



## Circular Economy



### Circular economy leader

Lexmark is developing products to transform the way our customers consume goods. Lexmark actively participates in a circular economy by designing cartridges that stay in use longer, incorporate recycled materials and protect natural resources by reducing waste. As a leading remanufacturer of printer cartridges, we understand that the adoption of circular economy principles promotes innovation and economic growth in a more environmentally sustainable manner.

Our long-standing support for the circular economy and remanufacturing initiatives is evident in Lexmark's founding membership in the [European Remanufacturing Council \(CER\)](#). The Council brings together businesses from every product sector to share knowledge and seek changes to policy with the aim of making remanufacturing a normal part of a product life cycle. Members in the CER aim to triple the value of Europe's remanufacturing sector to over \$100 billion by 2030. Remanufacturing plays a crucial part within the circular economy and helps companies retain valuable materials.

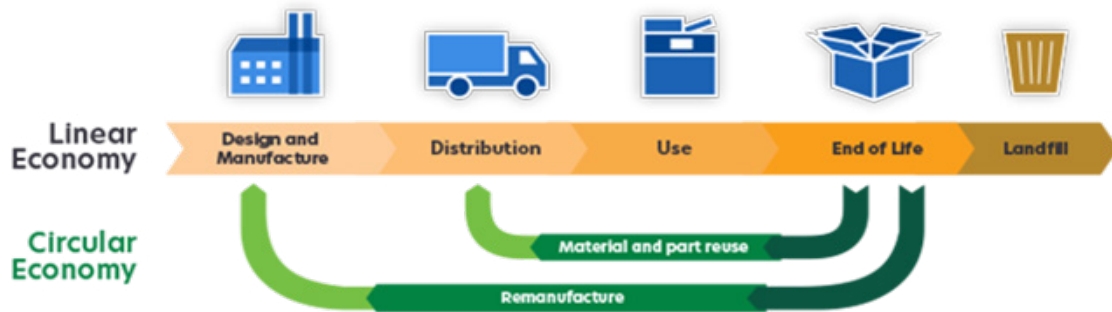
Lexmark is also a member of the [Ellen MacArthur Foundation](#), working with other companies to rethink and redesign our products in the framework of a circular economy. As a member we are designing products to enable remanufacturing as well as forming partnerships with the option of product take-back. Lexmark works with recyclers to reclaim parts that can be used to refurbish printers, which keeps the printers in service longer and reduces the need to recycle used hardware. Devices that are returned to Lexmark go through a process that assesses if they can be refurbished for reuse, and if not, they are harvested for parts that can be used in the refurbishment process.

To assist our innovative efforts in remanufacturing and to promote a circular business model, the European Union Framework Program for Research & Development awarded Lexmark a Horizon 2020 research and innovation grant under agreement N° 776714 to participate in the [C-SERVEES](#) project. Selected from over 100 applicants, this grant allows Lexmark to work with other C-SERVEES project participants to develop an innovative circular economic business model for the electrical and electronic (EE) sector. The objective of the C-SERVEES project participants is to transform the EE sector into an efficient circular economy using new processes and novel information technology solutions.

To encourage the use of recycled plastic, Lexmark accepted the European Commission's call for action in Annex III of the [European Strategy for Plastics](#). Lexmark is one of 70 companies and businesses voluntary pledging to use more recycled plastics in Europe and to ensure by 2025 ten million tons of recycled plastics find their way into new products. Lexmark is an industry leader in the use of reclaimed plastic with 21 percent average post-consumer recycled (PCR) plastic content, by weight, across all new Lexmark branded toner cartridges. Lexmark's goal is to increase the post-consumer recycled plastic content in our toner cartridges to 25 percent by 2022.



Our commitment to remanufacturing is recognized by prominent supporters of sustainable manufacturing. The European Commission’s report on “The case of re-usability of printer cartridges” concludes that “Lexmark appears to be the clear market leader in printer cartridge reuse, presenting a comprehensive set of re-use statistics.” Lexmark has also been included in CR Magazine’s 100 Best Corporate Citizens list, and received Manufacturing Leadership awards in sustainability leadership for reuse and reconditioning efforts. Our endeavors most recently resulted in an EcoVadis Gold level rating for the sixth consecutive year. This recognition was based on an assessment of over 40,000 companies from 120 countries in areas including corporate social responsibility and the environment.



**Remanufacturing role model**

Lexmark’s design efforts focus on creating products to solve our customers’ challenges while benefiting society and the environment. Lexmark’s line of Corporate Cartridges helps our customers print sustainably by using a combination of new and recycled components to minimize their environmental footprint without compromising on quality. Corporate Cartridges offer the highest cartridge yields available, resulting in customers’ ability to print more pages with fewer cartridges while minimizing waste. The program also guarantees zero landfill by providing Lexmark’s recycling container as a free and easy way to return and recycle empty cartridges. Free collection services are available in more than 60 countries, representing more than 90 percent of Lexmark’s global market.

Cartridges returned to our manufacturing facilities through our Lexmark Cartridge Collection Program (LCCP) are disassembled, and then components suitable for reuse are selected and used in the production of Corporate Cartridges. Innovative processes created by our engineers recover post-consumer recycled (PCR) plastic from empty cartridges and pelletize the PCR for integration into new parts. Reclaimed PCR plastic is incorporated into over 60 Lexmark components at a level up to 100 percent PCR plastic.

Each year LCCP prevents millions of Lexmark toner cartridges from ending up in landfill. In 2019, LCCP collected 7,123 metric tons of returned cartridges from our customers. 96 percent of materials reclaimed from these cartridges were reused or recycled. Energy was generated from 4 percent of toner waste collected.

**Long-life products**

Lexmark not only offers a sustainable program to recycle our products, we also provide customers a family of high quality and long-lasting products. Our long-life imaging components, which can last up to 150,000 pages depending on customer usage, minimize the need to replace parts. An ultra-durable coating used in the photoconductor unit provides excellent print quality throughout its extended life. Cartridge design improvements reduce toner waste by up to 50 percent over our previous product generation, resulting in higher efficiency and yield. Plus, an advanced auto color retract feature pulls color printing components away during monochrome printing to prevent unnecessary wear. The long-life components save resources, reduce waste and require less maintenance, improving our customers’ efficiency.

For more information on how Lexmark designs our products for extended life click [here](#).

**Continually improving the way we do business**

Lexmark affirms our commitment to designing out waste and pollution through collaboration with organizations supporting the circular economy business model. Company-wide innovation has led to the discovery of reuse and recycle techniques novel to our industry. We strive to maximize resource efficiency by increasing our interests in remanufacturing and empowering our customers to protect natural resources by joining our efforts.