



TO ACCELERATE THE TRANSITION TO A CIRCULAR

ECONOMY

A paradigm shift From growth unlimited



to growth unimited to growth within the limits of a finite planet



Total system waste is chronically high



A Challenge

- Only 7% of all resources used ultimately result in materials used for products
- •1% of these materials go into durable products
- 0.02% of these materials are recycled

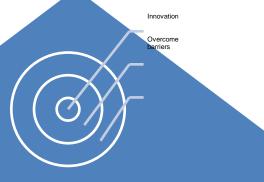
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99.98% OF ALL REOURCE AND MATERIAL INPUTS
ARE WAISTED

The Innovation Strategy 2008







Business development

Sustainability





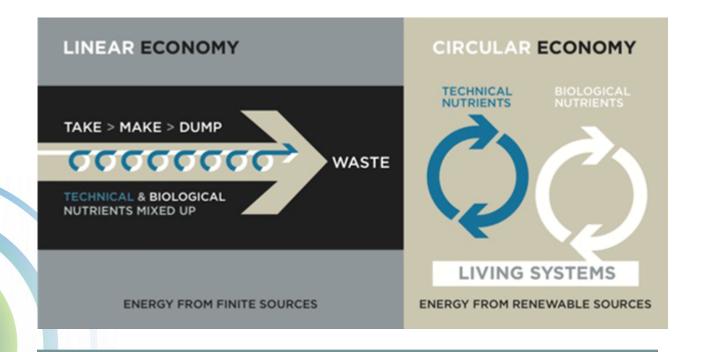
The opportunity is one of rethinking an redesigning the economy, inspired by natural systems, led by business at a profit

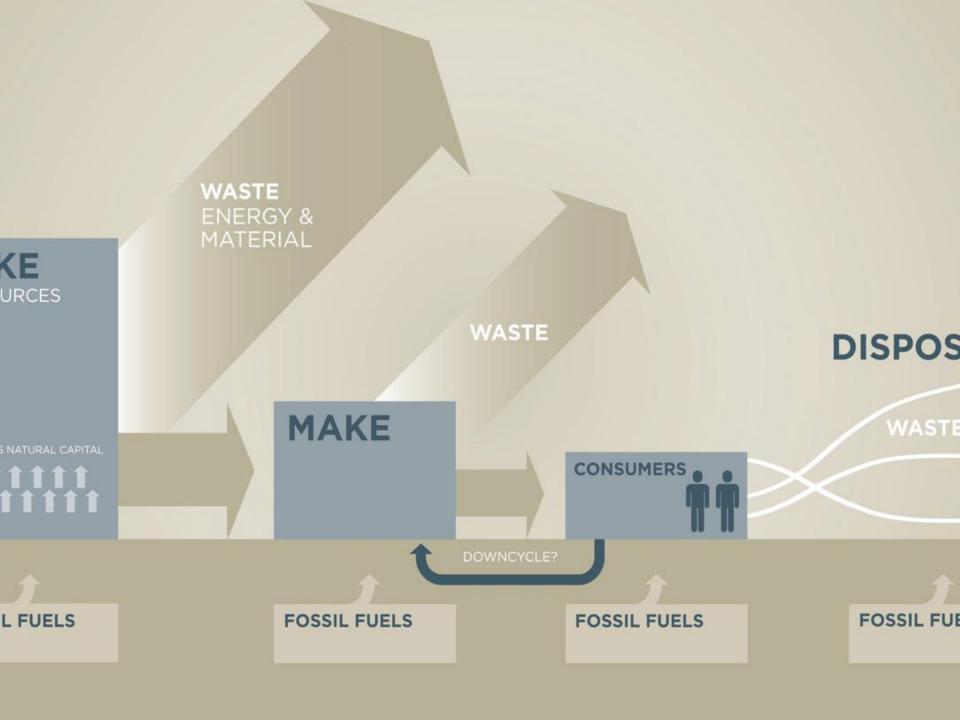
-enabling a restorative growth

But how?

Linear and circular economy

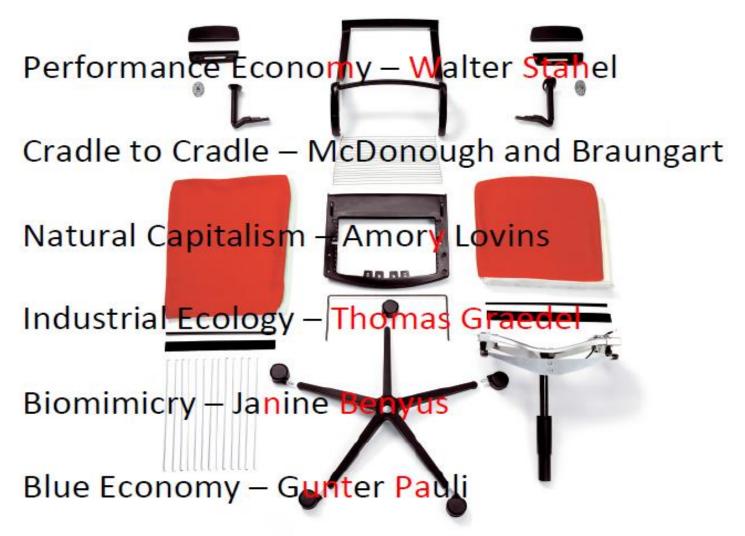






Circular Economy – the restorative economyis based on

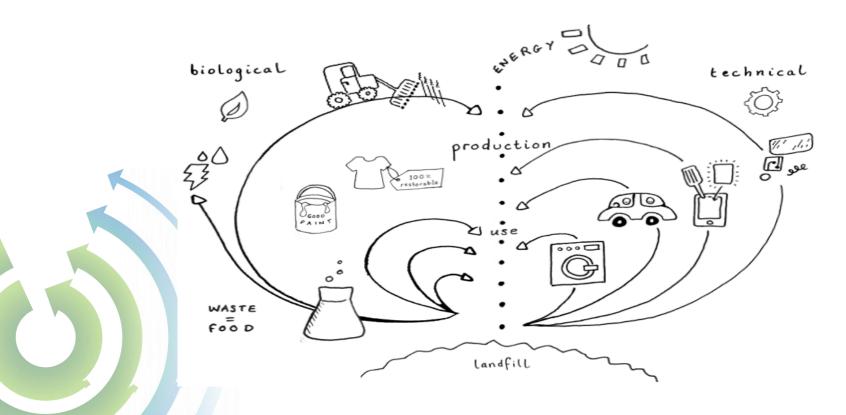




End of waste – endless loops



The opportunity is one of rethinking and redesigning the economy, inspired by natural systems, led by business at a profit



....enabling restorative growth

Closing the materials loops will require addressing several inherent challenges



Do good not less bad

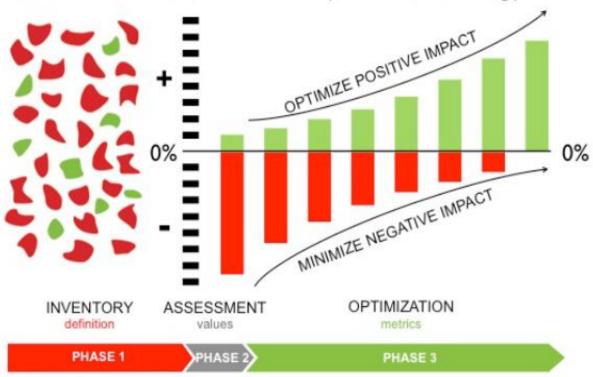






THE UPCYCLE CHART

Cradle to Cradle® Continuous Improvement Strategy



A Fractal Balance of Small, Medium & Large helps catalyze critical city functions

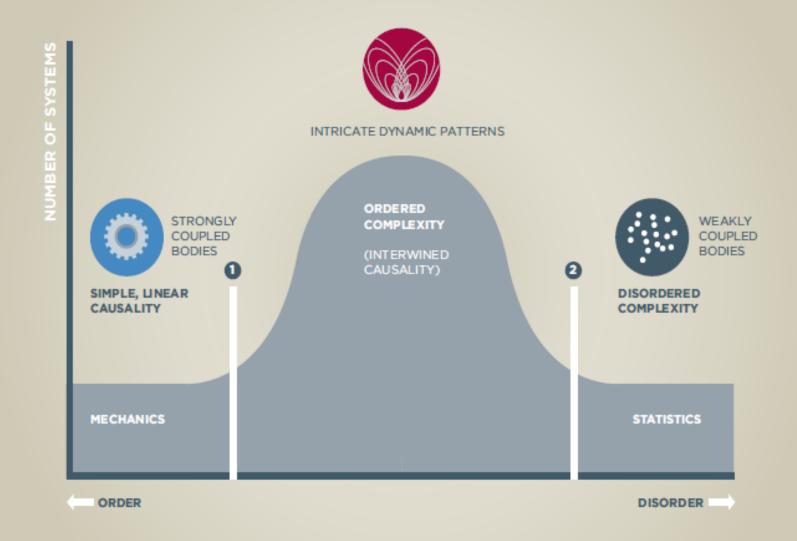


A River Delta

A Fractal City

Nikos Salingaros & Jane Jacobs

SYSTEMS BY PREVALENCE AND TYPE



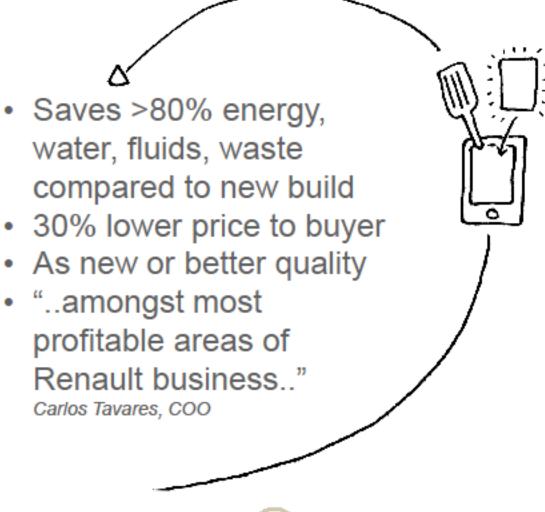
Policy Intervention types



- Education, information and awareness
- Collaboration platforms
- Business Support Schemes
- Public Procurement and Infrastrukture
- Regulatory Frameworks
- Fiscal Frameworks

Renault small commercial vehicle and parts remanufacturing











Enabling pure material flows - "carpet to carpet again"











Ecovative produces mycelium based materials which can replace polystyrene packaging and are 100% biodegradable ..





Urban Mountain - cradle to cradle inmidtiylland

inspired office building in Oslo



- Urban Mountain is the winning project in the Nordic Built Challenge in Norway.
- A 50,000 square foot office building in central Oslo is being renovated and expanded with 30,000 m² using new and innovative methods to optimize the building's energy consumption and CO2 emissions





