


# **Circularity as a resilient solution to supply chain disruptions**



The background of the slide is a close-up portrait of a young girl with dark hair and large, expressive eyes. She is resting her chin on her hands, looking directly at the camera with a gentle, hopeful expression. The lighting is soft, highlighting her features against a blurred background.

# A Safe drug for every patient

RISE annual Cluster Conference , Södertäljde Science Park May 9-10 May 2023

09 May 2023

# 100mn shipments

Logistic market

**\$78.5bn**

CAGR 8.6%

Annual loss

**\$35bn**

\$15bn worth  
of drugs

Vaccine

**25%**

Damaged

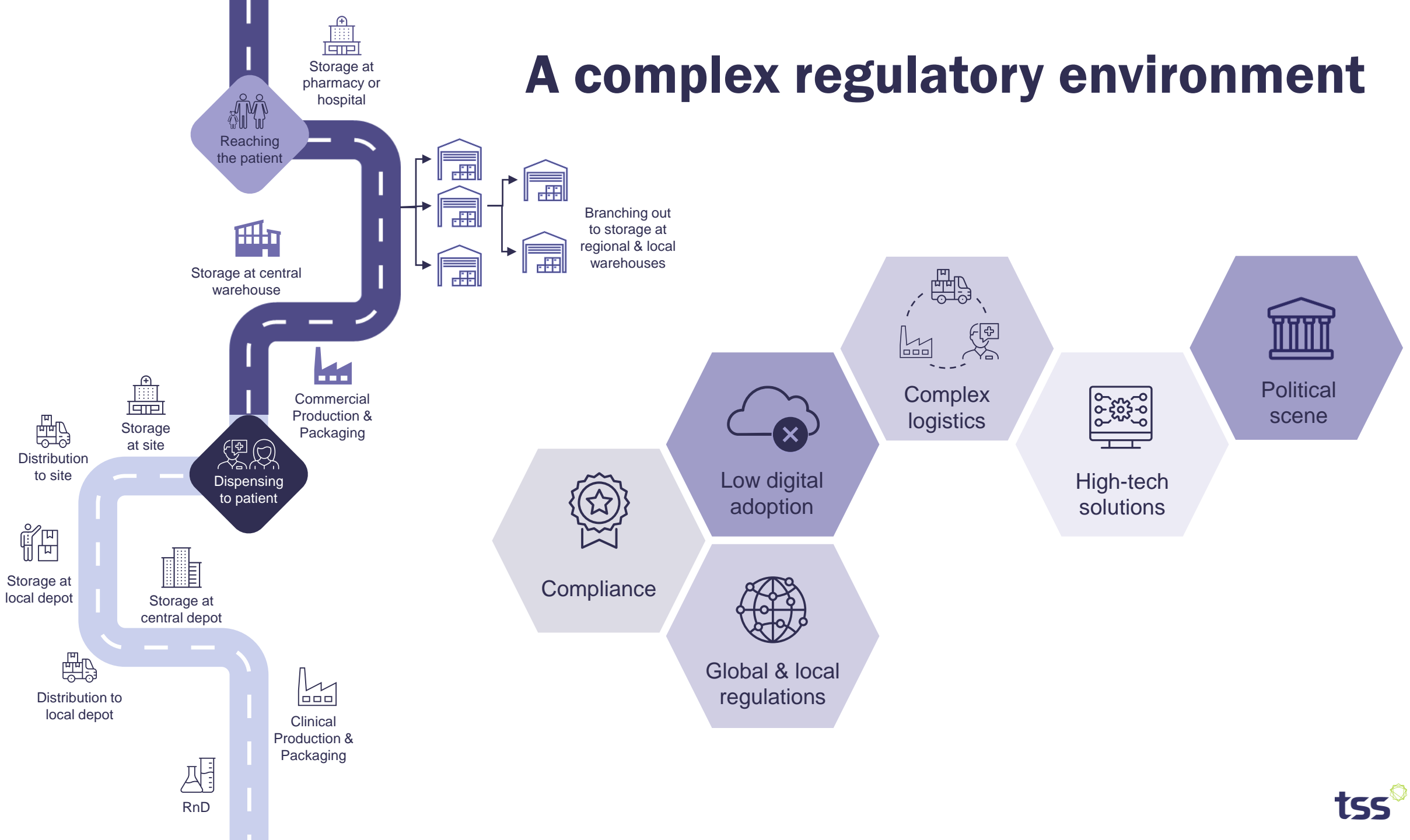


# \$34bn

## spent on handling temperature excursions



# A complex regulatory environment





# Business practise before Pandemic - selling hardware





# Disrupted Pandemic

## - shortage of electronics



Increased electronic demands

- Consumer goods
- Miss calculated demands

Raw material shortage

Wafer shortage

Reduced production capacity

- Lack of spare parts

Increasing stock levels

Moving stocks closer to market

Changing mode of transport

# Mitigation to handle disruption

Establish TSS brand and Medical priority in suppliers network

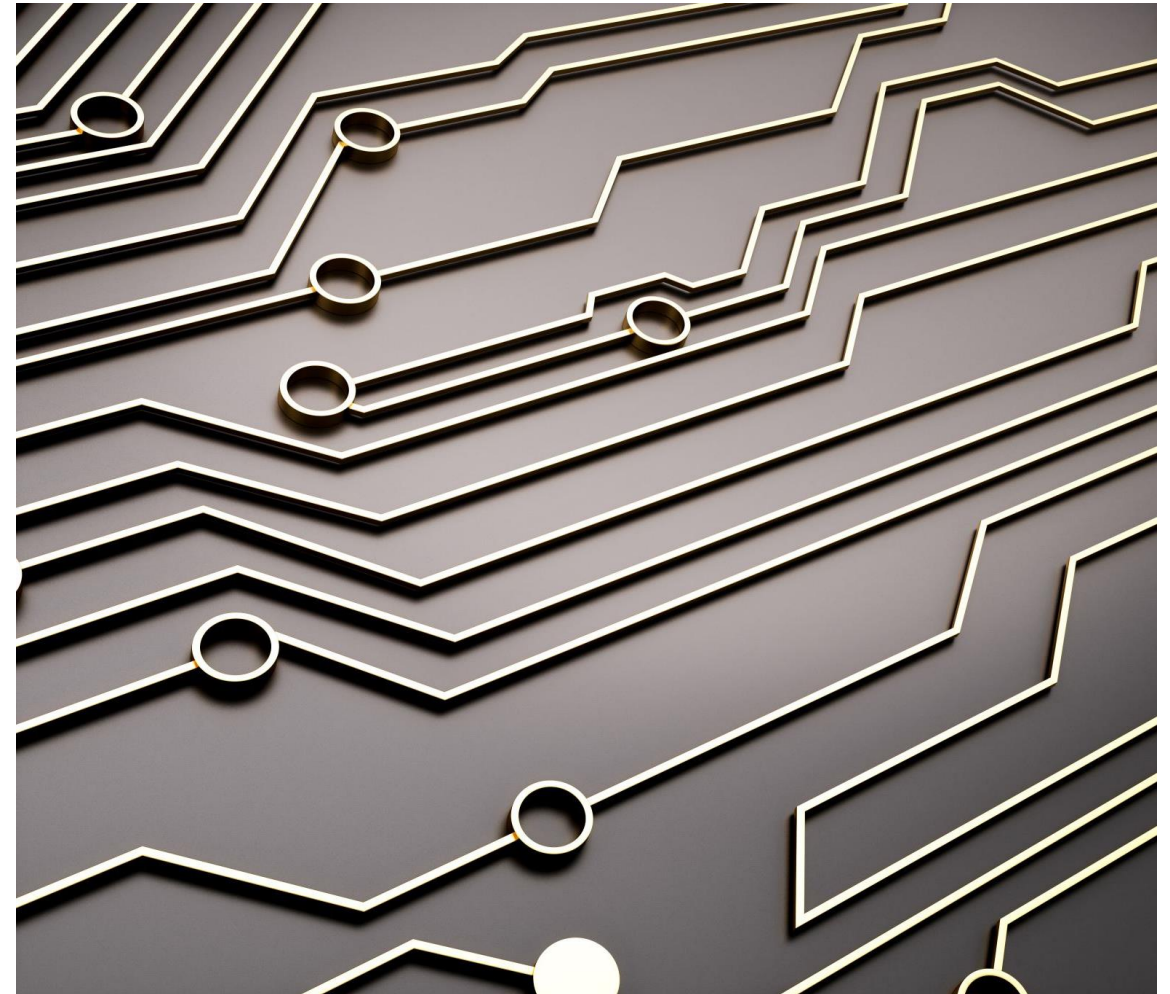
- From EMS to wafer manufacture

Multi channel sourcing and spot market supplies

Identifying, qualifying and onboarding new suppliers

Adopt design, test and validate new replacement components

Customer product change notification

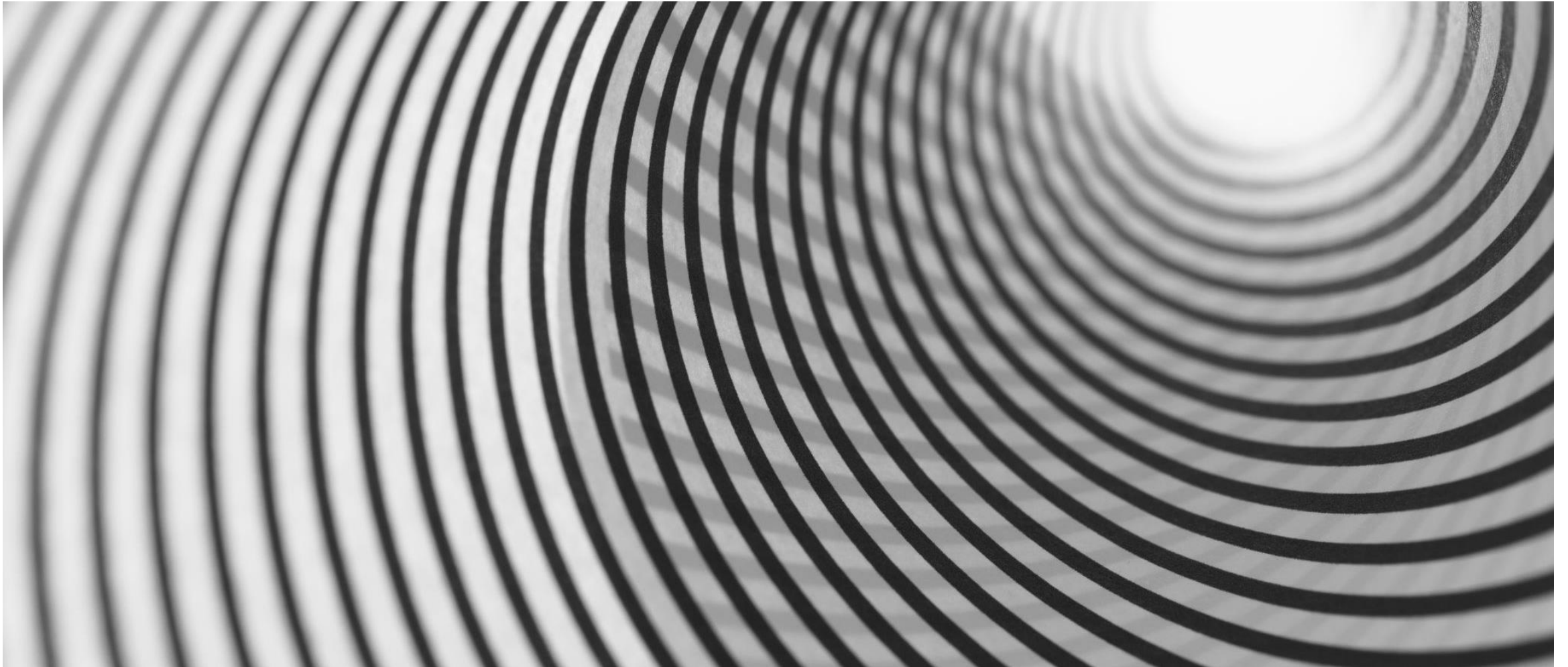




# Disruption driving change



# Selling hardware becomes subscription of data streams





# Effect



- i. Improved sustainability
- ii. Customer reduced cost
- iii. TSS increased margin

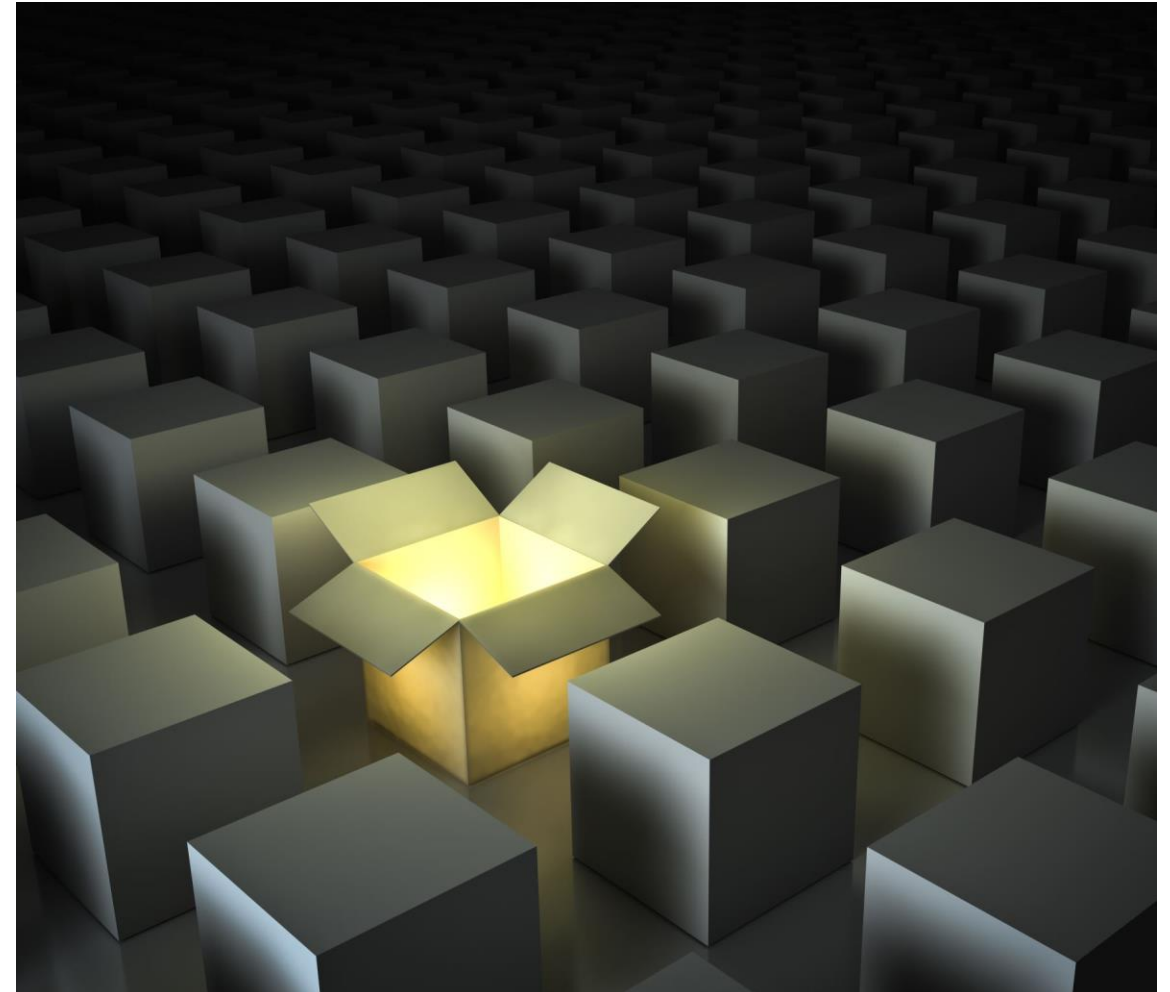
# Investments in service delivery

## Inventory management

- ML based supply services placing orders for customer

## Reverse logistic service

- Automated
- Cost efficient
- Minimize environmental footprint





# Continued work

RESPIRE Master Thesis

- Carbon footprint modelling and effect

Customer total carbon footprint modeling

Manufacturing footprint - Multi global locations to drive

- Optimized cost
- Reduced environmental impact
- Resilience in the supply chain



# Circular as a win-win service







TRANSFORMING THE SUPPLY CHAIN