



Circular Economy in Practice: Corporate Adoption

Amy Haddon, Schneider Electric Energy & Sustainability Services

The circular revolution

Circularity dominates the 2019 global sustainability headlines

Circularity is a business imperative, say Swarovski innovation speakers

Circularity has finally hit the mainstream as Nestle, Mars, Danone and Clorox join Loop to test reusable packaging

Circles, not lines: Circularity is getting Kiwi incumbents to switch to circular business models

**Newsweek Study on
Circularity in Business Shows
that Circularity has Come of
Age**

A CALL TO ACTION FOR A CIRCULAR FASHION SYSTEM



5 drivers of corporate circularity adoption

Increasing stakeholder pressure

Operational sustainability & resilience

Natural resources depletion & security

Financial & environmental costs

Business opportunity & innovation

Components of circular business models

Two predominant approaches to replace take-make-waste industrial model

Biological Cycles

Consumption of biologically-based materials designed to feedback into the ecosystem through composting, anaerobic digestion, etc. Emphasis on regeneration and renewability of systems and resources.

Technical Cycles

Recover and restore products, components, and materials through reuse, repair, remanufacture, or recycle.



Real-world examples

What companies are doing to practice circularity: biologic, technical, or digital

Re-Use Programs



Sharing/As-a-Service



Modularity



Take-back/buy-back/trade Programs



Circular Design





Schneider Electric, leading the digital transformation of Energy Management and Automation

€24.7 billion

FY 2017 revenues

~5%

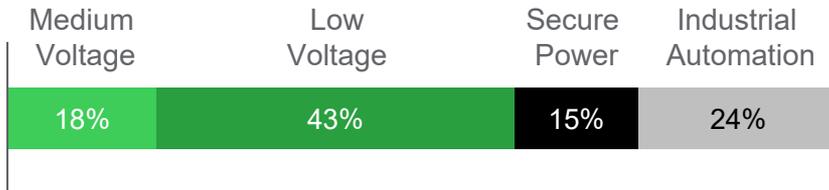
of FY revenues devoted to R&D

142,000+

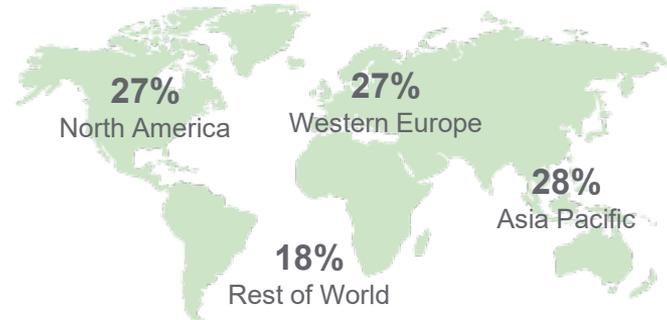
people in 100+ countries

Our Products & Solutions

– FY 2017 revenues



Balanced geographies – FY 2017 revenues



Circularity at Schneider Electric: Why it matters

Planet



- Planet Compatibility; Earth Overshoot Day 1st Aug 2018
- Climate Compatibility: Target below +2°C
- Life preservation compatibility: chemicals

Customer



- Longer asset lifespan, lower total cost of ownership
- Peace of mind → Focus on 'core' activities
- Capex to Opex: EaaS

Government



- Local jobs creation
- Local capture of value-add on 2nd, 3rd, end-of-life services
- Targets for efficient resource consumption

Business



- 'Relationships-for-life' with customers
- New 'Circular' business opportunities: intimacy through IoT
- Efficiency → Bottom-line impact

A winning approach for all stakeholders

Our public 2020 Circular Economy targets

75% of product sales under our
new Green Premium program

200 sites labeled towards zero
waste to landfill

100% cardboard / pallets from
recycled or certified sources

120,000 metric tons of primary
resource consumption avoided
through Ecofit, recycling, and take-
back programs



4 domains of circular innovation at Schneider

Resources Circularity

- ecoDesign
- Materials + packaging
- End-of-life instructions (like recycling, WEEE, etc.)

Product Circularity

- Total cost of ownership
- Continuity of operations
- Longer lifespan
- Repairability/upgradeability

Value Prop Circularity

- Energy-as-a-Service
- Connected objects + cloud services
- Energy Performance Contracting

Supply Chain Circularity

Raw material selection & optimization

Scrap recycling

Packaging minimization & reuse



Circular business models: Schneider Electric's actions & commitments

Current Level of Circularity

I. Resources circularity

- Circularity dimensions while designing new offers
- Using responsible / recycled / bio-sourced materials



II. Product circularity

- Retrofit Services to upgrade functions & increase lifespan
- Other circular services for product 2nd life, repair, refurbish



III. Value proposition circularity

- Energy Management as-a-service, leasing, take-back offers
- Predictive maintenance & remote management leveraging IoT



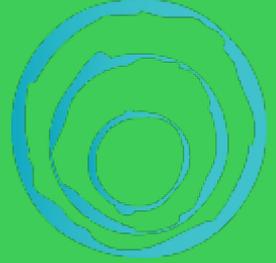
IV. Supply chain circularity

- Waste & packaging minimization, re-use, recycling
- Re-use of obsolete stock, returns, spare parts



Recognition: 2019 Circularity Award

Schneider honored in the Multinational category





Life Is On

Schneider
Electric