

Small group 1

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Small group 2

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Small group 3

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Small group 4

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Small group 5

- Pedro Alfonso, Perez-Chuecos Alcaraz
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- Naicong Wang

What is Circular Economy?

19.08.2019

Small group task 1

- In a sentence, define and describe the Circular Economy (individually, 5 min.) ...
- Your group have 5 minutes to describe the definition of circular economy.
- Write your definition in a flipchart paper.
- Let's go through definitions shortly

Agenda for the afternoon

- What is Circular Economy
- CE Business Models and Value Creation

What is Circular Economy?

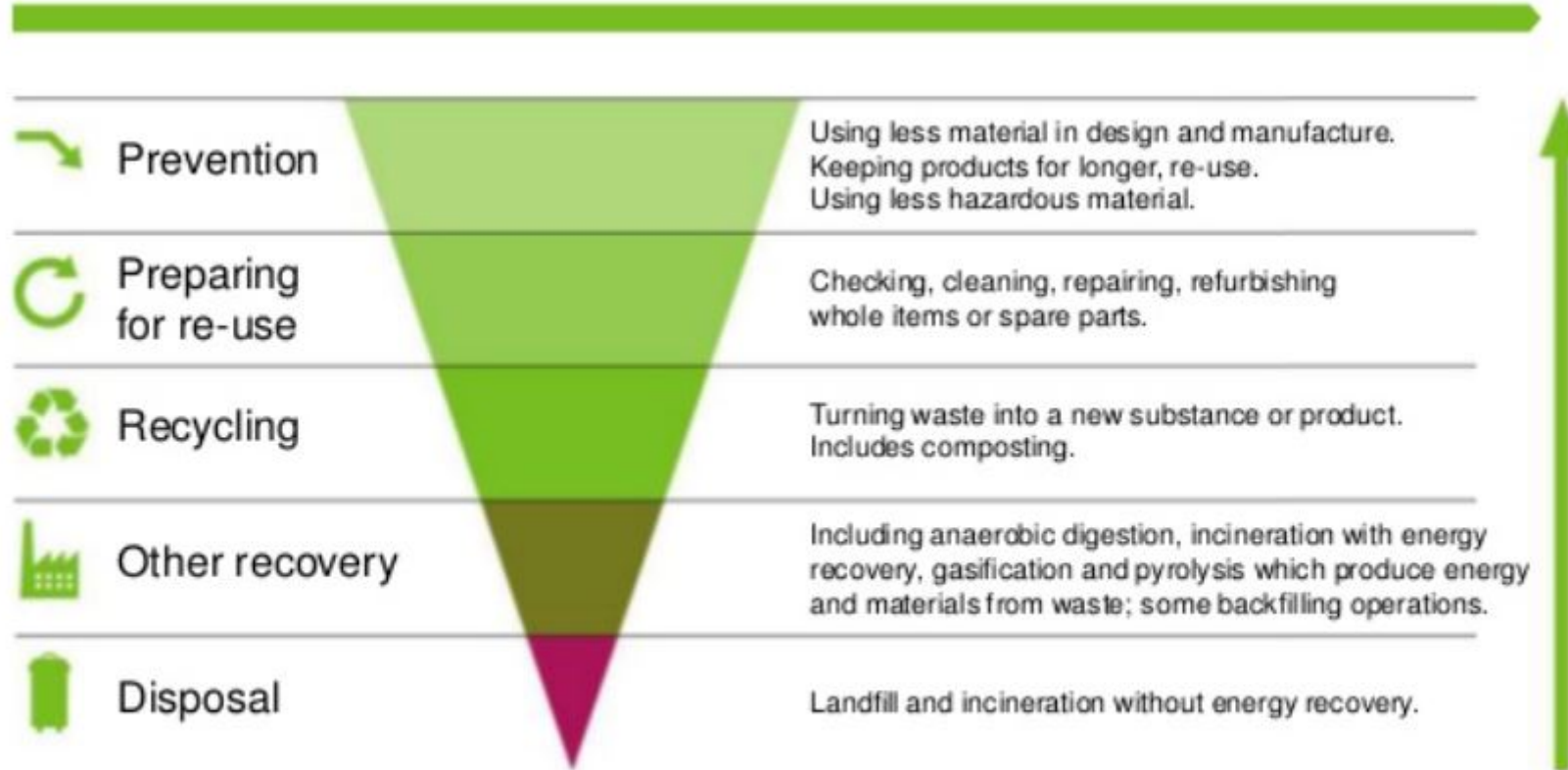
- Watch the Ellen MacArthur Foundation video, 'Rethinking Progress'
<https://www.youtube.com/watch?v=zCRKvDyyHml>

Defining Circular Economy

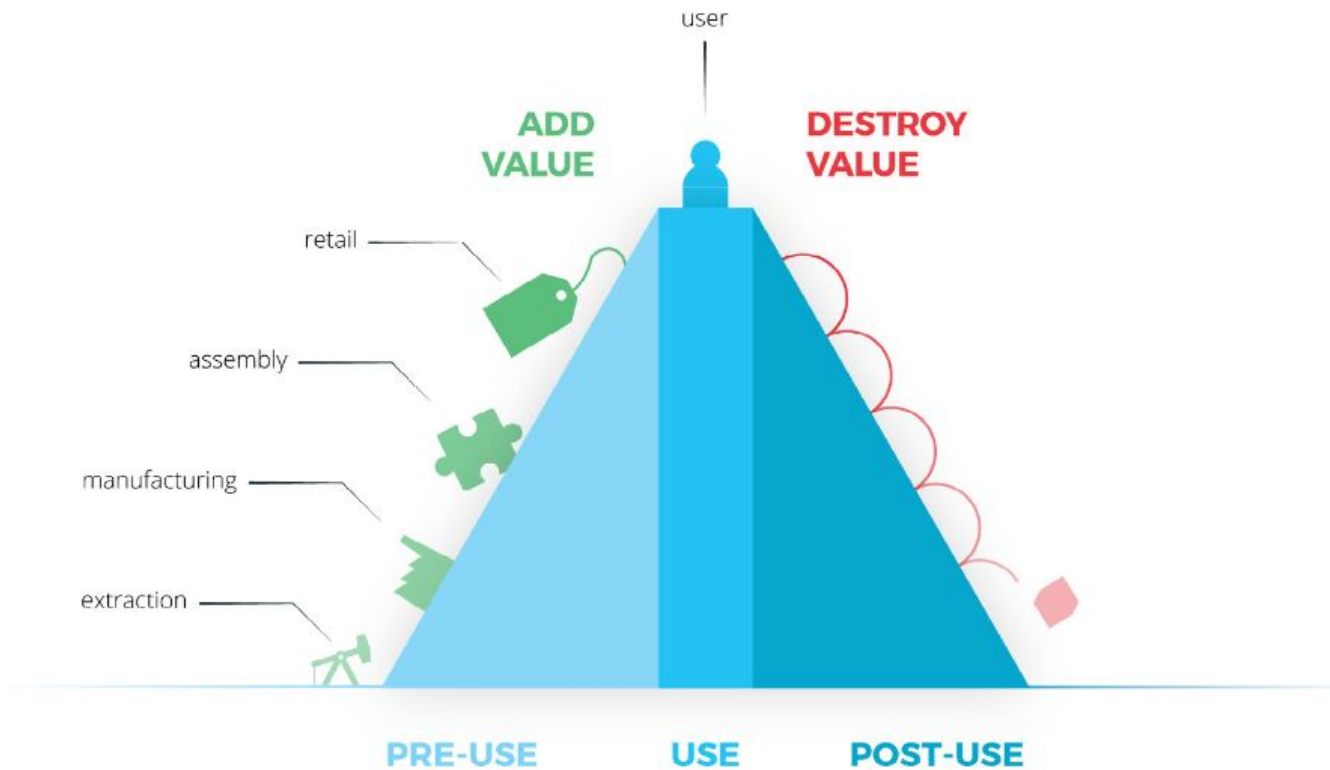
- “A circular economy is an economic system where products and services are traded in closed loops or ‘cycles’. A circular economy is characterized as an economy which is regenerative by design, with the aim to retain as much value as possible of products, parts and materials. This means that the aim should be to create a system that allows for the long life, optimal reuse, refurbishment, remanufacturing and recycling of products and materials.”

Kraaijenhagen, Van Oppen & Bocken. 2016, Ellen MacArthur Foundation, 2016

Waste Hierarchy – What is situation in your home country?

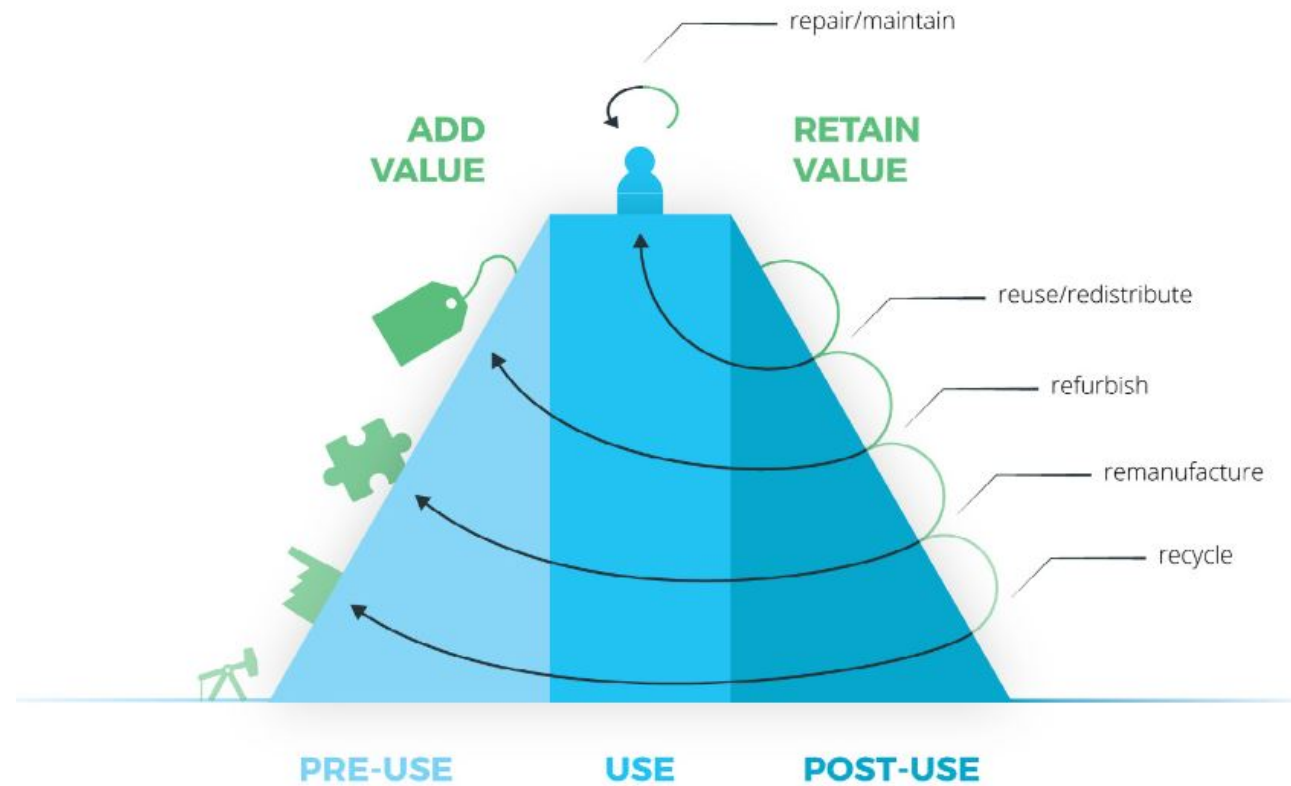


THE VALUE HILL IN A LINEAR ECONOMY

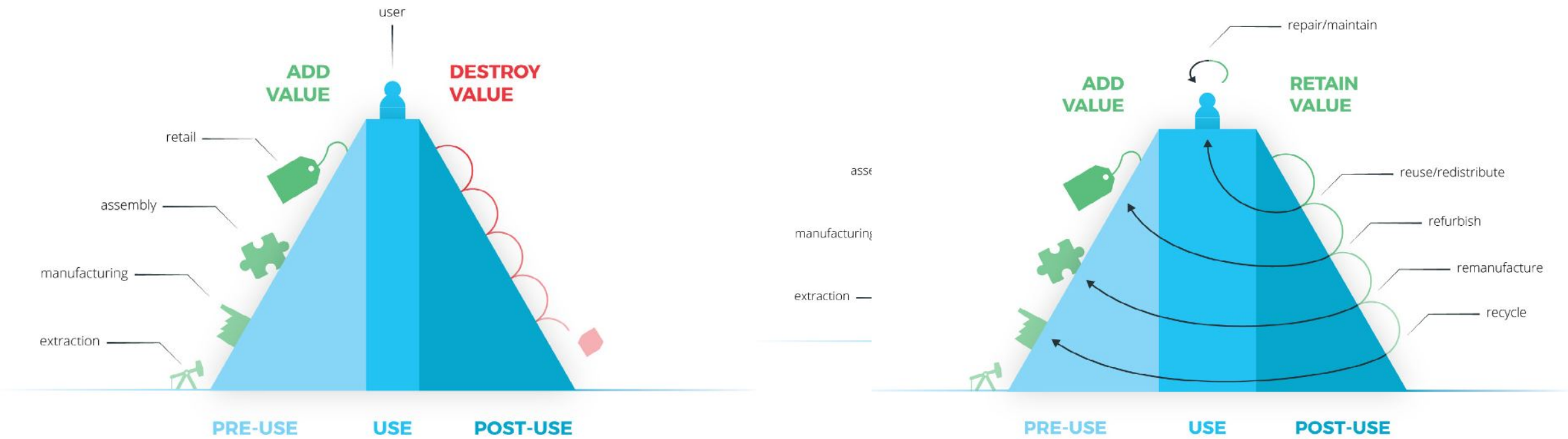


<https://www.circle-economy.com/wp-content/uploads/2016/09/finance-white-paper-20160923.pdf>

THE VALUE HILL IN A CIRCULAR ECONOMY



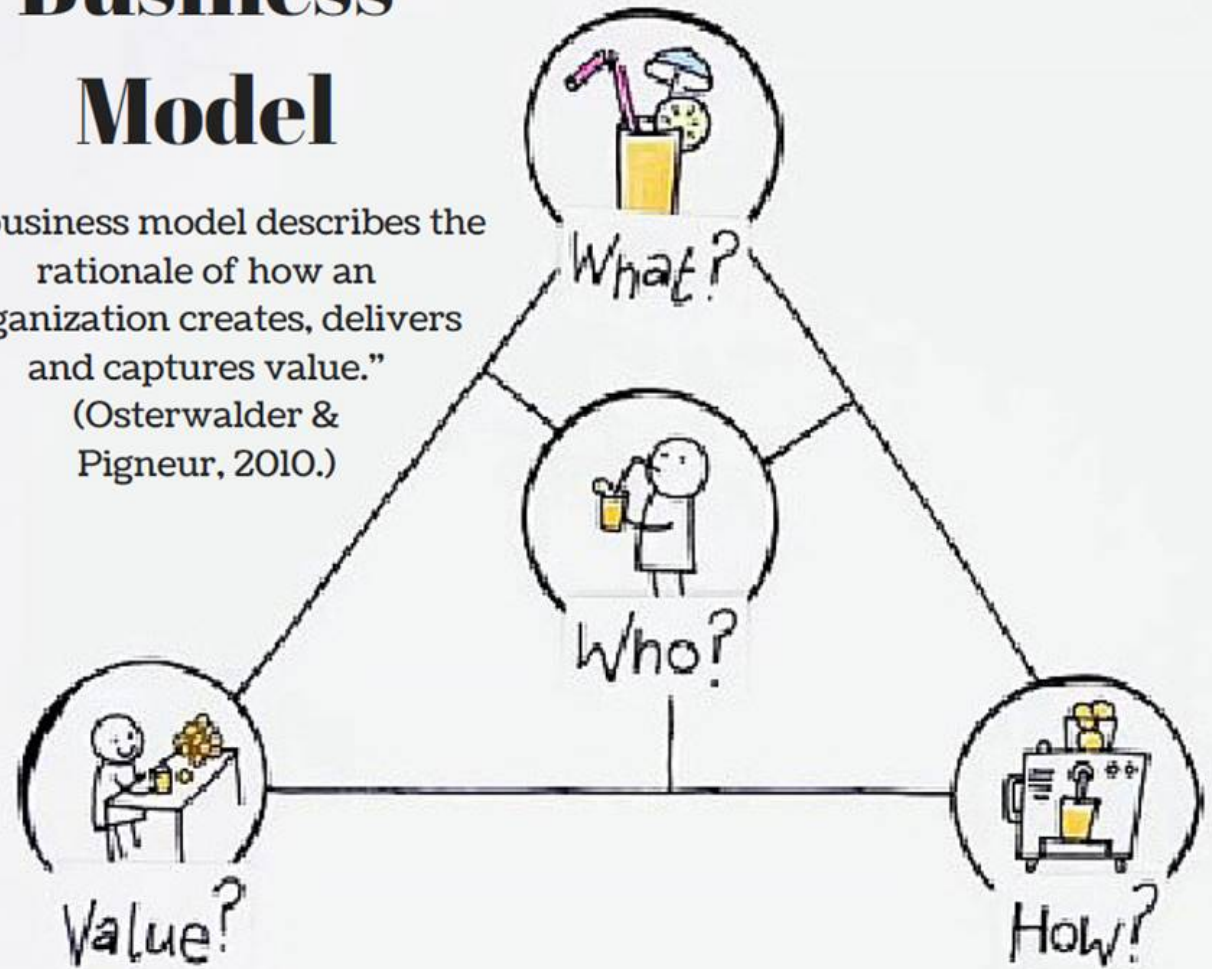
<https://www.circle-economy.com/wp-content/uploads/2016/09/finance-white-paper-20160923.pdf>



Circular Economy Business Model

Business Model

"A business model describes the rationale of how an organization creates, delivers and captures value."
(Osterwalder & Pigneur, 2010.)



Lähde: Gassman, O. 2013. Business Model Innovation. <https://www.youtube.com/watch?v=B4ZSGQW0UMI>

Designing circular economy

What does circular design mean?

- - Firstly, it means designing products and services that work well in their intended function and have minimal negative and maximal positive impacts during their life cycle.
- Secondly, it means understanding the importance of choosing the right raw materials and assembling products with their end-of-life possibilities in mind.
- Thirdly, circular design aims to improve resource productivity along the whole life cycle ensuring that value chains are efficient and all synergy possibilities are taken into account. (Ovaska, 2016)

Five business models for the circular economy



Product-life extension

Products are used according to their original purpose for as long as possible or repaired and refurbished for multiple re-uses, thus reducing the need for purchasing and manufacturing new products.



Product as a service

The customer pays for certain functions or performance and avoids the risks of ownership. The total costs of ownership remain with the service provider, with revenue being earned by means of, for example, a leasing or rental agreement.



Sharing platforms

Digital-based platforms are used to promote the increased use of goods and resources and the extension of their life cycle, such as by renting, selling, sharing and re-use.



Renewability

Renewable, recyclable and biodegradable materials, as well as the principles of eco-design, are preferred for products and their design. Fossil fuels are replaced by renewable energy.



Resource efficiency and recycling

Technological development enhances resource efficiency in value chains, processes and products, and allows for more effective recycling. Side-streams are valuable raw materials for recycled products and materials.

Small group task 2

- Each group will receive one CE Business Model to define.
- Find explanations for following questions (30 min):
 - What is the purpose of the Business Model?
 - How to do business?
 - Who benefits and how?
 - What is important to take into account when planning this Business model?
- Present shortly your findings (30 min altogether, 5 min. per group)

Product-life extension - Repairing, upgrading, reselling

- Purpose
 - Use product and its parts as long as possible
- How
 - Maintaining, improving, repairing, upgrading, remanufacturing, remarketing
- How will benefit and how (value creation)?
 - for user
 - for company
 - for environment
- Important in business model
 - Design, materials, quality, durability
- Links to the other CE business models
 - PaaS, recycling and resource efficiency

Product as a Service

- Purpose
 - Provide services instead of products and owning
- How
 - renting, leasing, sharing
- Value
 - for user
 - for company
 - for environment
- Link to other CE business models
 - Product-life extension, Sharing platform
- Important in business model
 - quality, product longevity, reusability, sharing, taking responsibility, easy access, well-working, good service, product design and maintenance, durability

Sharing platform

- Purpose:
 - Maximize the usage of goods and resources and extending their life cycles by using platforms for renting, selling, sharing and reuse
- How
 - An online or physical platform, transaction fee
- Value
 - for user
 - for company
 - for environment
- Link to other CE business models
 - PaaS
- Important in business model
 - user friendly and reliable, trustworthy, well-known

Renewability

- Purpose: using renewable and recyclable materials as well as renewable energy in product design and manufacturing.
- How: replaces linear resource approaches with circular ones and phases out the use of scarce resource, such as oil, coal, and plastics
- Value
 - for user
 - for company
 - for environment
- Link to other CE business models
 - Resource efficiency and recycling
- Important in business model
 - markets & demand, price, other values, choices that businesses makes

Resource efficiency and recycling

- Purpose: Keep materials in and reduce the amount of waste, use on raw materials and energy
- How: Create material and energy-efficient solutions, and the collection and reuse of products and raw materials that have reached the end of their life cycle.
- Value
 - for user
 - for company
 - for environment
- Link to other CE business models
 - Resource renewability, Product-life extension
- Important in business model
 - innovative upcycling and recycling techniques and technologies, markets for the recycled materials and products, keep or increase the value

Task

- Try to find suitable business model to each company example.
- Why did you think so?
- 30 min.

Five business models for the circular economy



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Small group task 3

- Re-write your definition of the Circular Economy with your group
- You have 5 minutes to describe the definition of circular economy.
- Write your definition in a flipchart paper.

At its core, the circular economy is a model for an economy that functions more like a natural ecosystem - with some modifications of course. Like in an ecosystem, nothing is ever wasted. Every waste becomes an input for something else. The circular economy model uses the same principle for an economy: nothing stays a “waste” because everything is designed to be used for something else. (Ovaska 2016)

Good materials

- <https://www.slideshare.net/wiithaa/business-model-and-circular-economy>
- <https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/#business-examples>
- <https://www.sitra.fi/en/events/wcef2019-programme/#monday-3-june>
- <https://www.ellenmacarthurfoundation.org/our-work/activities/schools-colleges/teaching-learning-resources>