



CIRCULAR DESIGN FORUM

Circular, together!

The Team



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SYSTEMIC DESIGN

Applied to the key challenges of circular value chains



March 29th 2023

EGGS Design x Circular Design Forum with VanBerlo support

KEY CHALLENGES OF CIRCULAR VALUE CHAINS

16:00 – 16:30

INTRO



Understanding
The actors



Craft
interventions

16:30 – 17:00

EXERCISE



Drawing flows

10 min break

17:10 – 18:00

INTERACTIVE DISCUSSION ON COMPLEMENTARY PERSPECTIVES



Materials



Networks



Revenue models

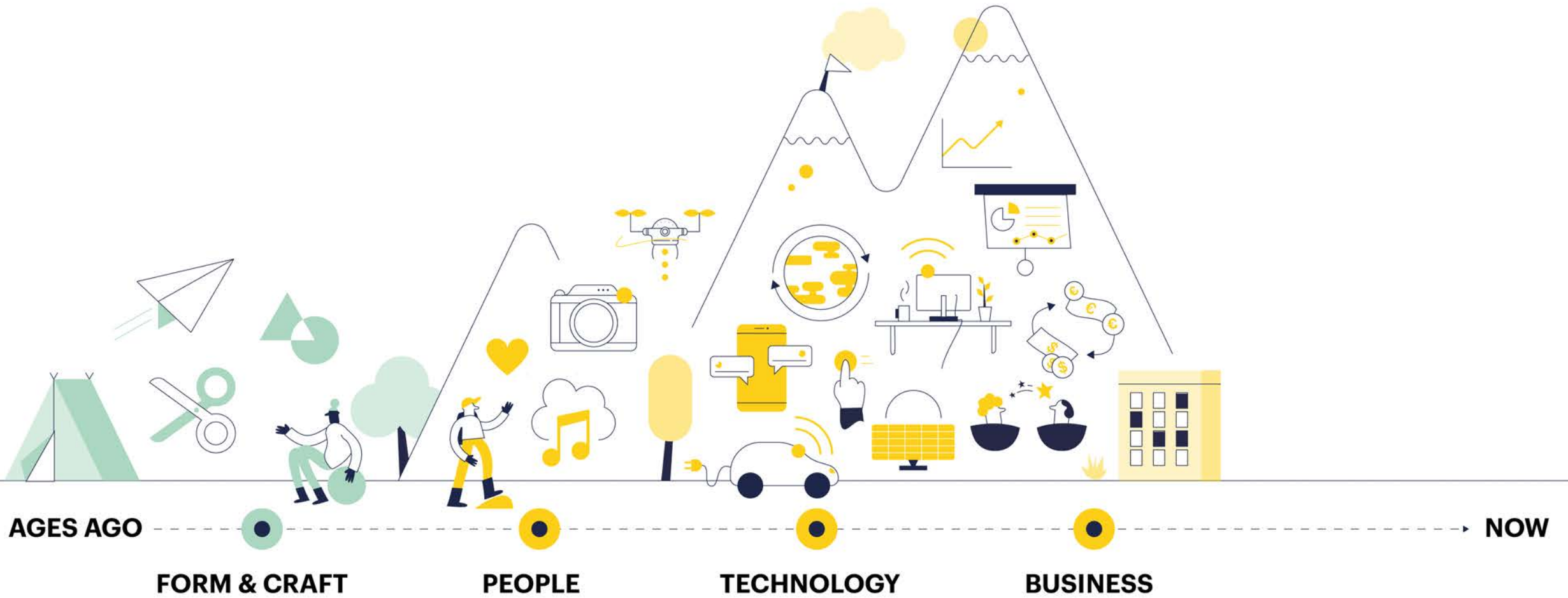


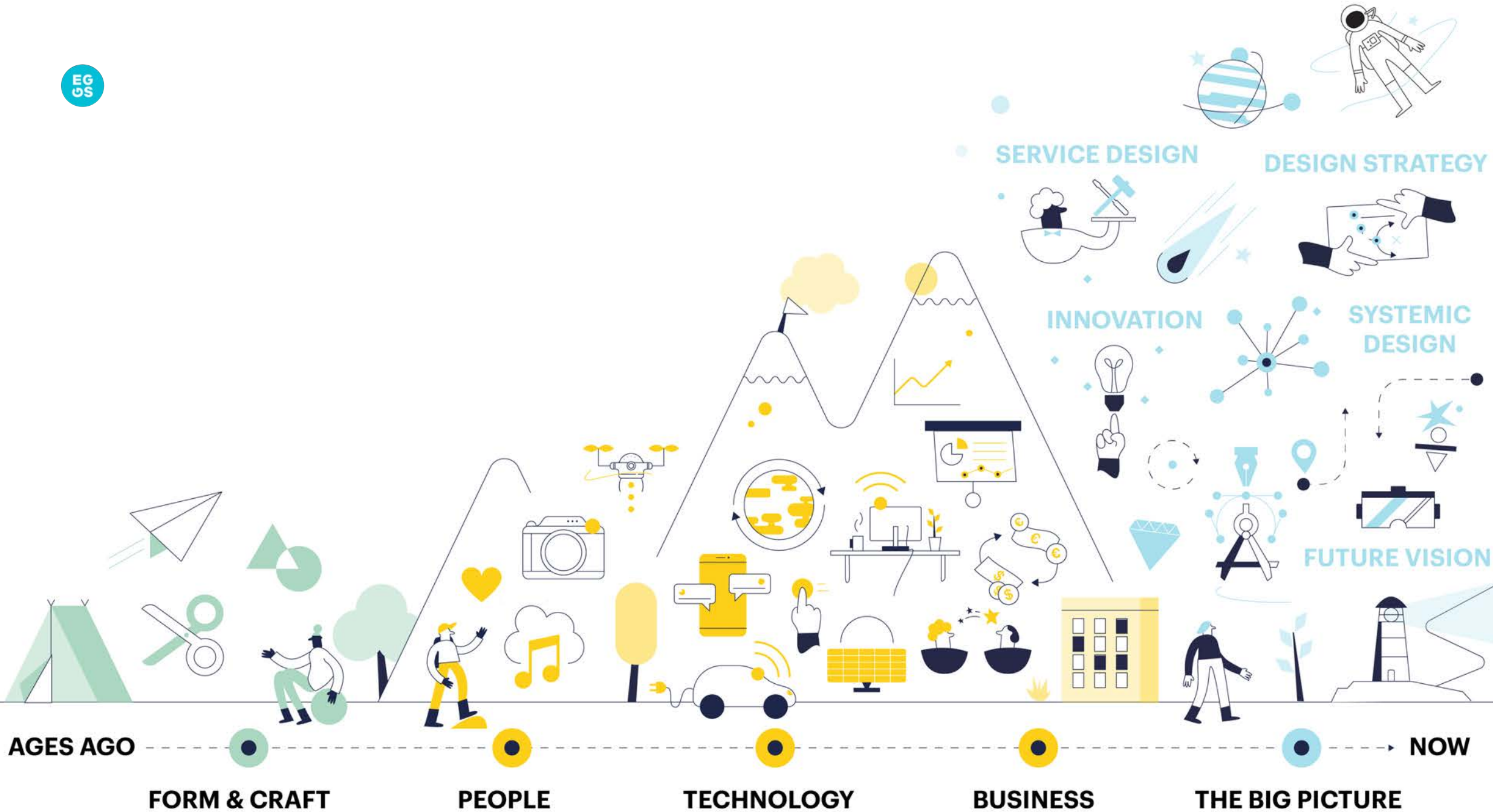


AGES AGO

NOW

FORM & CRAFT







CONNECTED WORLD



HEALTH CARE



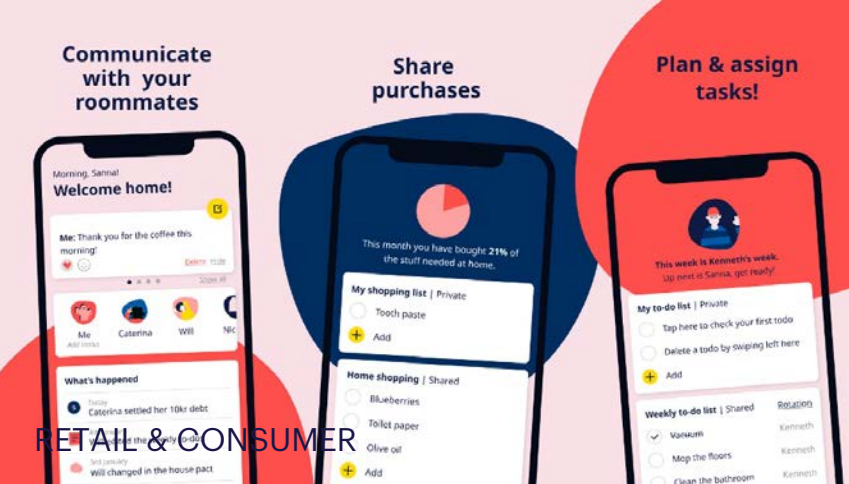
OCEAN SPACE



BANK & FINANCE



MOBILITY & CITIES



RETAIL & CONSUMER



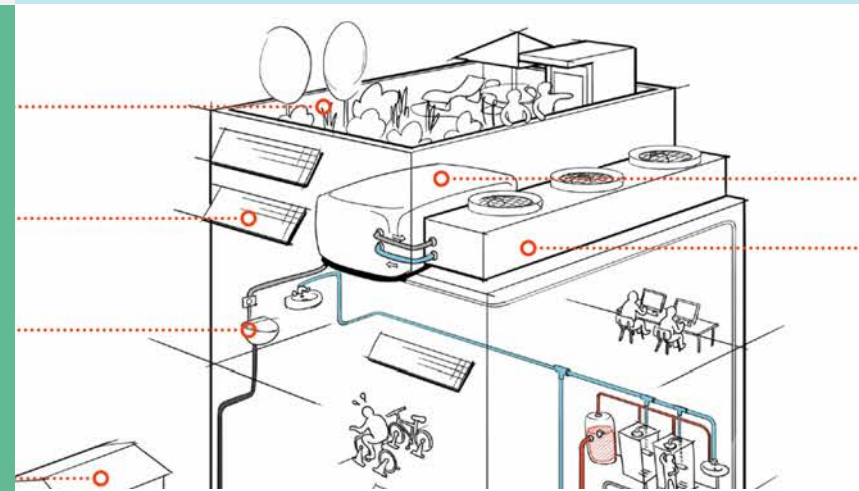
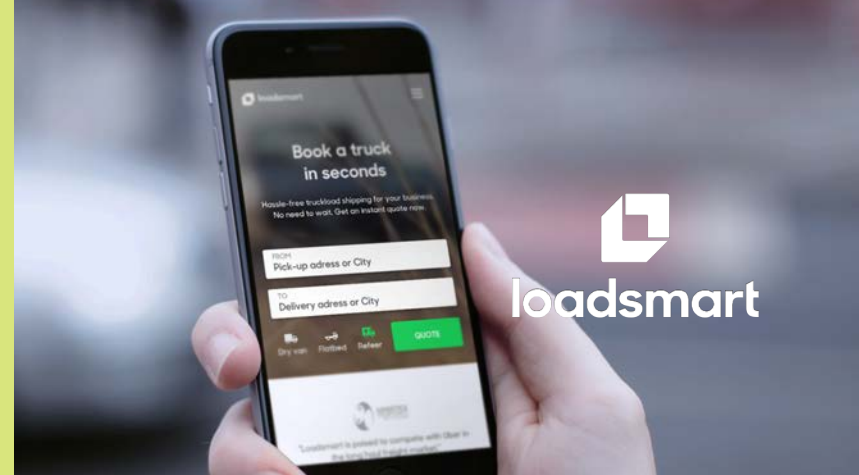
PUBLIC SECTOR



STARTUPS



DESIGN FOR CIRCULAR VALUE STREAMS



A BRIEF INTRODUCTION OF SYSTEMIC DESIGN IN A CIRCULAR CONTEXT

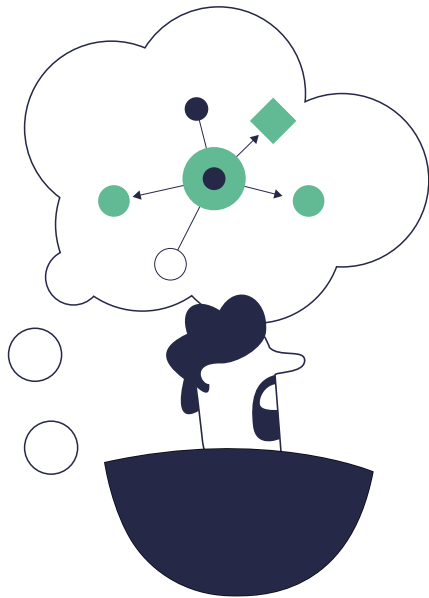




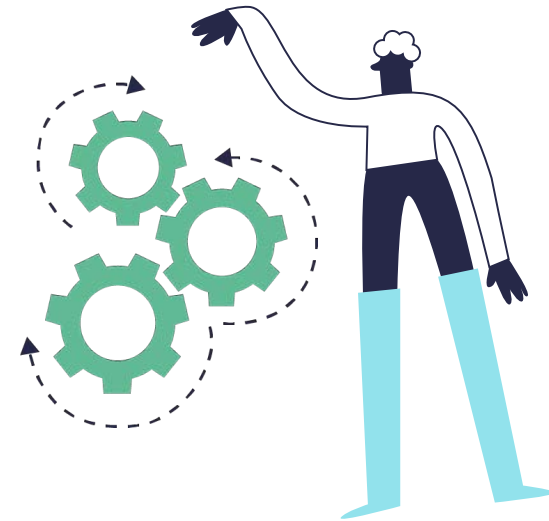
“A system is a set of related components that work together in a particular environments to perform whatever functions are required to achieve the system’s objective.”

Donella Meadows

SYSTEMS THINKING VS. SYSTEMIC DESIGN



A way of thinking

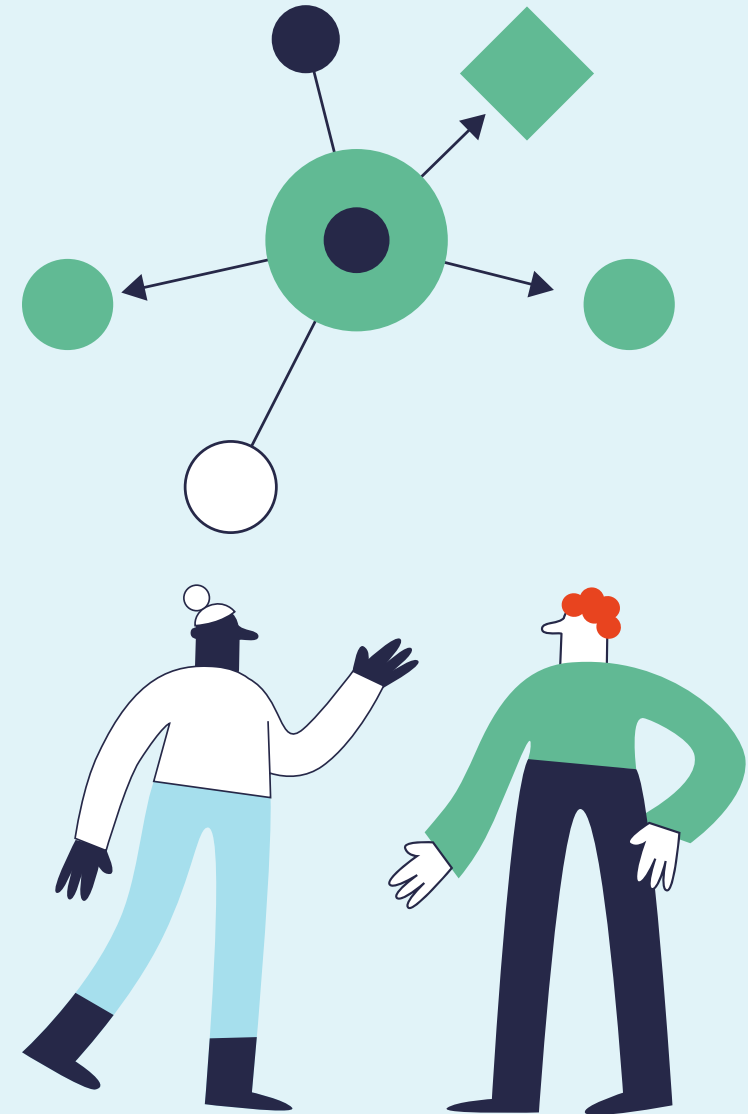


A way off applying

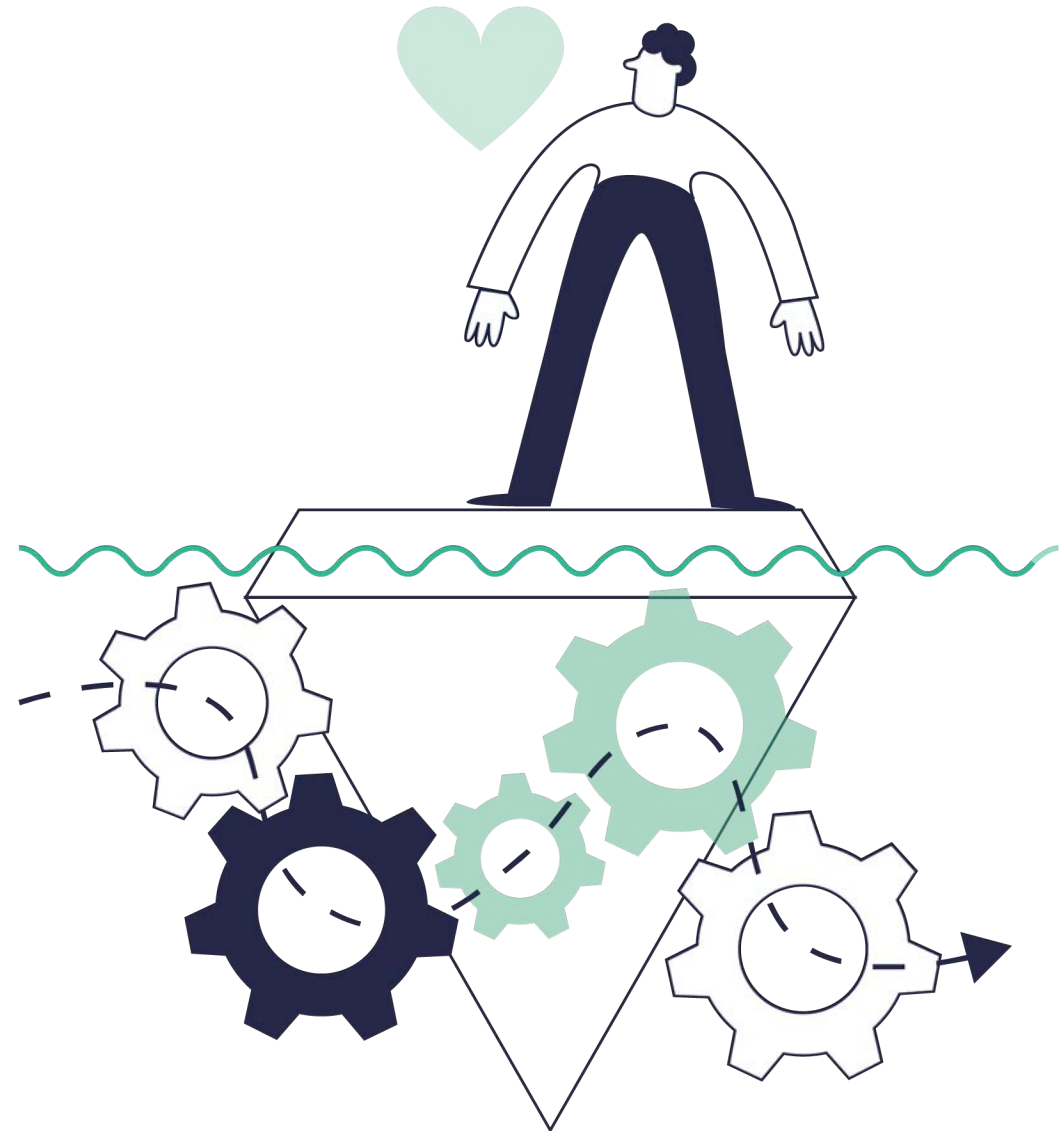


SYSTEMIC DESIGN

“Systemic design is a practical application of systems thinking”



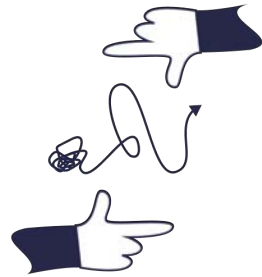
WHY IS SYSTEMIC DESIGN IMPORTANT FOR ENABLING A CIRCULAR ECONOMY?



WHY IS SYSTEMIC DESIGN IMPORTANT FOR ENABLING A CIRCULAR ECONOMY?



Identify
root causes



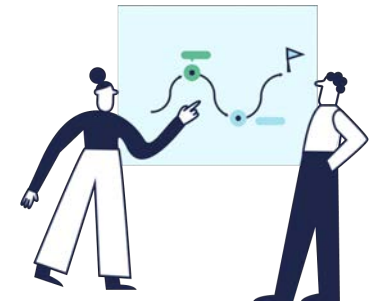
Untangle



Identify barriers and
drivers for change

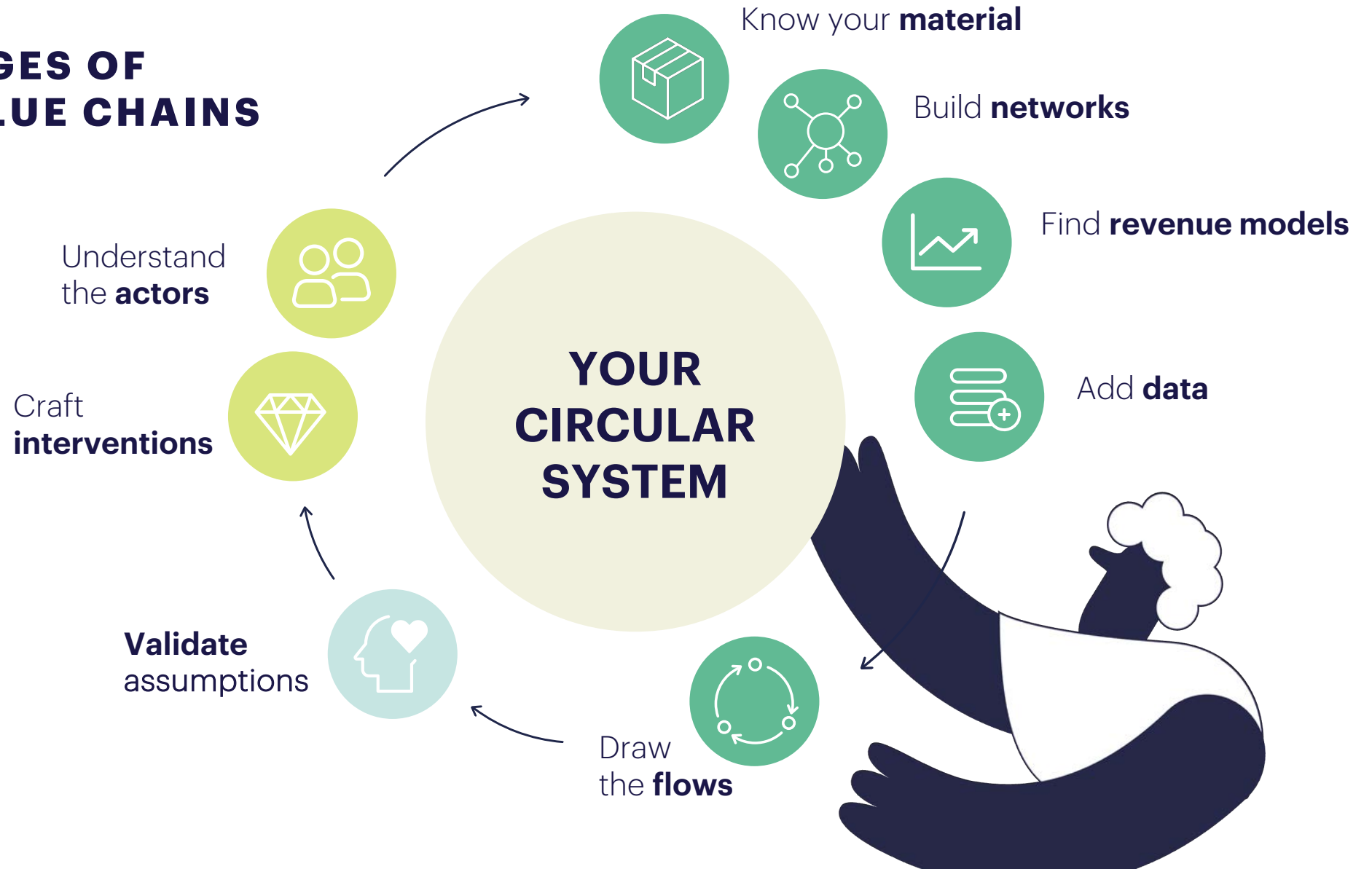


Addressing

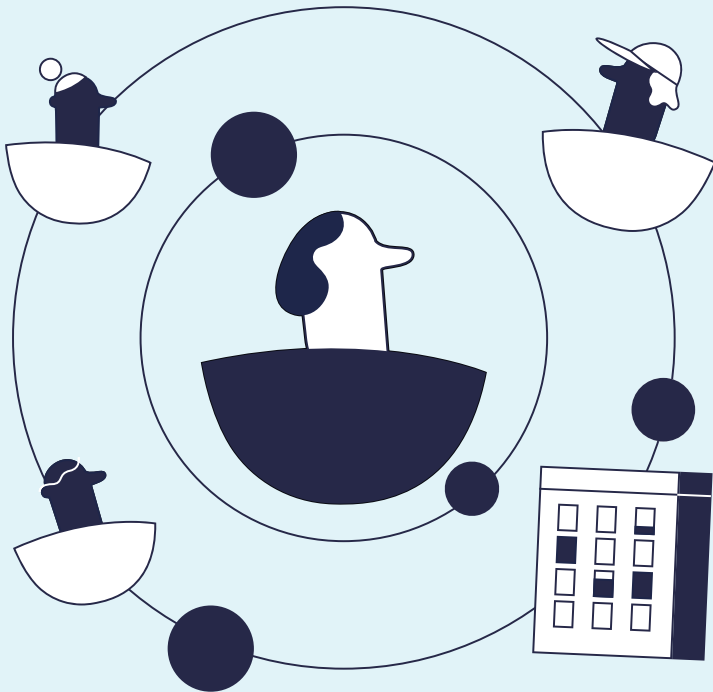


Designing new ways
and exploring outcomes

KEY CHALLENGES OF CIRCULAR VALUE CHAINS



CIRCULAR VALUE STREAMS CHALLENGE #1



UNDERSTAND THE ACTORS

Who are the actors in the chain, what are their needs, where are the blockers?

GRØNT PUNKT



SERVICE
STRATEGY



SERVICE
DESIGN



USER INSIGHT



UX DESIGN



INFORMATION
DESIGN

Start ditt
emballasjeprojekt

Gjenvinner

Konsument

Sortering

Vareprodusent

Handel

Verktøy

EG
US

DESIGN
FOR
EMBALLASJE



GRØNT PUNKT NORGE

Provides financing for the return schemes for plastic, metal and glass packaging, packaging carton, beverage carton and corrugated cardboard.

Operates the collection and recycling of plastic packaging, packaging carton and drink carton.

Returfellesskapet

Ta produsentansvaret for emballasje, EE-produkter og batterier på ett sted.

Plastløftet

Sett plastmål for din bedrift.

Ta deg sammen a'

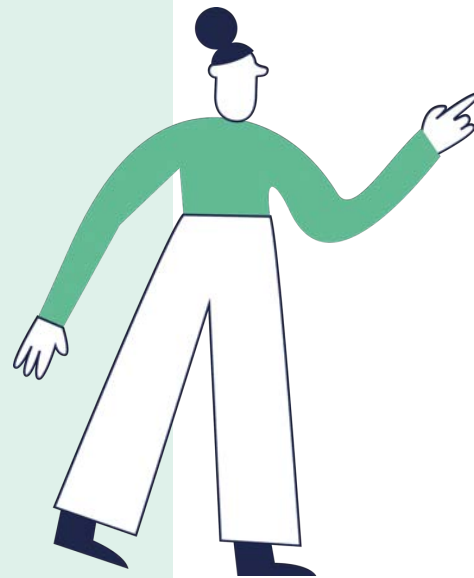
Ikke finn på dårlige unnskyldninger for ikke å kildesortere.

Krav til norske bedrifter

Alle bedrifter som produserer eller importerer emballerte varer må være medlem av et godkjent returselskap.

GRØNT PUNKT'S GOAL

1. **Increase use of recycled plastic for packaging**
2. **Reduce unnecessary use of plastic packaging**
3. **Design for recycling of plastic packaging**

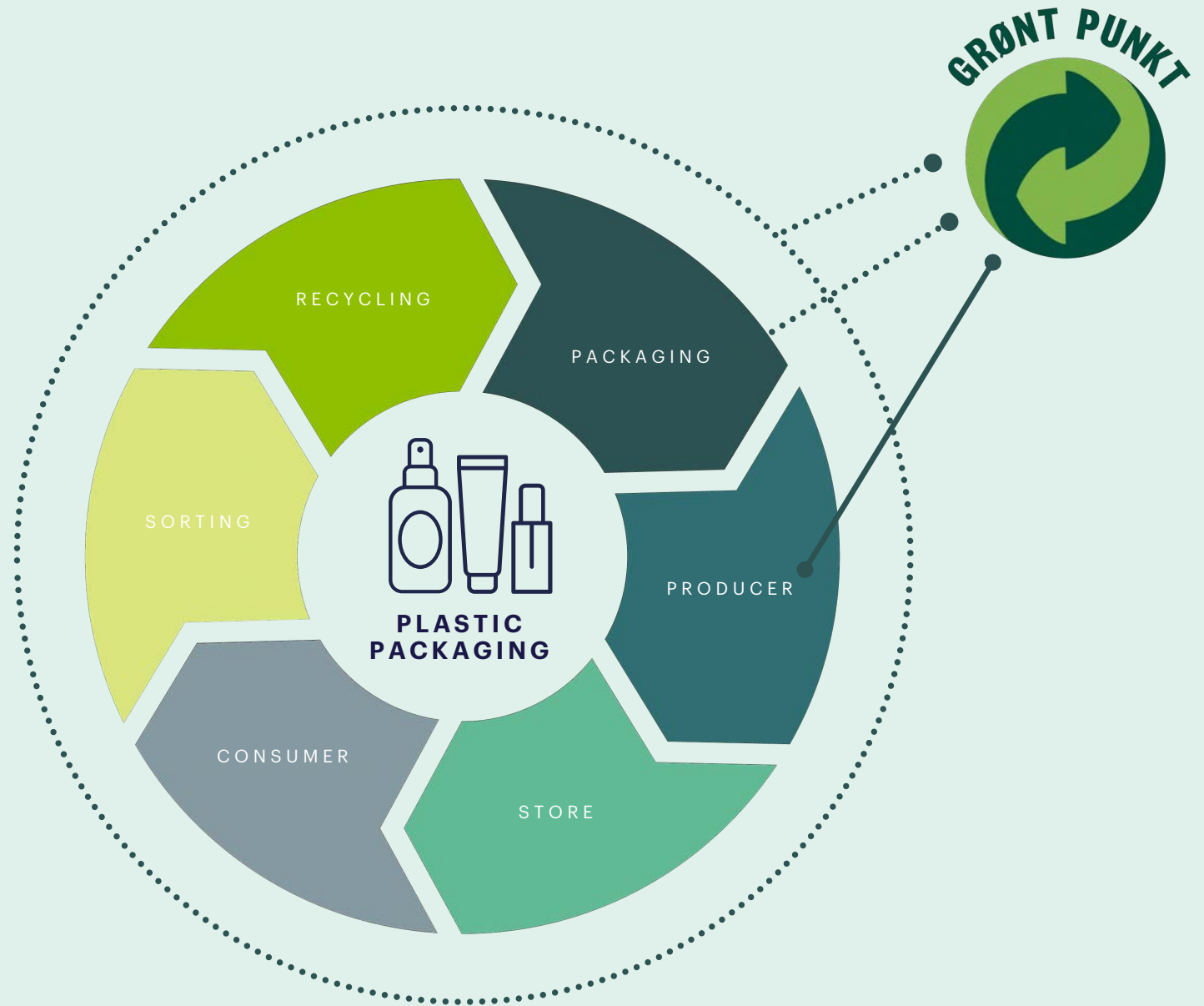


= **TRIPLE BOTTOM LINE**



AREAS OF INFLUENCE

WHERE IN THE VALUE CHAIN COULD WE INFLUENCE?





INSIGHT

UNDERSTANDING THE ACTOR
NEEDS, CHALLENGES, AND
POSSIBILITIES ALONG THE
MATERIAL JOURNEY



INSIGHT

INTERVIEWS

Depth-interviews with:

- Recyclers
- Packaging producers
- Goods producers
- Packaging designers
- Researchers / experts



INSIGHTS



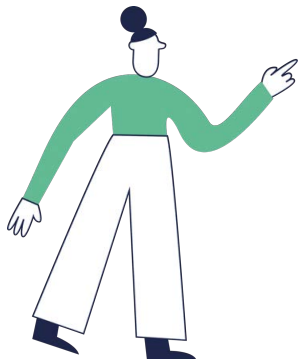
UNAVAILABLE «MENU»
FOR RECYCLED
MATERIALS

UNSURE ABOUT
PERFORMANCE OF
RECYCLED MATERIALS

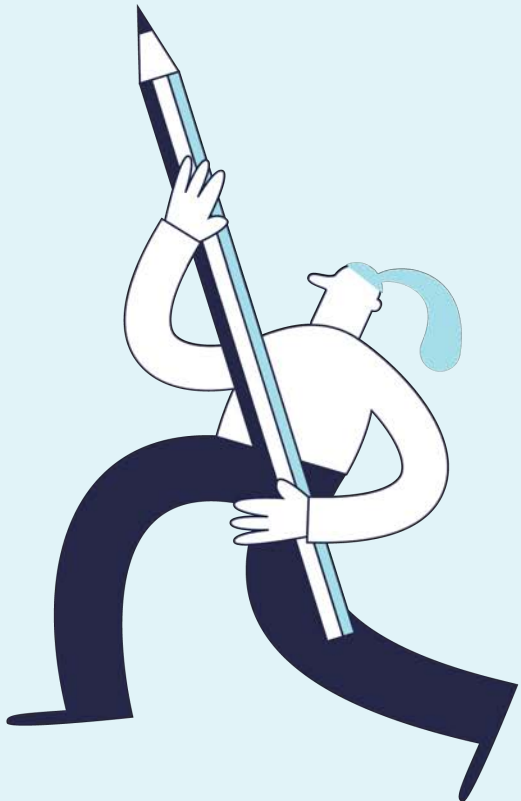
DESIGNERS &
DEVELOPERS LACK
ARGUMENTS AND TOOLS
TO DESIGN CIRCULAR

CIRCULAR PACKAGING
STORIES ARE NOT BEING
USED IN MARKETING

EVERYONE KEEPS
CIRCULAR KNOWLEDGE
TO THEMSELVES



CIRCULAR VALUE STREAMS CHALLENGE #2



CRAFT INTERVENTIONS

Interventions (new products, services, processes, communication, ...) are the changemakers of the chain – where and how to intervene to improve circularity?



INTERVENTION CONCEPTS

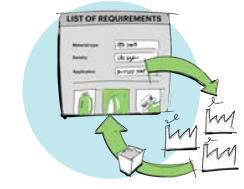
GRØNT PUNKT & EGGS CREATIVE PROCESS



INTERVENTIONS



DATASHEETS



MATERIAL SPECIFICATION



EXPERT-PANEL



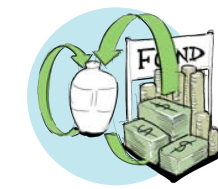
COURSES



VALUE CHAIN OVERVIEW



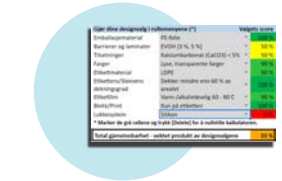
PACKAGING EXAMPLES



INCENTIVE PROGRAM



POTENTIAL -O-METER



DESIGN FOR RECYCLING CALCULATOR

3 ELEMENTS TO ORCHESTRATE

DIGITAL TOOLS

DATASHEETS

VALUE CHAIN OVERVIEW

COURSES

MATERIAL SPECIFICATION

POTENTIAL -O-METER

PACKAGING EXAMPLES

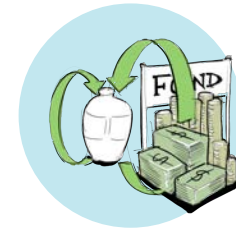
DESIGN FOR RECYCLING CALCULATOR

HUMAN EXPERTISE



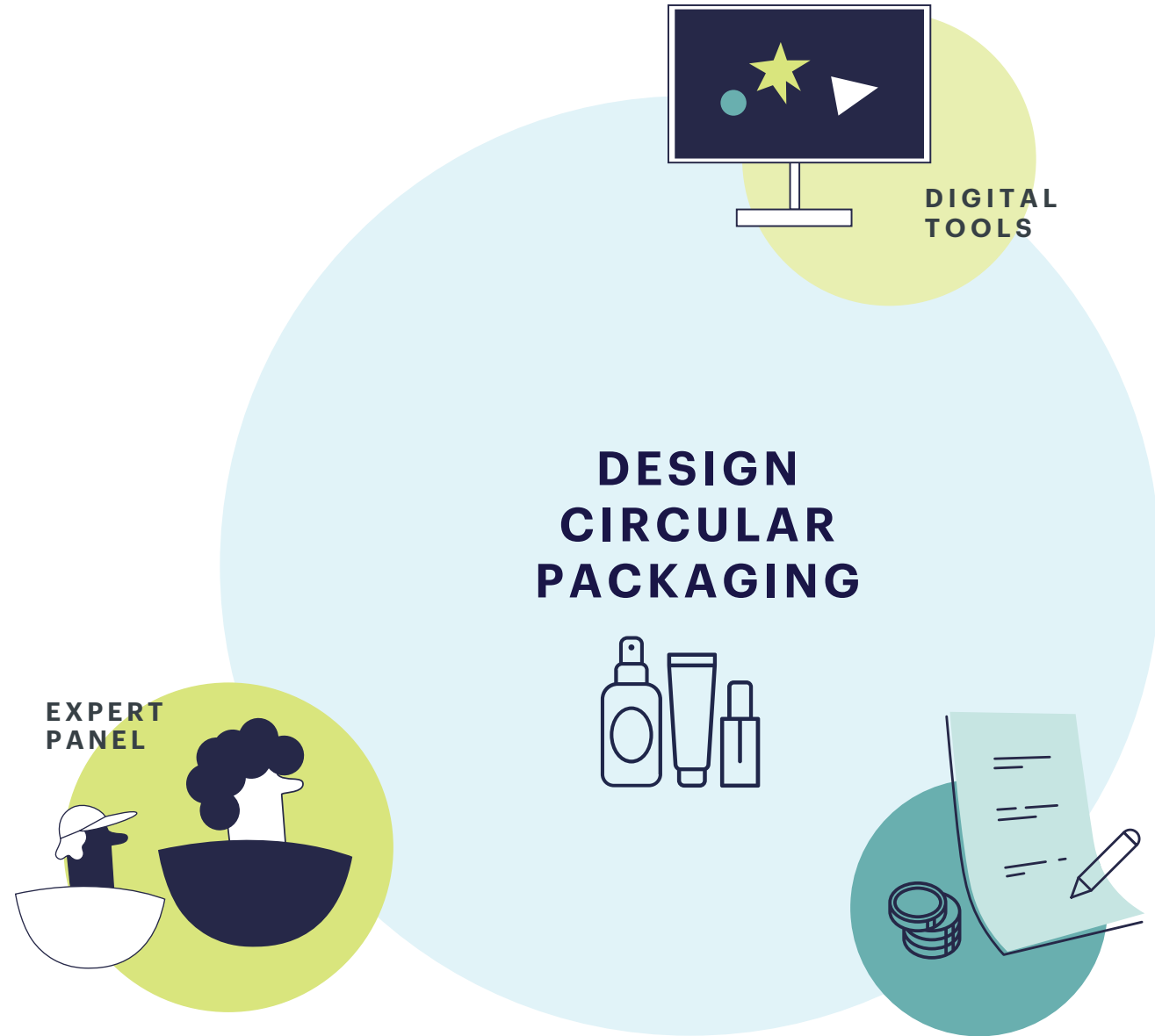
EXPERT-PANEL

ECONOMIC INCENTIVES



INCENTIVE PROGRAM

CONCEPT



**GRØNT PUNKT**

Recyclability Calculator

SERVICE DESIGN, UX, UI, FRONT END

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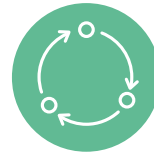
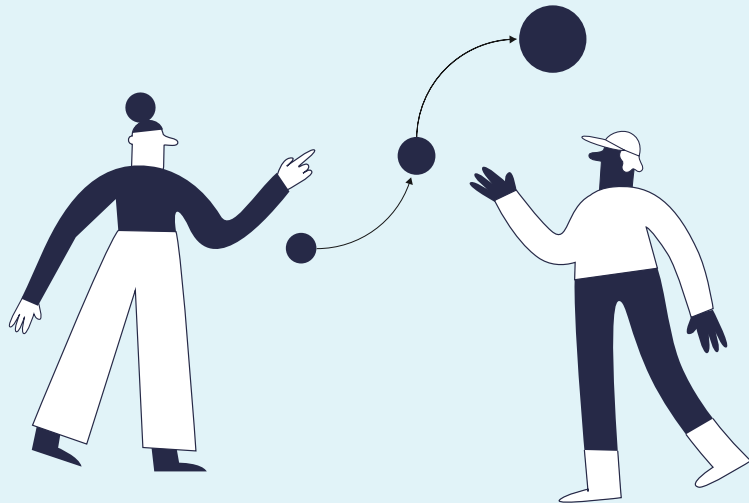


Networks



Revenue models

CIRCULAR VALUE STREAMS CHALLENGE #3



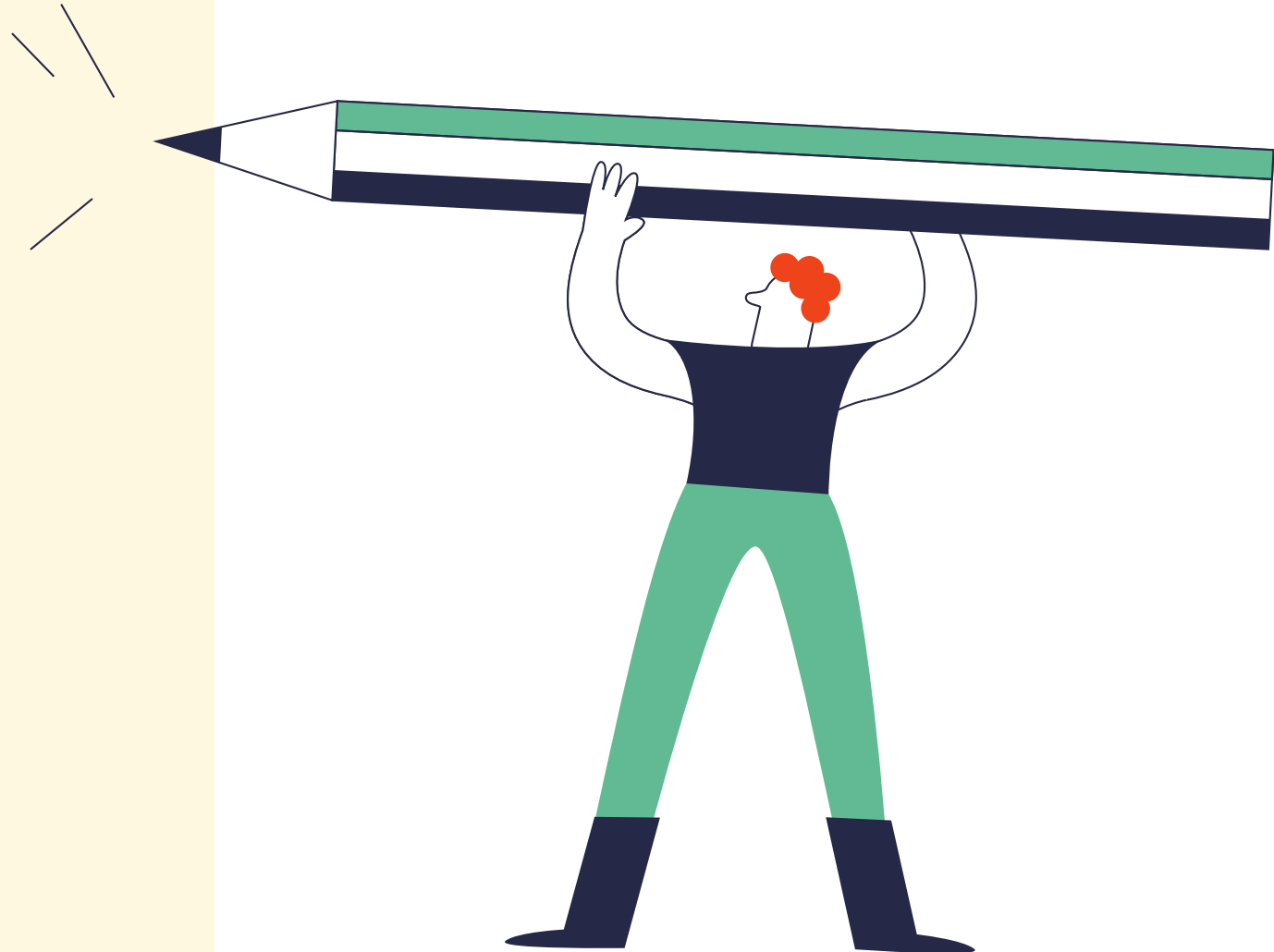
DRAW THE FLOWS

The flows in the value chain are your design material, how to draw them and work creatively with them?

LET'S DRAW

FIND WHITE PAPER
+ MARKERS

Black + 4 different colours





IMAGINE

YOU ARE A STARTUP

Your business idea is to provide offices with circular furniture.

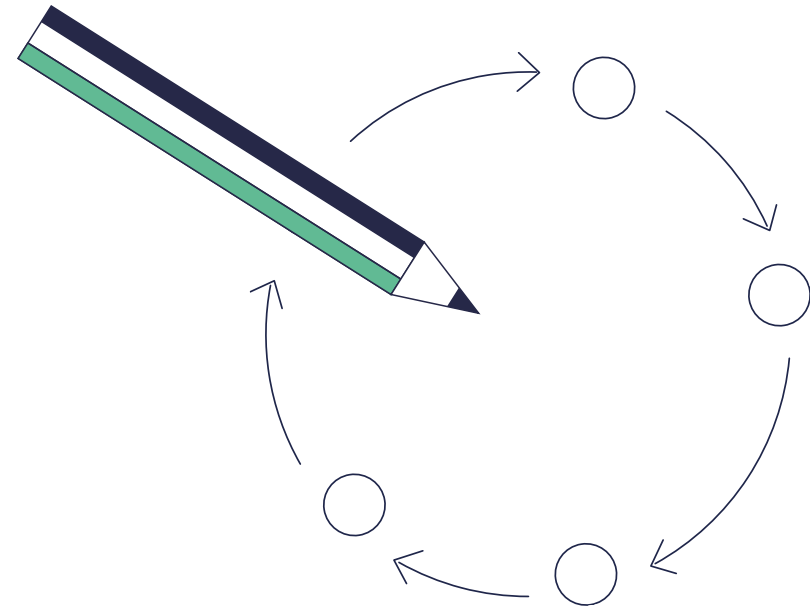




EXERCISE

FLOWS

Draw the circular system
your idea fits into



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INTERACTIVE DISCUSSION ON COMPLEMENTARY PERSPECTIVES



Materials



Networks



Revenue models

Interactive session overview

→ **Discuss.** Hearing from your points of views and challenges. Reflecting on how systemic design viewpoints can help us tackle climate collapse.

→ **Topic discussion volunteering.** By indicating your interest in one a specific topic, we can give each other the opportunity to share within a big audience.

This is an open platform, and any thoughts are welcomed, we want to learn from each other. Please share questions for panel topic in chat window.

Topic 1 Know your material

Which drivers or blockers of the different material strategies have you experienced?

Topic 2 Build Networks

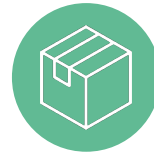
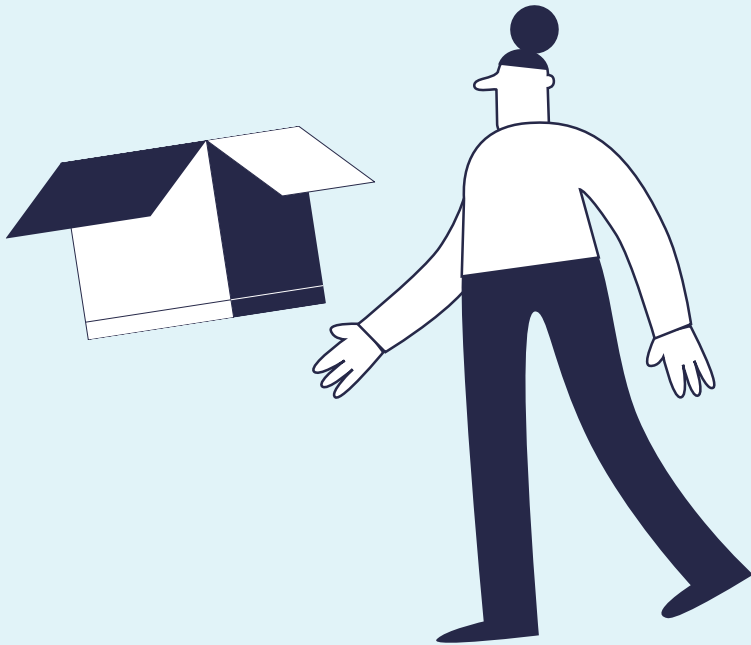
How do companies you know build circular networks?

Topic 3 Find Revenue Models

What are success factors to introduce new circular revenue models?



CIRCULAR VALUE STREAMS CHALLENGE #4



KNOW YOUR MATERIAL

If circular economy is a movie, the material is the hero, always centre stage

EXAMPLE

CAPRIOLE COFFEE WASTE



TYPES OF MATERIAL STRATEGIES



- 1 REUSE**
The common use of a product (or product parts) spread over sequential timeframes.
- 2 SUBSTITUTE**
Replace scarce / toxic / high impact material with more sustainable alternative.
- 3 REDUCE**
Decreasing the amount of material used for a given product.
- 4 REPAIR**
The correction of a specified fault to prolong the product's lifetime.
- 5 RECYCLE**
The valorization of industrial production residues or materials from end of life products into the same or other production chains
- 6 REMANUFACTURE**
Return product /component to original specifications (remanufacturing) or to satisfactory working conditions (refurbishment).



TYPES OF MATERIAL STRATEGIES QUESTION

Which **drivers or blockers**
Of the different material
strategies have you
experienced?

- 1 REUSE**
The common use of a product (or product parts) spread over sequential timeframes.
- 2 SUBSTITUTE**
Replace scarce / toxic / high impact material with more sustainable alternative.
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CIRCULAR VALUE STREAMS CHALLENGE #5



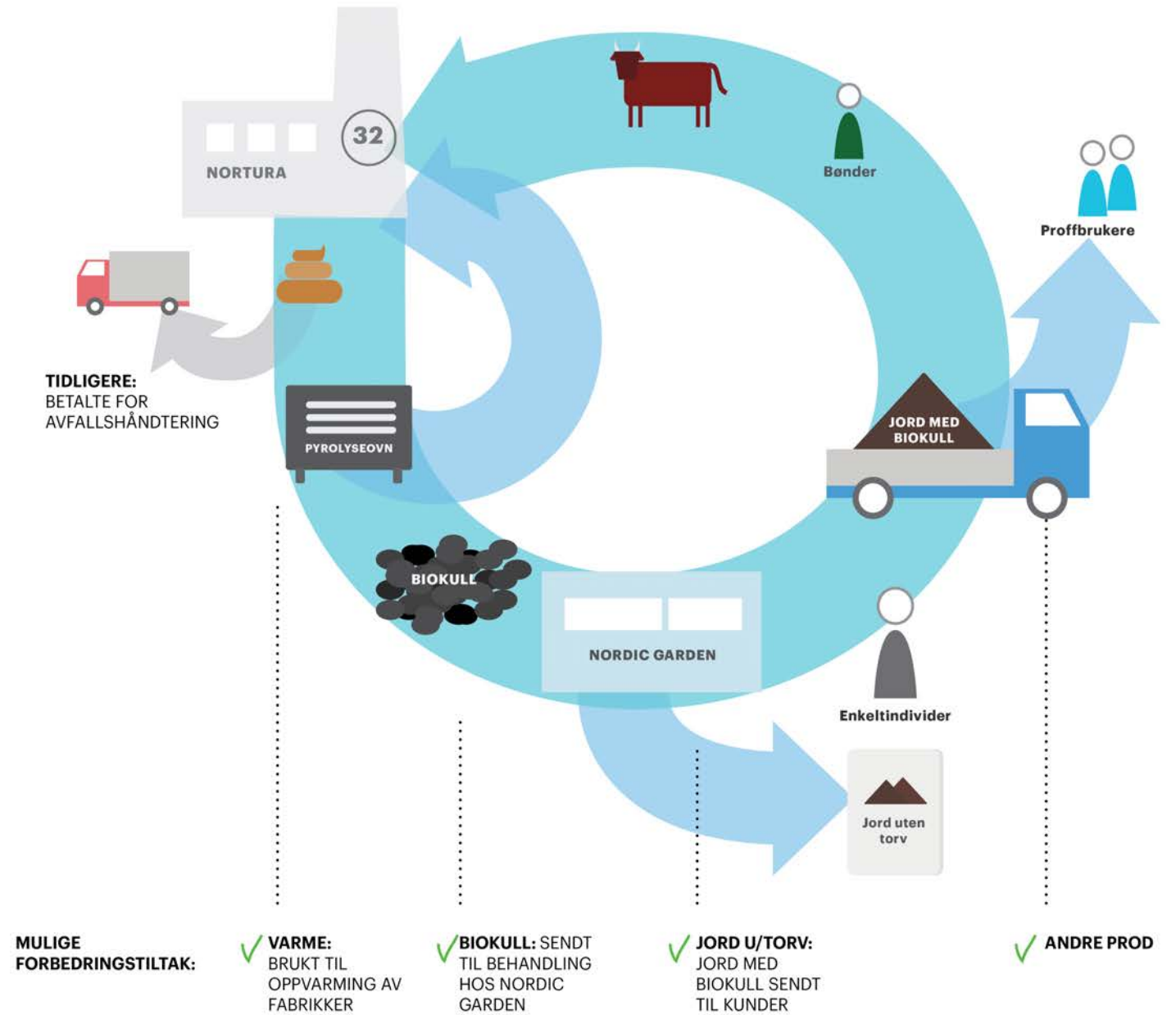
BUILD NETWORKS

New cooperations gives a grip on a larger part of the value chain

NORTURA & FELLESKJØPET

Circular Cows: bringing Slaughterhouse-waste back to soil as charcoal for carbon capture.

Design Research, Insight, Service Design, Concept development



TYPES OF CIRCULAR NETWORKS



- 1 INDUSTRIAL SYMBIOSIS**
The waste stream of one becomes input of another
- 2 TAKE BACK SYSTEM**
Logistics for taking back end-of-life products from the customer
- 3 PLATFORM**
An online or on-site solution to facilitate matching of supply and demand of materials or assets
- 4 LOCALIZATION**
Organizing the physical flows of resources and products on a local scale
- 5 VALUE NETWORK**
Collaboration between companies, government, communities, NGOs to achieve a common goal
- 6 KNOWLEDGE PARTNERSHIPS**
Collaboration with competence environments to achieve goals



TYPES OF CIRCULAR NETWORKS

QUESTION

How do companies you know build circular networks?

- 1 INDUSTRIAL SYMBIOSIS**
The waste stream of one becomes input of another
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CIRCULAR VALUE STREAMS CHALLENGE #6



FIND REVENUE MODELS

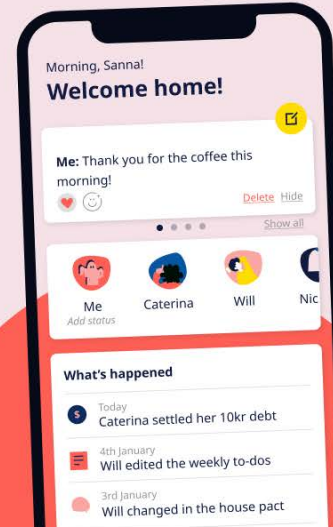
How do we create immaterial value
- to earn more from selling less?



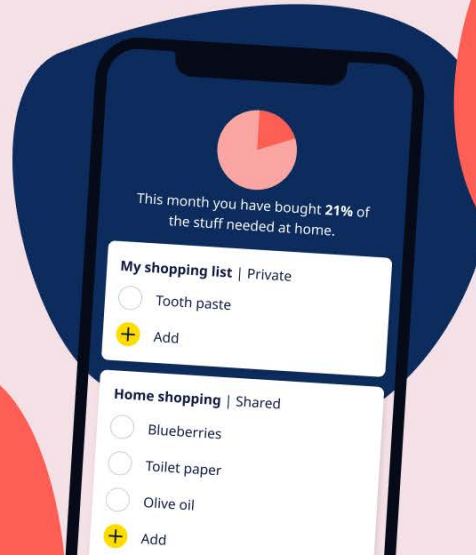
Navigating the transition from product to scalable services.



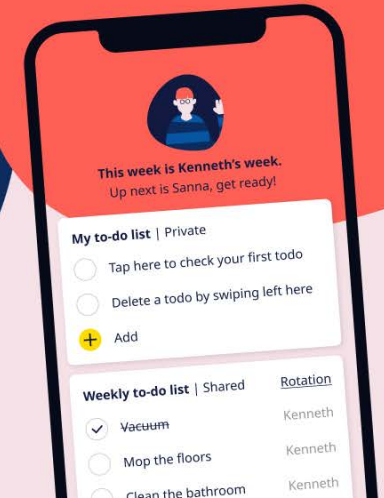
Communicate with your roommates



Share purchases



Plan & assign tasks!



TYPES OF CIRCULAR REVENUE MODELS



1

ADDED SERVICES

Extension of services around a product (e.g., repair service, extended warranty,...).

2

LEASE/RENT

Product-service system focused on the provision of a service by renting/leasing a product

3

SELL RESULT

Product-service system entirely focused on delivery of a performance (e.g. amount of clean products).

4

SHARE

Generating customer value by enabling the shared use of their assets

5

PREMIUM

Enabling a price premium by highlighting/guaranteeing quality and or environmental claims (e.g. certificates, environmental stewardship,...).

6

COST REDUCTION

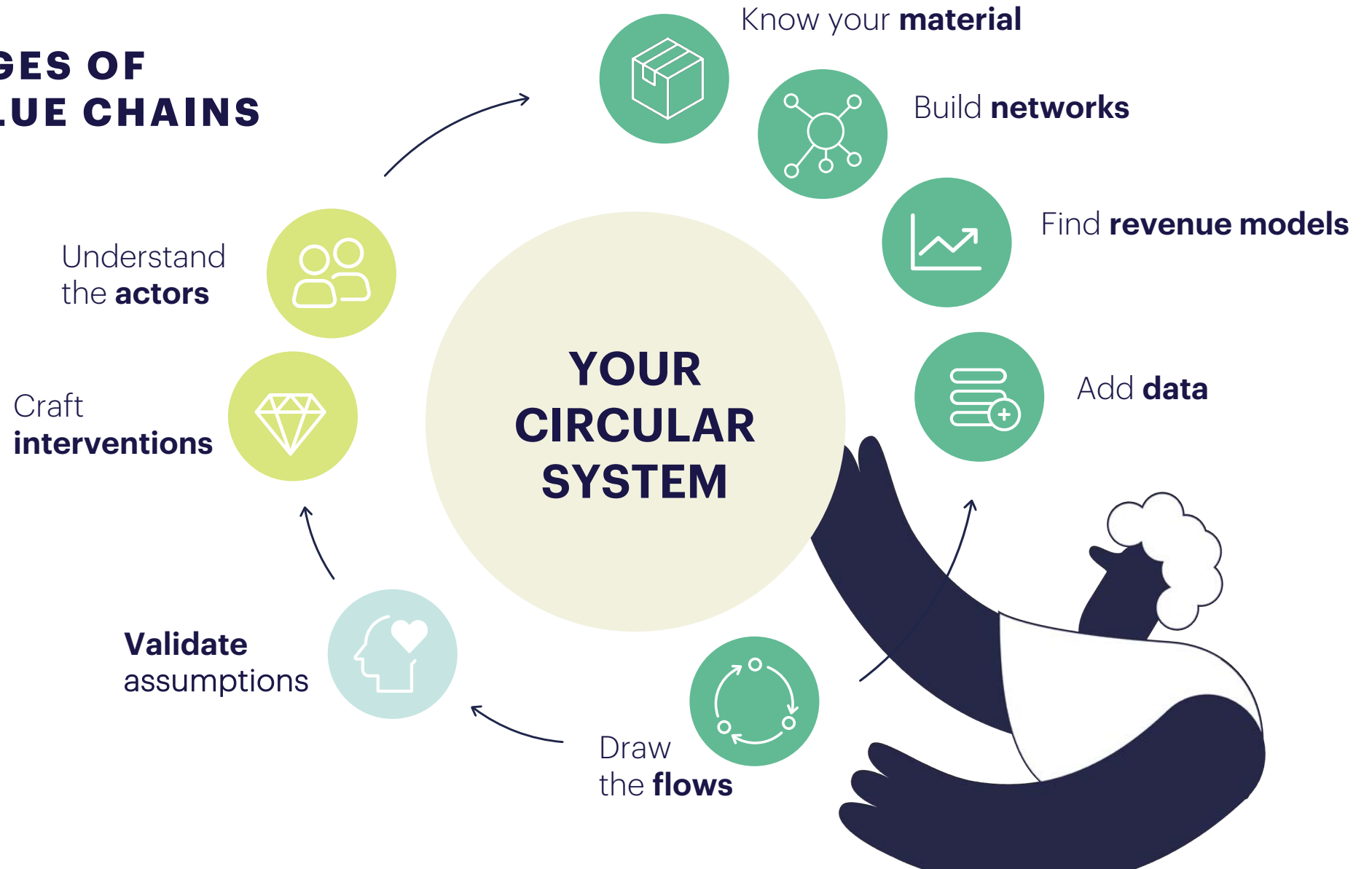
Providing the customer with a cost reduction (e.g. shared use, avoiding waste handling fees, reducing resource consumption,...).

TYPES OF CIRCULAR REVENUE MODELS QUESTION

What are **success factors** to introduce new circular revenue models?

- 1 ADDED SERVICES**
Extension of services around a product (e.g., repair service, extended warranty,...).
- 2 LEASE/RENT**
Product-service system focused on the provision of a service by renting/leasing a product
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Generating customer value by enabling the shared use of their assets
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KEY CHALLENGES OF CIRCULAR VALUE CHAINS



Follow up

→ **Closing and connecting.** Use of MIRO board to keep contact and share the results from this first session.

Share Share inspiration and tools that help you apply systemic thinking in your process

Questions Share or answer questions from the community, cross pollinate and connect for collaboration

KS Next steps We would like to hear from you how to keep shaping this KS to deliver most value to the community.





let's
craft
lovable
futures

#lovablefutures | eggdesign.com

Circular,
together!

CIRCULAR
DESIGN
FORUM