

FUTURE-PROOF FASHION
STRATEGIZE, INNOVATE, EXECUTE

AAPN: COLLABORATIVE ECOPARC

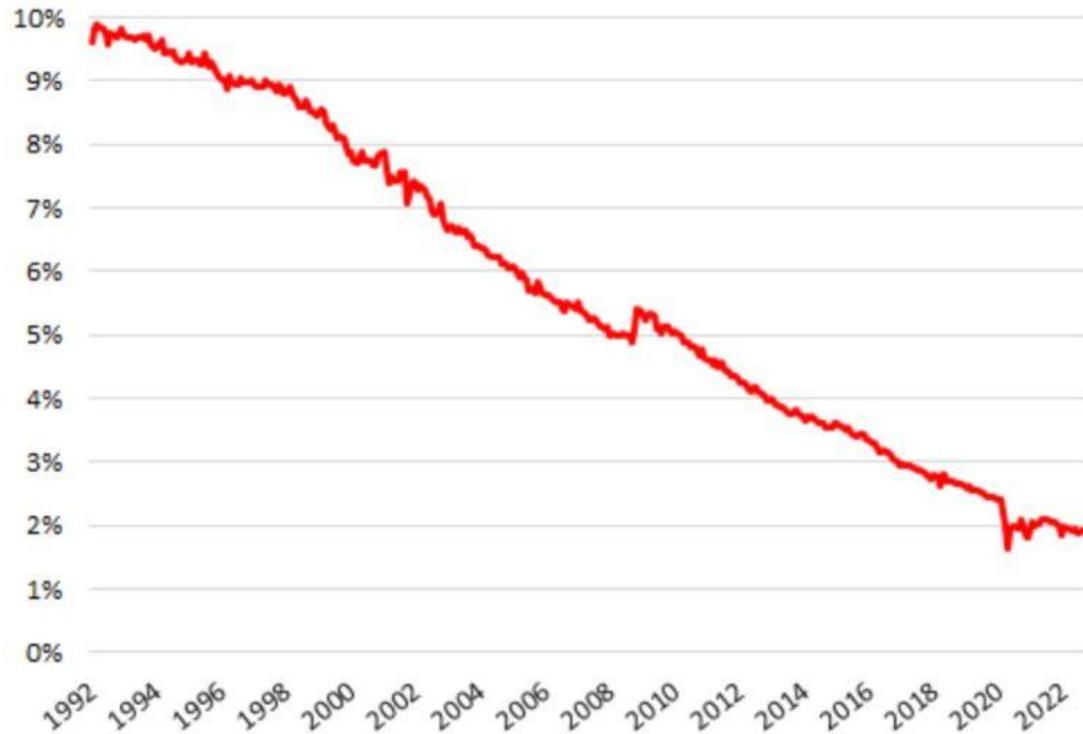
BILL MCRAITH FEB 2024



THE EXTINCTION EVENT HAVE BEGUN

Department Stores on Track to Irrelevancy

Sales as % of Total Retail Sales



Source: Census Bureau

WOLFSTREET.com

The downfall of Department Store sales as a % of Total Retail Sales.

THE BUSINESS JOURNALS · 13d

Nike is experiencing historic struggles. Experts don't think it's a major issue.

Experts agree that Nike is at a decisive moment in its history. But will it face any meaningful losses as a result? Experts ...



"We also must get deeper traction on our key speed initiatives. Today, we know we must be faster, increasing the pace of innovation, increasing the pace of market to consumer, and increasing our agility and responsiveness. To drive this, we'll embrace a significant savings plan to create investment capacity to fuel profitable growth at speed and scale"

FOX · 21h

H&M CEO quits as fashion group fails to keep up with rivals

H&M unexpectedly announced a change of leadership on Wednesday, with CEO Helena Helmersson stepping down as the fashion retailer's performance continues to lag rivals.

CNBC · 19d

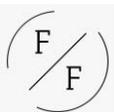
Macy's to cut more than 2,300 jobs, about 3.5% of its workforce, and close five stores

Macy's will cut about 2,350 positions, or 3.5% of its workforce. The legacy department store is trying to reduce costs and boost slowing sales. The move comes as Bloomingdale's CEO Tony Spring ...

sky news · 3d · on MSN

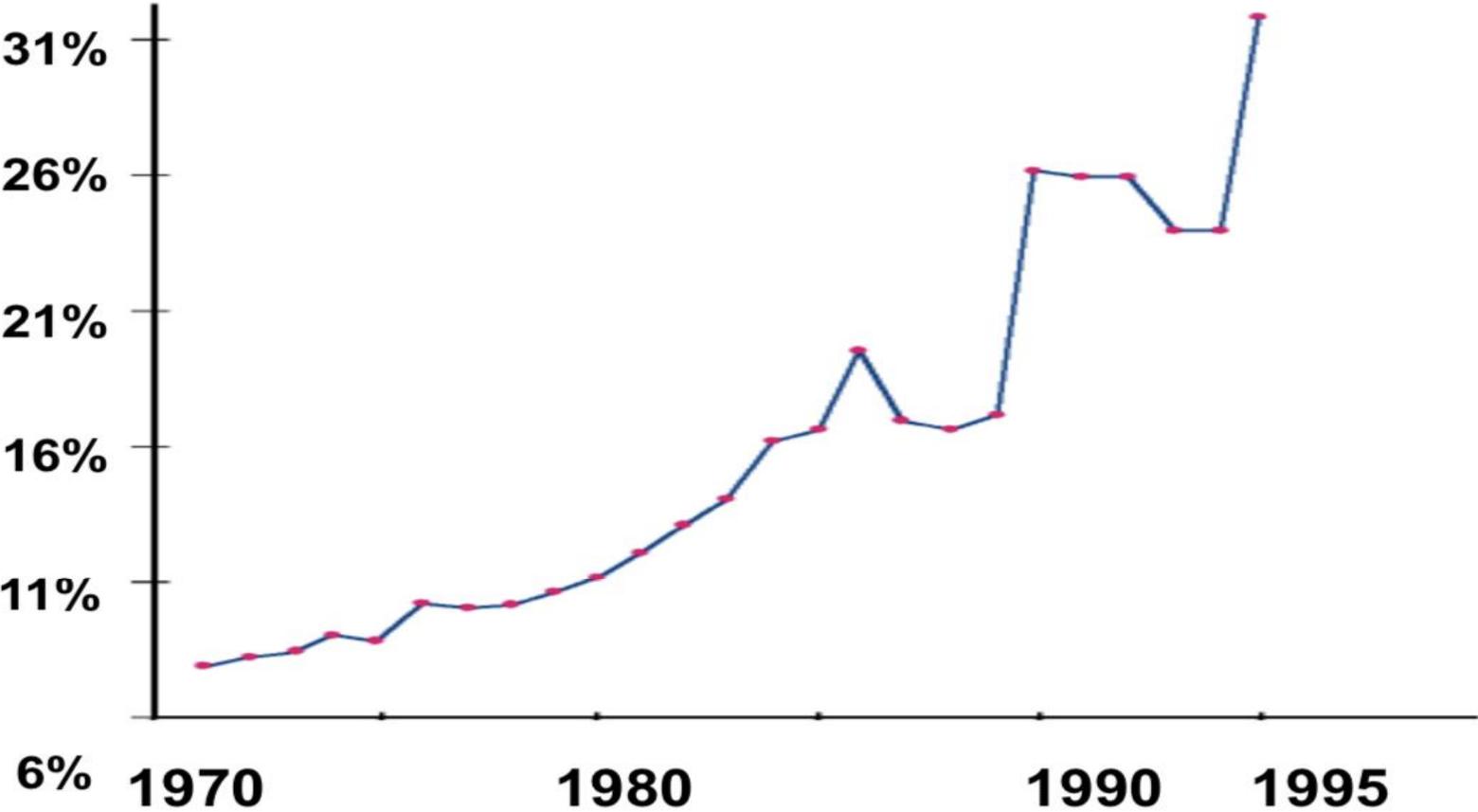
Superdry weighs restructuring as sales slump continues

The fashion retailer founded by Julian Dunkerton is working with PwC on options that could lead to store closures and rent ...



MARKDOWNS (WASTE) INCREASED AS SUPPLY CHAINS ELONGATED

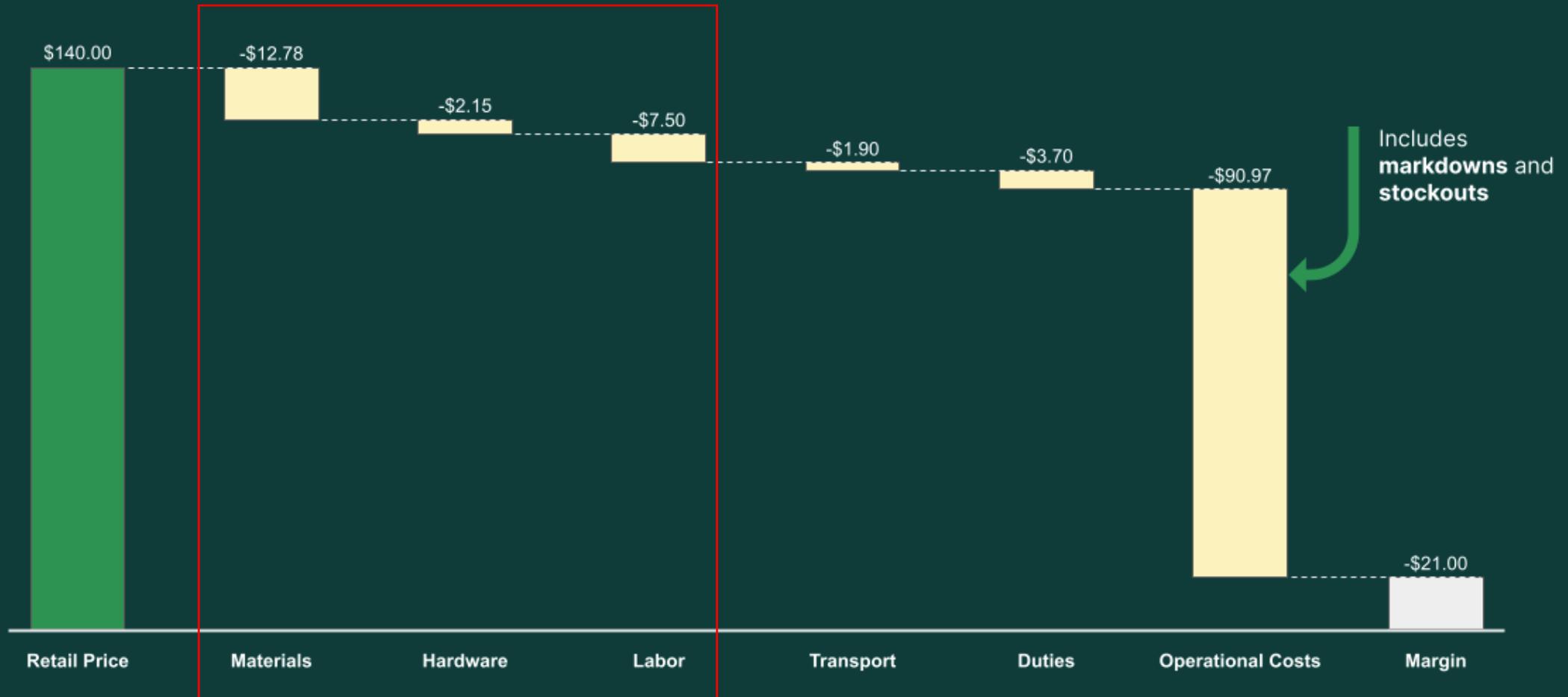
Department store markdowns as a percentage of sales



UNTAPPED POTENTIAL FOR EFFICIENCY

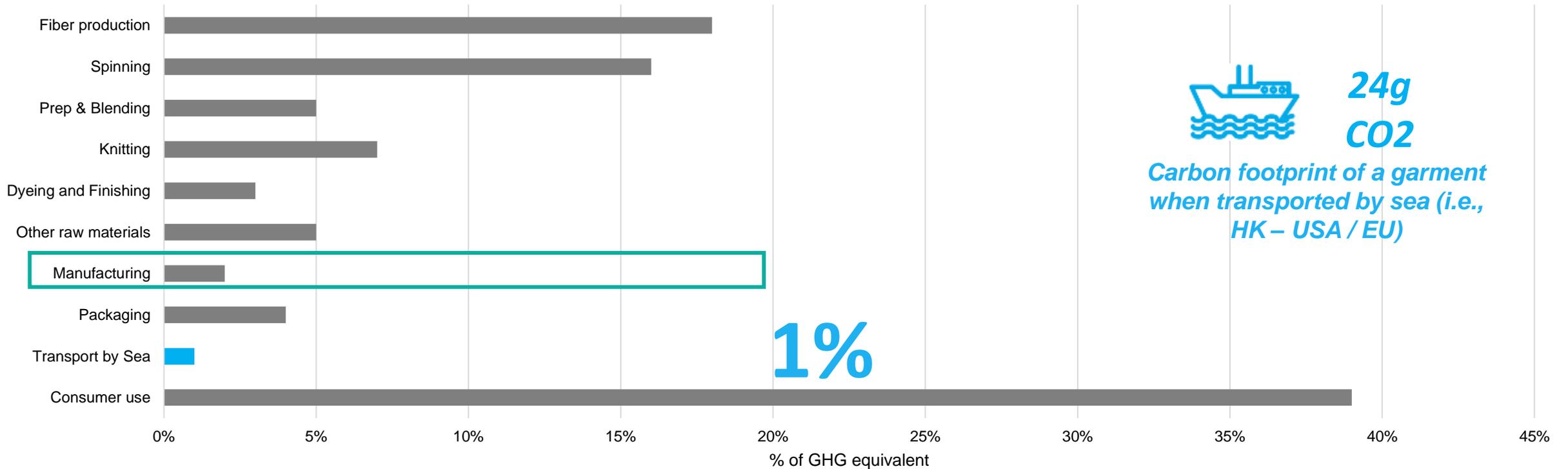


BRANDS HAVE AN ENORMOUS OPPORTUNITY TO REDUCE OPERATIONAL COSTS THROUGH SUPPLY SPEED AND FLEXIBILITY



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)



1051g
CO2

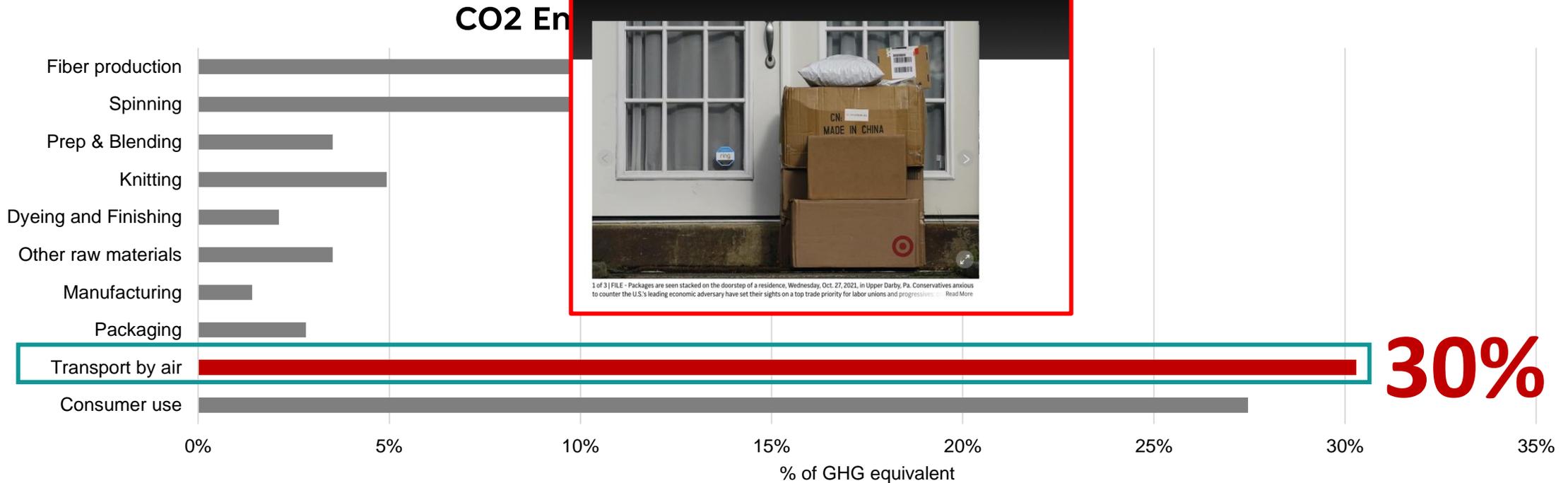
Carbon footprint of a garment when transported by air (i.e., HK – USA)

43x

Packages from China are surging into the United States. Some say \$800 duty-free limit was a mistake



1 of 3 | FILE - Packages are seen stacked on the doorstep of a residence, Wednesday, Oct. 27, 2021, in Upper Darby, Pa. Conservatives anxious to counter the U.S.'s leading economic adversary have set their sights on a top trade priority for labor unions and progressives. Read More



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

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THE SOLUTION



INFRASTRUCTURE



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



TECHNOLOGY



Connect the software solutions that will allow for a dynamic flow of data to ensure seamless production across the complex supply network

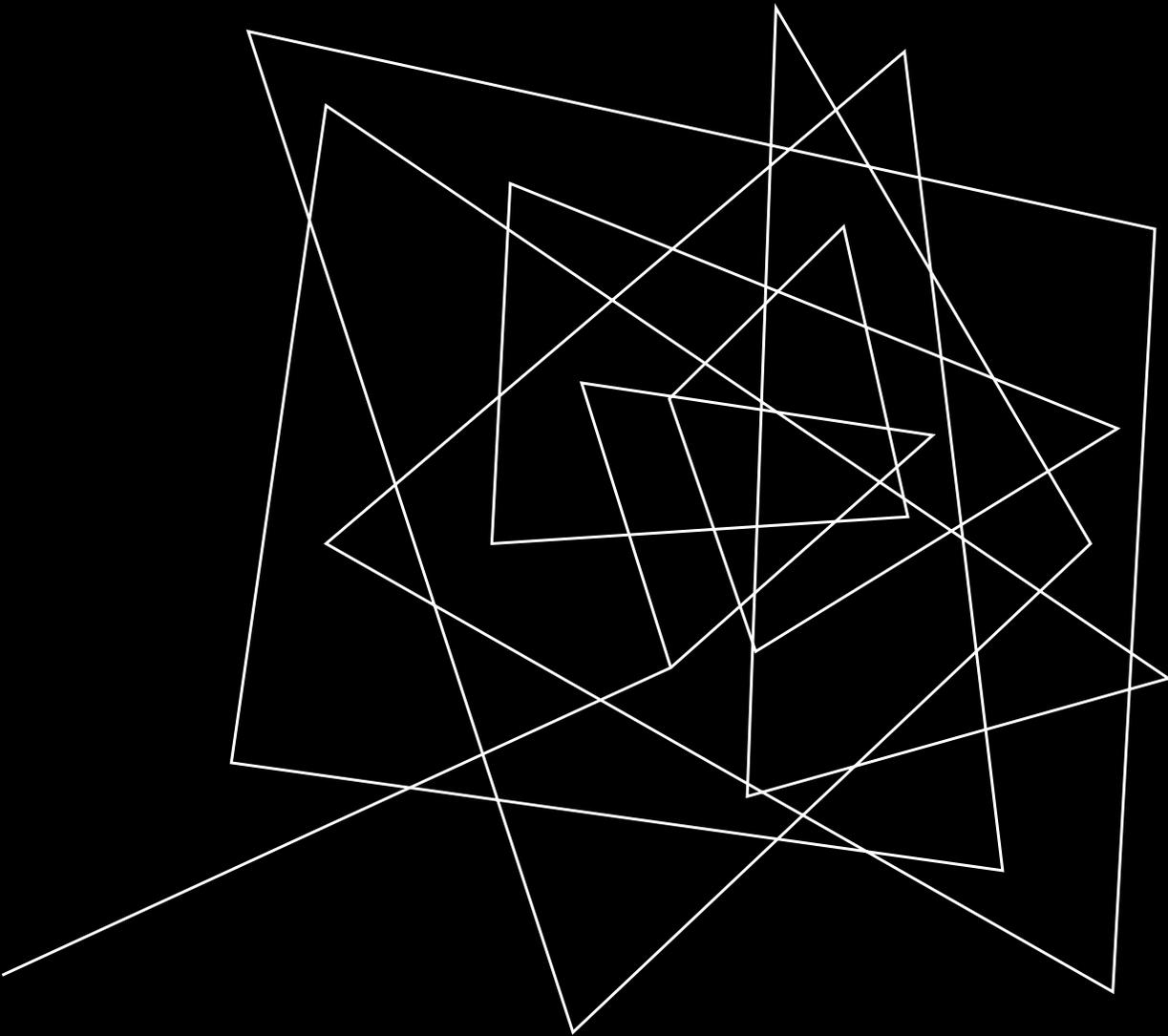


COLLABORATION



Ecosystem collaboration to expedite development and implementation, de-risk investment and drive the scale needed to influence the industry change





INFRASTRUCTURE

INFRASTRUCTURE

Garment creation

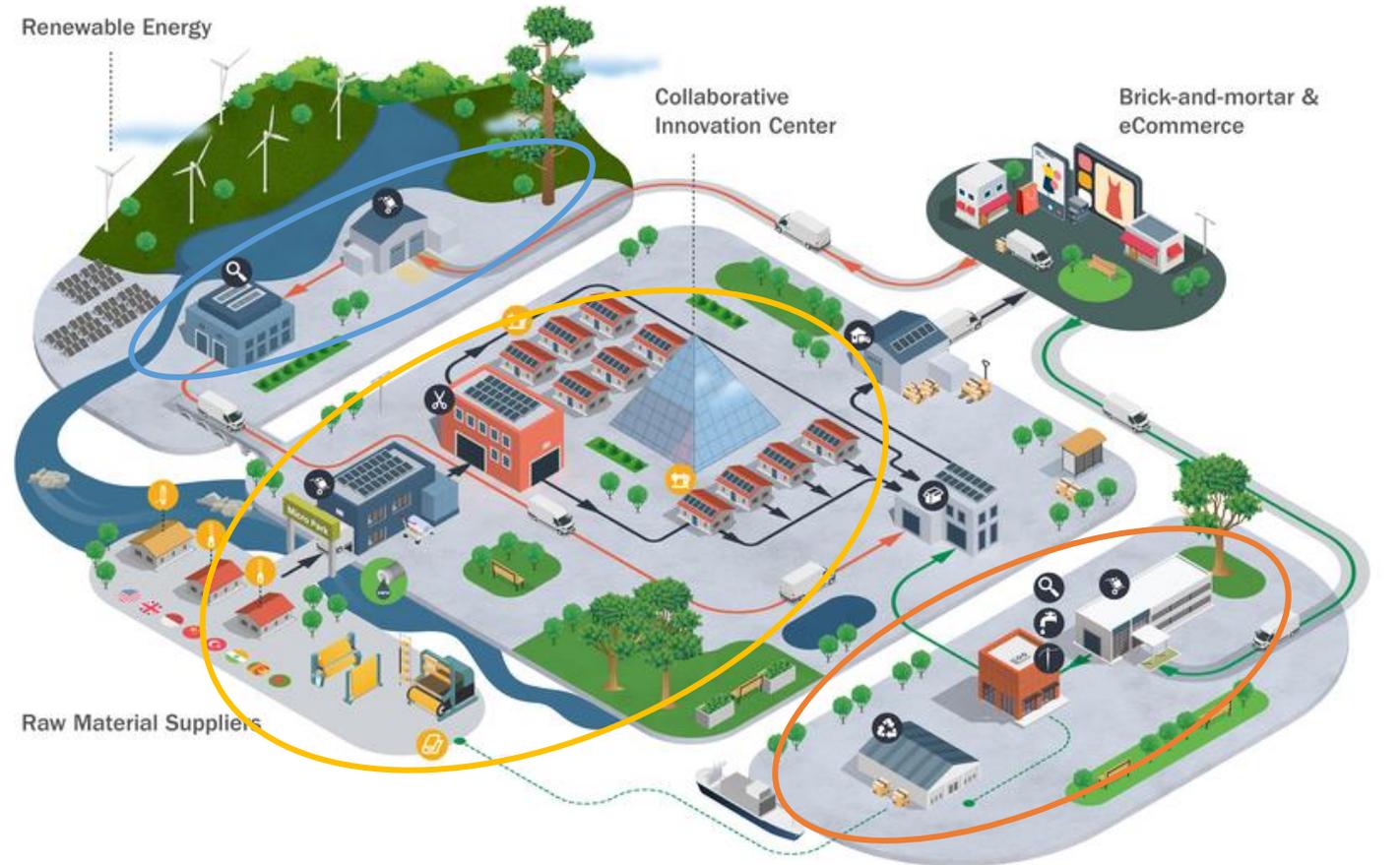
No waste manufacturing focused on last mile processing, reduces the need to take risky inventory positions

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
- Raw Material Suppliers
- Packaging
- Sort and inspect
- Fabric Mill
- Distribution
- Cutting
- Manufacturers
- Recycle
- Sort, grade, clean and repair
- New Product
- eCommerce Returns
- Recycled Product



MAIN PRODUCTION FLOW

Garment creation



REVERSE LOGISTICS

Garment lifespan

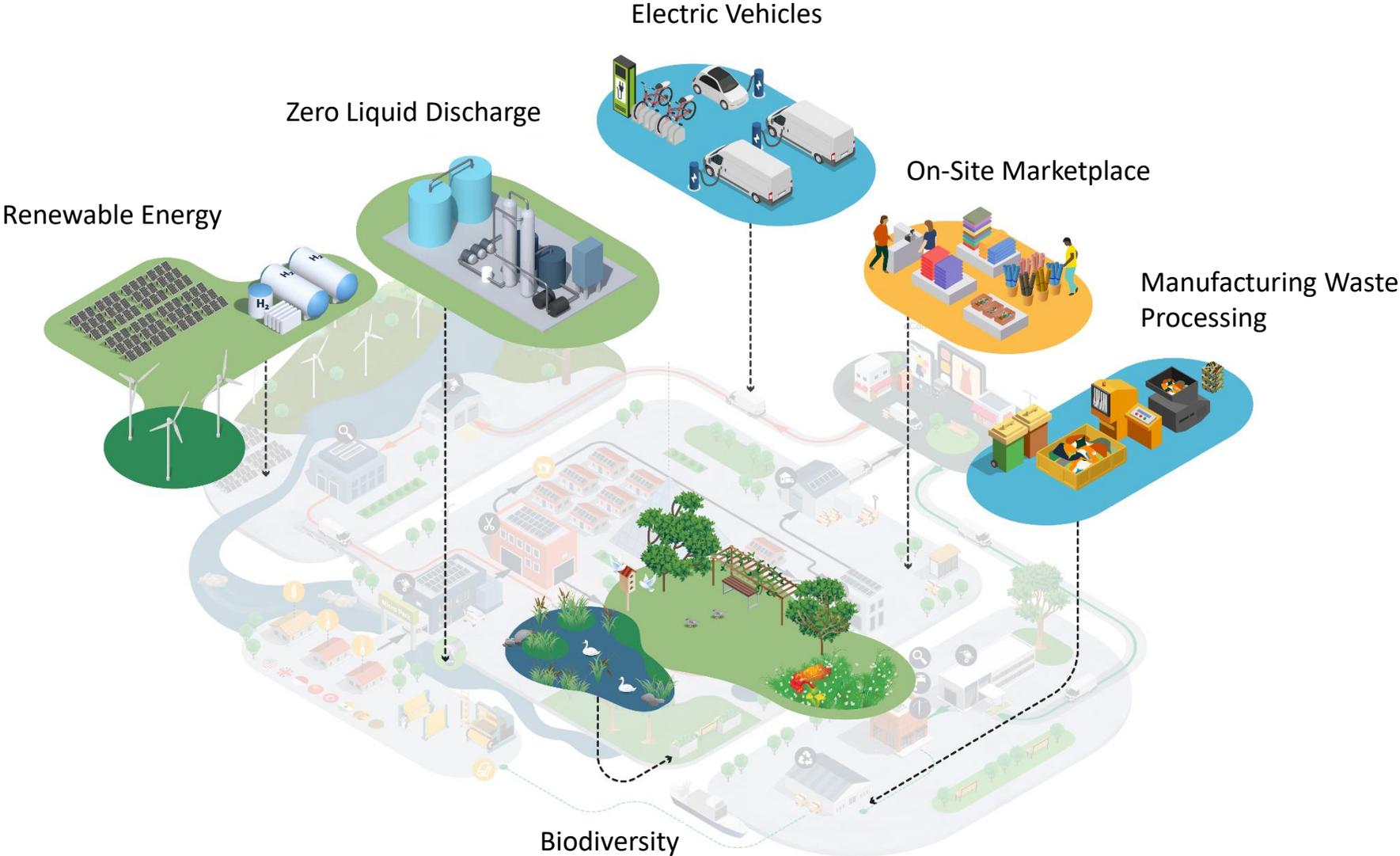


USED APPAREL REPROCESSING

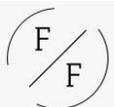
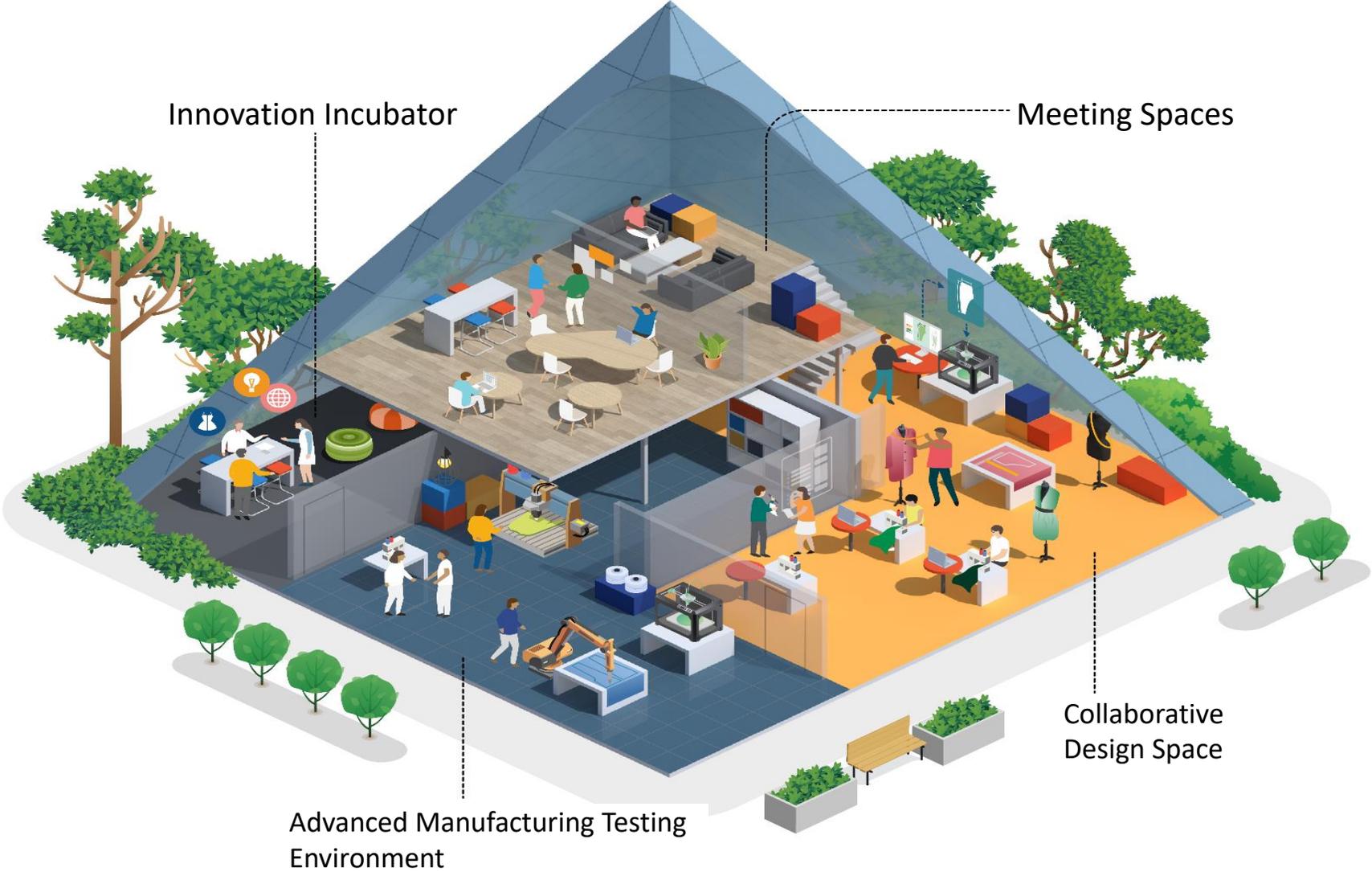
Garment
EOL



ECO PARK BUILT FOR SUSTAINABILITY



COLLABORATIVE DESIGN AND INNOVATION CENTER



NEW SUPPLY CHAIN TOOLS AMPLIFY THE BRANDS CAPABILITIES

Design and develop in real time

Designers engage suppliers in real time

Test local, react global

Testing concepts locally to inform more accurate bulk buys globally

Pulse “Todays” Fashion

Short cycle capsules, always on trend, never behind Tik-Tok

Read market and react

Smaller seasonal buys offshore, react onshore / offshore

Produce on demand

Zero system waste, zero inventory, zero risk

Customization

Offer consumers: customization, personalization, co-creation



COLLABORATE TO ADDRESS NEWER SUPPLY CHALLENGES

eCommerce returns

Reverse logistics, repair, clean and repack process

Resale

Takeback, repair, sort, clean and repack

Recycle / regeneration

Products not resalable are sorted and ship to regeneration zones

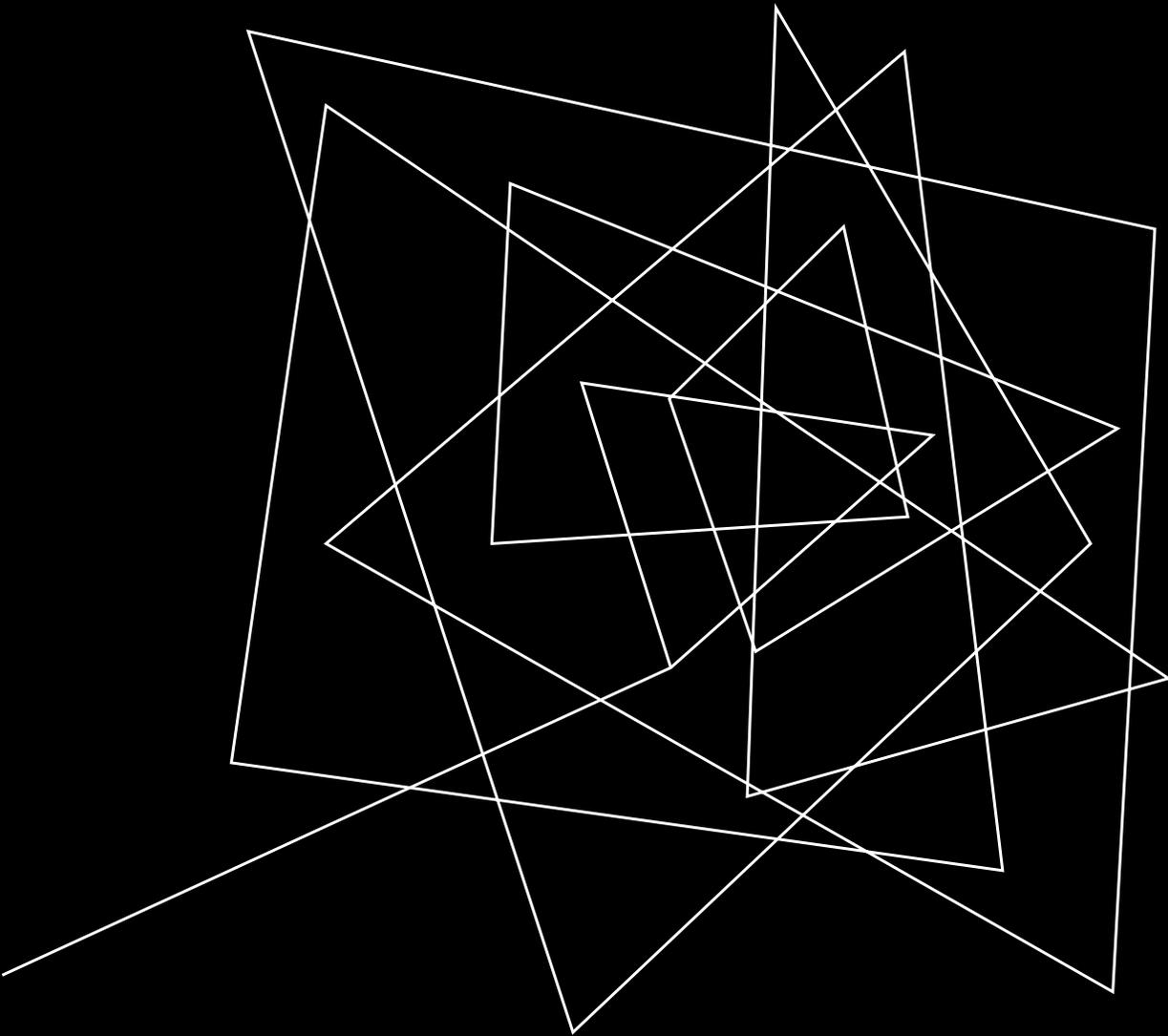
Environmental impact

A real time environment for brands, retailers, advanced manufacturers, innovators and academia to address industry challenges

Innovation incubator

A rally point and incubator for white & black swan innovators

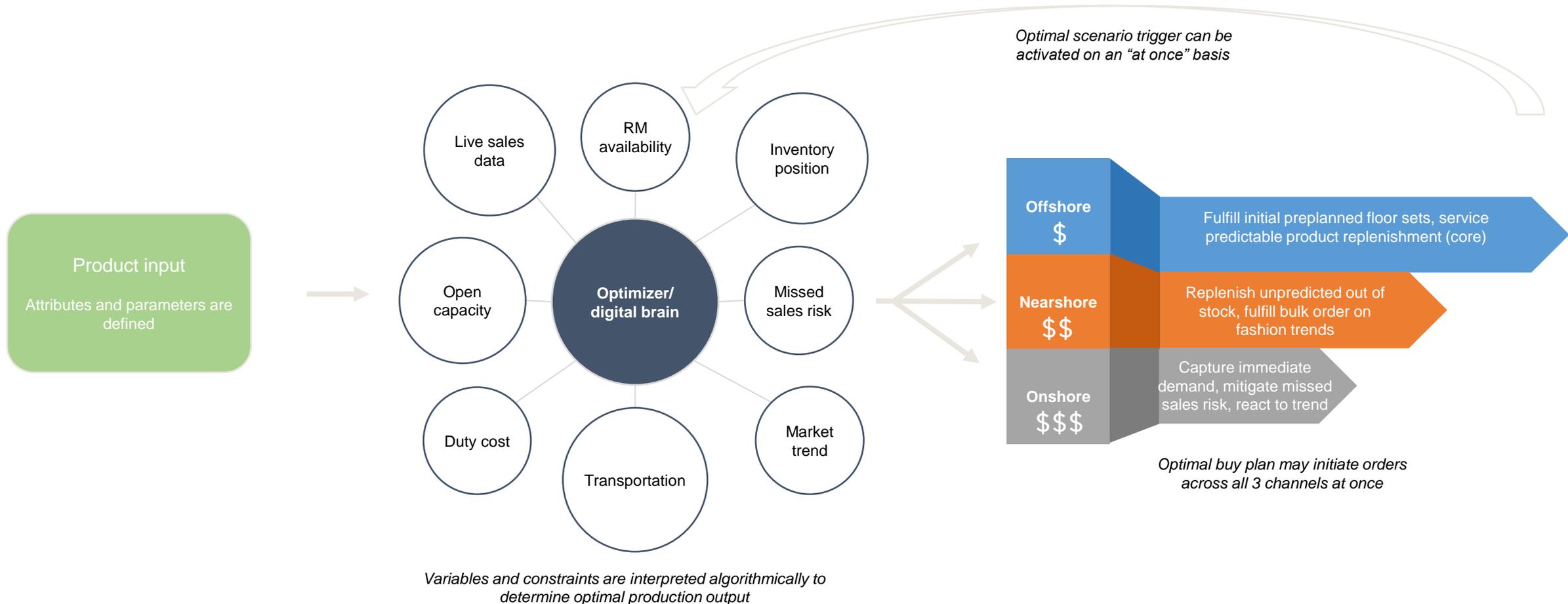




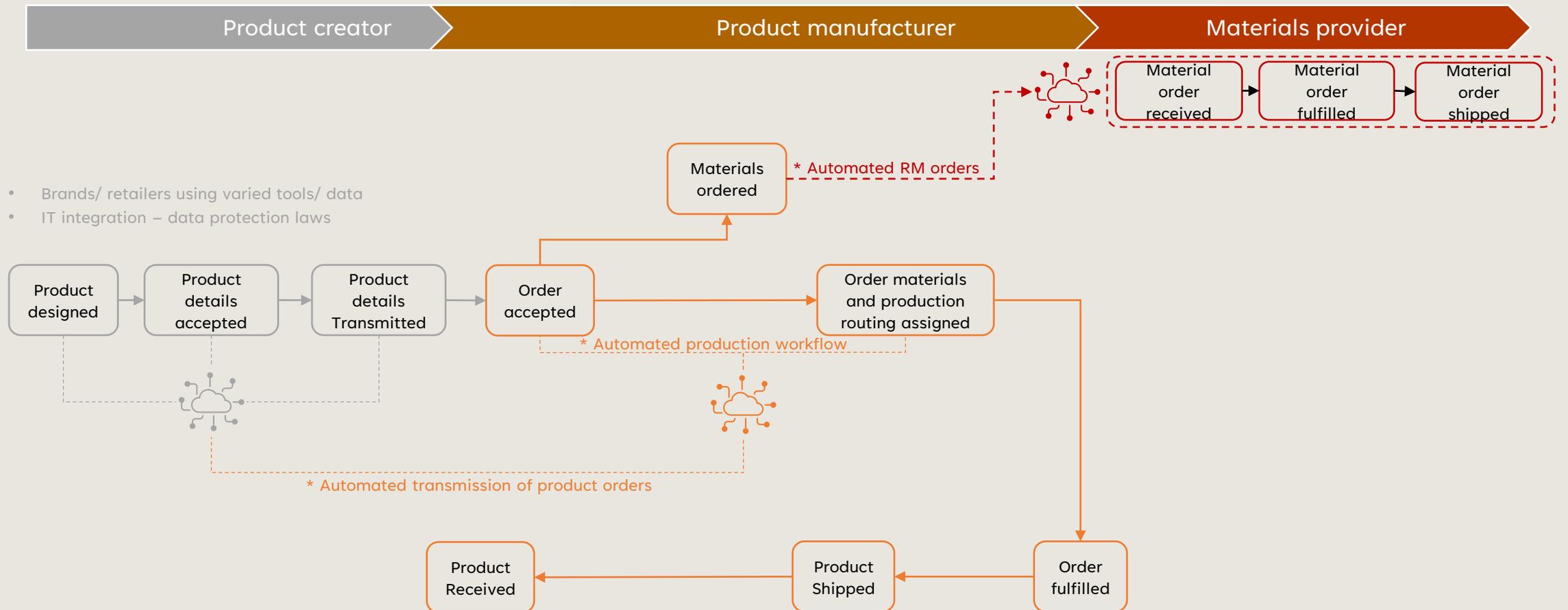
TECHNOLOGY

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.



STANDARDIZED AND SEAMLESS FLOW OF DATA



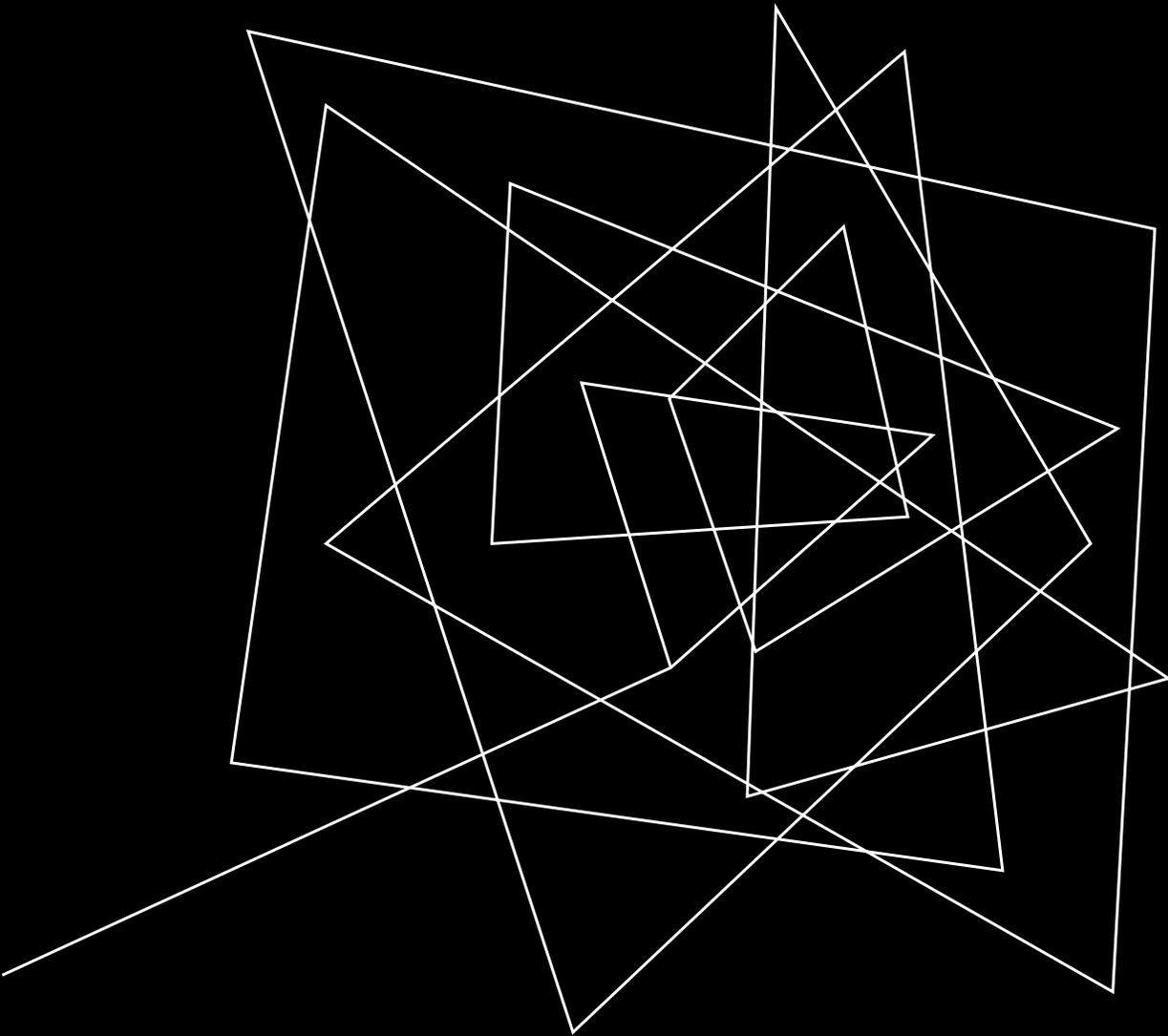
SUPPLY NETWORK: FINANCIAL IMPLICATIONS

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		





COLLABORATION

ADVANTAGES TO COLLABORATING



Industrial parks **reduce set-up time** by centralizing industrial space, land, and supporting infrastructure, including a dedicated one-stop shop. Once companies start operations, “**transaction costs are reduced**, the creation and flow of information improves, local institutions respond more readily to cluster’s specialized needs, and peer pressure and competitive pressure are more keenly felt.” (Porter 2008). Industrial parks are preferred as a **gateway to foreign direct investment** (FDI) because they have the advantage of lowering entry and operational costs.

– World Bank



1 Access to Shared Resources

4 Sustainability Leadership

7 Operational Efficiency

2 Risk Mitigation

5 Market Differentiation

8 Scale and Flexibility

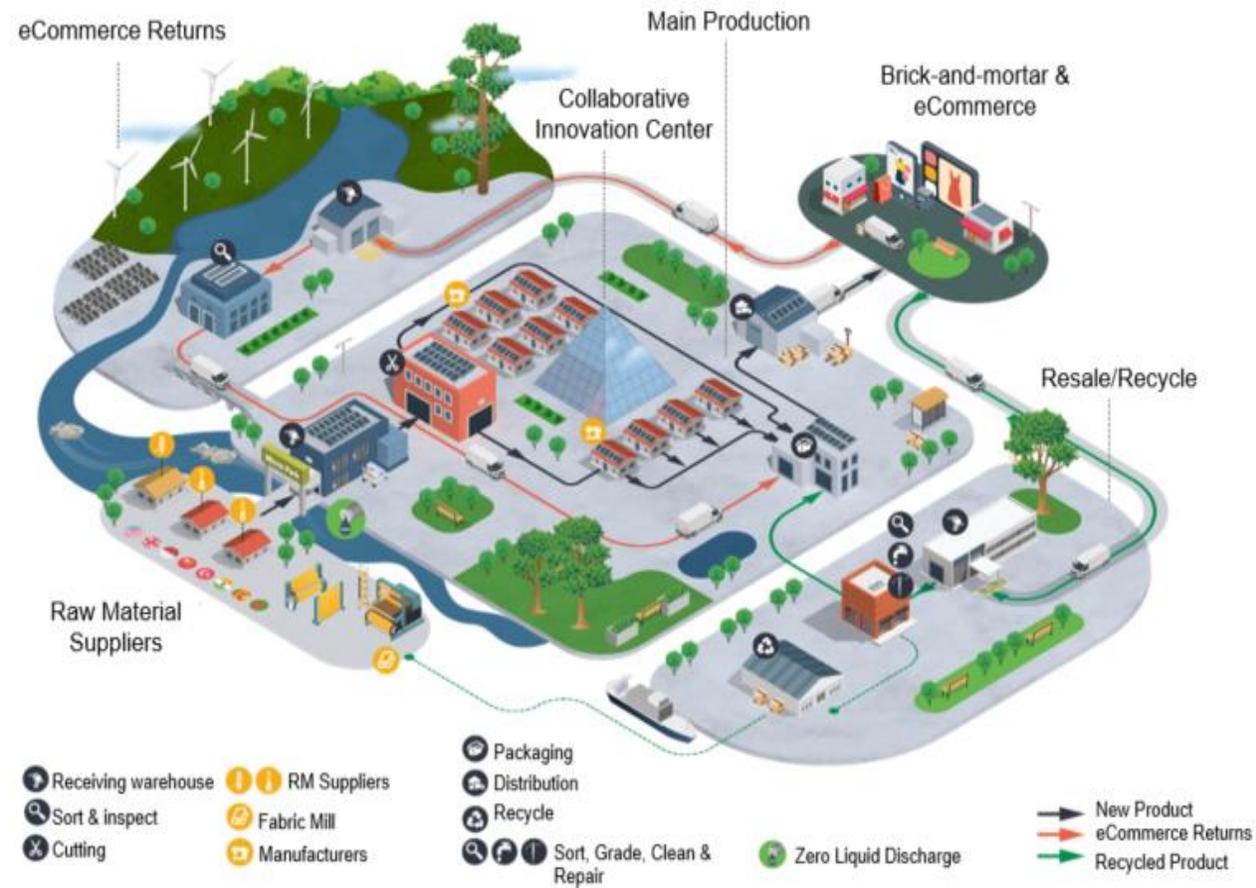
3 Innovation Ecosystem

6 Strategic Partnerships

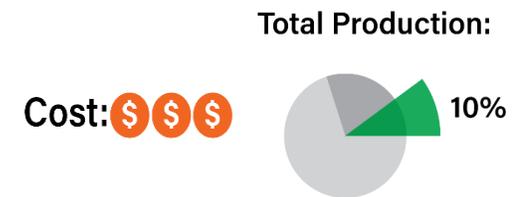
9 Persuasive proposal



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



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?

