

***DIGITIZING PRODUCTS:  
CREATING DEMONSTRATORS  
FOR FUTURE EDUCATION***



# **DigiDemo TechTalk**

## **Circular Economy – An Introduction**

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# Introduction

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- ❖ Sustainability has become incessantly important for businesses
- ❖ Processes and products therefore needs to be redesign with sustainability in mind
- ❖ Circular economy provides a concept on how to design a sustainable future for both businesses, people and societies

# Learning Goals

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After this talk you should:

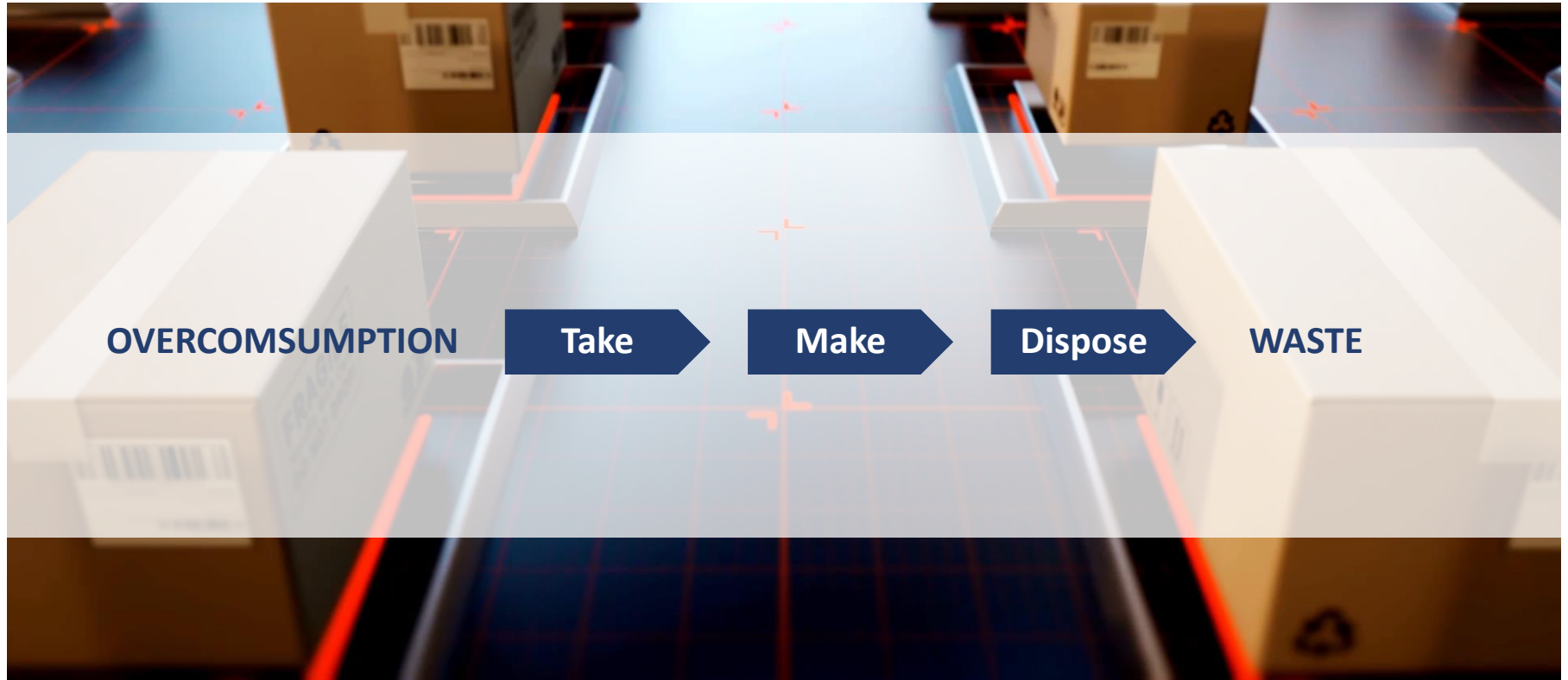
- ❖ understand the concept of ‘circular economy’
- ❖ be able to identify and explain key elements of the concept and its relation to product development



# Circular Economy - The Cycle of Nature

- ❖ In nature there is a balance between the resources needed and the resources generated – resulting in both zero waste and no overconsumption

# Circular Economy - The Industrial Approach



# Circular Economy – A Definition

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- ❖ A circular economy is based on the principles of designing processes and products to avoid waste and overconsumption, keeping products and materials in use.

# Circular Economy



- ❖ The choice of:
  - materials
  - methods for joining and assembling the materials and parts
  - components
- ❖ The design of the product and packaging
- ❖ The need and possibility for maintenance and repair
- ❖ The possibility of reusing and up-cycling the product, components and materials

# Summary

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- ❖ Circular economy represents a concept on how to design a sustainable future for both businesses, people and societies
- ❖ The concept is based on designing processes and products to avoid waste and overconsumption, and to keeping products and materials in use.
- ❖ As product designers we have great possibilities of influencing the sustainability of products and processes through our design, e.g.,:
  - by the materials, parts and components we choose, and how we choose to joined and assembled them in the product
  - the durability of the product and the need and possibilities for maintains and repair as a result of our design



# Additional information

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## ❖ Literature

- [The circular economy | Nature](#)
- [Rapport McKinsey-Towards A Circular Economy.pdf \(werktrends.nl\)](#)

## ❖ Link to homepages

- [What is a circular economy? | Ellen MacArthur Foundation](#)
- [Circular economy \(europa.eu\)](#)