



SUPPLY CHAIN INSIGHTS

## ENABLING BUSINESS THROUGH THE CIRCULAR ECONOMY

How changing market dynamics are impacting supply chains.

**DHL Supply Chain – Excellence. Simply delivered.**



Many forward-thinking companies are realizing that by embracing circular economy principles they can increase their competitiveness. The scale of change ranges from small adaptations to creating completely new revenue streams to fit in with this shifting landscape.

While a proportion of businesses are responding to their own moral compass, others are being prompted by their shareholders calling for greater sustainability. “We see that shareholder value is increasingly being driven by issues such as climate change, labor practices, and consumer product safety,” says Cyrus Taraporevala, Chief Executive, State Street Global Advisors.

As the public are becoming even more aware of the growing urgency for measures to protect the environment, they will increase their calls for action too.

### **The supply chain has a major role to play**

From traceability to recirculation, sustainable transport to reverse logistics, the supply chain is an essential component in the circular system and can become a vital enabler of a better future.

The main goals of a circular supply chain are to reduce waste, pollution and carbon emissions, at the same time as maximizing value from resources, products, parts and materials. New possibilities are opening up across value chains to optimize the use of resources and reduce waste. The circular economy will become increasingly mainstream as new technological solutions become available. It is estimated that this could create market opportunities of up to USD 4.5 trillion.

The future benefits of a circular economy will be huge, but there is no quick fix. It requires collaboration, adoption of new technology and a willingness to disrupt organizational processes.

### **How the changing market dynamics are impacting supply chains**

To change the supply chain from a linear concept to a circular one calls for a transformative approach. Each loop (or chain) for every product and its composite elements will have to be closed to preserve raw materials and reduce emissions.

Logistics has a key role to play in scaling up circular economy approaches across industries. This includes not just traditional forward logistics - transporting materials, goods and information from start to finish - but more importantly reverse logistics. Circularity will mean changes for the flow of goods in the supply chain in a number of ways:

- 1. Responsible sourcing / traceability**  
Responsible sourcing - through optimizing the reuse of what would previously have been ‘waste’ or by using more sustainable materials - is vital to circularity and provides an opportunity to cut production and waste management costs.

What responsible sourcing means in practice is that companies must have visibility of everything in their supply chains, tracing where it came from and where it went: from the smallest raw material inputs to finished products. Increasingly, this responsibility also goes beyond the point of sale to what happens

to products at their end of life. For example, electric vehicles pose their own sustainability issues with the production and disposal of batteries. To address this, battery manufacturers are developing circular supply chains, with traceability built in, to ensure responsible sourcing, recycling, remanufacturing or reuse of batteries.

## 2. Returns

Getting products back once they have come to the end of their useful life is a key process within the circular economy. Established e-commerce players are increasingly looking at this area as a way of offering new options to consumers and extending the life of products. For example, Zalando extends the life of fashion products through its “Pre-owned” category online.

## 3. Repair

Repair is a natural response to the circular economy. Many more products, in the past discarded if they needed repair, are now being returned and made good. This has spurred the growth of new businesses specializing in repair services, which in turn has driven the growth of supply chain features to facilitate this.

When a fashion customer planned to open a new warehouse in North America, they needed the facility to be able to receive and refurbish customer returns ready for resale. DHL designed a suitable warehouse and implemented strong standard operating procedures. These included processes from simple reconditioning – like removing dust and spots, cleaning, and polishing items– to full repairs – like resewing seams or buttons.

With these in place, the retailer was able to get 96% of the items back in to stock, instead of them being recycled or liquidated.

## 4. Goods at end of life

Many businesses are putting in place processes to take back goods at the end of life. Where possible, these are refurbished or reused, but increasingly they are also being recycled or taken apart for components to be repurposed. Reclaiming materials at the end of life requires reverse logistics for collection and return to either the manufacturer or a third party. Parts and materials can be reintroduced to other parts of the value chain, either to close the loop, or minimize the use of virgin resources. This is an important step within the circular economy.

## 5. Putting goods back into circulation

To save ‘leakage’ of perfectly useable goods from the supply chain, several loops are being put in place to help them back into circulation. ‘Return from home’ is suitable for e-commerce as empty packaging can be collected to be reused when new products are delivered, for instance with groceries, meal delivery, personal care, home care and beauty. ‘Return on-the-go’, can be used where packaging is returned by the consumer as they make new purchases, for example when buying products such as takeaway coffee, beverages and food.

These five areas are opening up new opportunities within the supply chain to offer new services and promote the advantages of the circular economy.

