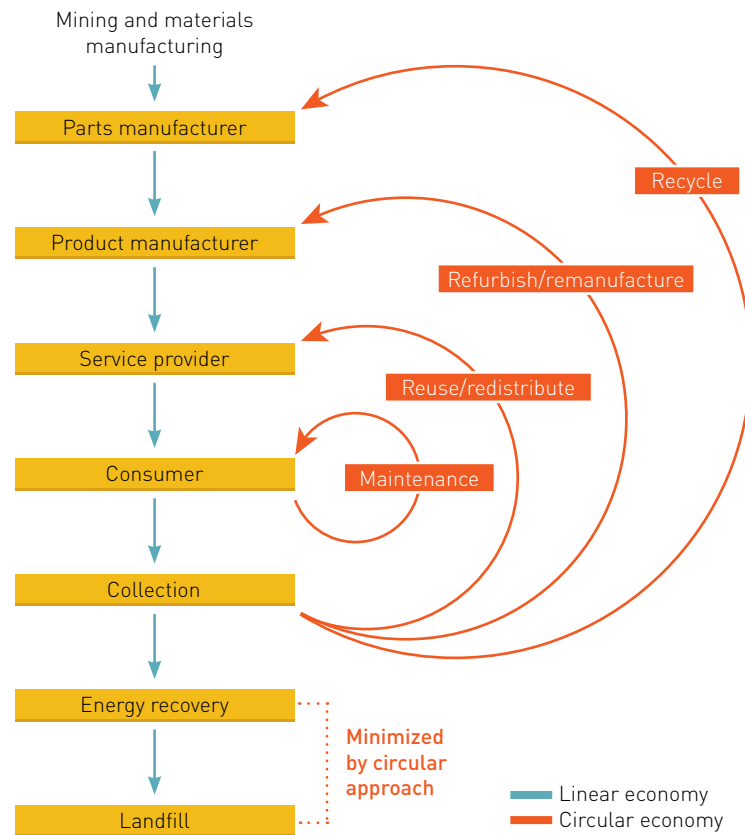


datapoints

Forward's look at the circular economy—a sustainable business model that is catching on

Why It Works

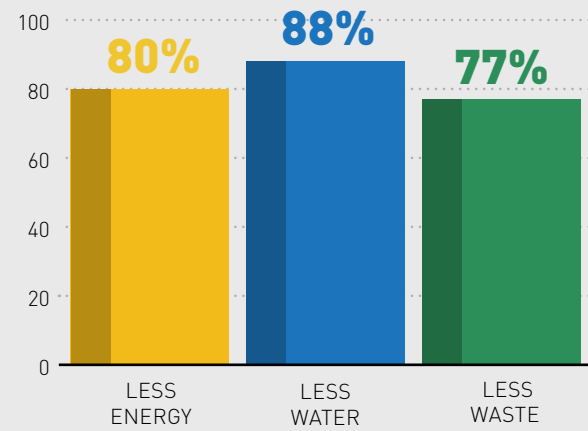
More and more companies, including Rolls-Royce and Caterpillar, are increasing margins, enhancing customer service, and reducing waste and energy costs by closing their supply and value chains. They are leasing and servicing, instead of selling what they produce. They are recovering products they produce to upgrade and redesign them and/or recover and recycle their materials.



Renault

The French carmaker's remanufacturing plant in Choisy-le-Roi builds engines from recycled parts. It is a small but growing part of the auto giant's operations, with revenue last year of \$270 million. By applying circular principles, the company **extends materials' longevity, saves money in production and increases sales** by offering remanufactured products at a lower price.

Compared to the production cost of a new part, remanufacturing results in significant savings:



Why Companies Are Adopting It

- World population by 2030: **9 billion**
- New members of the middle class by 2025: **3 billion**
- Rise in steel demand between 2010 and 2030: **80%**
- Volume of raw materials entering the world economy annually by 2020—up **26%** from 2010: **82 billion metric tons**
- Metals with no substitute if resources are depleted, including copper, manganese and lead: **12**

Untapped Potential

- \$3.2 trillion** Value of materials used annually by the consumer goods industry
- 80%** of that is not recovered

The Circular Economy's Impact

- By 2019:** 100,000 New jobs created
- 100 million metric tons** Waste prevented
- By 2025:** \$1 trillion In annual savings for the global economy
- 110-170 million metric tons** Of iron ore saved annually in the automotive, machining and transport sectors

Sources: Ellen MacArthur Foundation; World Economic Forum; McKinsey & Co.; Yale University