



WEBINAR



AUSTRALIAN
CIRCULAR
ECONOMY
HUB

PLANET ARK

WHAT IS THE CIRCULAR ECONOMY?

THE FOUNDATIONS OF CIRCULARITY IN DESIGN AND BUSINESS

THANKS TO OUR SPONSORS

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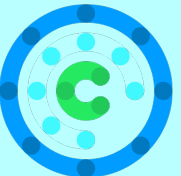
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Power

1. AUSTRALIAN CIRCULAR ECONOMY HUB
2. WHY ACT NOW?
3. HOW CAN THE CIRCULAR ECONOMY HELP?
4. WHAT CAN BE DONE?
5. CIRCULAR DESIGN
6. CIRCULAR BUSINESS MODELS



1. ACE Hub: Four strategic pillars



Browse > Physical Science and Engineering >
Environmental Science and Sustainability

Circular Economy - Sustainable Materials Management

★★★★★ 4.8 630 ratings • 224 reviews



Philip Peck [+11 more instructors](#)

Enroll for Free

Starts Apr 12

Financial aid available

27,310 already enrolled

Offered By

Lund University

EIT RawMaterials

VITO

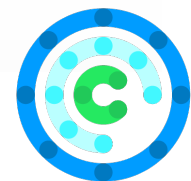
Geological Survey of Denmark and Greenland

National Technical University of Athens

Ghent University

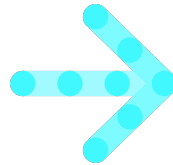
Delft University of Technology

Enrol here: COURSERA.ORG/LEARN/CIRCULAR-ECONOMY



Linear

**Aim: generate value
from selling artifacts**



Circular

**Aim: generate value
from the flow of
materials and
products over time**



- **Design out waste + pollution**
- **Keep products + materials in use**
- **Regenerate natural systems**



REDUCE RESOURCE FLOWS/RESOURCE LOOPS:

- **SLOWING**

Prolonged use of materials

- **NARROWING**

Use fewer resources per product/process – resource efficiency

- **CLOSING**

Closing the loop between post-use and production; recycling



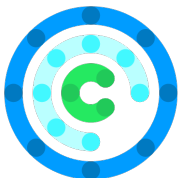
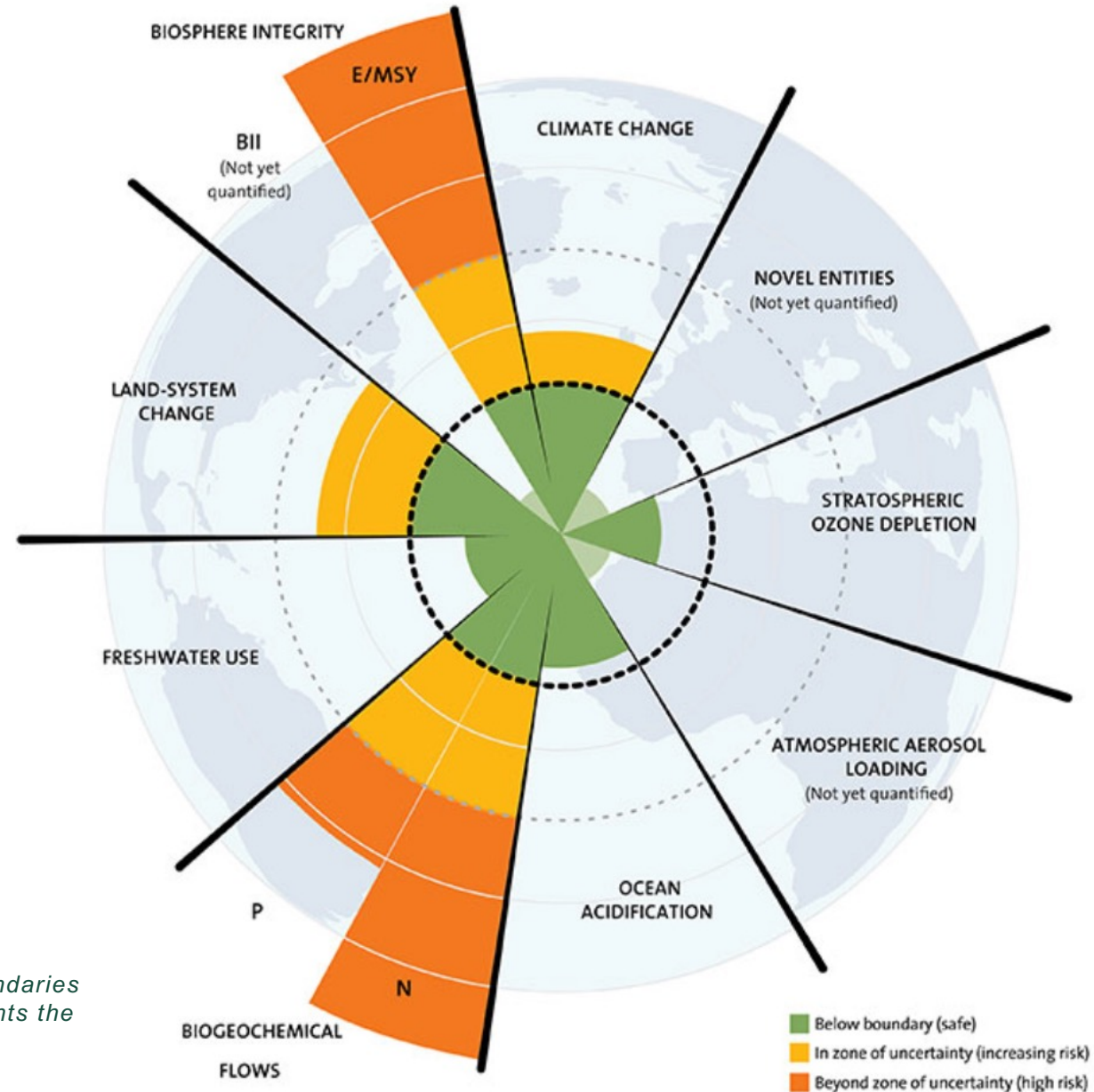
2. WHY NOW?



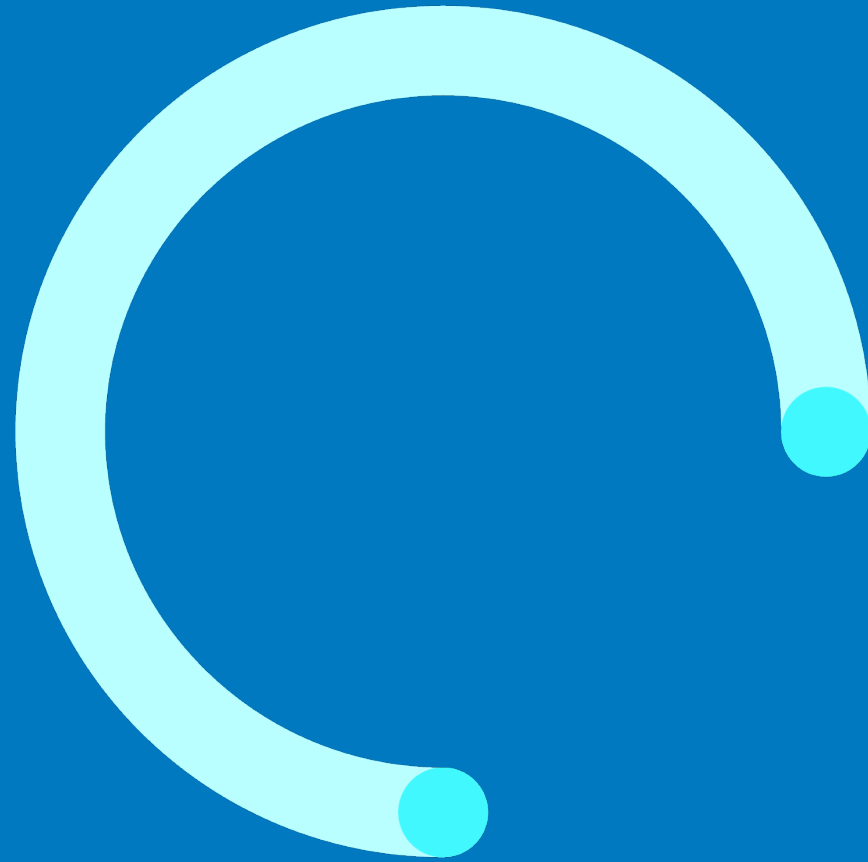
WE ARE OVERSHOOTING PLANETARY BOUNDARIES


- 1.75 Earths in natural resources
- Population growth, increased demand for materials, scarcity of raw materials
- Environmental degradation
- Economic and social vulnerability

Estimates of how the different control variables for seven planetary boundaries have changed from 1950 to present. The green shaded polygon represents the safe operating space. Source: [Planetary boundaries: Guiding human development on a changing planet, Steffen et al. 2015](#)



3. HOW CAN THE CIRCULAR ECONOMY HELP?





**“A circular economy is
about business models and
practices that ensure
sustainable materials
management.”**

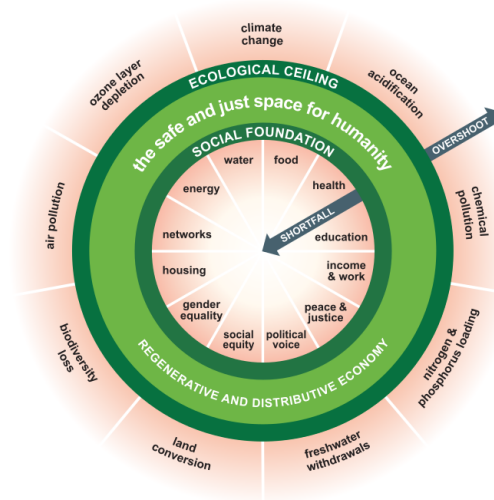
- CSIRO

BENEFITS OF THE CIRCULAR ECONOMY

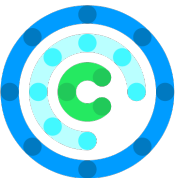
- Addresses resource scarcity
- Builds localised resilience
- Creates jobs, economic growth, extends value of products
- Contributes to the 'green recovery' from pandemic
- Supports a sustainable, low-carbon future – aligned with other frameworks: LCA, SDGs, SBTs, Paris Agreement, embodied carbon, Doughnut Economics
- Triggers innovation



Source: un.org/sustainabledevelopment



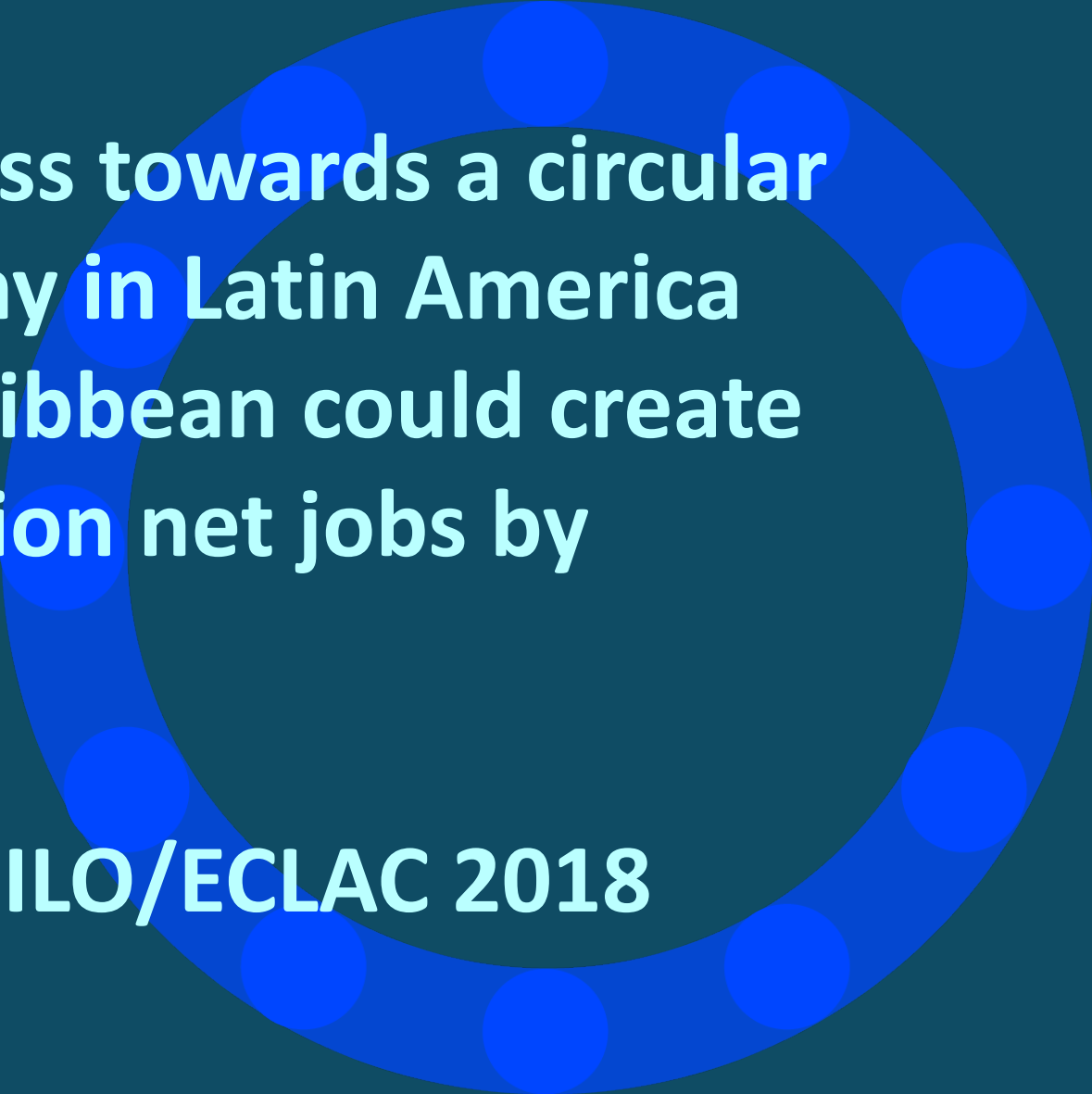
Source: doughnuteconomics.org/about-doughnut-economics





**In a report commissioned
by the CSIRO, KPMG
estimates that a circular
economy could
give Australia a \$210 billion
GDP boost + 17,000 jobs.**

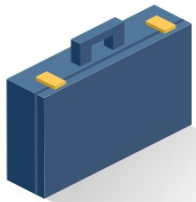
Source: [Potential Economic Payoff of a Circular Economy, KPMG 2000](#)



“Progress towards a circular economy in Latin America and Caribbean could create 4.8 million net jobs by 2030.”

- ILO/ECLAC 2018

OPPORTUNITIES (EUROPE)



30%

Jobs and growth

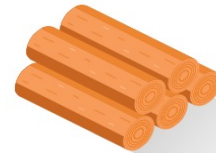
Increasing resource productivity by 30 % by 2030 (i.e., doubling the expected increase of a 'business as usual' scenario) would increase GDP by 0.8 % and create two million new jobs in the EU.



20% to 90%

Energy and costs savings associated with increased resource efficiency

Using secondary raw materials instead of virgin raw materials in metal, glass and paper production, produces energy savings of 20 % to 90 %, as well as significant water savings.



Environmental impacts

Manufacturing that uses fewer resources (i.e., energy, water, land and materials) would have positive impacts on the climate, marine littering, and biodiversity.



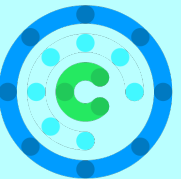
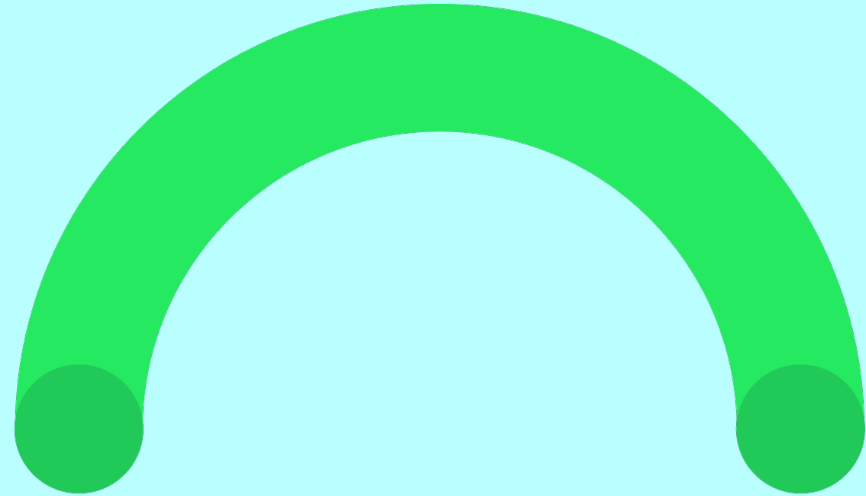
Enhanced security of supply of raw materials

Risks associated with the supply of raw materials, such as price volatility, availability and import dependency, would be mitigated using secondary raw materials.

Source: [European Parliament Research Initiative](#)



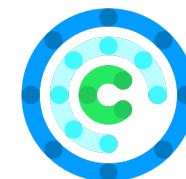
4. WHAT CAN BE DONE?



THE CIRCULAR ECONOMY IS ENABLED BY:

- Holistic, life cycle approach to product and services
- Circular design | Circular business models | Appropriate policy framework

- 
- Design out waste + pollution
 - Keep products + materials in use
 - Regenerate natural systems



What can individuals do?



REDUCE OUR FOOTPRINT

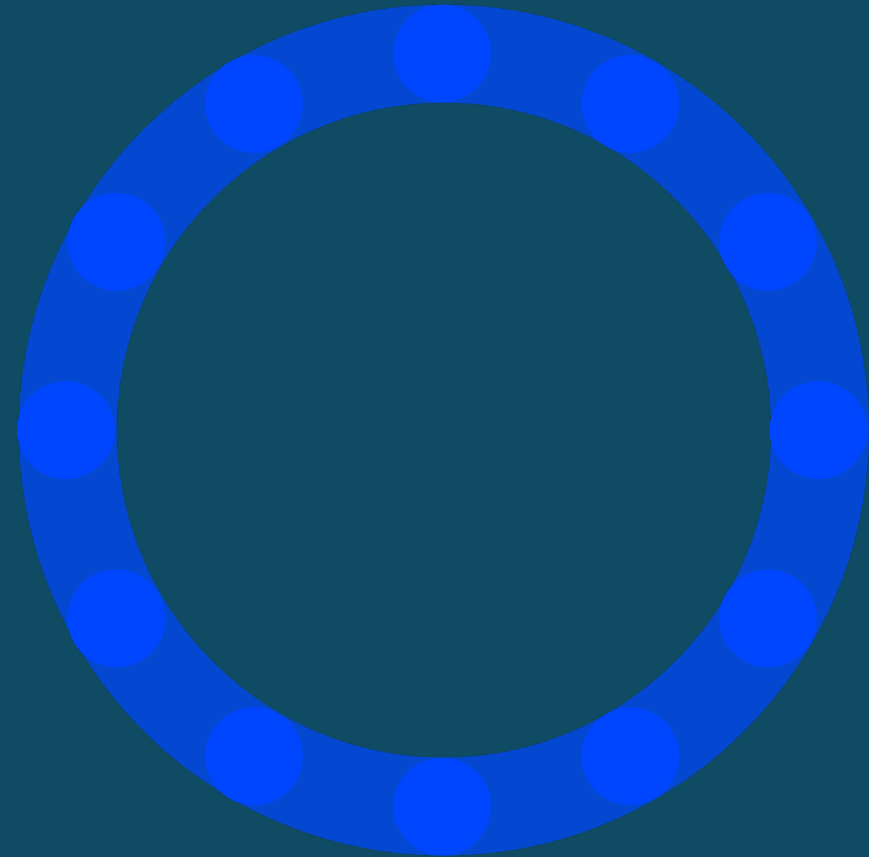
- Vegetable-based diet
- Reduce waste
- Reduce energy used at home and in transport
- Support the circular economy as a consumer

Question what level of consumption is needed for a good life?

- Fair share – reduce footprint
- Behavioural changes
- Address the social logic of consumption



What can business do?



5. CIRCULAR DESIGN

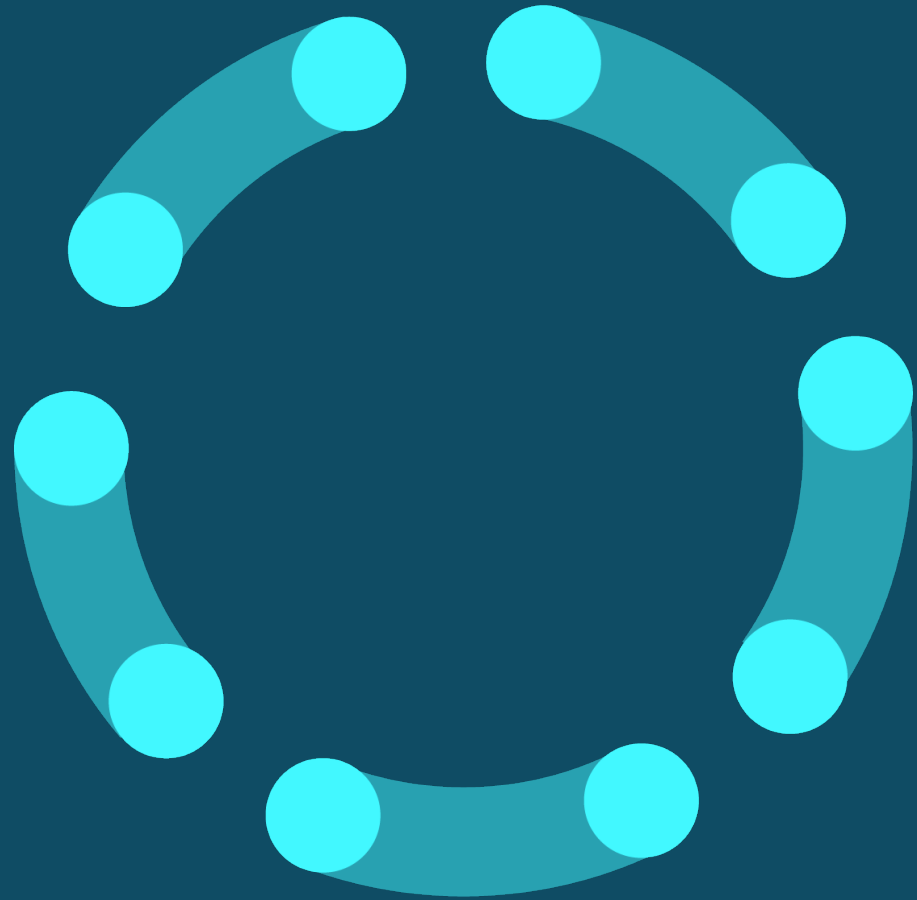


CIRCULAR DESIGN:

- **Attachment and trust**
- **Durability**
- **Standardisation and compatibility**
- **Maintenance and repair / self-repair**
- **Adaptability + upgradability**
- **Ease of dis- and re-assembly**
- **Recycling**
- **Dematerialization**



6. CIRCULAR BUSINESS MODELS



FIND A CIRCULAR BUSINESS MODEL THAT FITS

The Circulator helps you to navigate potential circular strategies and learn from inspiring cases.

Choose one of the entry points:



Check out which business models are most common in the circular economy and how they combine strategies.



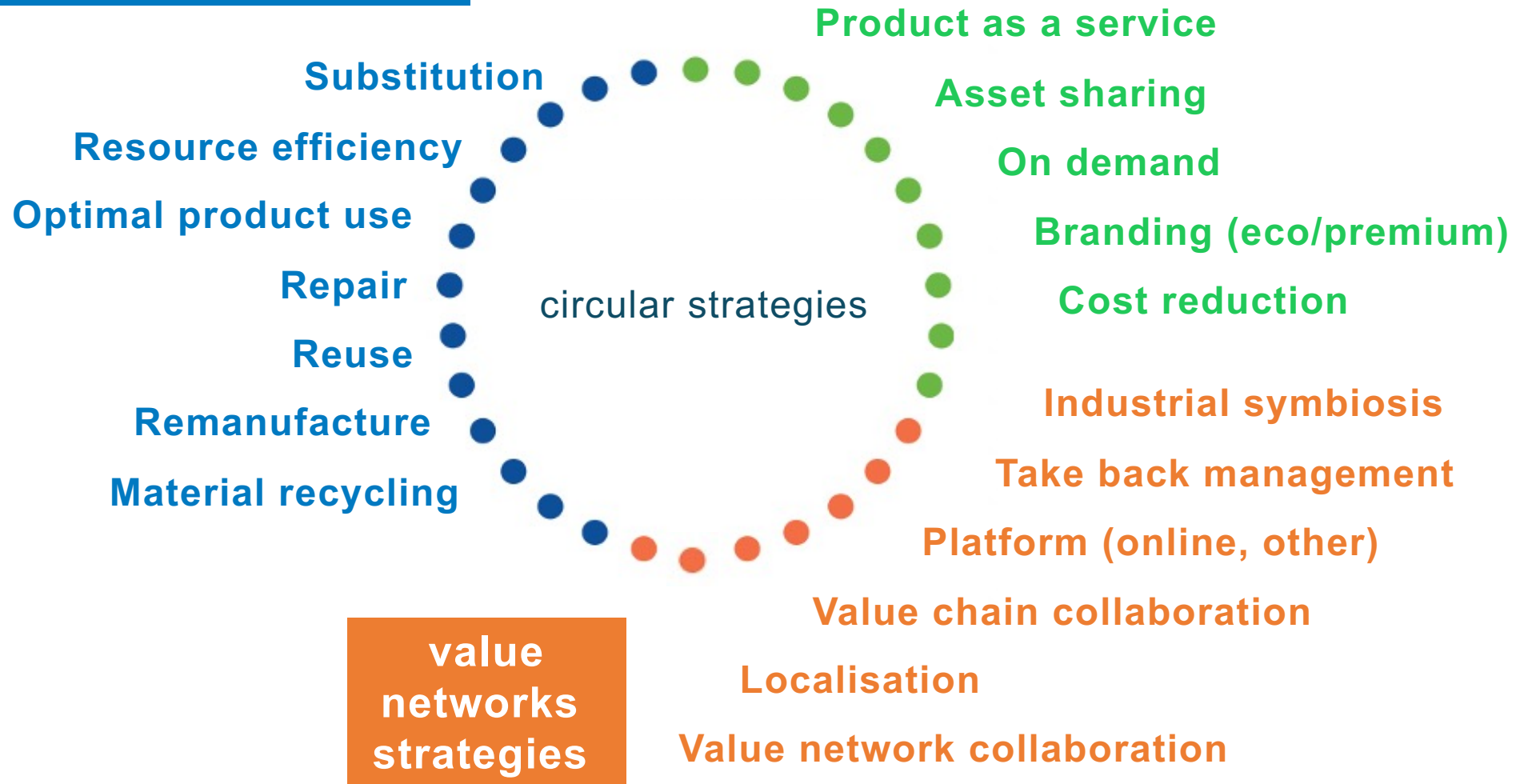
Mix different strategies and see what works for you. Check out live cases that match your mix.

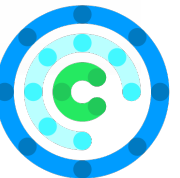


Freely browse our case database and find inspiration in the experience of others.

circular value creation

value proposition





THANK YOU



Connect with us:
acehub.org.au