GOING CIRCULAR IN BUSINESS

CHANGING FROM LINEAR TO CIRCULAR BASED ON THE RESOLVE FRAMEWORK

CONTENTS

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INTRODUCTION

Within the next video you will find out about the transition from Business Model Canvas (BMC) to the Circular Business Model Canvas (CBMC). It'll introduce the differences between the two models and will also provide some practical information about the ReSOLVE framework, which can be seen as the basis of switching from a linear to a circular business model within your enterprise. Moreover, through the example of the Farm near Rotterdam, you'll find out what can practical steps can be taken to make the transition to the circular business model.

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EXPECTED LEARNING OUTCOMES

KNOWLEDGE	• Knowledge of business model development in the circular economy – ReSOLVE framework • Knowledge of processes and tools for developing an existing small/large non circular business into a circular business model • Knowledge of processes and tools for developing a circular business start-up model
SKILLS	• Describe the key concepts of the Resolve framework and list differences between linear and circular business models (link to IO2) • Research a circular business model case study relevant to your business and list the potential benefits/issues it reveals • Identify an appropriate business model development tool/process and use it to create a circular business model for your business • Identify an appropriate business model development tool/process and use it to create a circular business model for your start up.
ATTITUDES	• Acknowledge the opportunities for business model innovation in the circular economy • Willing to convert a linear to circular business model • Willing to create a circular economy start up business model

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SELF-REFLECTION EXERCISE

Welcome! By completing this 10 questions quiz at this link, you'll get the chance to learn how much do you already know about the Circular Business Model Canvas. You will have to answer multiple choice and True or False questions about the CBMC.

Click here to be taken to the quiz.

TRANSITION FROM BMC TO CBMC

What is the BMC?

If you are an entrepreneur or a future business owner, you already know that a business model describes the rationale of how companies create, deliver and capture value. It is not a strategy, but an instrument that provides insight into how a company does business. A generally accepted way to structure a business model has been developed by Osterwalder and colleagues who have identified nine building blocks that describe how a company creates value: the Business Model Canvas.

Using this canvas will lead to insights about the customers you serve, what value propositions are offered through what channels, and how your enterprise makes money. It is a visual chart with elements describing your business model and assists you in aligning your activities by illustrating potential trade-offs. You can also use the business model Canvas to understand your own business model or that of a competitor!

What is the CBMC?

Defining Circular Economy is not easy. Nevertheless, if we should explain what it is in a few words, we can say that is the generic term to define a new model that seeks to maintain the materials, products and components in circular processes, through which they can be reintegrated into the value chain after the end of its useful life. The CBMC therefore is providing the basis for that. It gives the opportunity to businesses to re-analyse their products and their lifecycle.

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Why is CBMC more sustainable and why should enterprises switch to it?

We cannot understand the concept of circular economy without opposing it to the economic model that has prevailed until now, the linear economy model. Linear model has been based on extracting the materials from nature to make products, use them and then throw them away. So, from the point of view of the environmental and ecological economy, a scheme linear describes the production of goods as a process of transformation that starts with the extraction of natural resources and ends up in the generation of waste.

In the light of the estimation, according to which in 2030 the Earth must support the presence of more than 9,000 million people with resources increasingly scarce (water and fossil fuels for example), we should all make sure to take action in this regard.

The scarcity of resources has become a huge problem for businesses, but it can also be a fantastic opportunity if they agree to be adapted to the change. For many experts, change needs to take the circular economy model as its own. It is true that the problem of resources exists, but despite it - or precisely because of it -, many companies begin to be aware that reusing and sharing resources also makes sense from the economic point of view, and, above all, it has a journey much longer and sustainable.

In the following we will be talking about how can businesses switch to circular business models on the basis of the ReSOLVE framework.

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THE RESOLVE FRAMEWORK

The ReSOLVE framework, developed by McKinsey & Company, takes the core principles of circularity and applies them to six actions: Regenerate, Share, Optimise, Loop, Virtualise, and Exchange.

In different ways, these actions all increase the utilisation of physical assets, prolong their life, and shift resource use from finite to renewable sources. Each action reinforces and accelerates the performance of the other actions, creating a strong compounding effect.

Regenerate. Transition to renewable energy and materials in order to cultivate, maintain and regenerate the health of ecosystems and return the acquired biological resources to our biosphere.

In other words, you regenerate when you use materials and energy that are NOT just becoming waste after use. So if you use solar energy instead of fossil fuels, your energy consumption will rely on a perpetual energy source instead of using a finite (and polluting) energy source.

For example, support for the Savory Institute's comprehensive land management has affected the regeneration of more than 2.5 million hectares of commercial land worldwide.

Share. Maximize the use of products through the mutual sharing of private or public sharing of products with a minimal emphasis on their re-use throughout their technical life. Extend the life of products with maintenance, repairs, and design for long life.

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Examples are business models for sharing cars, but also for computers, tools, and more.

Optimize. Improve product performance and efficiency and eliminate waste from their supply chains. Leverage big data, automation and more. None of these actions require a change in products or technologies.

This requires constant research and development in order to find better, more efficient, ways of producing and distributing products.

Loop. Keeping components and materials in closed loops and prioritizing those that allow it. For final materials, this means refurbishing products or components. Looping in its purest form is reusing products or parts thereof in the production of new products. But most commonly (and as a last resort) recycling materials, as Michelin, Patagonia, and Škoda do.

Virtualize. Deliver utility virtually—books or music, online shopping, fleets of autonomous vehicles, and virtual offices.

The idea is that if you can skip the physical part in the delivery chain you can also skip all the excess energy and pollution that follows. So virtualization can be a way to cut down on unneeded energy consumption in some instances.

Exchange. Replacing old materials with new advanced and renewable materials that can be applied to new technologies such as 3-D printing and electric motors.

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This can be either a new more efficient product or component, or it can be the refurbishment of old products to extend their lifecycle.

The drivers for these ReSOLVE initiatives are not to be found in the classical Building Blocks of the BMC. Incentives and inspiration for a ReSOLVE project is likely to come from a new set of adoption factors from outside like: New legislation, increased customer demand for circular products, green funding or just new or cheaper technology that can facilitate the change in the mindset of the business owner.

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THE DIFFERENCES BETWEEN THE TWO BUSINESS MODELS

How can businesses use the ReSOLVE Framework?

The ReSOLVE framework offers companies a tool to help them generate circular strategies and new growth initiatives. In the table below you can see examples of the six action areas which make up the framework developed by McKinsey.

- Regenerate
- Share
- Optimize
- Loop
- Virtualize
- Exchange

What are the extra building blocks of the CBMC and where do they belong to?

- Social Value
- Planet value
- Take – back system
- Adoption factors

When you go circular or at least begin to implement some circular aspects to your business, you will need the new circular Building Blocks in the CBMC. You need them to accurately model and plan for the positive benefits that are likely to come out of your **ReSOLVE projects**.

The new Building Blocks in the CBMC (Planet Value and Social Value) are need to be modelled and planned for the positive benefits that are likely outcomes of the ReSOLVE project.

The *Social Value* and the *Planet Value* are not just nice boxes to put your feel-good effects of being circular in. They constitute an important part of your Value Proposition. Your products and/or services will have a whole different aspect to them if they are made or implemented with circular resources. That can be translated directly into cold hard cash if you can find the right way to market them, and find a customer base that demands these features in a product or service.

Another way of telling customers that you are a circular business is by having some sort of Take Back System. It can be anything from reusing bottles and packaging, to a rent/leasing system to a Cradle-to-Cradle system that allows elements of the products to be reused in new products.

A *Take Back System* is a powerful indicator that a company is going circular and that it will accept the return of products that are no longer in use, and that would otherwise be sent to scrap of recycling.

Coming to the section of the *Adoption Factors*, these can be either Inner or External factors.

Inner Factors can be the things you do in your business to apply circularity to all the activities and transactions in production, marketing, packaging, and the use of resources. It could be a pledge to go “paperless” or to use renewable energy or other initiative that makes the inner workings of the business circular.

These Adoption Factors can also be cleverly used in the storytelling of the company and thereby also affect the Value Proposition.

External Factors are drivers toward circularity that comes from outside the business. They can be new regulations, changes in market demands, new technological options, possibilities with digitalization and all the other stuff that make going circular seem like an excellent idea in modern society.

These new elements in the CBMC are necessary to accurately model the circular initiatives, but they are also real building blocks, that directly affect the other blocks such as Value Proposition and Customer Segments of your Business Model.

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PRACTICAL EXAMPLES ON HOW CAN A LINEAR BUSINESS BECOME CIRCULAR – THE FARM NEAR ROTTERDAM

To exemplify the evolving from Business Model Canvas (BMC) to the Circular Business Model Canvas (CBMC), consult an example, named the Farm near to Rotterdam. Watch the video of the *Farm near Rotterdam* here.

One way to analyse the impact of the principles of the circular economy on a linear business model is to see how the activities of the ReSOLVE framework affect the building blocks of the CANVAS.

If we are to analyse the business model of the farm, it can be said, that their *Key partners* are veterinarian Services & professionals, alongside Local Organic food providers and dairy products traders.

The *Key activities* through which the farm operates are the production of the milk & dairy products, the owners implement kindergarten & events operation, maize production and in-house stores operation is also among their activities. The *value proposition* on the basis of which the farm is operating can be formulated as: a close-to-the-city place to maintain the contact with nature, while deploy some activities.

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Consult the information below, representing the BMC and the CBMC of the farm and note the differences.

CASE: **FARM NEAR ROTTERDAM**
The Market Value Proposition

Business Model Canvas (BMC)

Key Partners

- Veterinarian Services & Professional
- Local Organic Food Providers
- Dairy Products Traders

Key Activities

- Milk & Dairy Products Production
- Kindergarten & events operation
- Maize Production
- In-house Stores Operation

Market Value Proposition

- A close-to-the-city place to maintain the contact with nature, while deploy some activities.

Customer Relationships

- Acquisition: at the Social Networks to promote and interact with the segments.
- Upselling: at the Farm with direct clients and users.

Channels

- Direct Sale at Farm (stores and restaurant)
- Dairy Products Traders
- Online sales in it's own website

Customer Segments

- Dairy products resellers under their own brands or premises
- Professional customer: business and organisations on farm surroundings looking for a special place to develop their events
- Families: looking for a natural environment kindergarten
- Individuals: looking for an open air place, close to the city, to have some natural food and entertainment

Costs

- Costs related to cows feeding and care (veterinary services, maize production, etc)
- Costs related to huge facilities maintenance
- Costs related to human resources big team

Revenue Streams

- Dairy product sales to resellers
- Events organization incomes
- Kintergarten operation incomes
- Entertainment fees (corn labyrinth, etc)
- In-house traditional/ organic stores sales
- Ads incomes (brand in labyrinth)

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Key Partners

- Veterinarian Services & Professional
- Local Organic Food Providers
- Dairy Products Traders
- **Local Stakeholders**

Key Activities

- **Lean (no waste) Dairy Production**
- **Robotized cleaning of the stable**
- **Growing Organic Maize (and use of cow droppings as fertilizers)**
- **Lean (no waste) Services Design**
- Kindergarten & events operation
- In-house Stores Operation

Market Value Proposition

- A close-to-the-city place to maintain the contact with nature, while deploy some activities.

Social Value

- **Facilitate connecting people living an Urban context with Nature**
- **XXXX employees due to services extension around the cows**

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Plant Value

- **Closing the loop: Cows feeding with own Corn crops, and cows droppings as fertilizer for Corn**
- **Reuse of maize area as an entertainment, without additional resource usage (labyrinth)**
- We have a **NEGATIVE IMPACT** due to methane emissions from cows

Customer Relationships

- Acquisition: at the Social Networks to promote and interact with the segments.
- Upselling: at the Farm with direct clients and users.

Channels

- Direct Sale at Farm (stores and restaurant)
- Dairy Products Traders
- Online sales in it's own website

Take-Back System

- **Charging an amount per bottle in on-premises purchases to take away**
- **Reverse logistics with Resellers**

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Customer Segments

- Dairy products resellers under their own brands or premises
- Professional customer: business and organisations on farm surroundings looking for a special place to develop their events
- Families: looking for a natural environment kindergarten
- Individuals: looking for an open air place, close to the city, to have some natural food and entertainment

Costs

- Costs related to cows feeding and care (veterinary services, maize production, etc)
- Costs related to huge facilities maintenance
- Costs related to human resources big team
- **Costs related to children circular thinking adoption**
- **Costs of material flows in Service and Production**

Revenue Streams

- Dairy product sales to resellers
- Events organization incomes
- Kintergarten operation incomes
- Entertainment fees (corn labyrinth, etc)
- In-house traditional/ organic stores sales
- Ads incomes (brand in labyrinth)

Adoption Factors

- Organization (HR): use of indicators related to any kind of resources used, per service unit delivered

PEST (ECONOMICAL):

- Convince to Local Policy Makers that it is the way to maintain open the farms (in a milk market prices download context)

PEST (SOCIAL):

- Social spreading of the concept of the FARM as a new social centre of several activities in close contact with nature (“the new parks”)

THE CIRCULAR BUSINESS MODEL CANVAS OF THE FARM NEAR ROTTERDAM

In the two business models of the *Farm near Rotterdam*, the pre-circular Business Model Canvas (BMC) represents a snapshot of the company before the various ReSOLVE projects have been implemented or planned.

Regarding projects that include waste reduction aspects or minimise the use of resources, which is the case of the *Farm near Rotterdam*, the Planet Value and Social Value Blocks are needed to accurately model the benefits.

Moreover, these two building blocks are required to measure the real effect of any circular improvements in the business, while Adoption factors are the drivers that push this development.

The CBMCs have four new building blocks in comparison to the regular BMC. These differences in the case of the *Farm near Rotterdam*, can be translated as:

for the *Social value* of the business

- facilitate connecting people living in urban context with Nature
- Have more employees due to services extension around the cows

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the *Planet value*

- Closing the loop: cows feeding with own corn crops, and cows droppings as fertilisers for corn
- Reuse of maize areas as an entertainment, without additional resource usage (labyrinth)

the *Take Back System* should be introduced through

- charging an amount per bottle in n-premises purchase to take away
- Reverse logistics with Resellers

the *Adoption Factors* could be categorised on three levels:

- Organization (HR) – use of indicators related to any kind of resources used, per service unit delivered
- PEST (ECONOMICAL) – convince the Local Policy Makers that it is the way to maintain open farms (in a milk market prices download context)
- PEST (SOCIAL) – Social spreading of the concept of the FARM as a new social centre of several activities in close contact with nature (“The New Parks”)

Having all these in mind, we should look at the ReSOLVE profile for a company, which is a list of the different ReSOLVE projects that they could implement to reach a higher level of circularity. A ReSOLVE project is an idea that can improve the circularity of a company that can be listed under a ReSOLVE category.

Under each action area of the ReSOLVE framework, different project ideas can be specified. For each initiative the company lays down the highest achievable level of implementation of that project idea as well as the starting point.

For example, the *Farm near Rotterdam* case:

- Wants to switch to renewable energy power sources by setting up solar panels on the roof of the buildings, instead of using energy from conventional energy companies. They believe that they could reach 100% renewable energy, but they are starting out with only 10% being from renewable sources.
- They also believe that they could reuse more of their packing materials, like the milk bottles. For the bottles to be reused a bottle deposit system and some kind of Take Back system is required.

Another goal could be to sustain or improve the health of their ecosystem. To this end, they would like to support other organisations that work towards circularity.

FINAL ASSESSMENT TASK

TITLE OF THE TASK:

Create your Circular Business Model Canvas

AIM OF THE ACTIVITY:

To implement the knowledge gained and use the ReSOLVE framework for creating a CBMC for a real or imaginary business.

TIME REQUIRED:

This task requires 4 hours in total.

MATERIALS REQUIRED:

Articles, links and videos included in the Eduzine.
Creative thinking
Mobile phone with camera
Laptop with MS Office for text editing, pptx, Google Slides creation
CBMCs templates

FORMAT FOR THE PRESENTATION:

PPtx, google slides

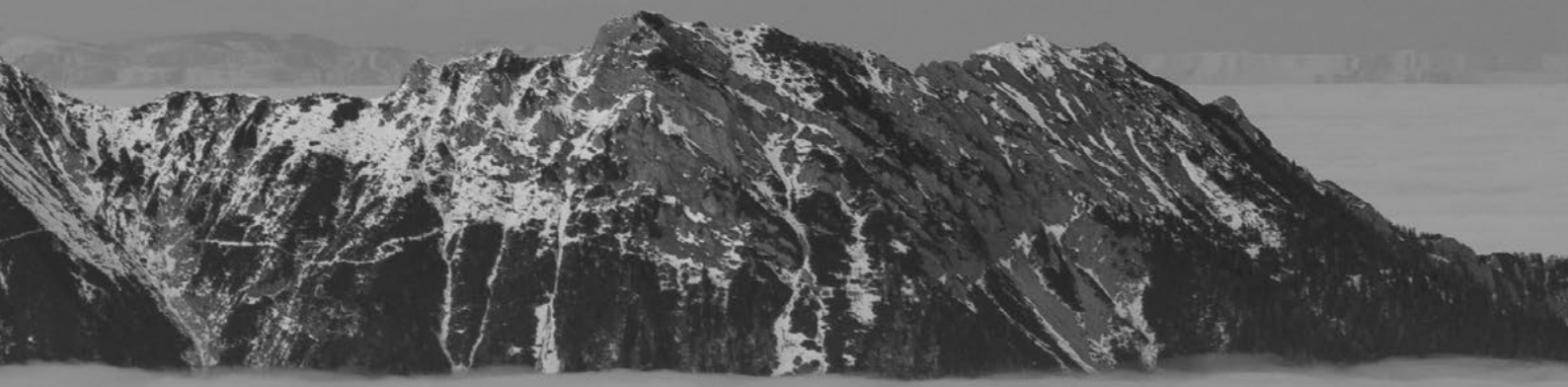
STEPS TO COMPLETE THE TASK:

Step 1: Brainstorm about what services or products would you like your business to have. Make sure to consider all the aspects needed, which you read about in the articles.

Step 2: Think about a simple BMC regarding your chosen business.

Step 3: Think about the four building blocks which need to be considered while turning your business into a circular one. Make notes about the actual steps which need to be taken.

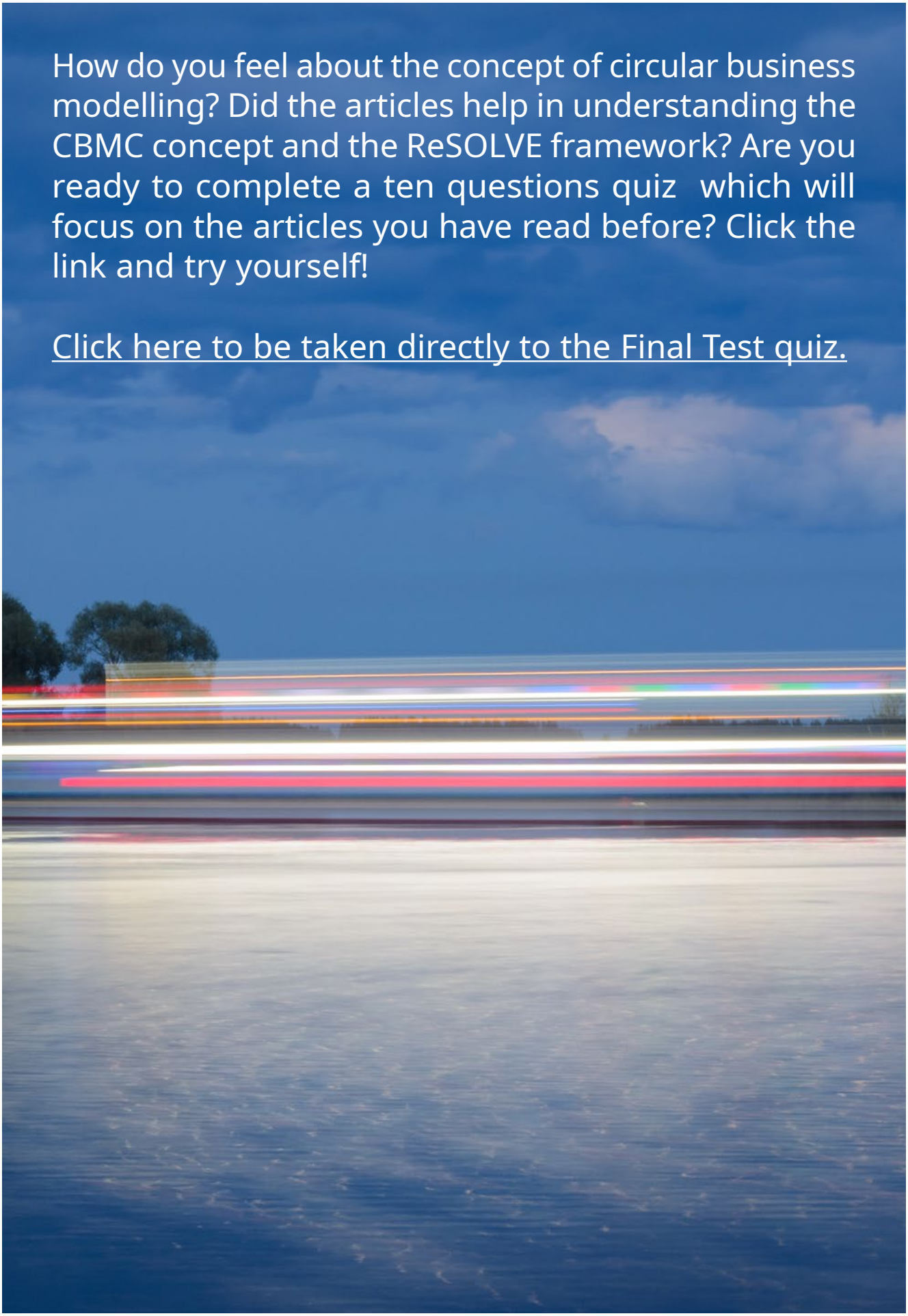
Step 4: Summarise your findings and prepare a presentation about them.



FINAL TEST

How do you feel about the concept of circular business modelling? Did the articles help in understanding the CBMC concept and the ReSOLVE framework? Are you ready to complete a ten questions quiz which will focus on the articles you have read before? Click the link and try yourself!

Click here to be taken directly to the Final Test quiz.



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FURTHER READING AND RESOURCES

Live Circular Canvas Curriculum
https://livecircularcanvas.eu/uploaded/tiny/files/live-circular-canvas_final.pdf

Live Circular Canvas learning platform
https://livecircularcanvas.eu/en

Live Canvas learning platform
https://live-canvas.eu/en/learning-area/list/learning-space

Skill Circle website – about circular economy in general
https://skillcircle.eu/

What circular economy is?
Source: Ellen MacArthur Foundation
https://youtu.be/zCRKvDyyHmI

Sustainability Guide – Cradle-to-cradle system
https://youtu.be/4jORau0V62c ;
https://sustainabilityguide.eu/methods/cradle-to-cradle/

LEARNING CIRCLE

RightChallenge

innovade
LEADERSHIP IN INNOVATION

spectrum
RESEARCH CENTRE

cantabria perma cultura

UNIVERSITY OF LATVIA

FHB

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EDUCATIONAL CENTER

Banbridge District Enterprise

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