

Rethinking the value chain for a circular economy

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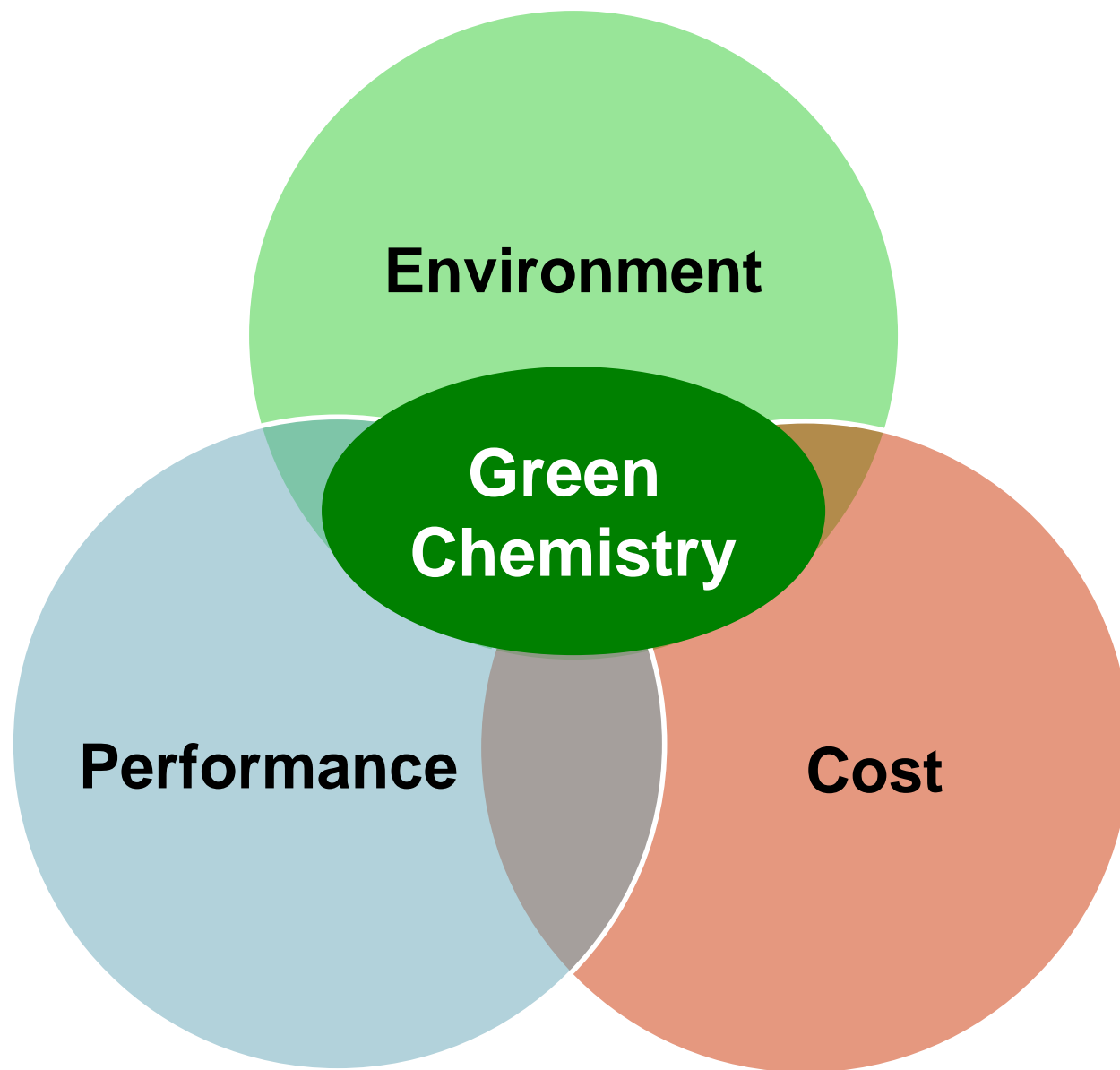
Kraft Lignin Innovation Forum
Iron Mountain, Michigan
October 11 – 12, 2017



Guiding Green

Shaping my perspective





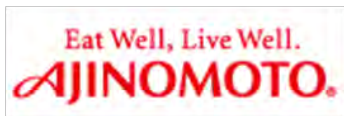
Environment

**Green
Chemistry**

Performance

Cost

ACS GCI Chemical Manufacturer's Roundtable



The miracles of science™



ACS GCI Pharmaceutical Roundtable



Bristol-Myers Squibb

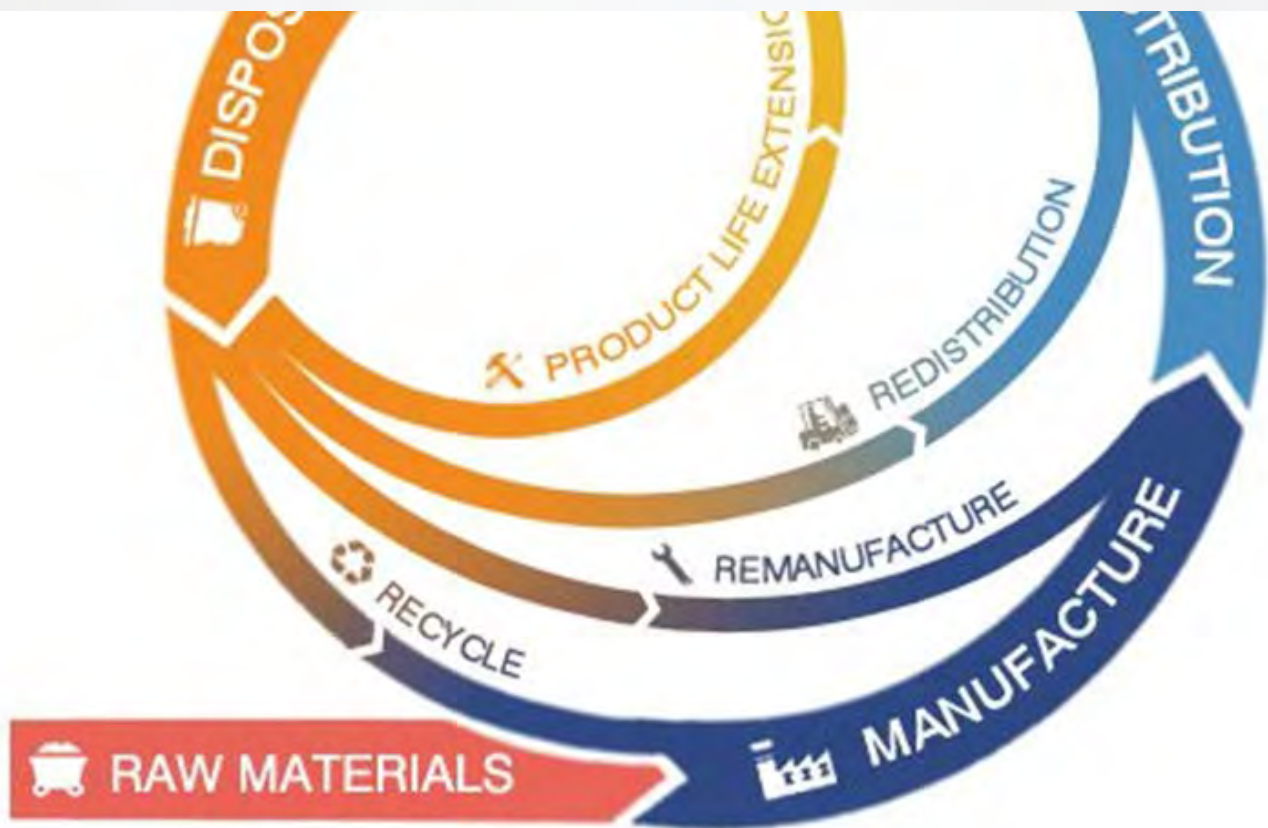


ACS GCI Formulators' Roundtable



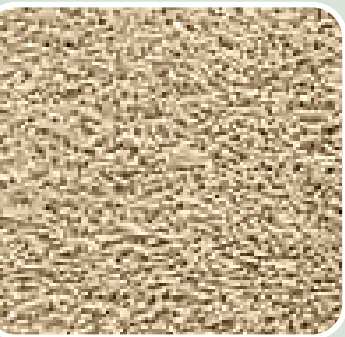


Take → Make → Waste



Business models

Accenture Strategy, 2014



Circular
Supplies

Resource
Recovery

Product
Life
Extension

Sharing
Platform

Product
as a
Service

Bridging the gap



Why collaborate?

It can't be done alone.



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