

Circularity in Electronics and Automation from CIRCULAR REPUBLIC FESTIVAL 2025

Key Learnings

Design Ecosystems, Not Just Products

Circular economy success requires companies to architect entire business ecosystems rather than optimize individual products. This means developing both internal circular capabilities (design for disassembly, material recovery) and external market opportunities (selling automation to recycling facilities, outcome-based services). The shift from "sell and forget" to long-term customer relationships enables more complex revenue models that capture value throughout product lifecycles.

Data Unlocks Circular Opportunities

Information becomes the critical infrastructure that makes circular business models economically viable. Companies that systematically capture product lifecycle data, installed base information, and material flows can identify massive value pools that remain invisible without this intelligence. Digital tools don't just optimize existing processes - they reveal entirely new circular opportunities worth tens of billions in previously "dead" assets.

Resource Constraints Drive Innovation

Regions with the strongest resource constraints and regulatory pressure develop the most advanced circular technologies, creating exportable competitive advantages. However, this first-mover advantage requires supportive policy frameworks that level the playing field between primary and secondary materials. Without mandatory quotas or economic incentives, recycling technologies remain economically uncompetitive against artificially cheap virgin materials.

Circularity Needs Partnerships

Companies don't need to develop all circular capabilities in-house. Strategic partnerships with recycling companies, combined with detailed product knowledge and lifecycle data, can create circular value chains where each partner contributes their core competency. The key is structuring partnerships around specific value recovery opportunities - identifying which components are worth reusing, which materials to recycle, and establishing offtake agreements for secondary materials.

Listen to the full episode here:

<https://circularity.fm/circularity-in-electronics-and-automation/>

