CASE STUDY

Circular Procurement

> **Of the 6 metric tonnes of material annually used by the average European, only 40% was recycled or reused. The majority of virgin materials were used only once, before being sent to landfill or incinerated."**

McKinsey, 2014

According to research, up to $2.6 trillion worth of material is thrown away and never reused every year (McKinsey, 2016.) In a traditional industrial economy, businesses are defined by their ability not only to create products, but to produce them efficiently. Efficient production leads to increasingly improved returns for financial shareholders and corporate growth.

However, in striving to make as much as possible for as little as possible, companies rarely reckon with waste that occurs post-purchase. These high levels of wastage, as well as being unsustainable, are completely unnecessary. Through more circular methods of procurement, material formerly considered 'waste' can be reclaimed and revalued for a new consumer.

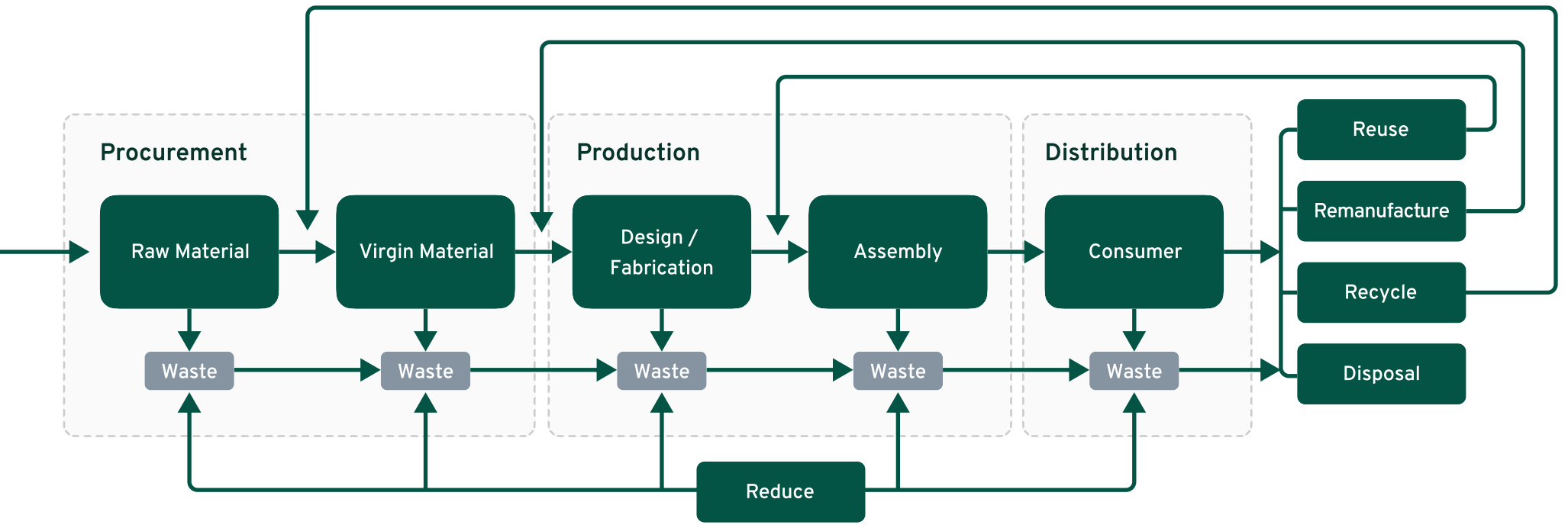
What Is Circular Procurement?

A circular method of supply chain management has been defined as:

> **"The coordinated forward and reverse supply chains via purposeful business ecosystem integration for value creation from products/ services, by-products and useful waste flows through prolonged life cycles that improve the economic, social and environmental sustainability of organizations."**
>
> Jia, 2020

Essentially, improving circularity is the business solution to the ever-growing pressure being put on the earth's limited natural resources. A circular supply chain designed to systematically renew and repurpose resources from the waste stream, rather than relying on virgin materials, thus has the potential to be practically waste-free.

By radically changing preconceptions of what 'waste' is, value can be recovered from goods that would be simply discarded in the linear supply chain model. In procurement, improving circularity revolves around not only sourcing sustainably-made materials but also considering the durability of these materials to try and extend their life-cycle in industry.



The diagram above shows a model of a circular supply chain method. As can be seen, waste material is reused, remanufactured and recycled rather than simply being disposed of, as would be the case in a linear model. In addition to this, an effort to reduce waste through improved manufacturing methods can also be seen across the supply chain.

The Key Numbers

Of the 6 metric tonnes of material annually used by the average European, only 40% was recycled or reused. The majority of virgin materials were used only once, before being sent to landfill or incinerated. (McKinsey, 2014) Further statistics listed below:

- In 2015, more than 6 million tonnes of clothing were consumed in Europe alone. This requires the emission of an excess of 195m tonnes of carbon and the consumption of 46m cubic metres of water. (Keystone, 2018);
- These methods of consumption are costing Europe around €7.2 trillion annually in just the mobility, food, and the built environment sectors;
- By switching to a more circular supply chain model, annual benefits of up to €1.8 trillion could be yielded by 2030 in Europe alone and;
- This comes with a potential 83% drop in carbon emissions by 2050.

How to go about improving circularity?

The radical overhaul of a long established supply chain model can seem a daunting and difficult task. However, those who work hard to do so are projected to reap the rewards in the near future. Because of this, large companies such as IKEA have committed to achieving 100% circularity by 2030. To do so, they are focusing less on the commercial longevity of their products, Malin Hordin, IKEA Group's Head of Circular Development insists a consumer can shop sustainably and still change their furniture on a regular basis. Rather, their development plan rests on the reuse and recycling of already-manufactured raw materials as well as the reclamation and repurposing of their out-of-date products.

Smaller businesses committed to sustainability have often been even more radical and innovative in their approach to circularity. For example, Union Fibres, a small North American insulation company has been collaborating with local communities, buying their old textiles and turning them into sustainable cellulose based-home insulation. The money earnt from the sale of textiles is then injected back into the community. This is a company not only using 'waste' material in a highly innovative fashion, but also one whose industry now directly benefits local communities.

Why Bother with circular procurement?

Companies can achieve the following from practising circular procurement:

- To improve the environmental footprint of the end-product;
- To improve both the sustainability of the supply chain;
- To improve the company's bottom line and;
- To improve accountability and reliability for the consumer.

How can AMBIO-N help?

How material is obtained plays a vital role in a corporation's efforts to function sustainably. However, with circular procurement being a surprisingly nascent area of the growing principle of circularity, it is often difficult for businesses to know how to make the change. This is where AMBIO-N comes in. We collate excess material from suppliers and make it available to buyers on an easy-to-navigate online marketplace. AMBIO-N will soon be working with their suppliers on the data footprint of the materials in question to allow buyers better calculate the ESG impact from sourcing such low impact materials.

As a result of sourcing waste material, AMBIO-N not only saves tonnes of material from landfill, but allows suppliers to commit to a zero-waste supply chain from supplying their waste streams via the platform. This in turn allows buyers to reduce the environmental impact of their end-products, creating circular end products and passing on this information to their end-consumer. Consumers can be fully informed of the sustainability footprint of the good in question if the brand then decides to disclose this information.

References

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