

# Business incubation, sustainability, and circular start-ups

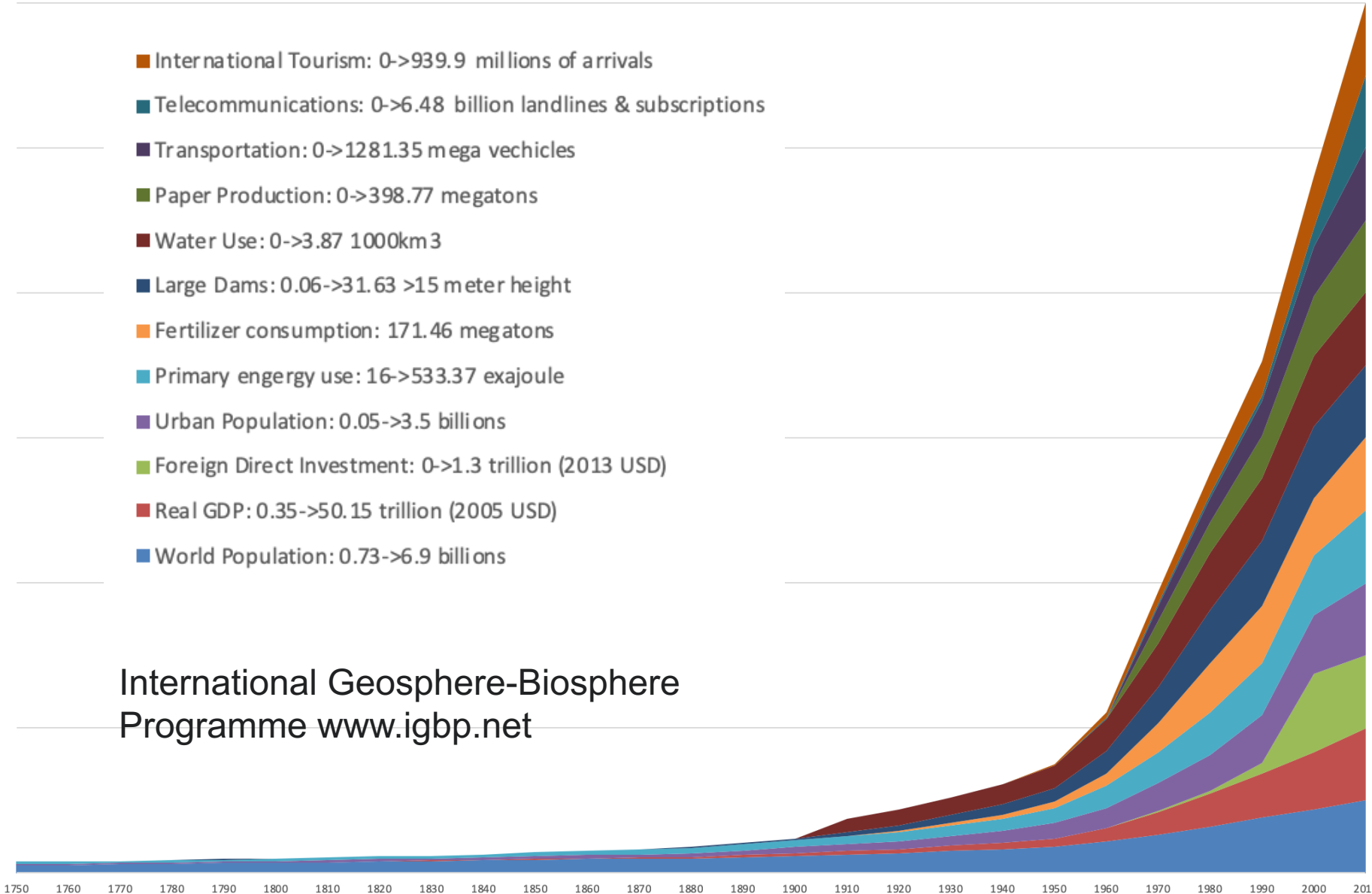
Dzamila Bienkowska & Wisdom Kanda

HELIX Conference, 2022

# Socio Economic Trends 1750→2010

- International Tourism: 0→939.9 millions of arrivals
- Telecommunications: 0→6.48 billion landlines & subscriptions
- Transportation: 0→1281.35 mega vehicles
- Paper Production: 0→398.77 megatons
- Water Use: 0→3.87 1000km<sup>3</sup>
- Large Dams: 0.06→31.63 >15 meter height
- Fertilizer consumption: 171.46 megatons
- Primary energy use: 16→533.37 exajoule
- Urban Population: 0.05→3.5 billions
- Foreign Direct Investment: 0→1.3 trillion (2013 USD)
- Real GDP: 0.35→50.15 trillion (2005 USD)
- World Population: 0.73→6.9 billions

International Geosphere-Biosphere Programme [www.igbp.net](http://www.igbp.net)



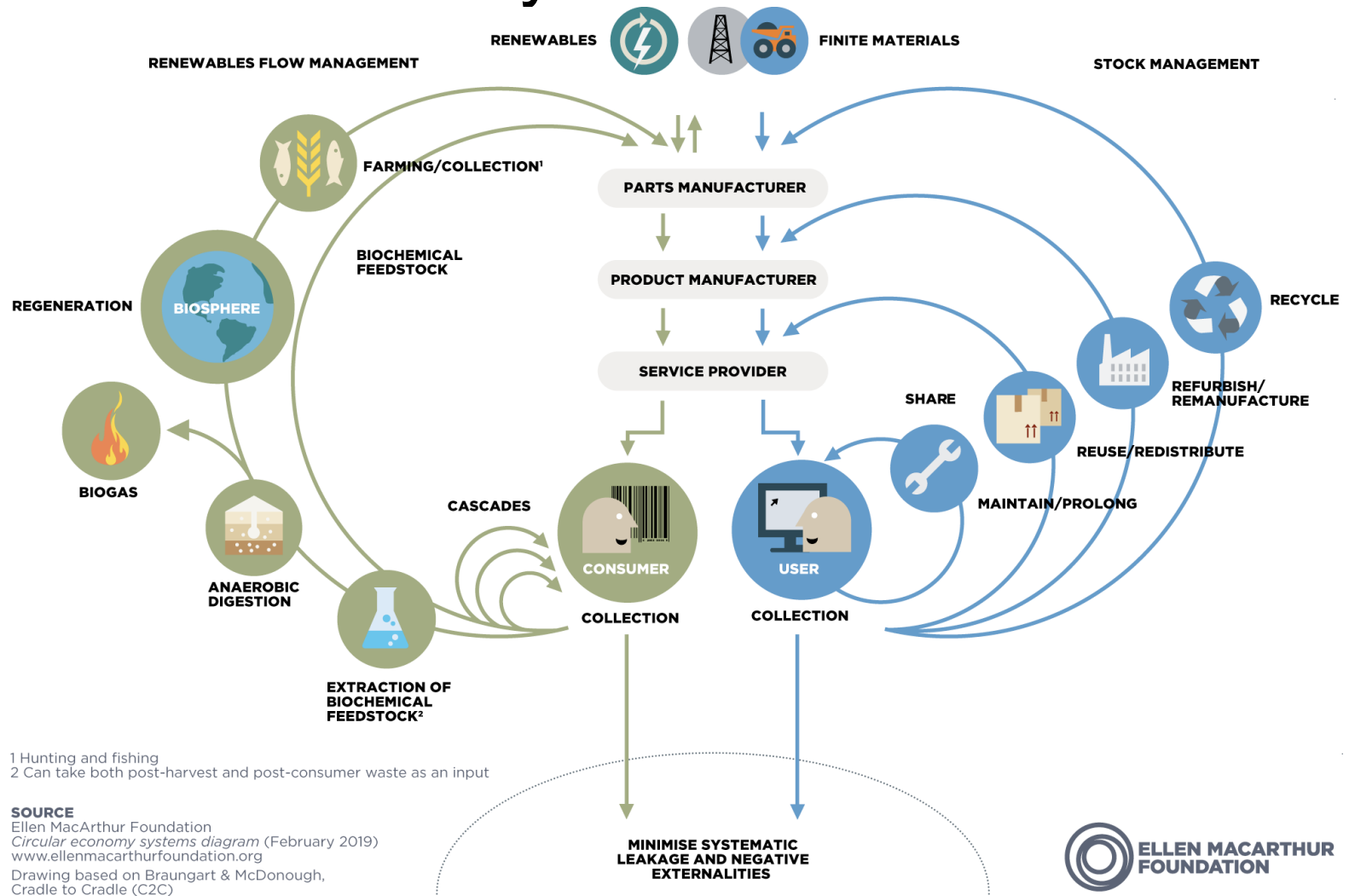
# Landfilling of “resources”



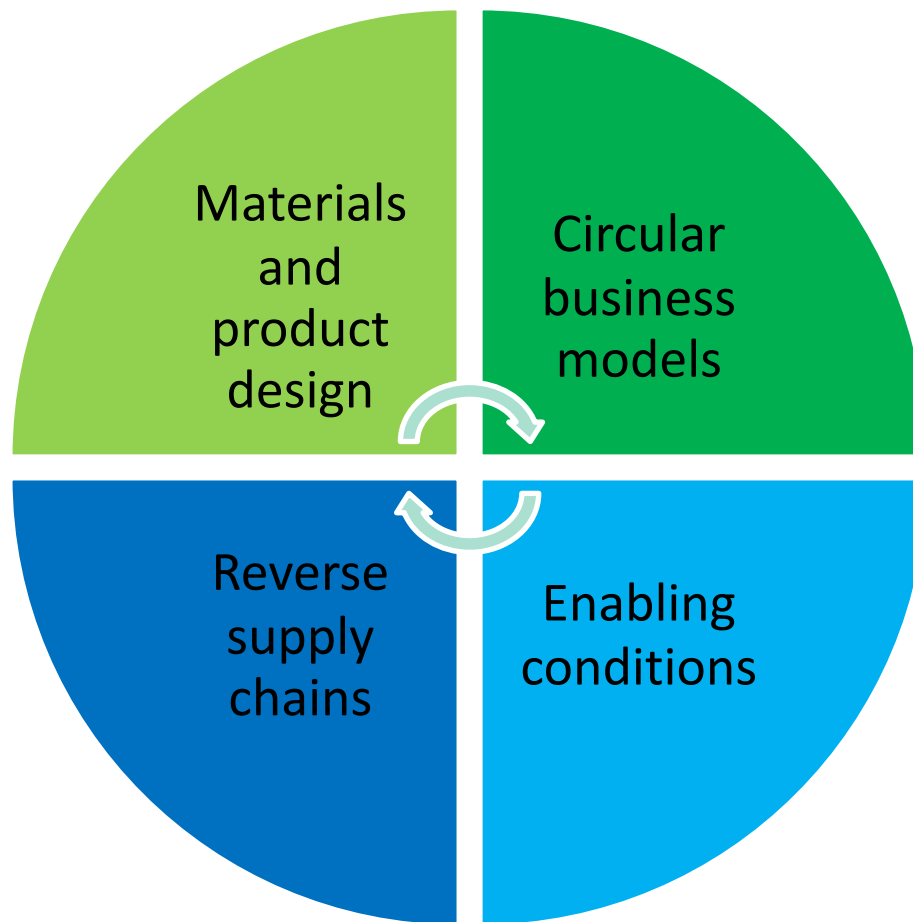
# Circular economy (CE)

- “[CE] **an industrial system** that is restorative or regenerative by **intention and design**. It replaces the ‘end-of-life’ concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, **business models**.” – Ellen MacArthur Foundation (2012, p. 7)
- “[...] circular economy, where the value of **products, materials and resources** is maintained in the **economy** for long as possible, and the generation of waste minimised.” – COM (2015) 614 final

# Circular economy



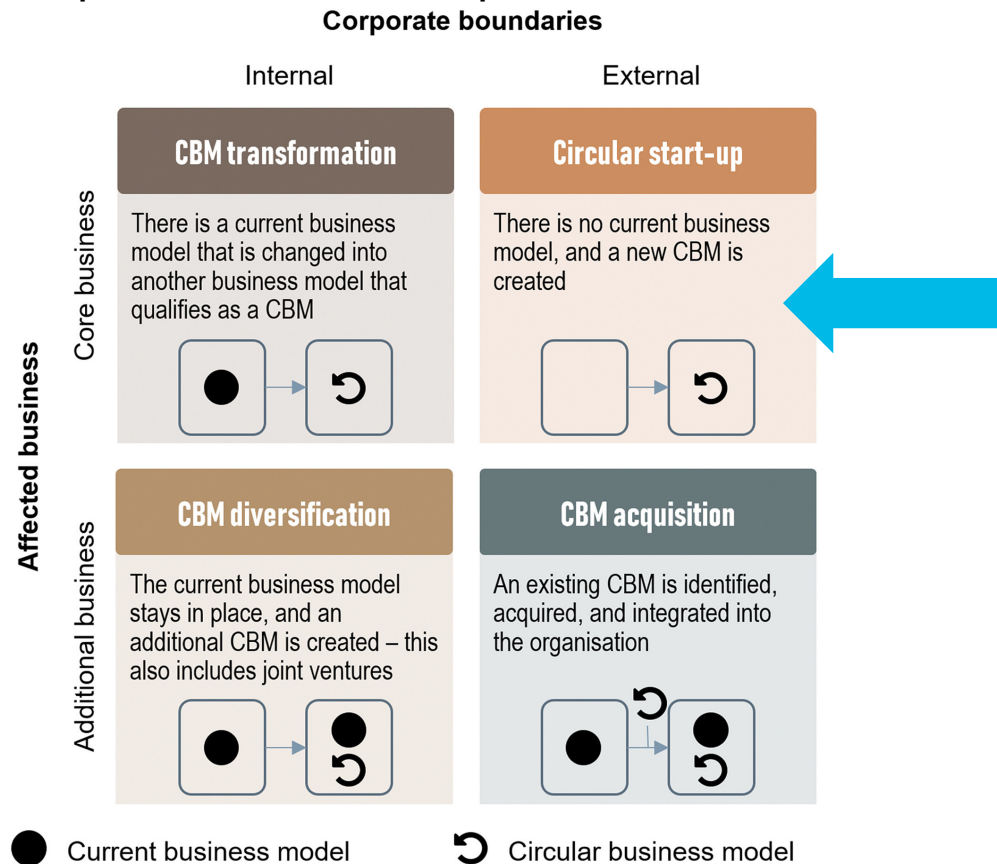
# A systemic transition to CE



A circular business model describes the rationale of how an organization creates, delivers and captures value using circular economy principles.

# Circular business innovation

Describe the conceptualization and implementation of circular business models



# Research question

What are the challenges of start-ups developing circular business models?



# Research Method

- Interviews with 60 start-ups developing circular business models in Sweden and Europe.
- Interviews with 33 entrepreneurial ecosystem actors on their circular economy competence.
- Two focus group discussion with start-ups & ecosystem actors. Total 40 participants.
- Paper development workshop at AoM conference.
- Analytical framework (Gartner, 1985)

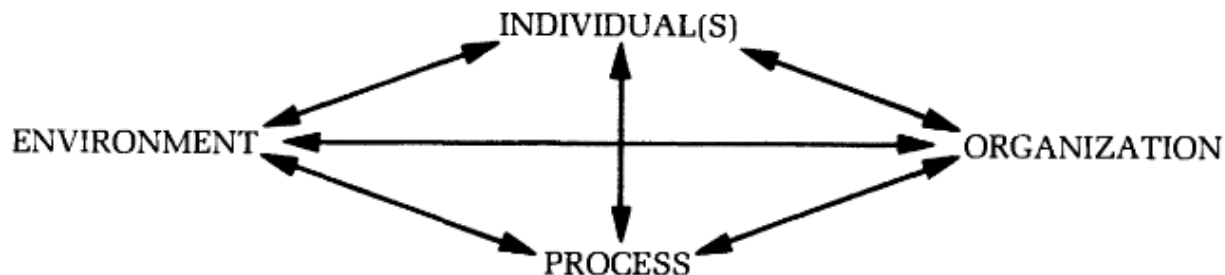


Figure 1. A framework for describing new venture creation.

# Circular start-ups

- i. 0 - 6 years old,
- ii. profit-seeking firms,
- iii. independent ventures, not a subsidiary of an incumbent,
- iv. developing a CBM (Bocken et al., 2016):
  - (i) access/performance model,
  - (ii) extension of product value,
  - (iii) classic long-life model,
  - (iv) encourage sufficiency,
  - (v) extension of resource value,
  - (vi) Industrial Symbiosis (IS).

# Coffee “waste” as raw material for cosmetics

Go Cirkulär

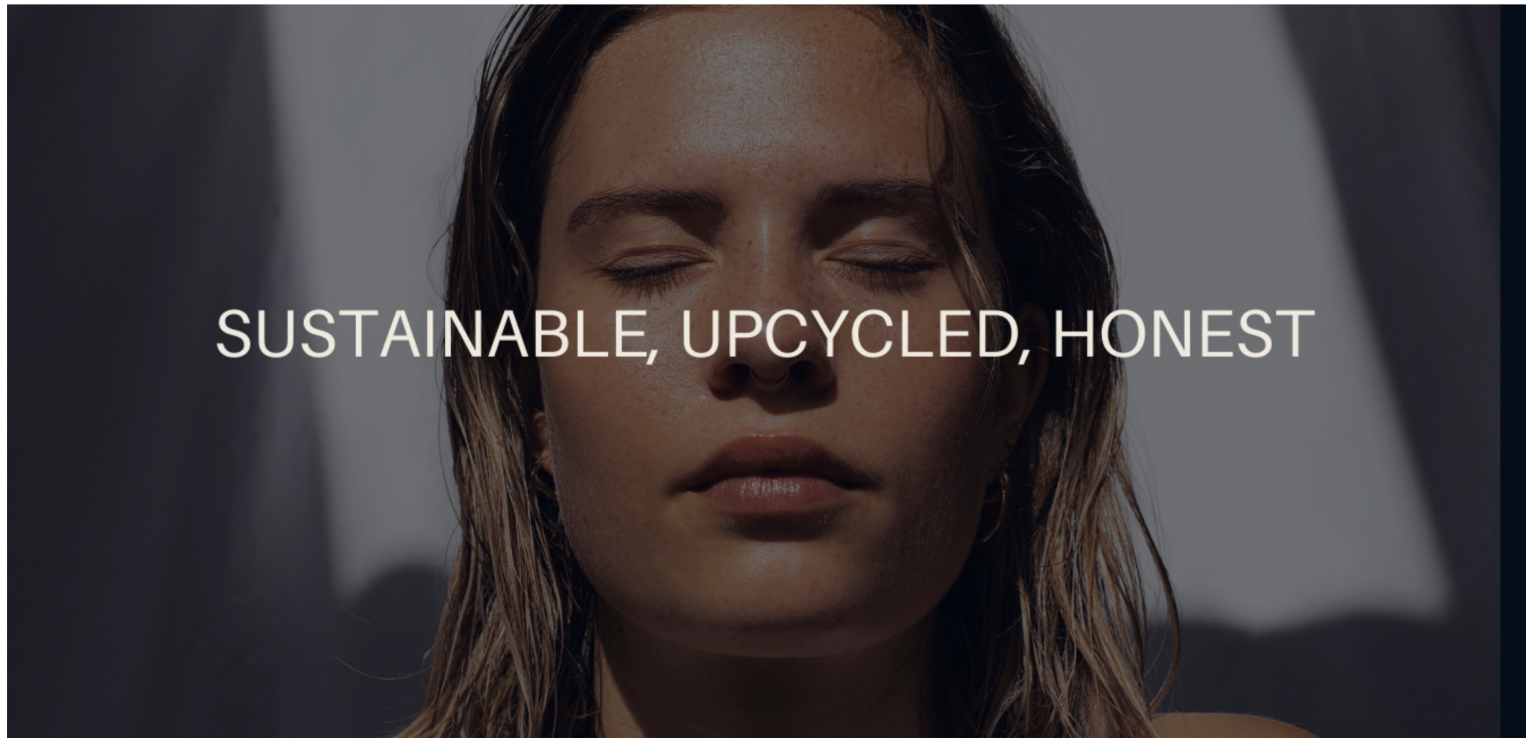
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# Lease/Repair/Prolong




**Janna**  
JOIN THE RIDE


HOME STORE ABOUT US 

A bike that always works

Bike for a monthly fee

from 229 kr/mo

 Delivery  Free service  Insured

 Behöver du hjälp?

# Renting of clothes

## HACK YOUR CLOSET



## Hack Your Closet i konkurs

# Reuse



[How it Works](#) [About](#) [Products](#) 



[Get started](#)



## Circular Packaging as a Service

[How it Works](#)



# Upcycling “waste” bread



# Individual(s)-related challenges

Challenges related to the individual(s) are similar to those experienced by individual(s) developing “conventional” start-ups e.g., lack of contacts and networks, limited business development experience.



# Environment-related challenges

The environment shapes the types and functioning of circular business models developed e.g., low cost labour, existing material and energy policies.

# Business model-related challenges

Extension of resource value	Access models	Extension of product value	Facilitating industrial symbiosis	Encourage sufficiency
<p>Uncertain quality and quantity of “waste” and their price collected as raw material.</p>	<ul style="list-style-type: none"> <li>• Distributed cash flow.</li> <li>• Labour intensive repair and maintenance.</li> <li>• Costly reverse logistics.</li> </ul>	<p>Engagement with end-users needed to return products.</p>	<p>Existing policies can limit innovative resource exchange across certain industries.</p>	<p>Costly reverse logistics.</p> <p>End user engagement needed.</p>


# Main insights


Circular start-ups need strategic partnerships from the start but face difficulties in entering such partnerships due to liabilities of newness and smallness.

Circular start-ups face scale-up bottle-necks due to their co-dependency with the existing linear business ecosystem within which they operate.

The dominant approach in the ecosystem is to develop general understanding on circular economy and not specialist competence.

# Ways forward

 Map and connect specialist competence on circular economy in regions to generalist ecosystem actors who meet start-ups regularly.

 Develop and integrate questions into early-stage business coaching to trigger deeper reflections on circularity.



# Thank you.

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