Circular Economy Workshop Series

Business Hooks for Closing Loops

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Aalto Sustainability Hub

Oct 1, 2019

The Project

CIRCULAR ECONOMY

WORKSHOP SERIES

A forum for knowledge sharing in circular economy and cross-disciplinary communication for successful collaborations

1st: Business Hooks for Closing Loops
Oct 1, 2019, 13:30-16:30
Väre F102

2nd: The Dilemmas of Disassembly
Nov 5, 2019, 13:30-16:30
Sähkömiehentie 4 J
*A group will be leaving from Brooklyn Cafe at 13.10

3rd: Building Circular Economy Language Skills
Nov 12, 2019 9:30-12:30
Väre M202

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The Team

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Workshop Agenda

1. **What is the Circular Economy?**
   - ✓ Team Activity: Building a Circular Economy Definition
2. **What is a Business Model and How to Use it?**
   - The Business Model & Business Model Canvas
     - ✓ Examples
   - A Circular Business Model Canvas
     - ✓ Team Activity: Applying the Canvas to a Case

---------- Break ----------

3. **Exploring Circular Economy Visual Frameworks & Business Model Interventions**
   - EU Commission Diagram
   - Ellen MacArthur Foundation “Butterfly Diagram”
4. **Teamwork: Closing the Loop for a Product Example**
   - Review SITRA Circular Value Chain
5. **Feedback**

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(De) Find | Your Team Circular Economy

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Find people who have same-color words as you have, and complete the sentence associated to your color:

Circular Economy is a system that minimizes resource input, waste, emission leakage, and energy consumption.

Circular Economy design and business model strategies should focus on slowing, closing, narrowing material and energy loops.

Different from linear economy, repair, reuse, remanufacturing, refurbishing , and recycling are encouraged in circular economy.

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Defining the Circular Economy

“Regenerative system in which **resource input and waste, emission, and energy leakage are minimised** by **slowing, closing, and narrowing material and energy loops.** This can be achieved through **long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling”**

Geissdoerfer et al., J. Cleaner Prod. 143 (2017) 757-768

5 mins

Get to know your team

1. Who are you?
2. What is your background and research interest?
3. In fall, I love to do....

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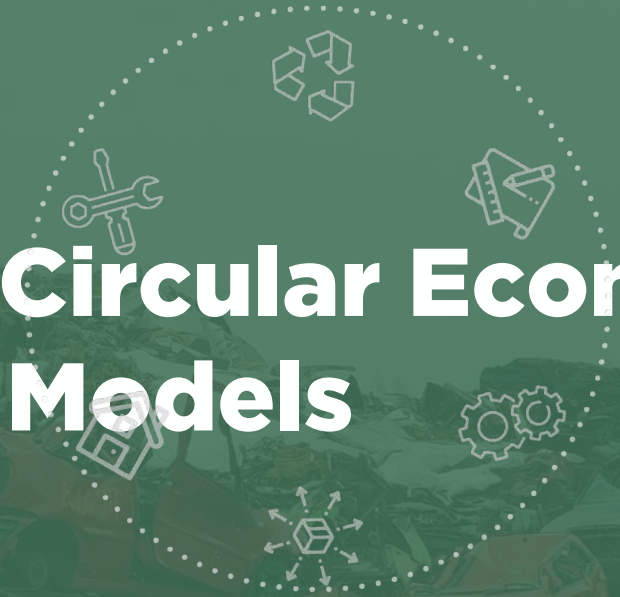
Linking the Circular Economy to Business Models



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VIDEO
https://youtu.be/__0Spwj8DkM

What is a Business Model?

A **company's plan for making a profit in a specific marketplace.**

Identifies the:

- **Products or services** the business will sell
- **Target market** it has identified
- **Costs** it anticipates

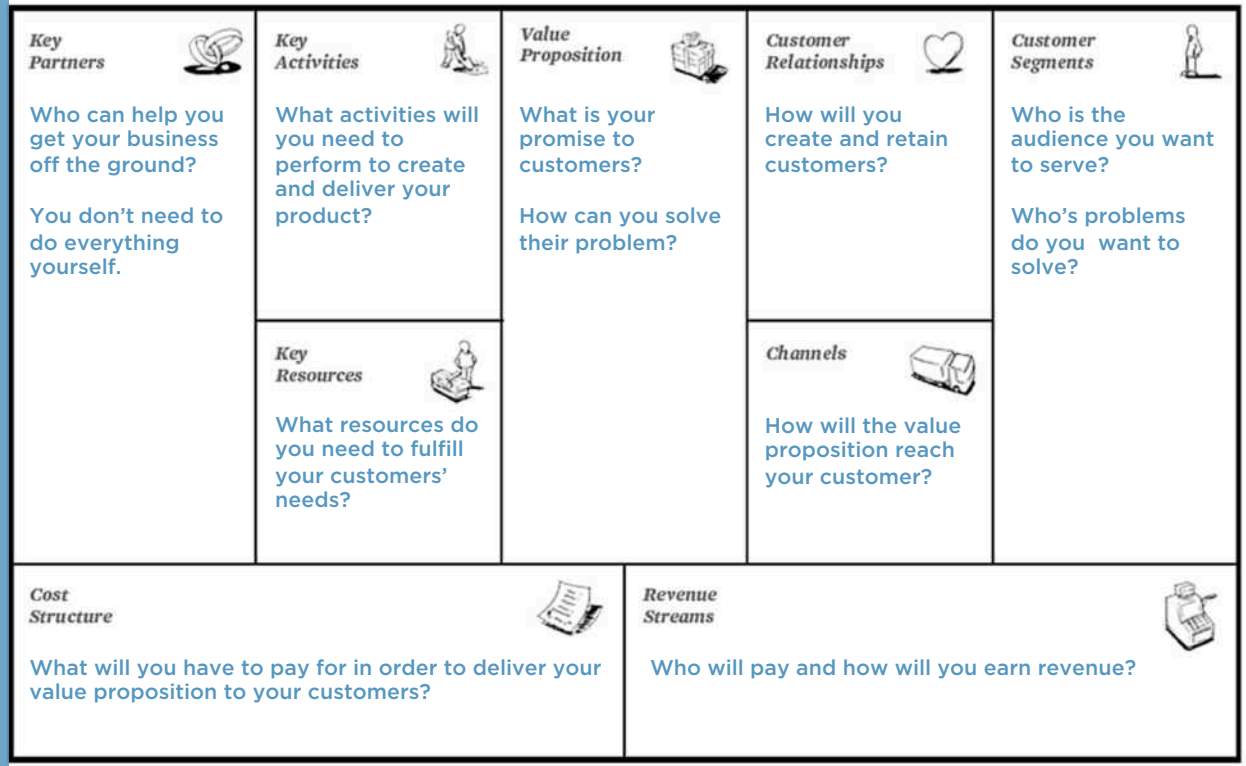
Key component is the **value proposition**, which communicates

- **What products or services** a company offers
- **Why** they are **best suited** for a customer segment
- **How** they **differ** from those of competitors i.e. better solve a problem

Source: Investopedia

The Osterwalder Business Model Canvas

- Visually lays out the nine building blocks of how a business is run
- Right half: part of the business facing the customer
- Left half: everything that the business must have or do to offer right half



Source: Osterwalder, A. & Pigneur, Y. (2010). Business Model Generation

VIDEO
https://youtu.be/wlKP-BaC0jA

IKEA Business Model Canvas

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Key Partners

Wood growers & harvesters

Manufacturing firms

Transportation firms

Delivery companies

Key Activities

Designing & manufacturing mod ular furniture

Advertising & marketing

Customer service

Key Resources

Physical: Infrastructure (megastores, trucks, lifting equipment etc.)

Labor: particular skills

Value Proposition

Affordable Home Furniture

DIY easy to assemble & transport

The Ikea Experience

Childcare on site, dining options, family experience

Customer Relationships

Ikea Family loyalty program

In Store Associates

Assembly & Delivery

Restaurant

Childcare

Channels

Megastores

Catalogs

Ikea Family email subscriptions

Online store

Customer Segments

Price-conscious customers

Students

Small businesses

Cost Structure

Raw materials
Advertising
Transportation

Manufacturing
Labor

Revenue Streams

Furniture sales
Service fees (e.g. delivery, assembly)
Restaurant sales
Accessories sales (e.g. tools, towing equipment)

Adapted from: https://canvanizer.com/canvas/1MaI4WS_4Bc

Case study Fairphone

The modular phone that's built to last

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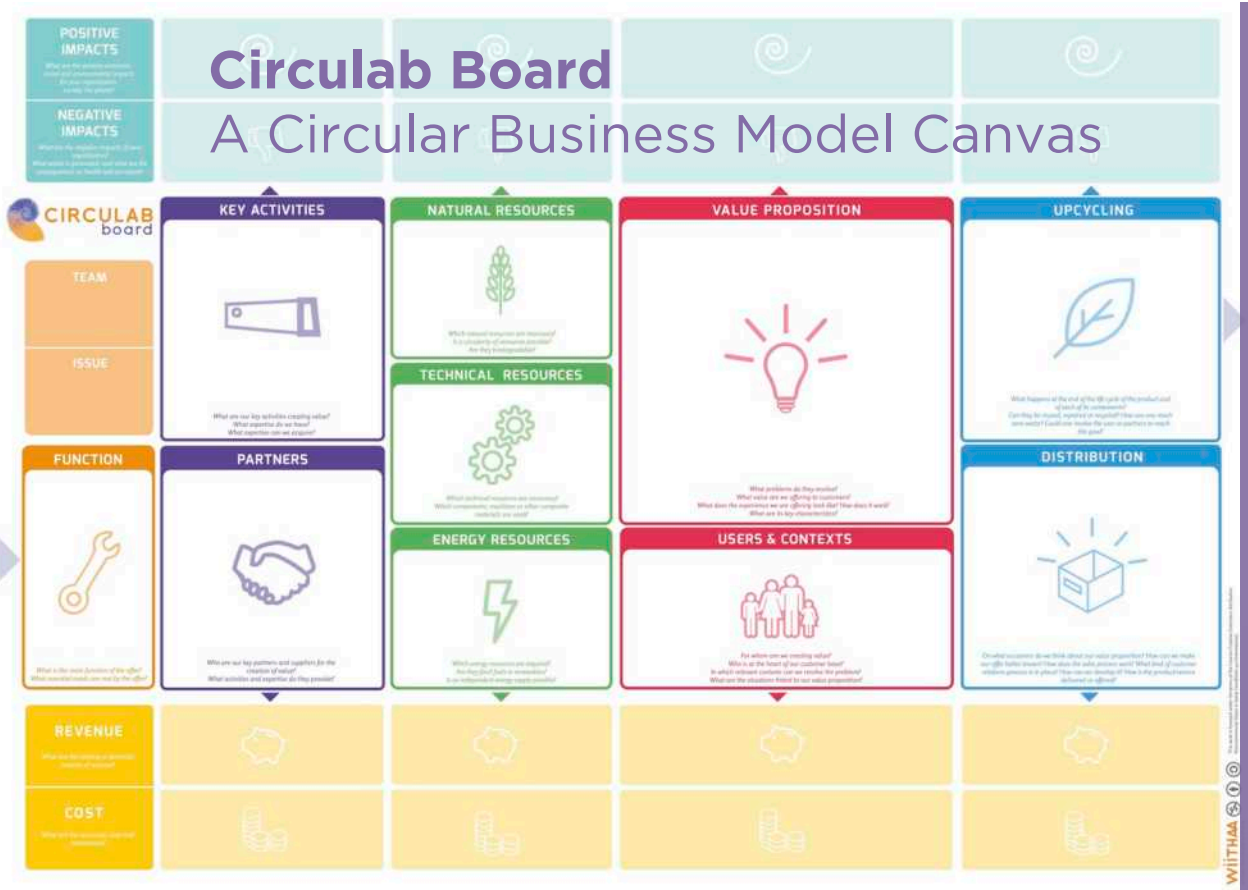
VIDEO
https://youtu.be/6DW733G76BY

Time to practice: Fill the canvas for Fairphone



What's the difference?

Where would you start?

Source: Circulab.eu

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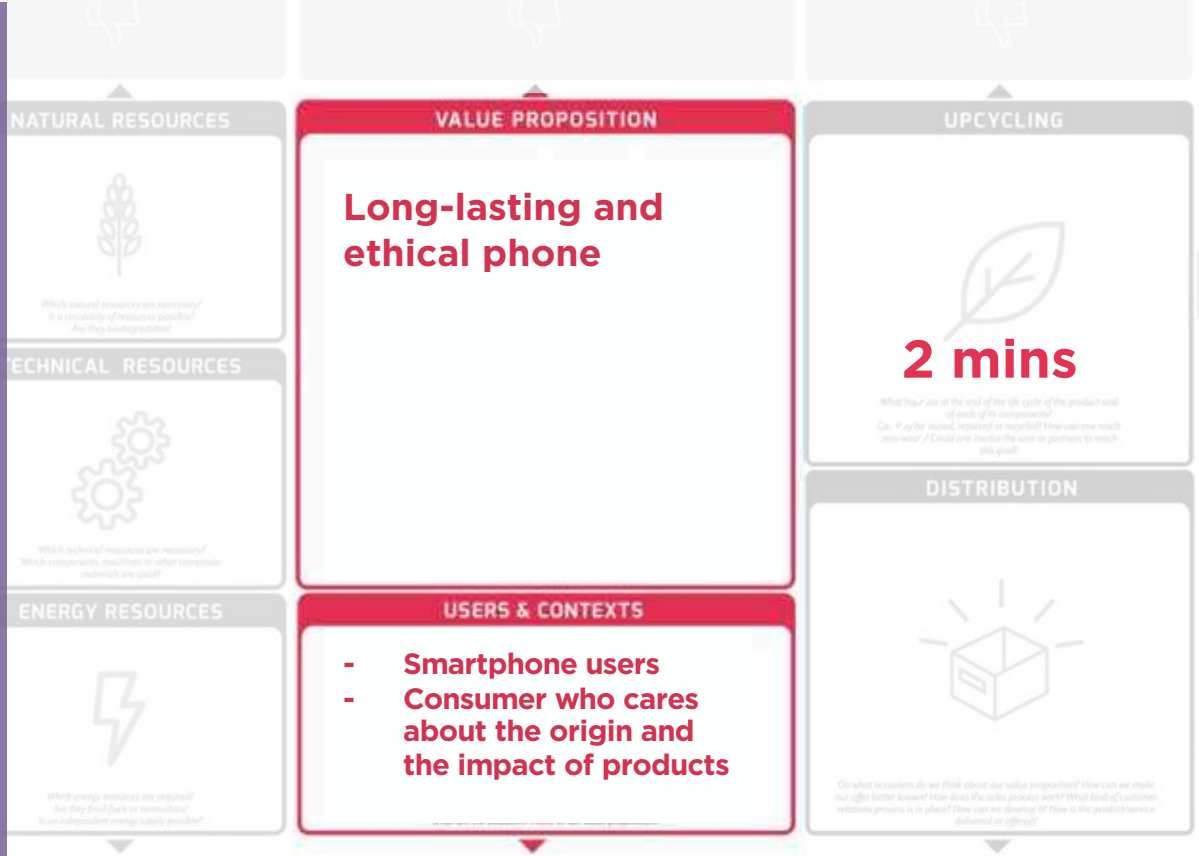
Time to practice: Fill the canvas for Fairphone

Circulab Board
A Circular Business Model Canvas

Red boxes first!



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POSITIVE IMPACTS

NEGATIVE IMPACTS

CIRCULAB board

TEAM

ISSUE

KEY ACTIVITIES

What are our key activities creating value?
What expertise do we have?
What expertise can we acquire?

NATURAL RESOURCES

Which natural resources are necessary?
Is a circularity of resources possible?
Are they biodegradable?

VALUE PROPOSITION

What problems do they resolve?
What value are we offering to customers?
What does the experience we are offering look like? How does it work?
What are its key characteristics?

UPCYCLING

- ‘Take back’ program
- Sell spare parts & offer repair tutorials

TECHNICAL RESOURCES

Which technical resources are necessary?
Which components, machines or other composite materials are used?

2 mins

FUNCTION

Design for modularity and reparability

2

PARTNERS

Who are our key partners and suppliers for the creation of value?
What activities and expertise do they provide?

ENERGY RESOURCES

Which energy resources are required?
Are they fossil fuels or renewables?
Is an independent energy supply possible?

USERS & CONTEXTS

For whom are we creating value?
Who is at the heart of our customer base?
In which relevant contexts can we resolve the problem?
What are the situations linked to our value proposition?

DISTRIBUTION

- Social media: E-news, Fb, Twitter, Instagram
- Sales through mobile service providers partners
- Storytelling

POSITIVE IMPACTS

NEGATIVE IMPACTS

CIRCULAB board

TEAM

ISSUE

FUNCTION

KEY ACTIVITIES

- Manufacture phone
- R&D to improve design

PARTNERS

- Mining partners
- Local collect partners
- Technical partners
- Recycled partners
- Manufacturing partners

4

NATURAL RESOURCES

- Recycled materials
- Conflict-free and fair materials
- Other materials

TECHNICAL RESOURCES

- Design
- Recyclability R&D

ENERGY RESOURCES

- Increase the use of renewable energy

VALUE PROPOSITION

4 mins

What problems do they resolve?
What value are we offering to customers?
What does the experience we are offering look like? How does it work?
What are its key characteristics?

USERS & CONTEXTS

For whom are we creating value?
Who is at the heart of our customer base?
In which relevant contexts can we resolve the problem?
What are the situations linked to our value proposition?

UPCYCLING

What happens at the end of the life cycle of the product and of each of its components?
Can, if so, be reused, repaired or recycled? How can one reach zero waste / Could one involve the user or partners to reach this goal?

DISTRIBUTION

On what occasions do we think about our value proposition? How can we make our offer better known? How does the sales process work? What kind of customer relations process is in place? How can we develop it? How is the product/service delivered or offered?

POSITIVE IMPACTS

- Collaboration with ethical partners
- Provide better working condition

- Use of recycled materials
- Refuse to use conflict minerals.

6

- The design make the materials loop possible
- Positive impacts of a social enterprise
- Awareness in product design, recyclability

- The ability for reused, repaired & recycled of products

NEGATIVE IMPACTS

- Still use raw materials

- Energy use in transportation

TEAM

ISSUE

TECHNICAL RESOURCES

4 mins

FUNCTION

PARTNERS

ENERGY RESOURCES

USERS & CONTEXTS

DISTRIBUTION

REVENUE

- Use of recycled materials

- Revenue from selling the phone or spare parts

5

COST

- Manufacturing
- R&D fund
- Employee salary

- Materials cost

- Online media campaign
- Transportation

There’s no single right answer!
It’s more about how to link different boxes.

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Time for
a 15 mins break
Enjoy some
refreshments!

Exploring Circular Economy Visualizations

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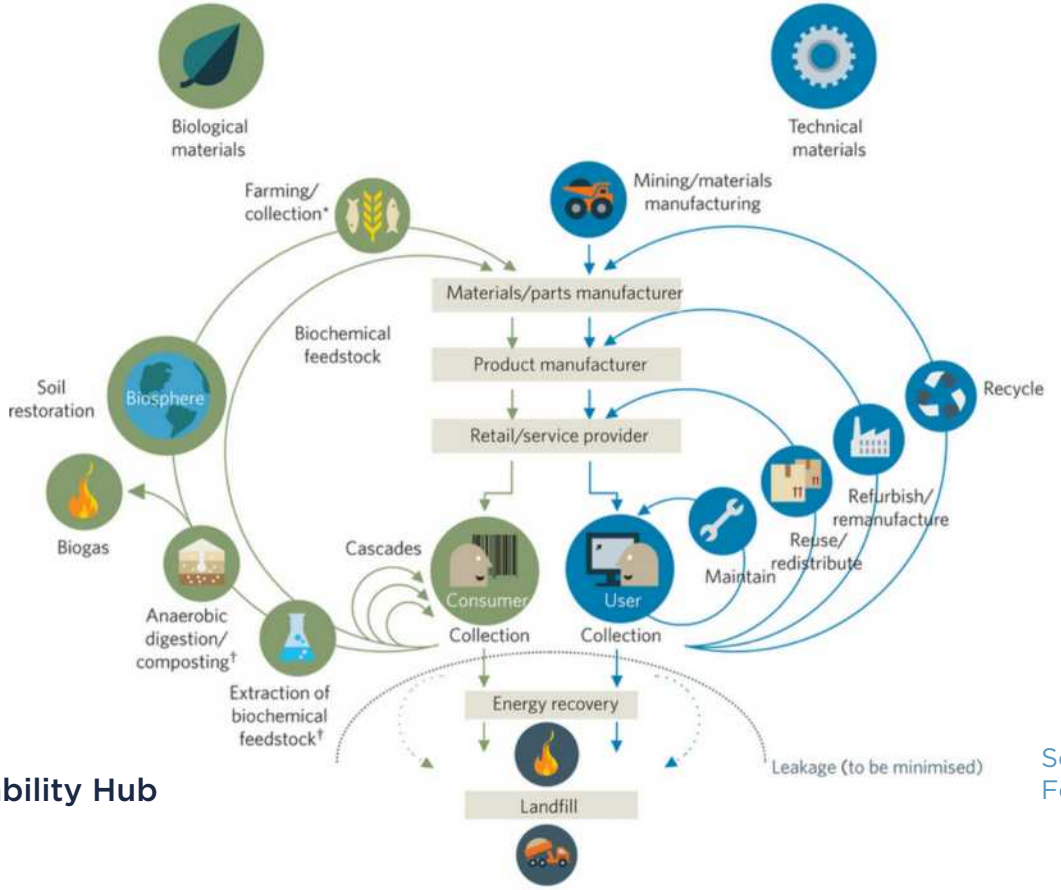
Circular Economy an EU Perspective

- EU depicts Circular economy in more abstract way (Technological + Business; Biological + Technical)
- It combines both biological and technical sphere into one showing the various product life cycle stages within the circle
- EU emphasizes more on the recycling and raw material as it is concerned with the scarcity of the resources

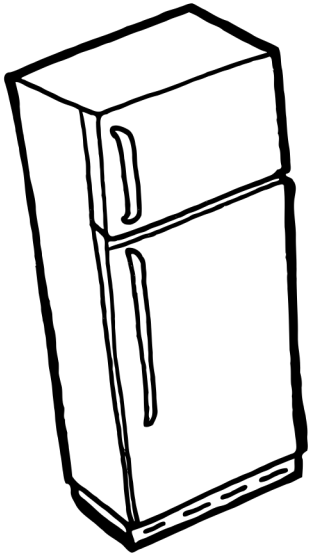
The Ellen MacArthur Foundation Perspective



Source: Ellen MacArthur Foundation, 2017

Your turn!
Designing a business model for fridge refurbishing

A fridge



Refurbished
Remanufactured

15 mins

Teamwork

15 mins
to fill the board

3 mins
presentation

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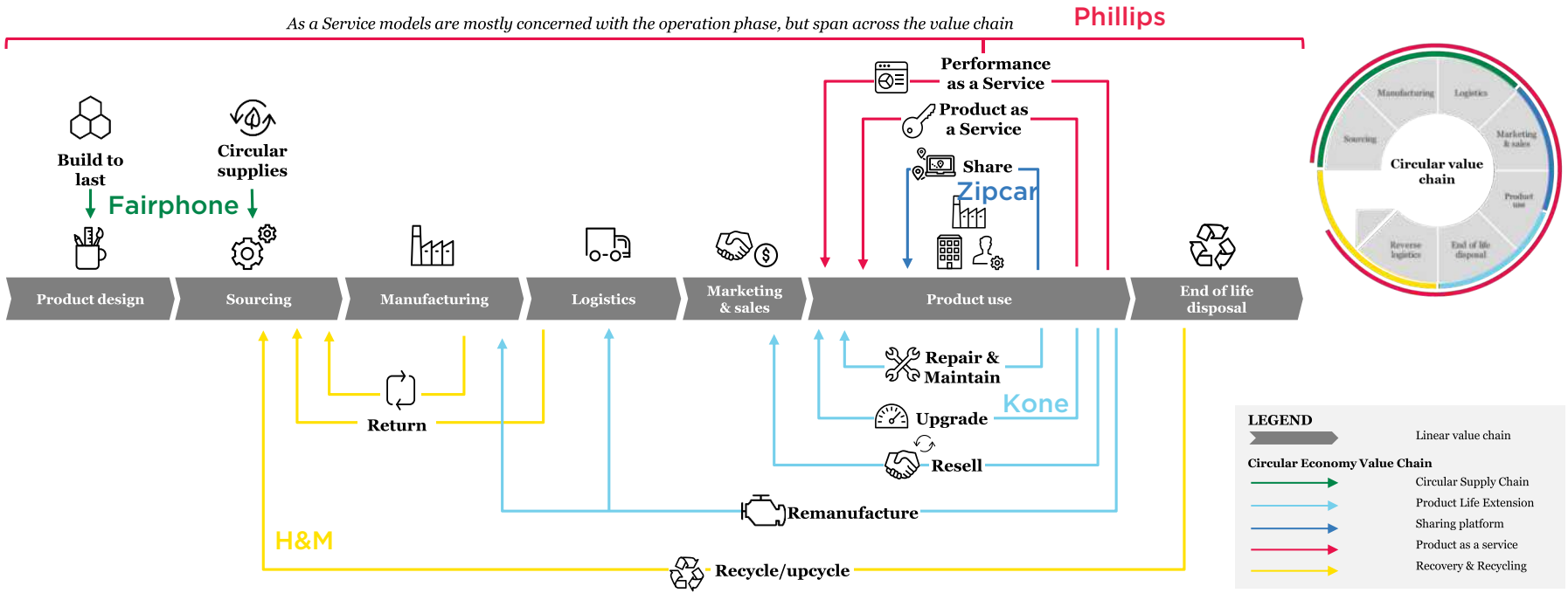
Circular Business Models Open Up Value Chains for New Collaborations and Services Enabling Bottom Line Impact



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Source: SITRA

Key takeaways!

1. Designing circular business models**:**

- **Starting with the Value proposition & Users** is key to ensure that the business model solution is centered on a real user need or problem.
- **There's no single right answer**, but challenges which require multidisciplinary thinking - exchanging ideas and knowledge helps create new connections between different BMC boxes.

2. Circular economy visualizations help reconceive product value chains: there are **different business model options to make it more circular**; a "product-as-a-service" model is one possibility.
3. **Cross-disciplinary collaboration is key:** CE business model innovations call for both technical and business minds to co-create- for that to happen, there is a need for professionals of different disciplines to learn each others' languages.

Upcoming workshops

2nd: The Dilemmas of Disassembly

November 5, 2019, 13:30-16:30

(a group will be leaving from Väre in front of Brooklyn Cafe at 13:10)

Sähkömiehentie 4 J

Learn how to sort materials into different streams through a hands-on device disassembly workshop.

3rd: Building Circular Economy Language Skills

November 12, 2019 9:30 – 12:30

Väre M202

Bringing the technical and business sides together to learn how to understand and speak each other's "circular economy language".

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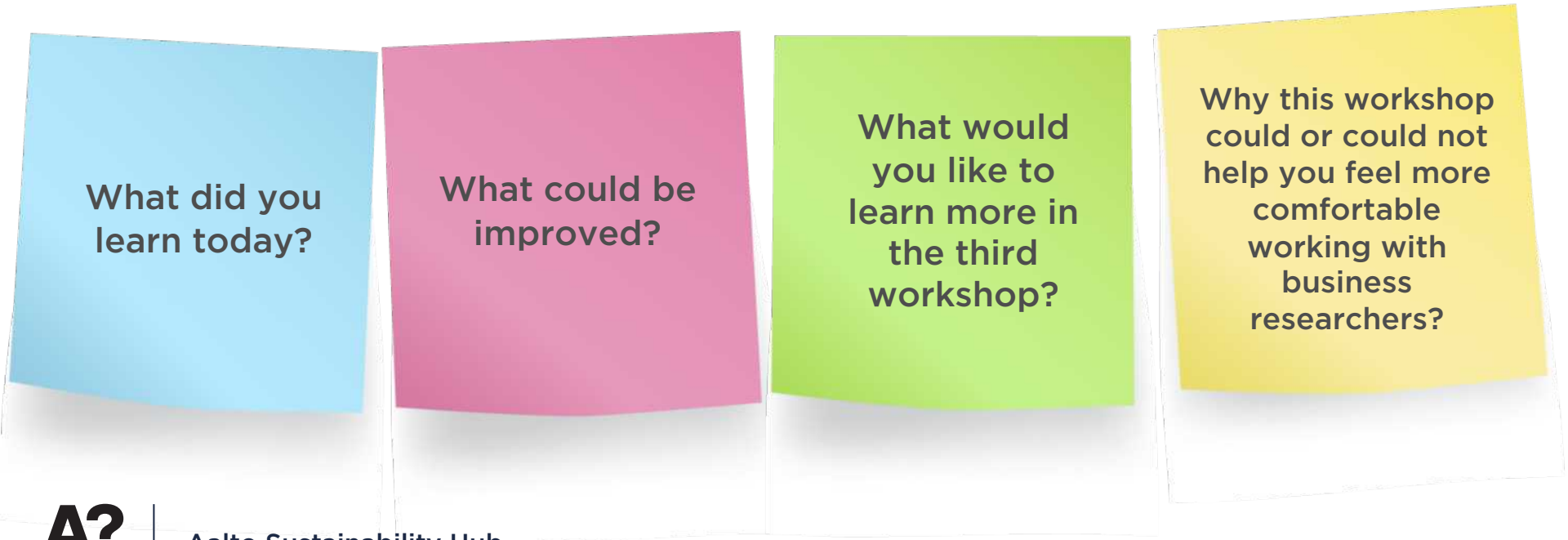
We appreciate your feedbacks!

Please write the answer in the associated color post-it note with the question



Thanks for participating!

Questions and Comments?