JABIL | HEALTHCARE

Sustainability & Design Optimization

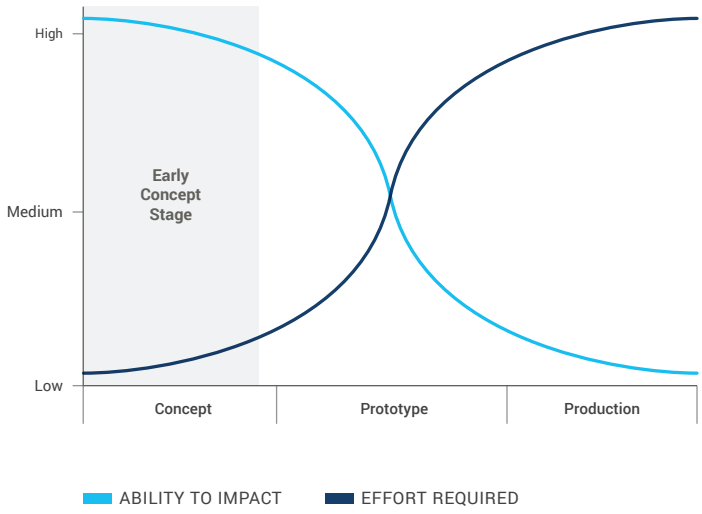
Trust Jabil to enhance your sustainability performance

Trust Jabil to enhance your sustainability performance from concept selection through end-of-life with our optimization strategies for design, engineering, production, and logistics while understanding the regulatory framework within which our partners must operate. From concept through end-of-life, Jabil helps your product teams evaluate optimal materials, components, geographies, and production processes to keep waste and carbon footprint in check. We enable our pharma partners to integrate the best design practices and understand key contributors to incorporate appropriate mitigation strategies. Together, we work to reduce your carbon footprint and/or enhance the recyclability and reusability of your pharmaceutical delivery systems.

PHARMA TARGETED FOR IMPROVEMENT

It is reported by *Healthcare without Harm* that the carbon footprint for healthcare accounts for 4.4% of global net emissions. 71% of healthcare sector emissions are derived from the healthcare supply chain through the production, transport, and disposal of goods and services (Scope 3). It's estimated that about 90% of medical device waste comes from disposable, single use items. If the health sector were a country, it would be the fifth largest emitter on the planet. The European Federation of Pharmaceutical Industries and Associations (EFPIA) has called for the pharma industry to increase adoption of circular economy principles and notes that 80% of a product's environmental impact is determined in its design phase, illustrated here. Due to these pressures, Jabil recommends collaborating early in the development phase to determine the most sustainable components and design for manufacturing, as illustrated here.

Device Sustainability



PHARMA'S EVOLVING REQUIREMENTS

As pharma portfolios transition from small molecules to biologics there is a greater requirement for these treatments to be effectively administered via a range of new drug delivery systems. This trajectory is occurring in parallel to the pharma industry making bold commitments related to Net Zero targets associated with governmental organizations like the World Economic Forum and the United Nations. Furthermore, the pharma industry is potentially at an inflection point in respect to the incorporation of electronics for either controlled delivery and/or connectivity that allows patients and healthcare professionals to monitor compliance and the effectiveness of treatments. To address these external demands and meet your sustainability requirements, Jabil brings your team extensive experience in designing for sustainability and the integration of digital healthcare functionality into medical products.

For additional information, visit jabil.com/PDS

BALANCE SUCCESS & SUSTAINABILITY

From design through distribution, Jabil supports your sustainability goals without compromising product quality or time to market. We offer proven approaches and processes that reduce carbon emissions and waste, minimize materials and parts, and increase energy efficiency. Jabil also partners with its customers to identify and track sustainability metrics and report results. Our engineering and manufacturing experts balance customer success in the marketplace with the environmental performance stakeholders demand. With sustainability strategies and methodologies already active, we stand ready to help improve your environmental performance while supporting your business goals with intentional design. For our own sustainability accomplishments, Jabil has been awarded EcoVadis Gold Status.

SUSTAINABILITY & CIRCULAR ECONOMY SERVICES

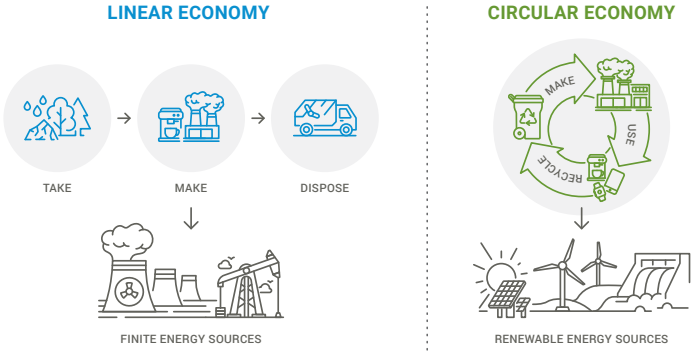
Jabil has a variety of solutions that address sustainability. While not all of the tools described here are useful in the current pharma sector, as drug delivery systems become more complex more of these solutions will become applicable.

DESIGN FOR SUSTAINABILITY

Jabil uses computer-aided engineering tools in conjunction with mold flow analysis and material mechanical properties along with their source feedstock to enable parts to be designed to minimize carbon footprint while delivering required mechanical performance.

DESIGN FOR CIRCULARITY

A model that turns materials and components from end-of-life products into new resources or products. Jabil uses lifecycle assessment tools to engineer and develop products for their entire lifecycle — from raw materials to disposal — determining full carbon footprint.



DESIGN FOR REUSE

Consideration is given during concept development to what, if any, components or subassemblies, can be designed to be used repeatedly without negatively impacting usability in a target patient population.

DESIGN FOR DE-MANUFACTURE

During the concept development phase, we consider options for products that cannot be reused. Teams assess whether it can be designed for dismantling at the end of life to monetize parts and materials and yield the best environmental impact. Jabil operates an ISO13485/FDA registered facility in Maple Grove, Minnesota, U.S. for the purpose of medical device re-processing.

SUSTAINABLE MATERIALS

Jabil has access to an extensive materials library and global network of 36,000 suppliers to help select the optimal materials and components. We consider mechanical properties, mechanical performance, carbon footprint, and disposal when determining alternates to virgin input polymer materials.

SUSTAINABLE LOGISTICS

Jabil's supply chain tools and engineering solutions help forecast and optimize lowest landed cost, lower emissions, and optimal distribution. With Jabil, you can model different strategies including single and multi-sourced input materials, manufacturing site or sites, volumes by different markets, and alternate transport models among other scenarios.

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