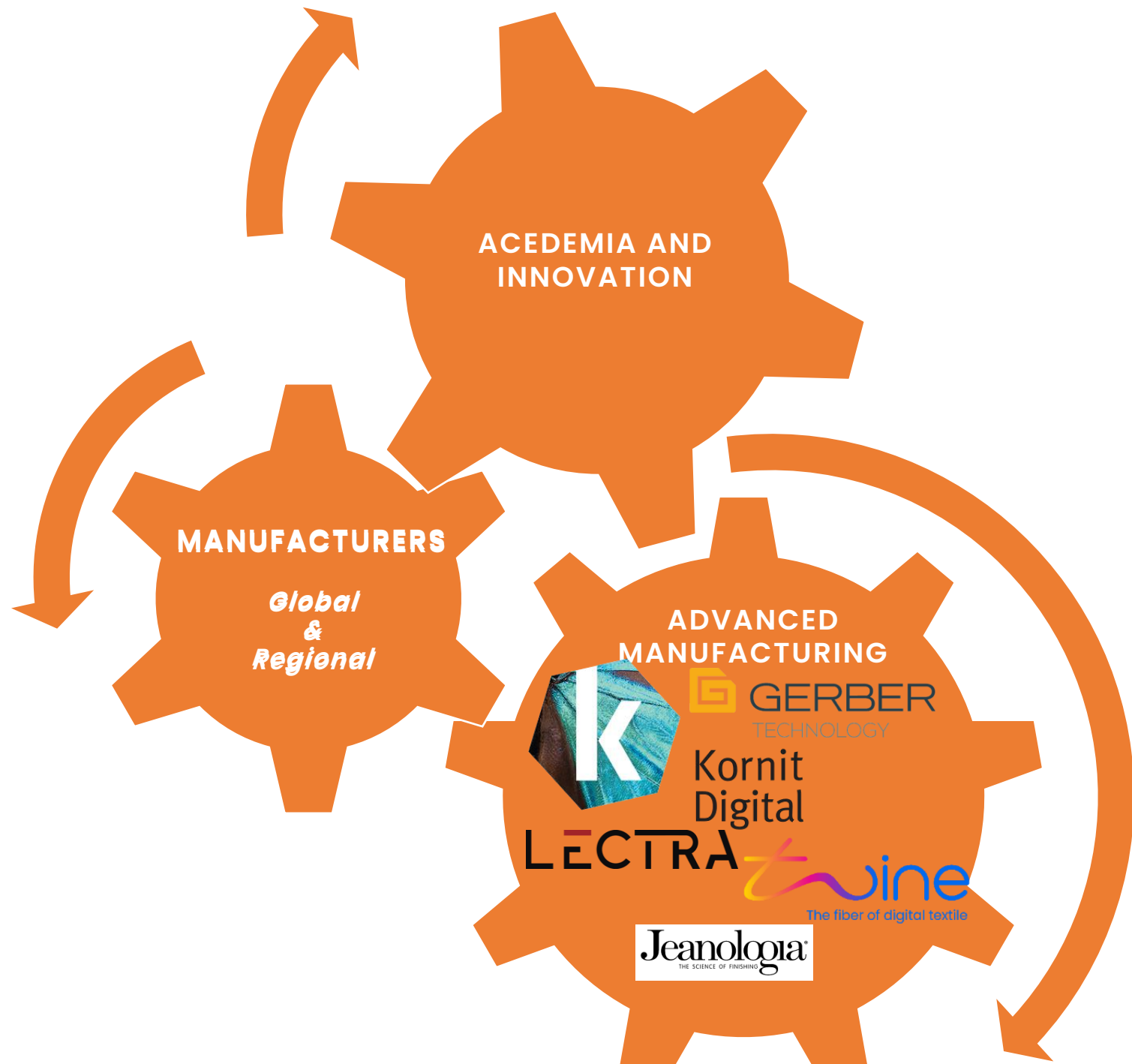


1. + 200bps in incremental business Margin
2. > 20% Reduction in system waste
3. >30% reduction in DC inventories
4. Enables Brands to unlock re-sale market
5. Feeds off-shore Mass Regeneration Zones



WHATS HOLDING US BACK?

- The capability exists
- The financials work
- Supports sustainability commitments
- Supply Partners are capable
- Advanced machine suppliers are ready
- Academia is willing and eager
- Brands and Retailers?



REWIRE THE MINDSET

From



To

IMU% and 1st Cost Control

Program Profitability

75% Full Price Sell Through

100% Full Price Sell Through

Constrain Designs “Over-development”

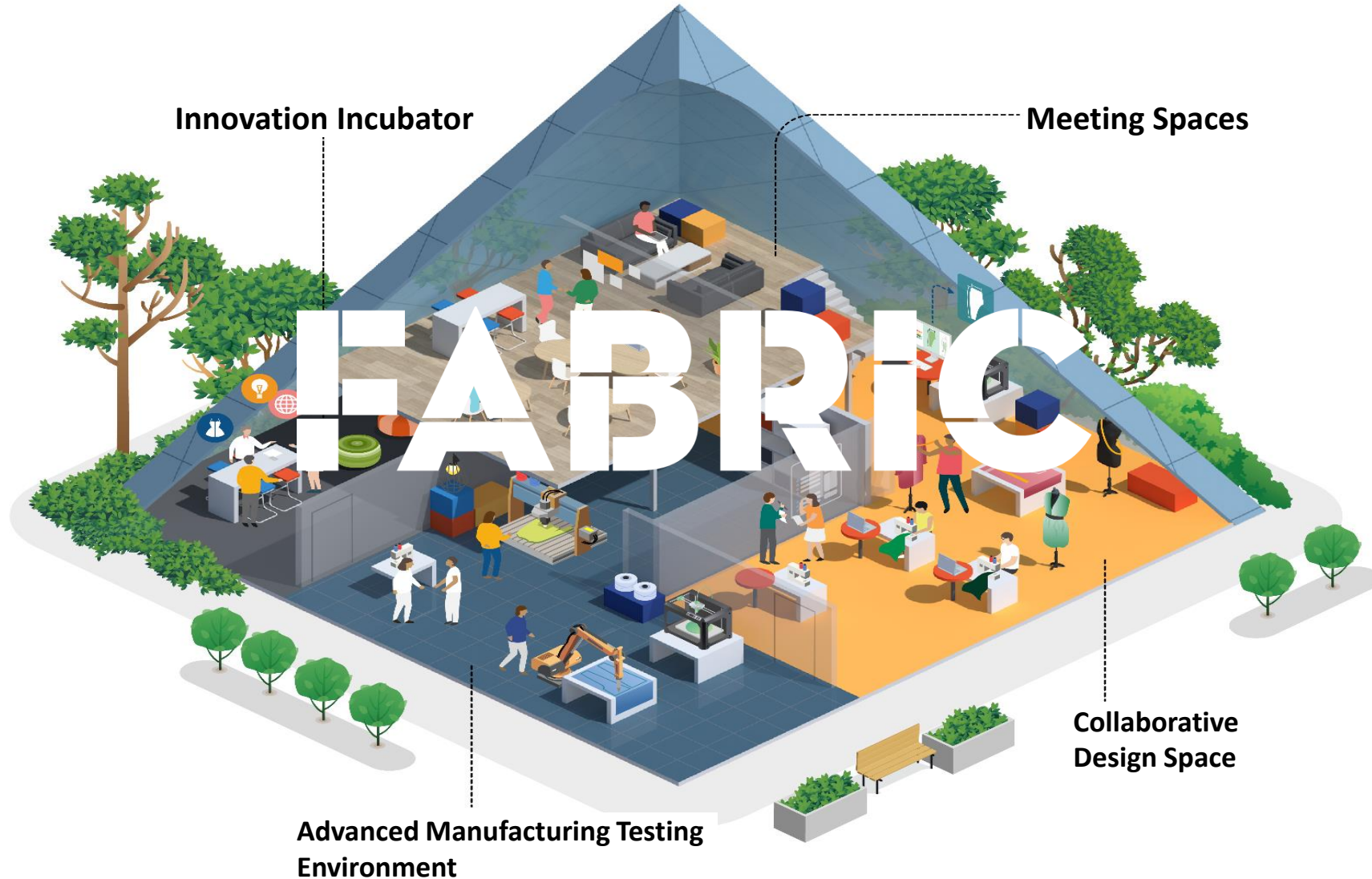
Enable Continuous Design, Test & Chase

MOQ's

OOQ's

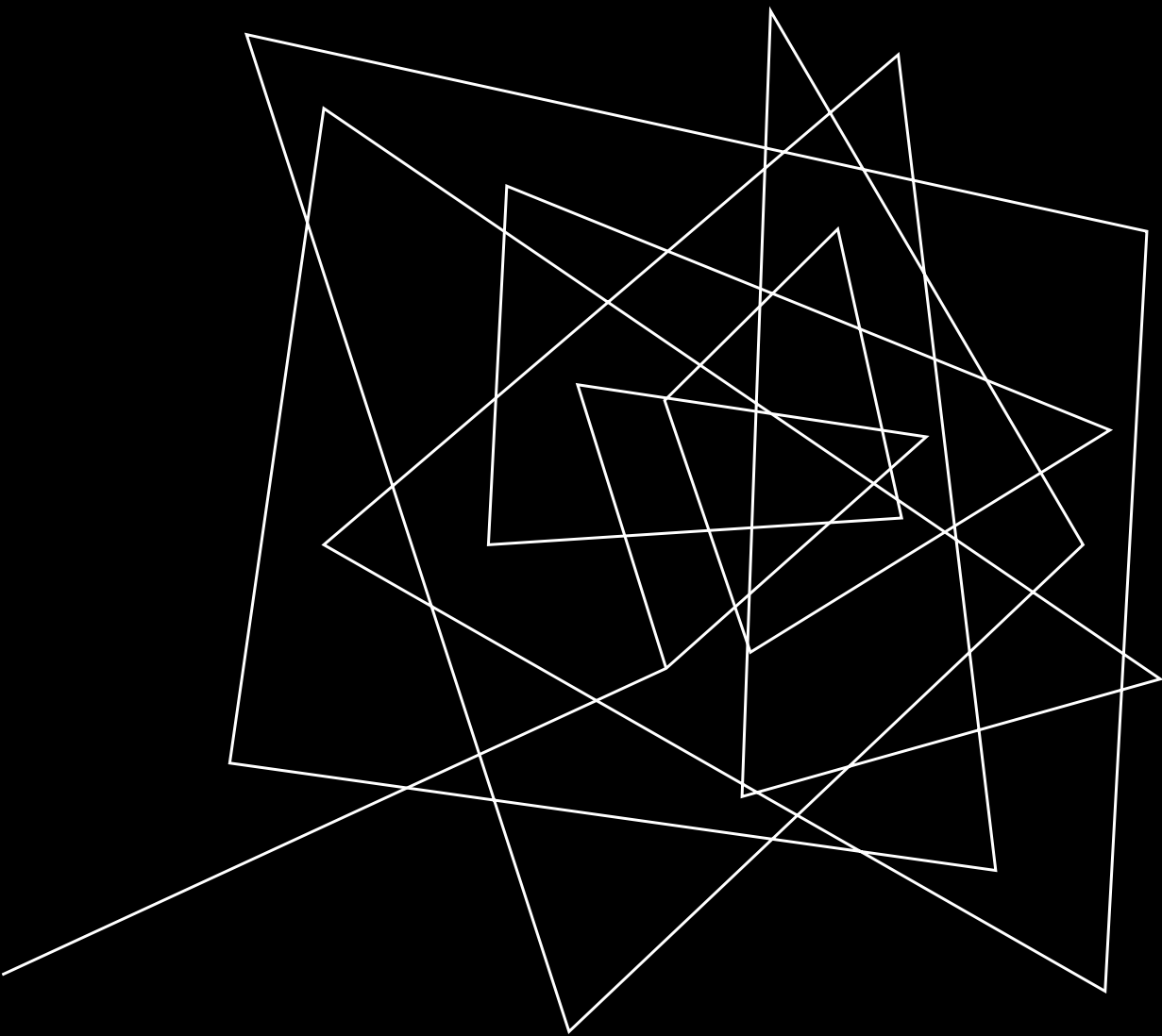


COLLABORATE: ECOSYSTEMS



INFRASTRUCTURE: GENERATION 5



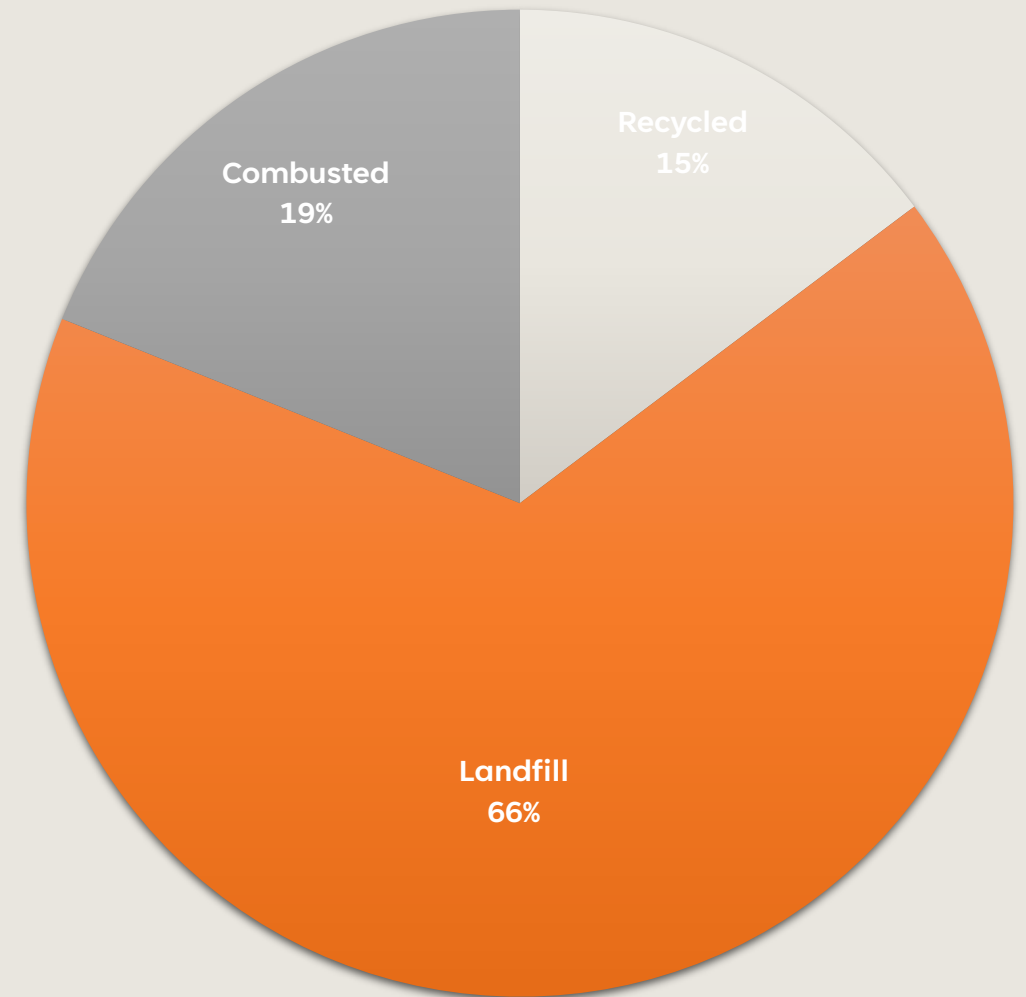


WEST AFRICA REGENERATION ZONE

WASTE IS A HUGE PROBLEM

- **92 million tons** of textiles waste created each year
- **A Trash truck**, full of clothes, dumped to landfill **every second**
- **Just 15%** of the material used for clothing ends up being recycled.
- Paper, glass and plastic PET bottles – have recycling rates of **66%, 27% and 29%** respectively in the US – Clothing lags behind.*

EPA 2018 Textile Waste Facts



*Source: "Why Clothes are so Hard to Recycle" BBC News

EU/US BECOME WASTE IN WEST AFRICA, INDIA, PAKISTAN, CHILE ETC



Clothing is “donated” in Western markets

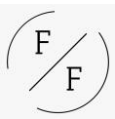


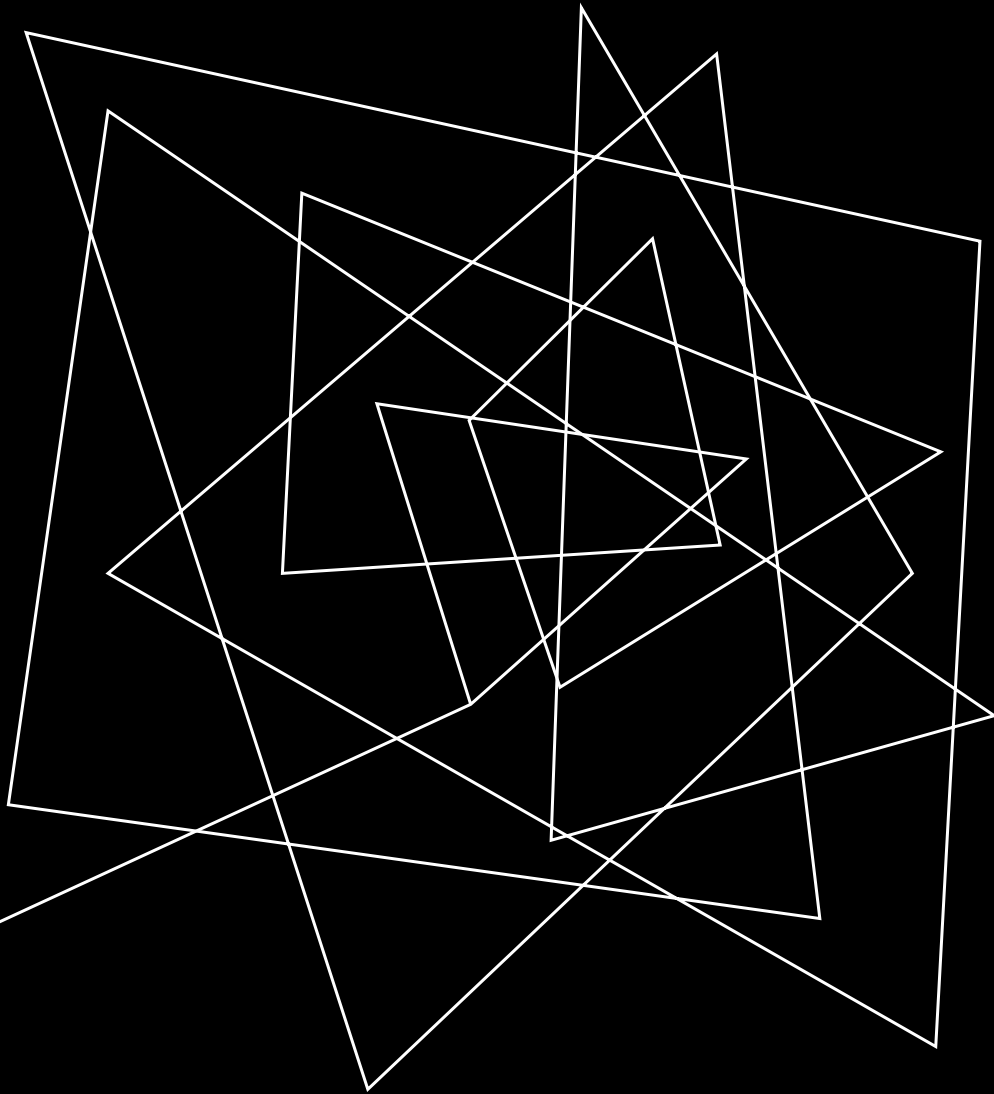
Bulk shipments are sent to West Africa for resale



At least 40% of the items go directly to toxic dumps

MASS REGENERATION ZONE





THANK YOU

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