

Products of the Future

Solutions for Shaping a Sustainable World

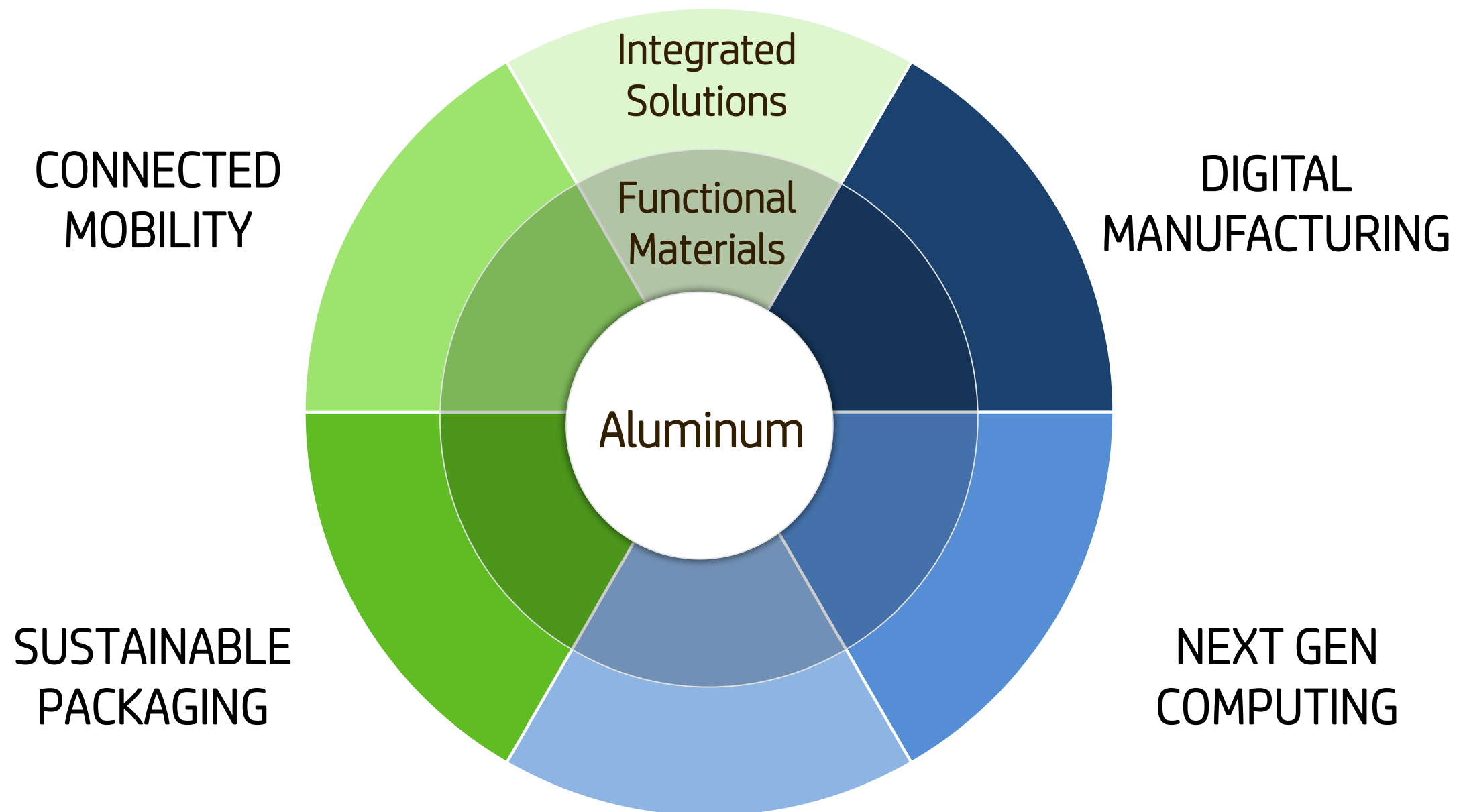
Todd Summe

Chief Research and Development Officer
Novelis





Shaping a Sustainable World Together



Integrated Solutions

Functional Materials

Aluminum

CONNECTED MOBILITY

DIGITAL MANUFACTURING

NEXT GEN COMPUTING

SUSTAINABLE PACKAGING

CONNECTED MOBILITY







Nio ES6

Technology adoption leader for 7000 series aluminum



Tesla Model 3

Currently the Best Selling Luxury Car in America

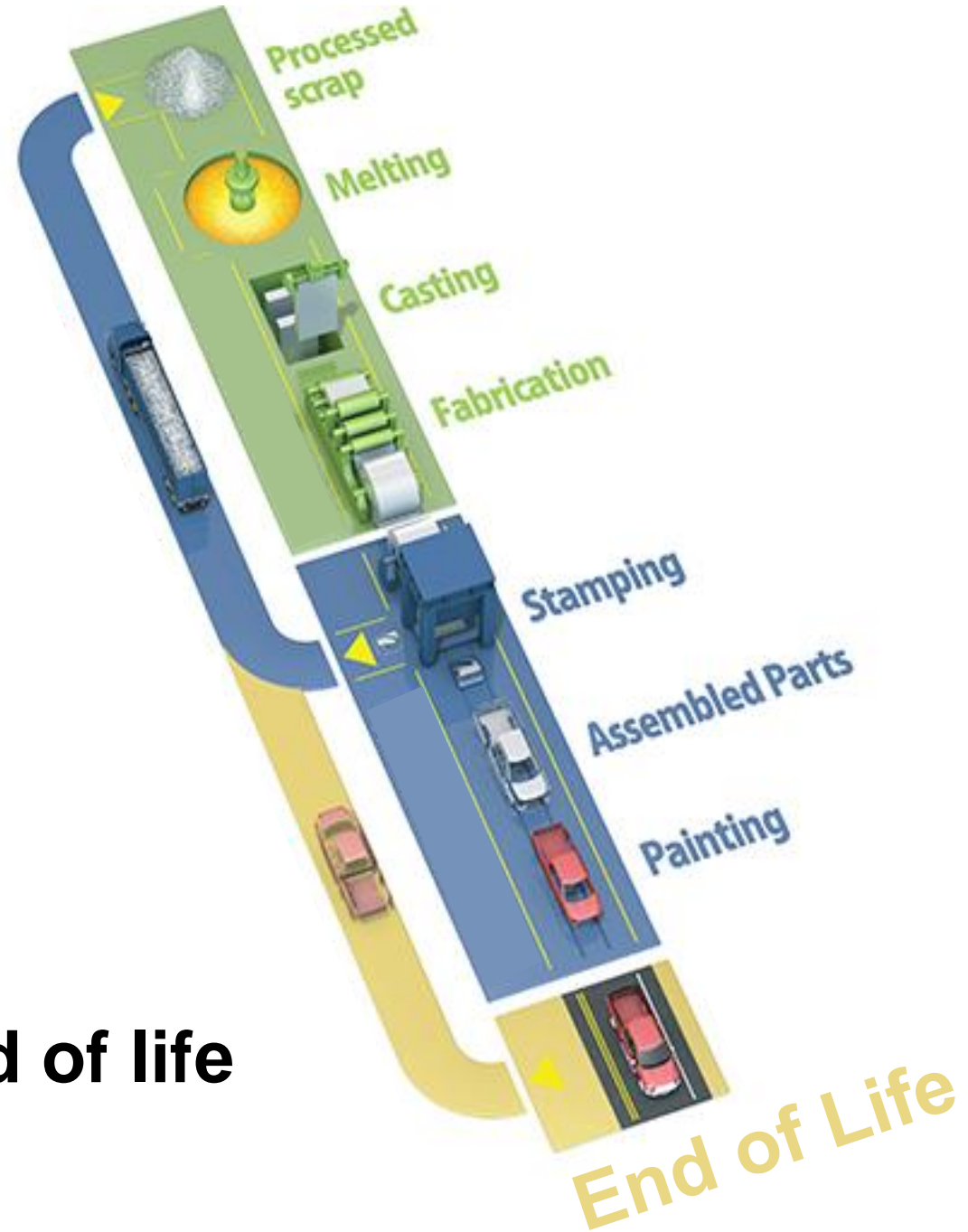
Removing Steel from Automobiles of the Future

High strength & toughness

High formability and hot form

High speed multi-material joining

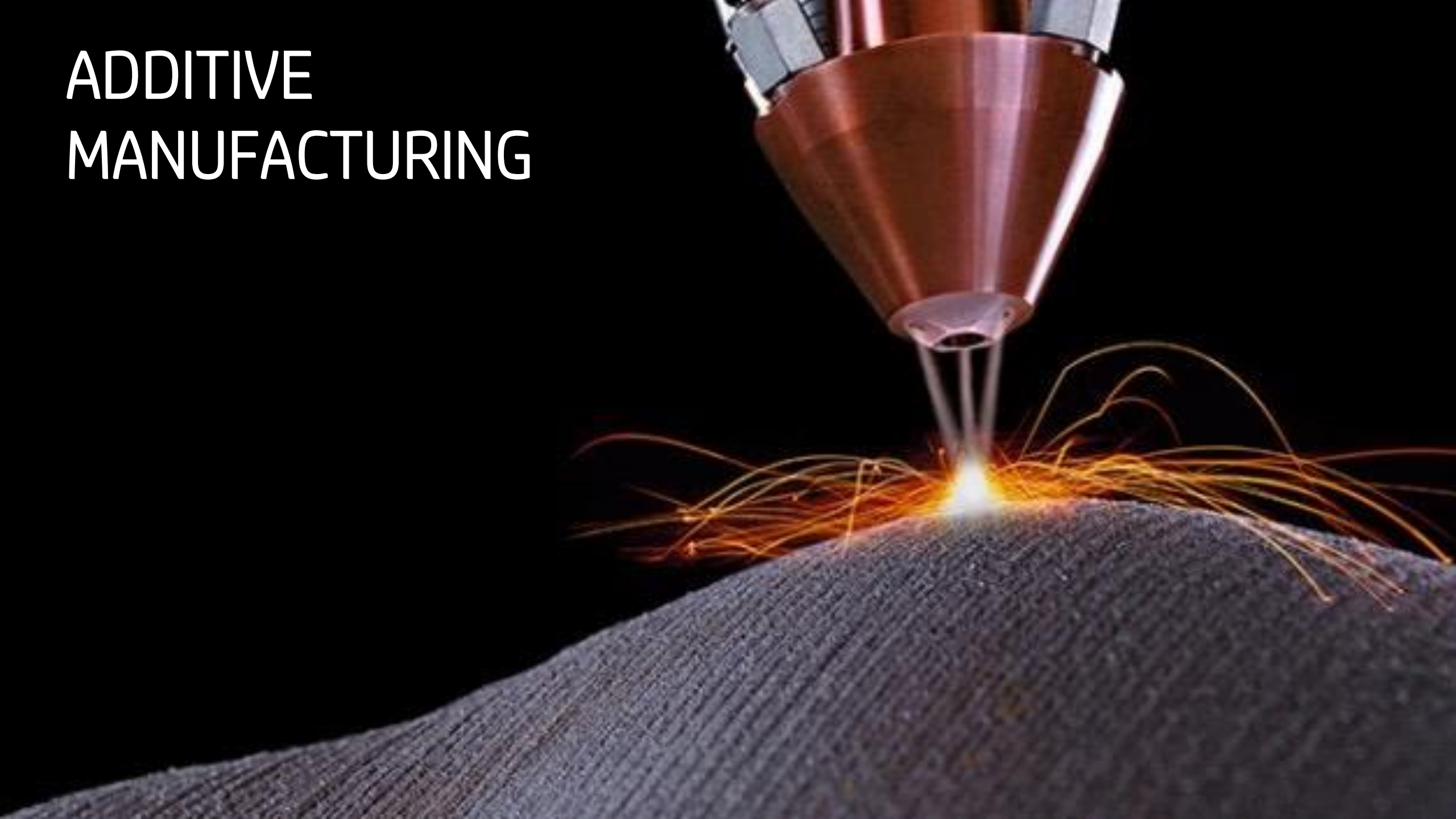
Closed loop, Convert non-Auto, End of life

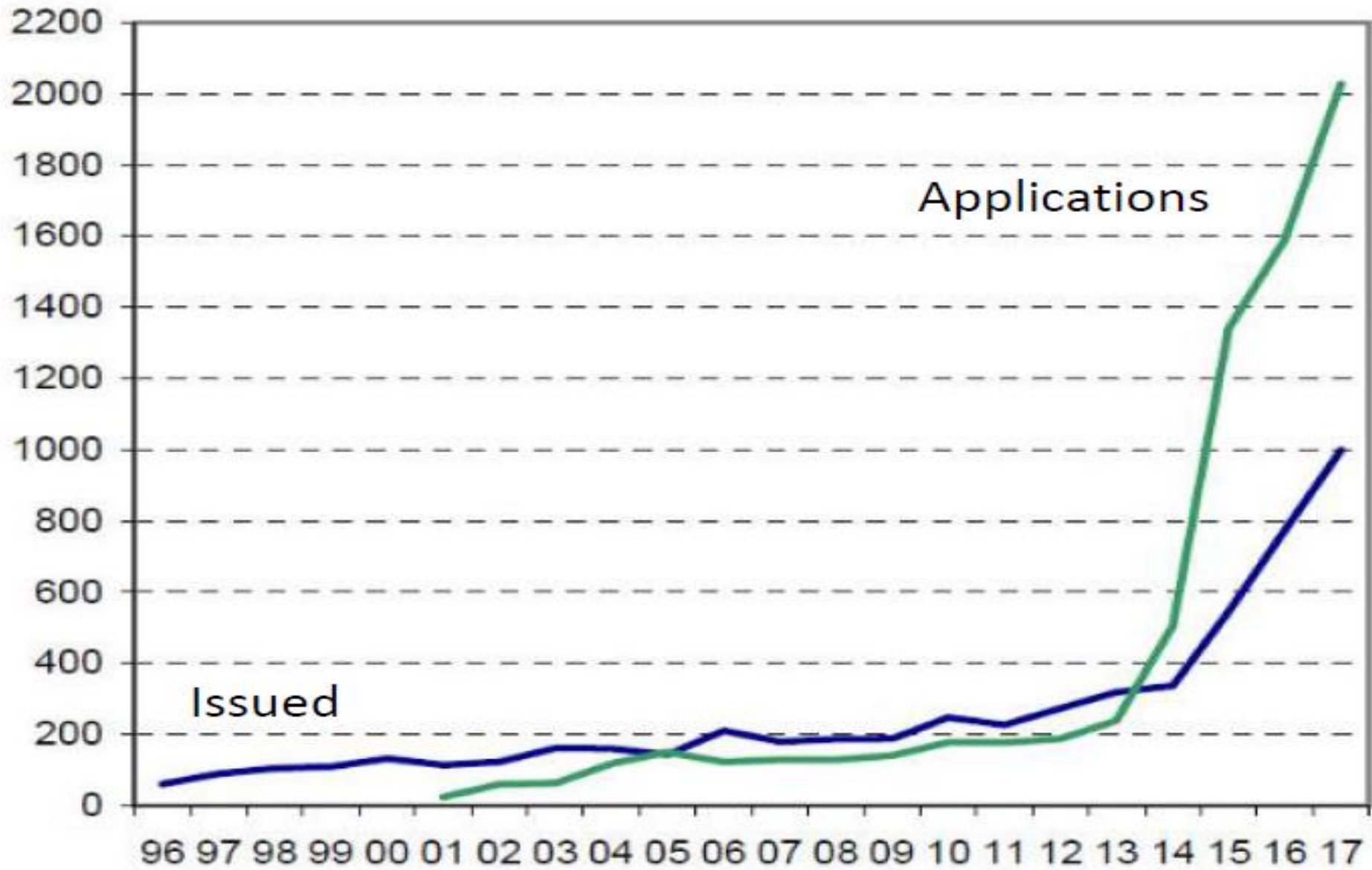




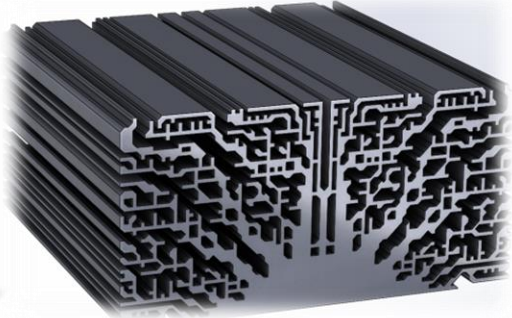
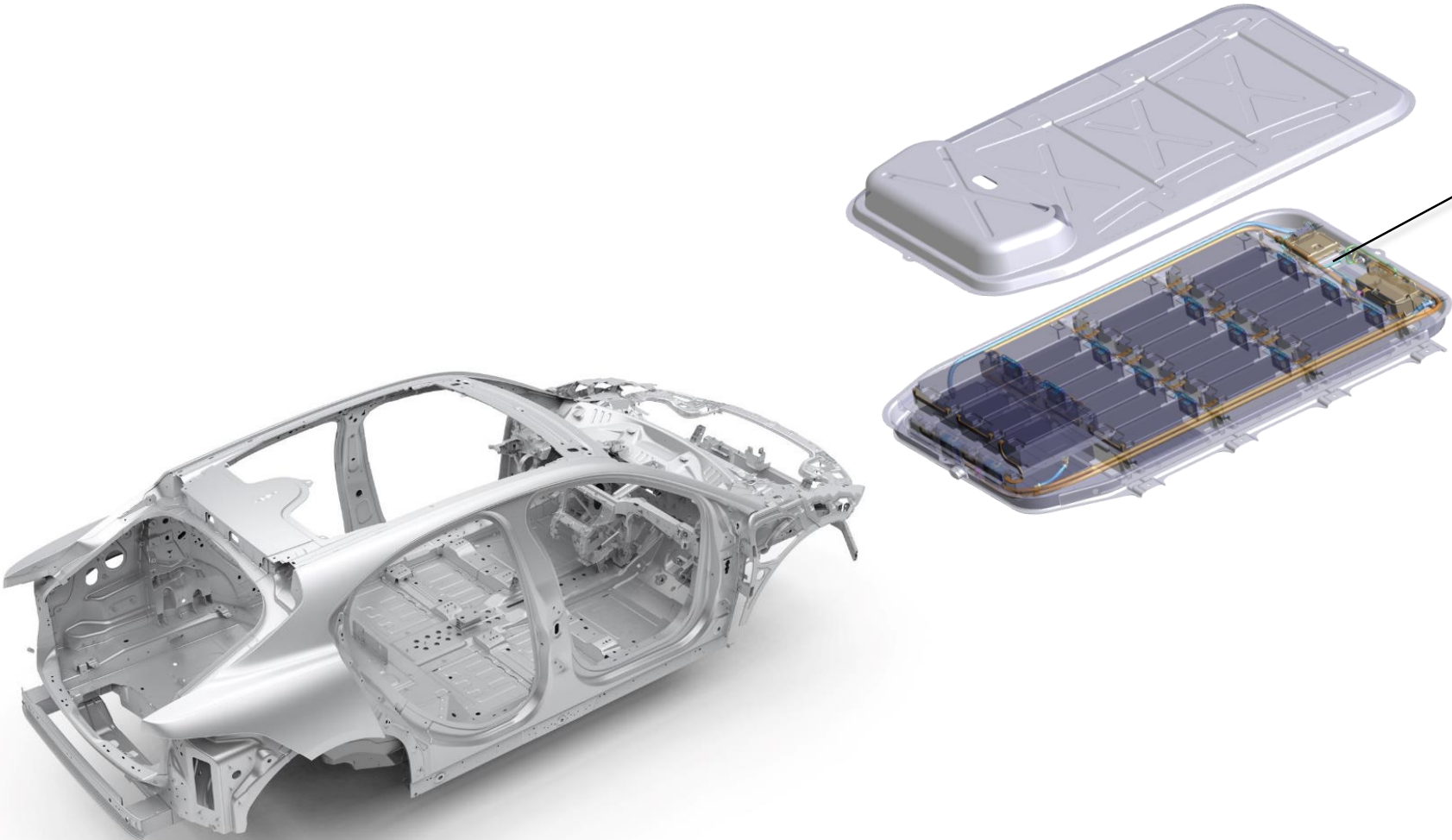
Staying ahead of disruptions

ADDITIVE MANUFACTURING





FUNCTIONAL INTEGRATION & ADVANCED MATERIALS



Compliments of Mentor

SUSTAINABLE PACKAGING



1 Million
1 Minute





Aluminum cans average

3x

more recycled content than plastic
or glass bottles



Is This the End of Recycling?

Americans are consuming more and more stuff. Now that other countries won't take our papers and plastics, they're ending up in the trash.

ALANA SEMUELS MAR 5, 2019



The Atlantic



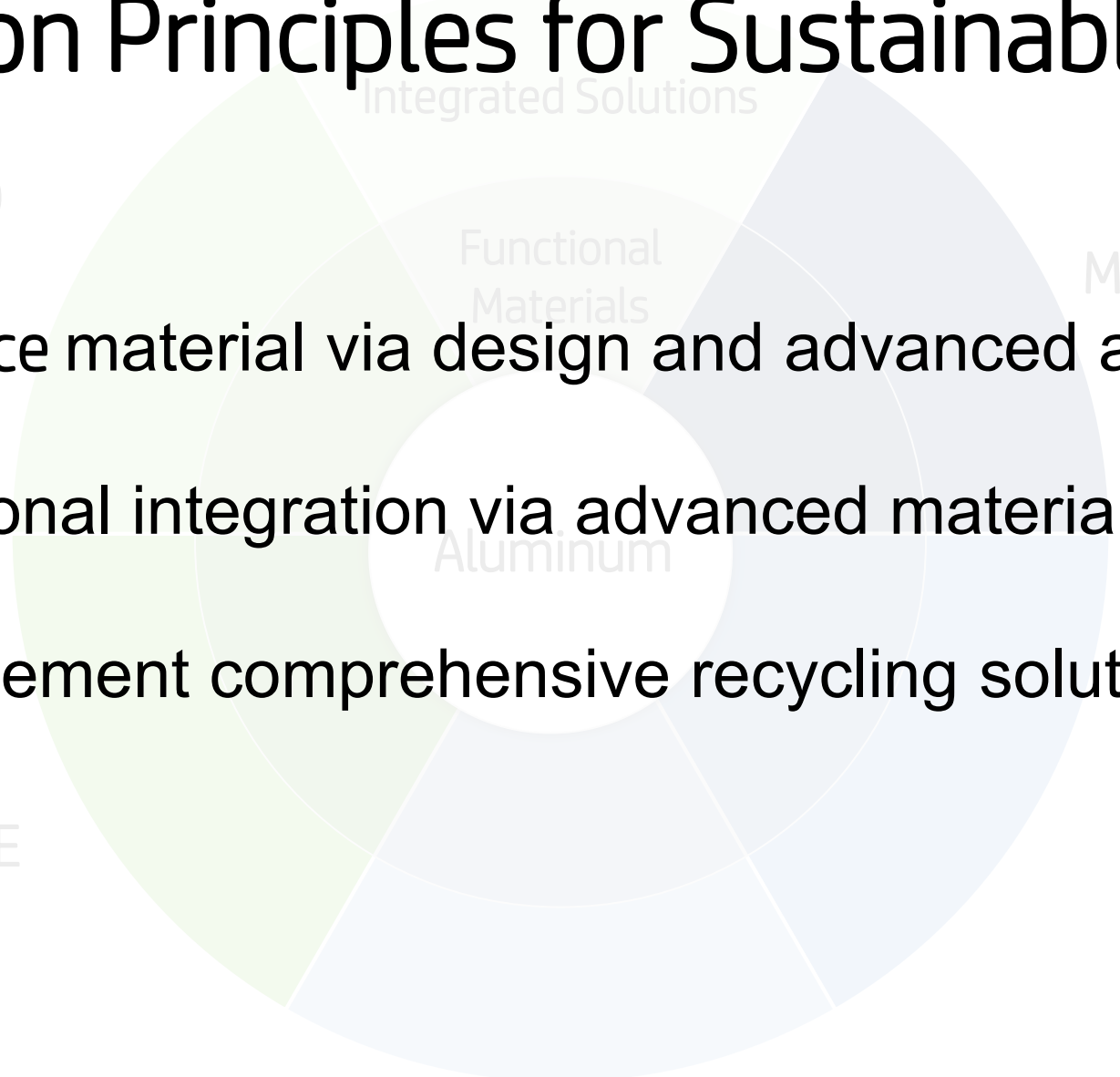
Design-for-purpose.

Reduce metal weight via alloy & process.

Increase recycling rate.



Innovation Principles for Sustainable Growth



CONNECTED
MOBILITY

DIGITAL
MANUFACTURING

Reduce material via design and advanced alloys

Increase functional integration via advanced materials & technology

Implement comprehensive recycling solutions

SUSTAINABLE
PACKAGING

NEXT GEN
COMPUTING

Integrated Solutions

Functional
Materials

Aluminum

Shaping a Sustainable World Together



Thank You