

Circular strategies exercise

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Aims and approach

- We will explore how we can **redesign everyday products** to better meet user needs while also being more sustainable for our planet.
- We will use an **experiential and interactive approach** to understand and apply circular strategies

Learning objective

By the end of this session, you'll have a basic understanding of circular strategies and how they can be used to create innovative, sustainable product designs.



Exercise Overview

- 1 Split into diverse teams
- 2 Pick one of the following products to redesign →
- 3 Explore the functional and emotional values of the product
- 4 Apply circular design principles to come up with a better solution
- 5 Share your ideas



Fashion
Office Chair Blanket



Cosmetics
Toiletry bag



Food packaging
Single use plastic
dessert container

Exercise Overview

1 Split into diverse teams

2 Pick one of the following products to redesign →

 **3 minutes**



Fashion
Office Chair Blanket



Cosmetics
Toiletry bag



Food packaging
Single use plastic
dessert container

Brainstorming user needs

Instructions

Next, you will **discuss and list** the functional and emotional needs of your chosen product.

Use the definitions and discussion points handout (next slide) as a guide.

Write down your findings on the handout to help you keep track of your ideas.

Empathy | Open-mindedness | Detail-focused



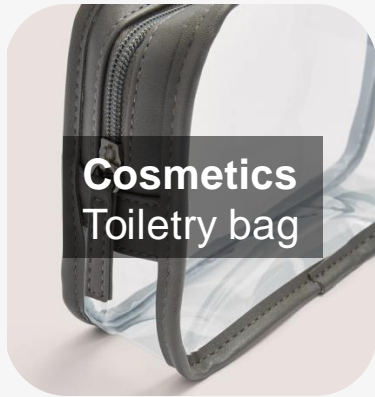
10 minutes (total)

3

Explore the functional and emotional values of the product



Choose one of the following products:



EXPLORE

What are the functional needs addressed by this product?

Empty space for exploring functional needs for the selected product.

What are the functional needs addressed by this product?

Empty space for exploring functional needs for the selected product.

IDEATE

How can circular strategies help find different / better ways to meet these needs?

Large empty space for ideating circular strategies to meet the needs.

Exploring **functional** and emotional needs

Functional needs	Practical, utilitarian aspects of a product. Basic tasks or functions the product must perform.
Discussion points	<ol style="list-style-type: none">1. What are the primary functions of this product? (e.g., a toiletry bag is used to store and organise toiletries)2. How does the product achieve these functions? (e.g., an office chair blanket uses insulating materials)3. Are there any secondary functions? (e.g., a single use dessert cup is portable)

Discuss and list the functional needs of your chosen product. Use the discussion points as a guide.



5 minutes

3

Explore the functional and emotional values of the product



Exploring functional and emotional needs

Emotional needs	Psychological and emotional benefits that users get from a product. Often include feelings of satisfaction, comfort, or status.
Discussion points	<ol style="list-style-type: none">1. How does this product make you feel? (e.g., a dessert packaging might evoke feelings of indulgence)2. What emotional benefits does the product provide? (e.g., a toiletry bag might provide a sense of preparedness)3. Can you think of a user story that highlight these emotional needs?

Discuss and list the emotional needs of your chosen product. Use the discussion points as a guide.



5 minutes

3

Explore the functional and emotional values of the product



CIRCULAR STRATEGIES



Product as a Service

Offers that focus on leasing access to a solution instead of selling ownership of a product. Services can reduce upfront costs for users, create stickier customer relationships, and incentivise investment in the more resource efficient technologies.

Pictured: Philips sells lighting as a service, retaining ownership of the lights and customers have no upfront installation costs.

CIRCULAR STRATEGIES



Modularity

A design that divides a product into separate parts that can then be independently upgraded and replaced.

Pictured: Fairphone's modular design and spare parts make it easy for anyone to repair, allowing its phones to last as long as possible.

CIRCULAR STRATEGIES



Product Life Extension

Extending the lifecycle of products to ensure they remain economically useful through remanufacturing, repairing, upgrading or smart material choices.

Pictured: Caterpillar has focused on reusing components at end of life to same-grade condition, reducing costs, waste, emissions and need for raw inputs.

CIRCULAR STRATEGIES



Embedding intelligence

Building technology into materials or products to gather user data and generate valuable insights to improve the customer experience.

Pictured: Bundles uses Internet of Things technology to provide customers with a pay-per-wash service on washing machines. The monthly tariff is adjusted retrospectively based on actual usage data.

CIRCULAR STRATEGIES



Closed loop / Take back

Providing a service to collect old or used products and recovering the value in the materials by recycling or reusing them to make new products.

Pictured: Desso created a take-back programme for its flooring made of recycled yarn that can be separated from the backing and used over and over again.

CIRCULAR STRATEGIES



Smart material choices

Considering a product's end of life treatment in the choice of materials and inputs, i.e. durable, biodegradable, recycled or recyclable materials.

Pictured: Customers of Splosh subscribe to receive pouches of concentrated cleaning products which either safely dissolve as part of the product or can be sent back for refill.

Using circular strategies to ideate new products

Are there different or better ways to meet these needs by applying circular strategies?

Instructions

1. **Get familiar with the circular strategies:** Take a few minutes to read all the circular strategy cards aloud.
2. **Brainstorm using the Circular Strategy Cards:** generate a wide range of ideas for redesigning your product using circular strategies and your answers related to functional and emotional needs.



15 minutes

4

Applying circular design principles to come up with a better solution



- Wild ideas welcome!
- Don't worry about feasibility at this stage!
- Mix and match different strategies
- Use "yes, and..." to build upon each others' ideas
- Stay positive and encourage all contributions!

Select your best idea and get ready to pitch!

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Be prepared to tell us:

1. Why is it better for the user? How does it improve the user experience? What are the economical or practical benefits?
2. What makes it circular? Does it increase circularity of materials? Is it regenerative?



5 minutes

5

Share your ideas



Join at menti.com | use code **4809 5968**

Share your idea(s)

All responses to your question
will be shown here

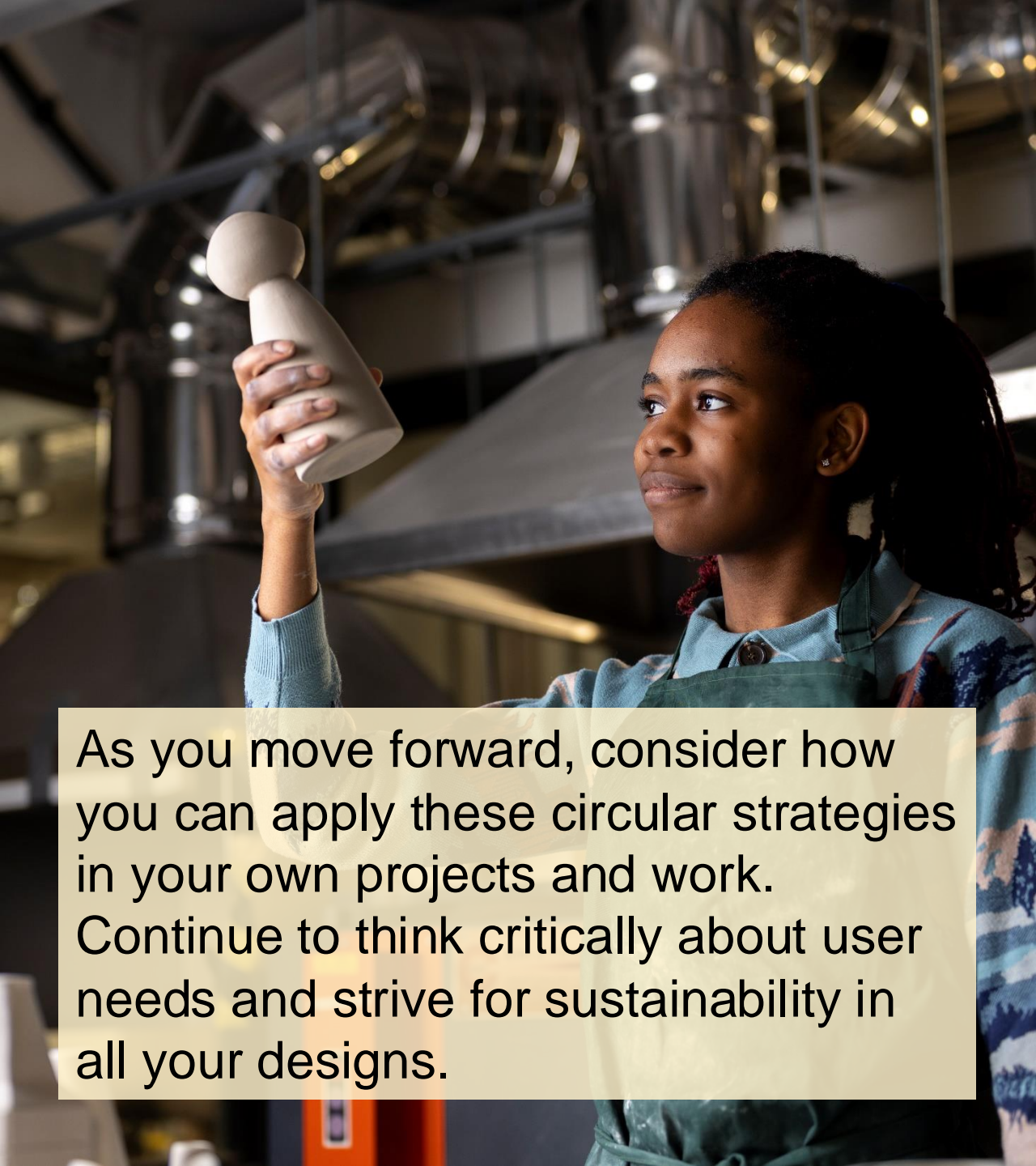
Each response can be up to
200 characters long

Turn on voting to let
participants vote for their
favorites



Key takeaways

1. **Circular Strategies:** These are essential for creating sustainable products that minimize waste and maximize resource efficiency.
2. **User Needs:** Understanding both functional and emotional needs is critical for designing products that users love and that are better for the planet.
3. **Collaboration and Creativity:** Working together and thinking creatively can lead to innovative solutions that we might not have considered individually."

A young woman with dark hair, wearing a blue patterned sweater and a green apron, is holding a white, cone-shaped object with a spherical top. She is looking at it intently in a workshop setting with various tools and equipment visible in the background.

As you move forward, consider how you can apply these circular strategies in your own projects and work. Continue to think critically about user needs and strive for sustainability in all your designs.

Additional resources

- [Circular design guide](#) (Ellen Macarthur Foundation)
- [Value proposition canvas](#) (Peter Thompson)
- [Circular by Design](#) (European Circular Economy Stakeholder Platform)
- [Circular Economy Resources](#) (UK Green Building Council - UKGBC)



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