

Material Innovations

Towards Circular Living

Chaya Chandavasul, Ph.D.

Senior Vice President of Science and Innovation, PTT Global Chemical Plc., Thailand



Circular Living happens
through

Material Innovations

Petro-based
Bio-based

Resources

Design
Manufacturing

Recycling
Upcycling

Waste

Consumption

Distribution

Material Innovations

Our **Material Innovations** help enable circular living and sustainability

Reduce



Downgauging

Reduce thickness without properties deterioration



Engineering Plastics | Composite Materials

Reduce weight, cut down energy consumption, recyclable



3D Printing

Reduce production waste, allow novel design with lighter weight

Our **Material Innovations** help enable circular living and sustainability

Bio-based



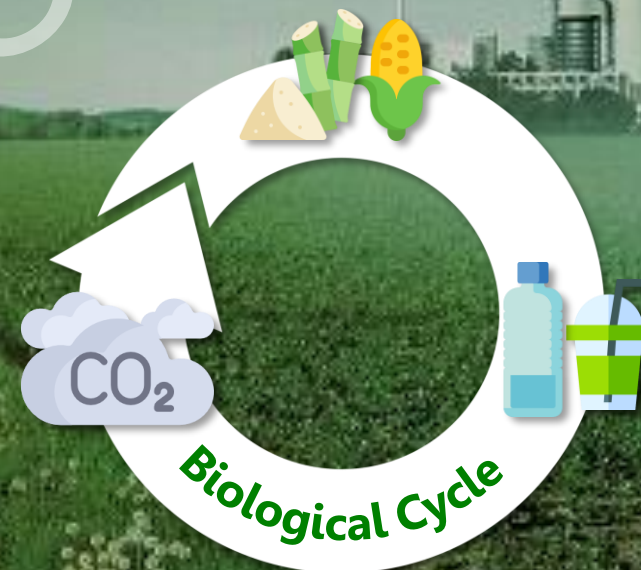
Bioplastics

Single-use items
Durable / Performance
products



Bio-based Chemicals

Home & Personal Care
Coating

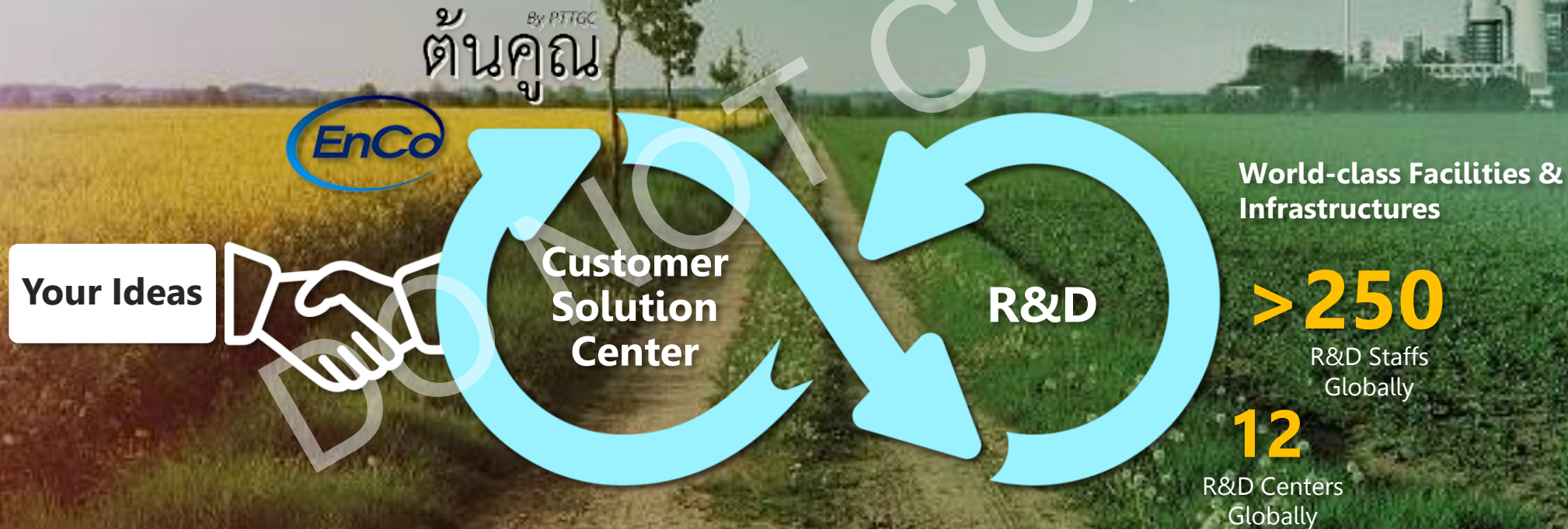


Our **Material Innovations** help enable circular living and sustainability

**Recycling
Upcycling**



Let Co-create your business with us





Thank You