



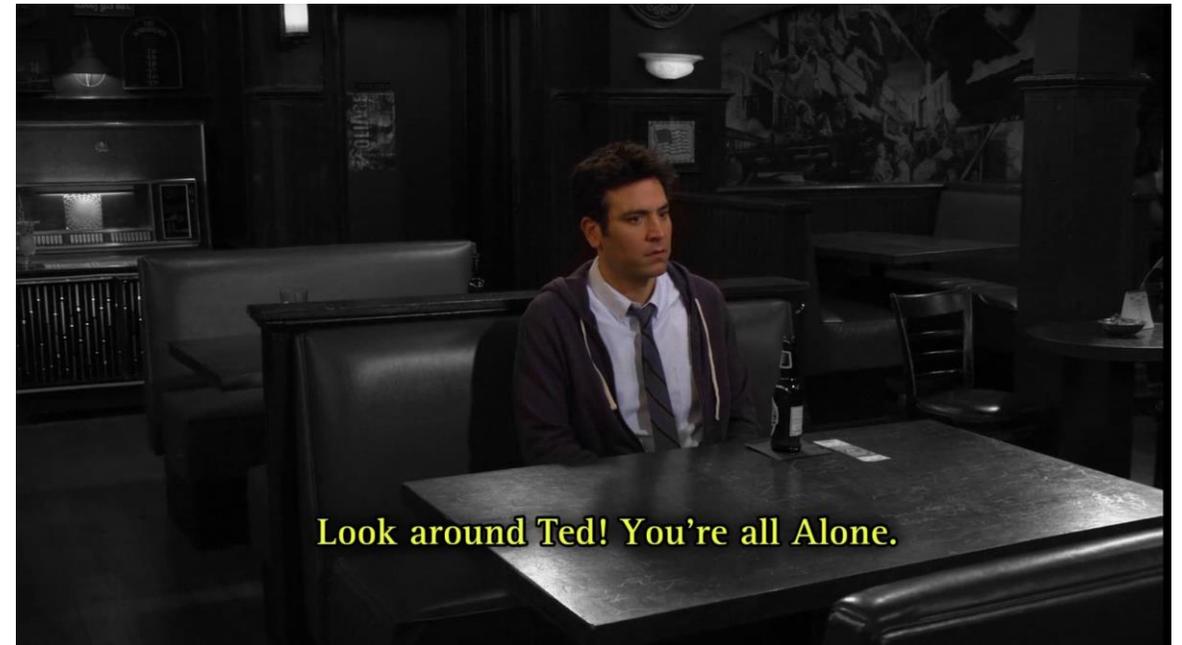
Lisbon School
of Economics
& Management
Universidade de Lisboa

ENTREPRENEURSHIP FOR SUSTAINABILITY

4. Business Models

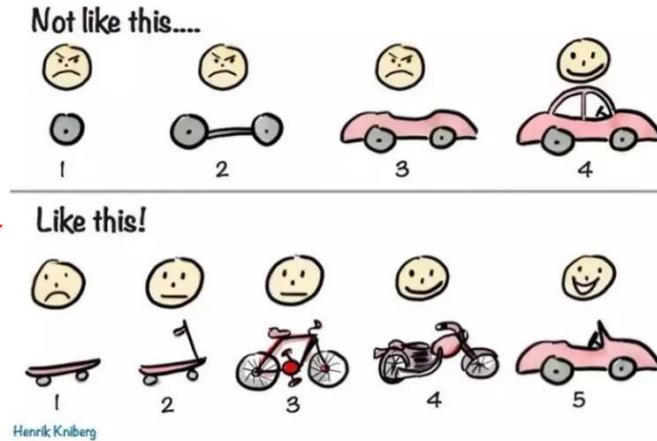
Duc Hoang, Ph.D.

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Value Proposition \Leftrightarrow Customer Segments

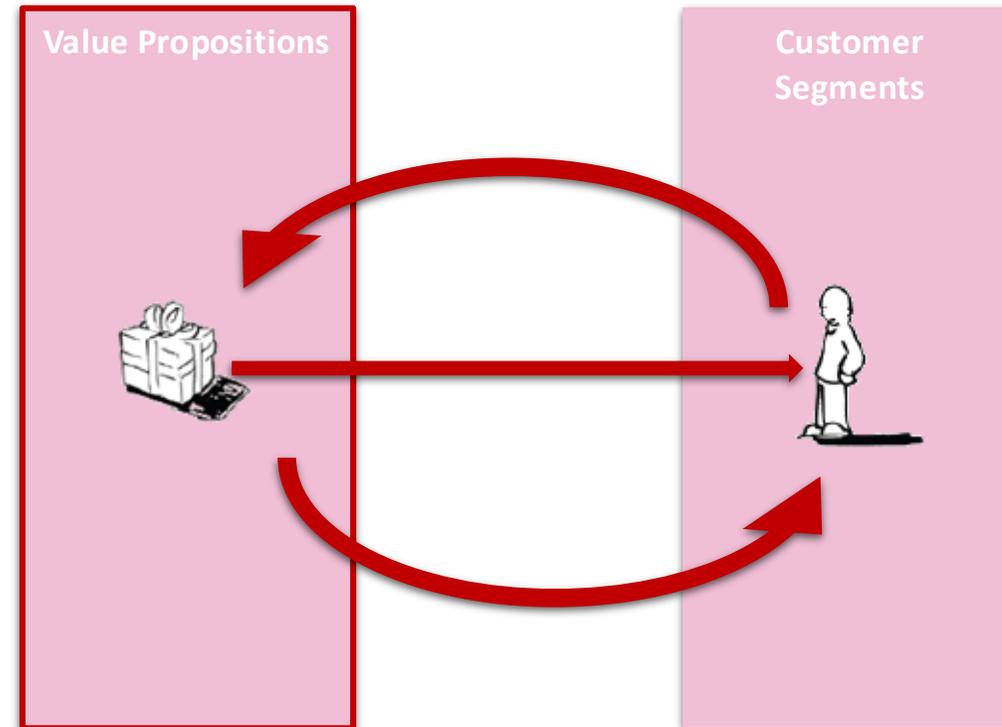
- 7 out of 10 of customers **don't** want your product (Simon-Kucher et al., 2014)
- It can't be developed in isolation!
- An MVP needs to be developed
- It is necessary to make the **Product Market Fit**



We are familiar with this...

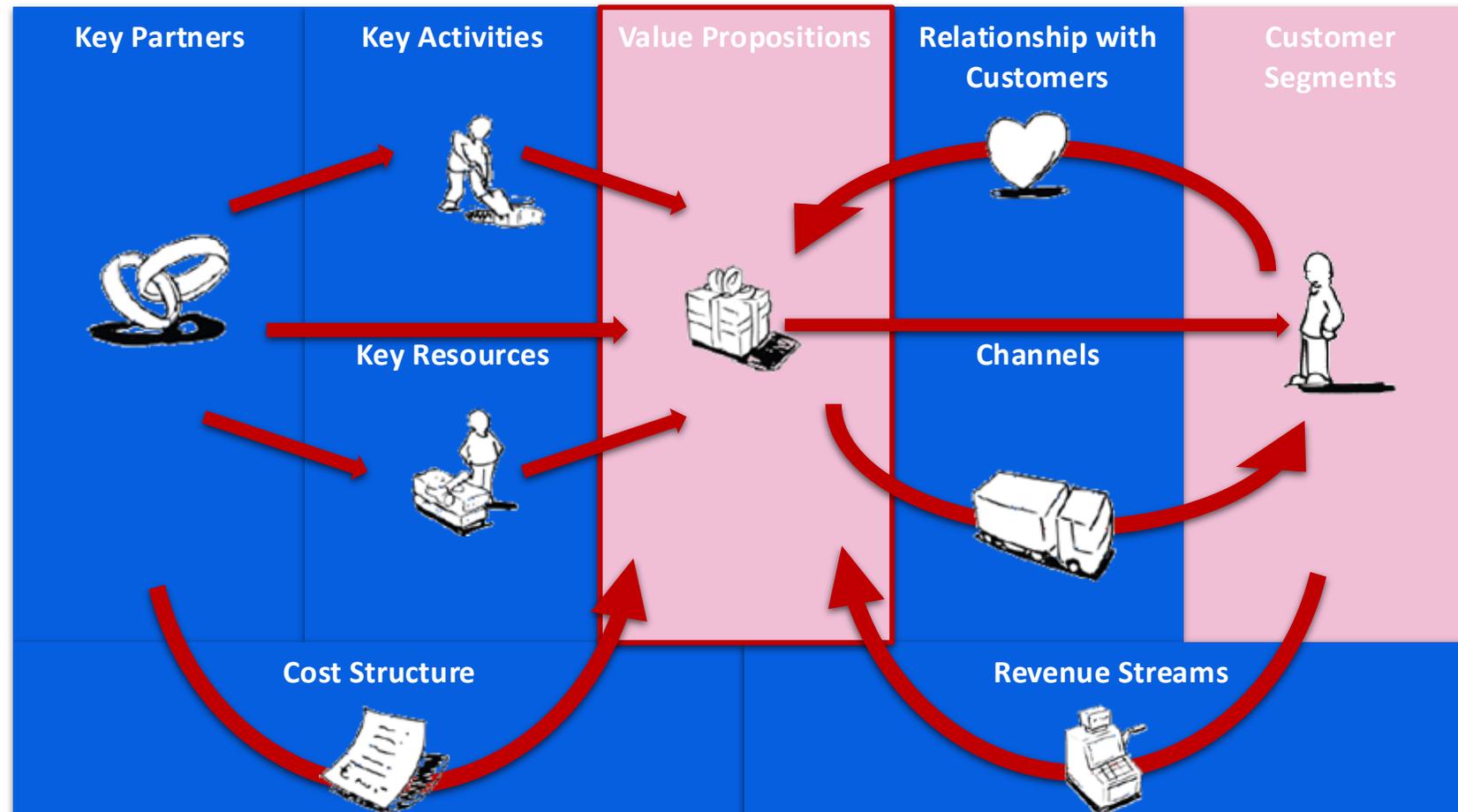
VALUE PROPOSITION CANVAS

So... “How should a company do business?”



And now, let's look at a bigger picture

Business Model Canvas







A YouTube video thumbnail showing three men in a hallway. One man in a green and white jacket is on the left, another in a black tracksuit is in the center, and a third in a white and green jersey is on the right. The text 'YOU'VE GOT ONE MARBLE' is overlaid at the bottom. The video title below the thumbnail is '\$456,000 Squid Game In Real Life!' and it has 759M views, posted 3 years ago.

A YouTube video thumbnail featuring a man in a purple suit and a yellow hat standing in front of a colorful, stylized building labeled 'WONKA'. The video title is 'I Built Willy Wonka's Chocolate Factory!' and it has 336M views, posted 2 years ago. The video duration is 16:11.



A YouTube video thumbnail showing MrBeast and Cristiano Ronaldo in soccer jerseys (white and red) competing for a soccer ball. The video title is 'Beat Ronaldo, Win \$1,000,000' and it has 222M views, posted 2 months ago. The video duration is 22:45.

A YouTube video thumbnail showing a large group of people in various colored shirts (red, yellow, blue) standing in a circle on a grassy field. The video title is '100 PEOPLE Last To Leave Circle Wins \$500,000' and it has 499M views, posted 3 years ago. The video duration is 17:44.

AGENDA

1. Definitions and characteristics of business models
2. The Business Model Canvas
3. Business models in the Lean Startup methodology
4. Sustainable business models: the Triple Layered Business Model Canvas
5. Circular Business Models
6. Lesson Learned 2 preparation





What is a Business Model? (1)

A business model describes how a firm conducts its business:

- the **system of activities and relationships**
- through which it **creates, delivers, and captures value** for customers and other stakeholders.

It is a system of **interdependent activities** carried out by the focal firm and its partners, together with the mechanisms that **connect** those activities.

These activities use:

- human resources
- physical resources
- financial resources

to achieve a specific objective.



What is a Business Model? (2)

A business model has **four dimensions**:

1. What – Content What activities are performed? Production, sales, logistics, customer support?

2. How – Structure

How the activities are linked together: sequencing, coordination, channels

3. Who – Governance

Who performs the activities?

Possible actors include: the firm itself, partners, customers, digital platforms

4. Why – Value Logic

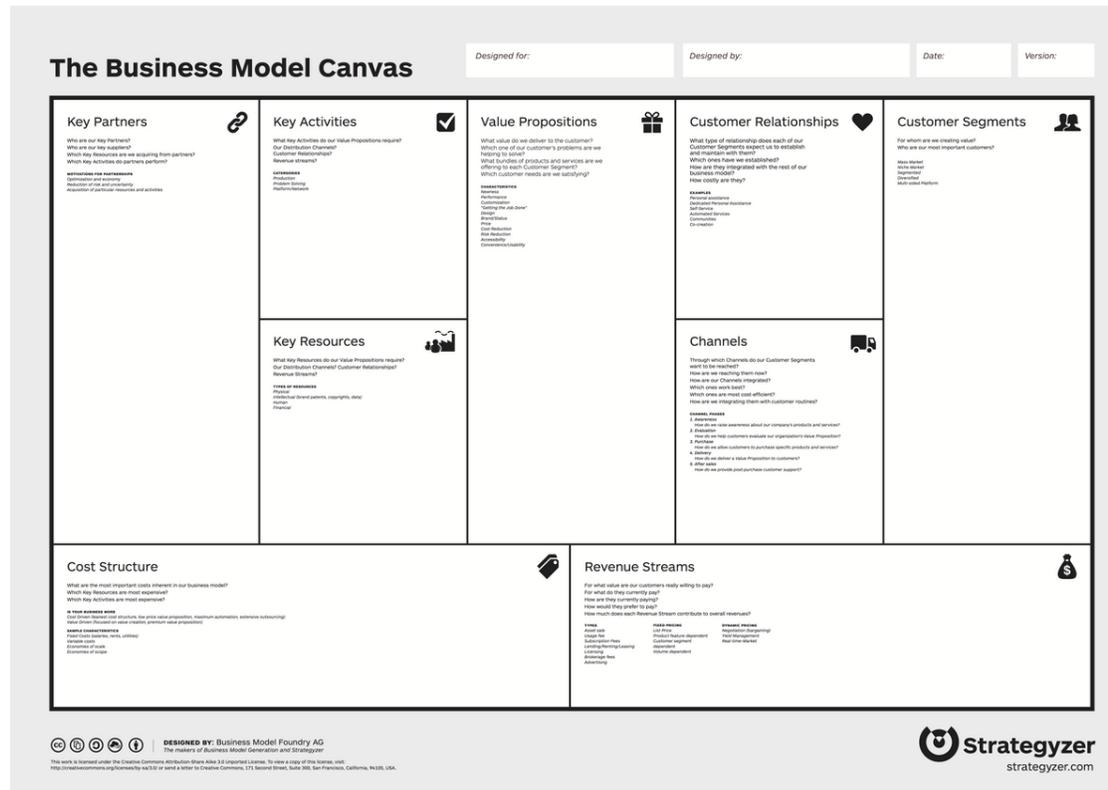
Why the model works in terms of **value creation and value capture**.

This includes: value proposition, cost structure, revenue mechanisms



The Business Model Canvas

A visual tool that helps represent the key building blocks of a business model



(Osterwalder & Pigneur, 2010)





The Business Model Canvas

Designed for:

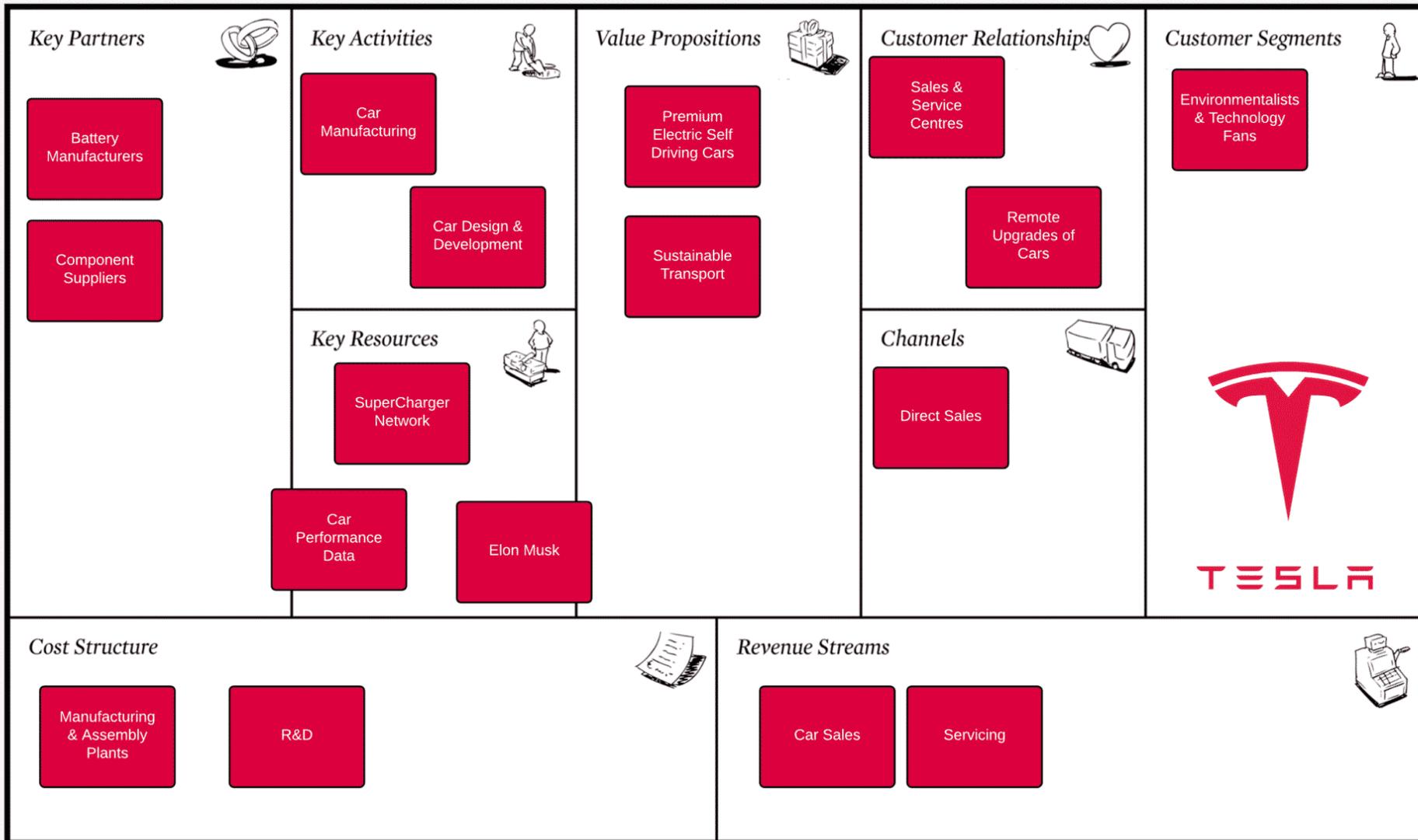
TESLA

Designed by:

Denis Oakley

On: / /

Iteration:



General Company Description

Products and Services

Operational Plan

Marketing Plan

Market Analysis

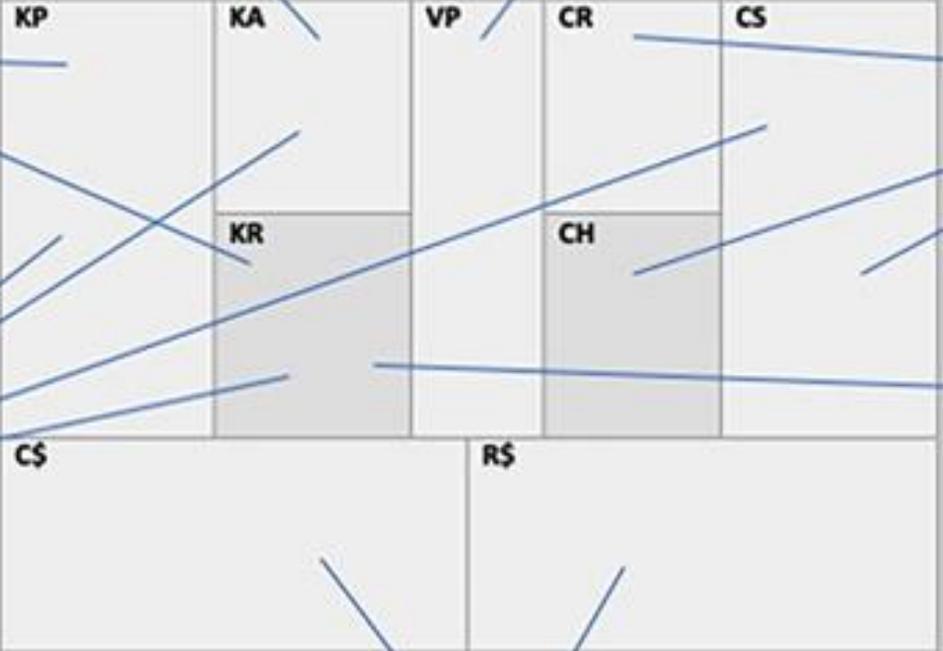
Strategy

Management and Organization

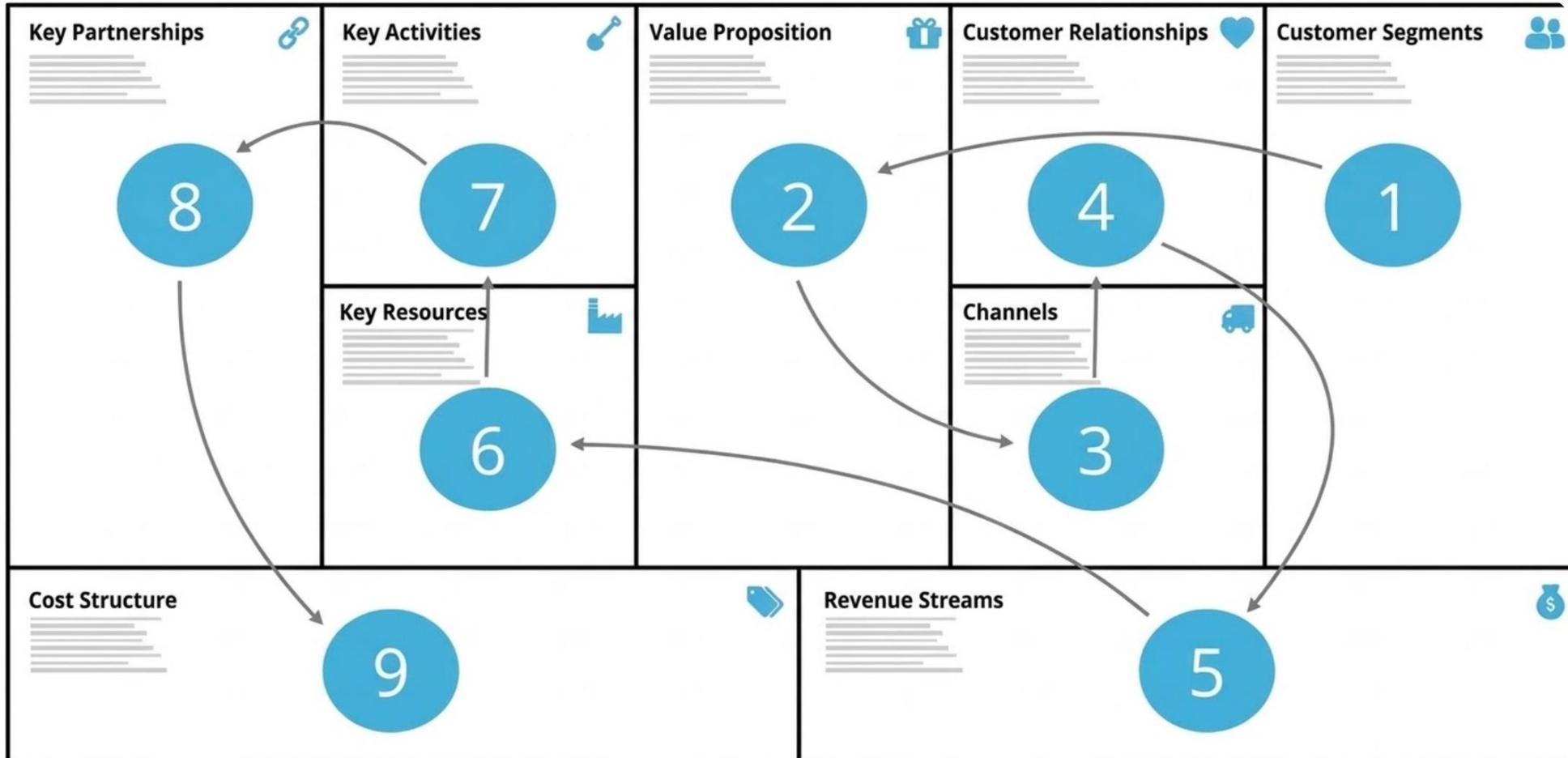
Milestones

Key Risks

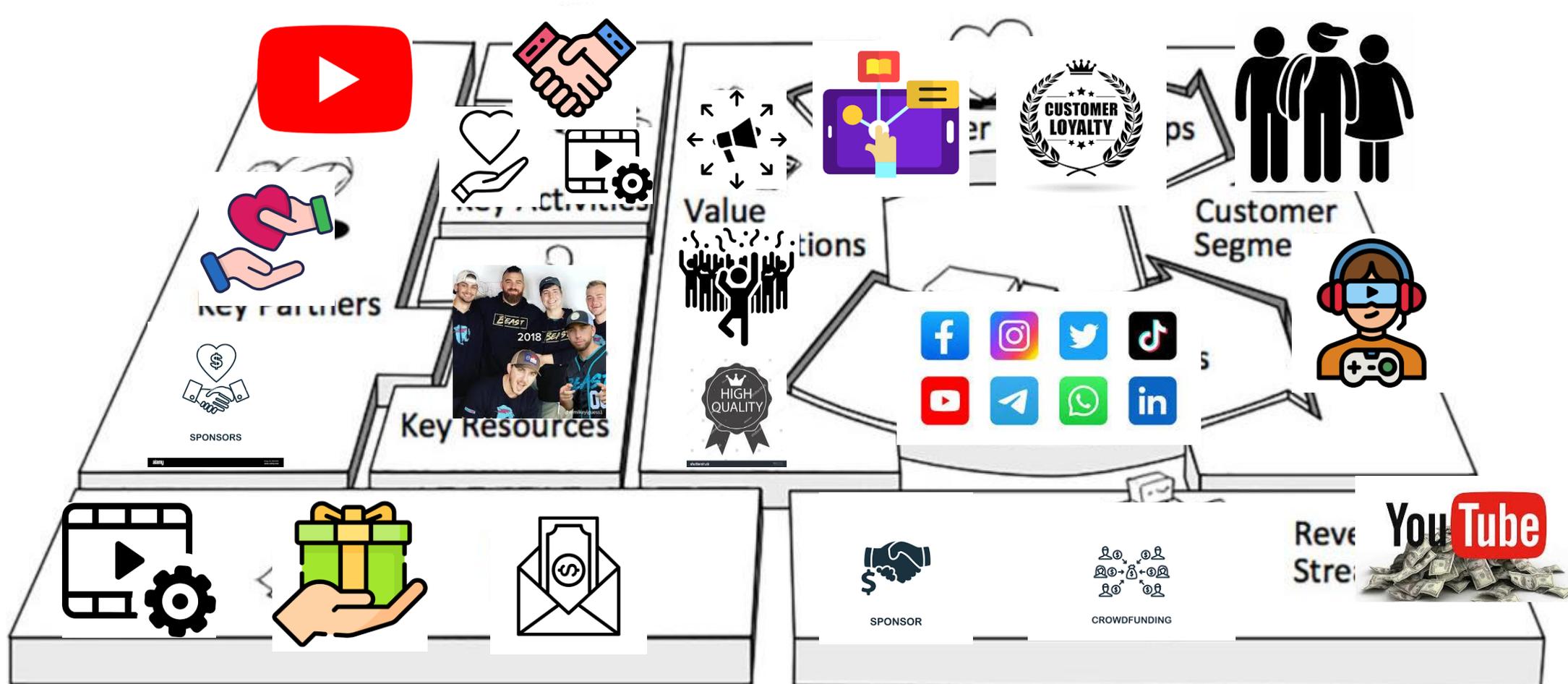
Financial Plan



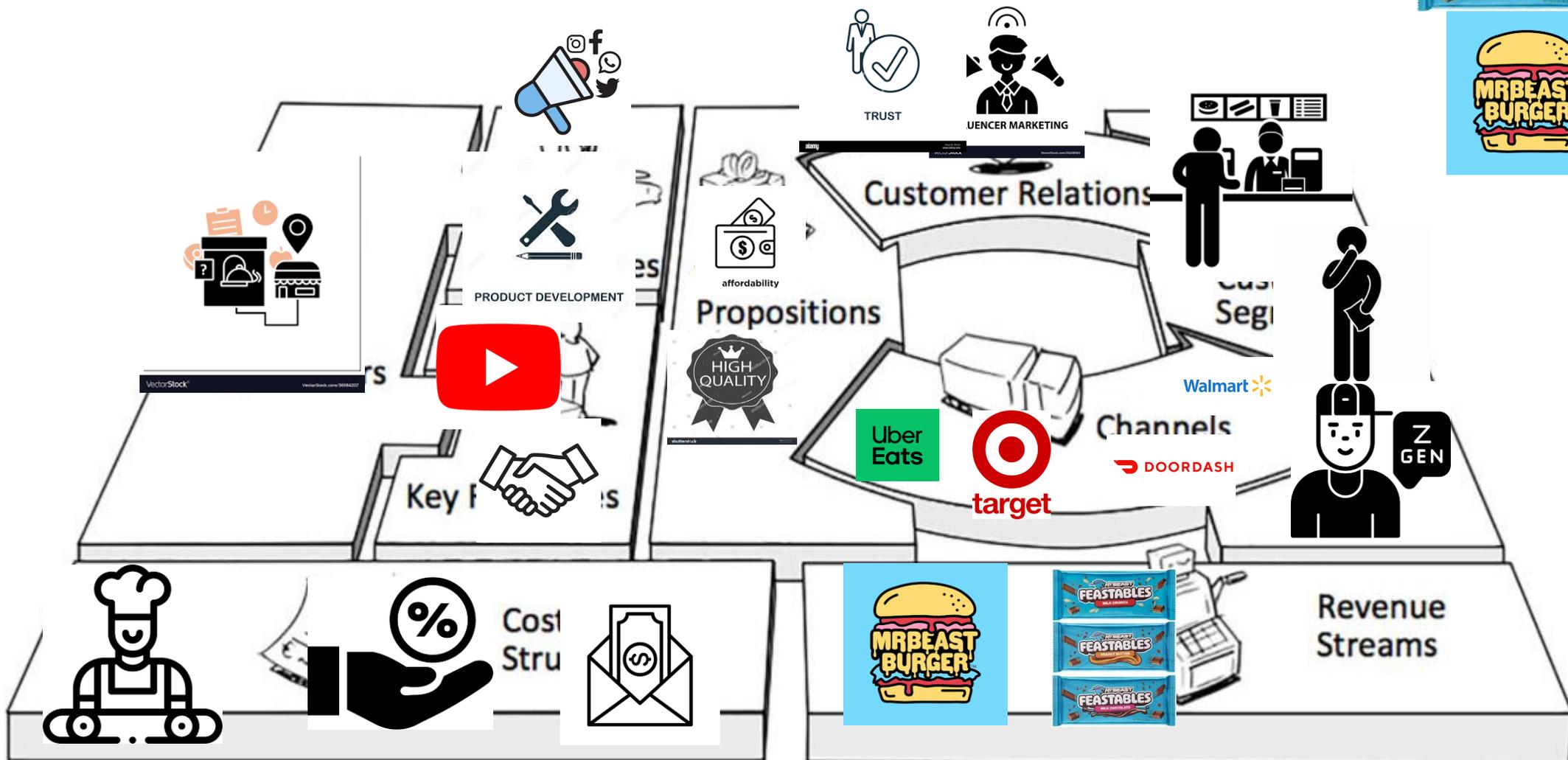
How to present the Business Model?

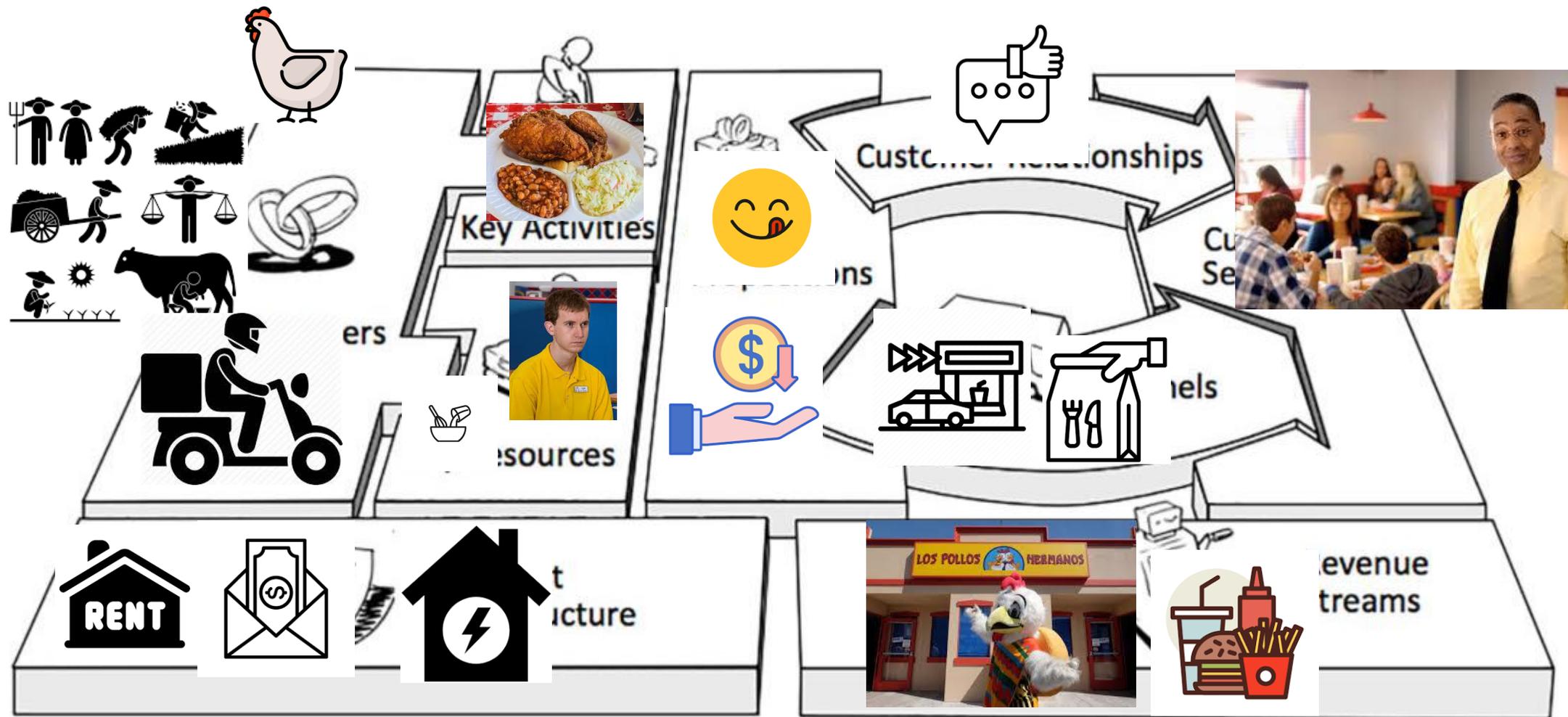


Business Model Development

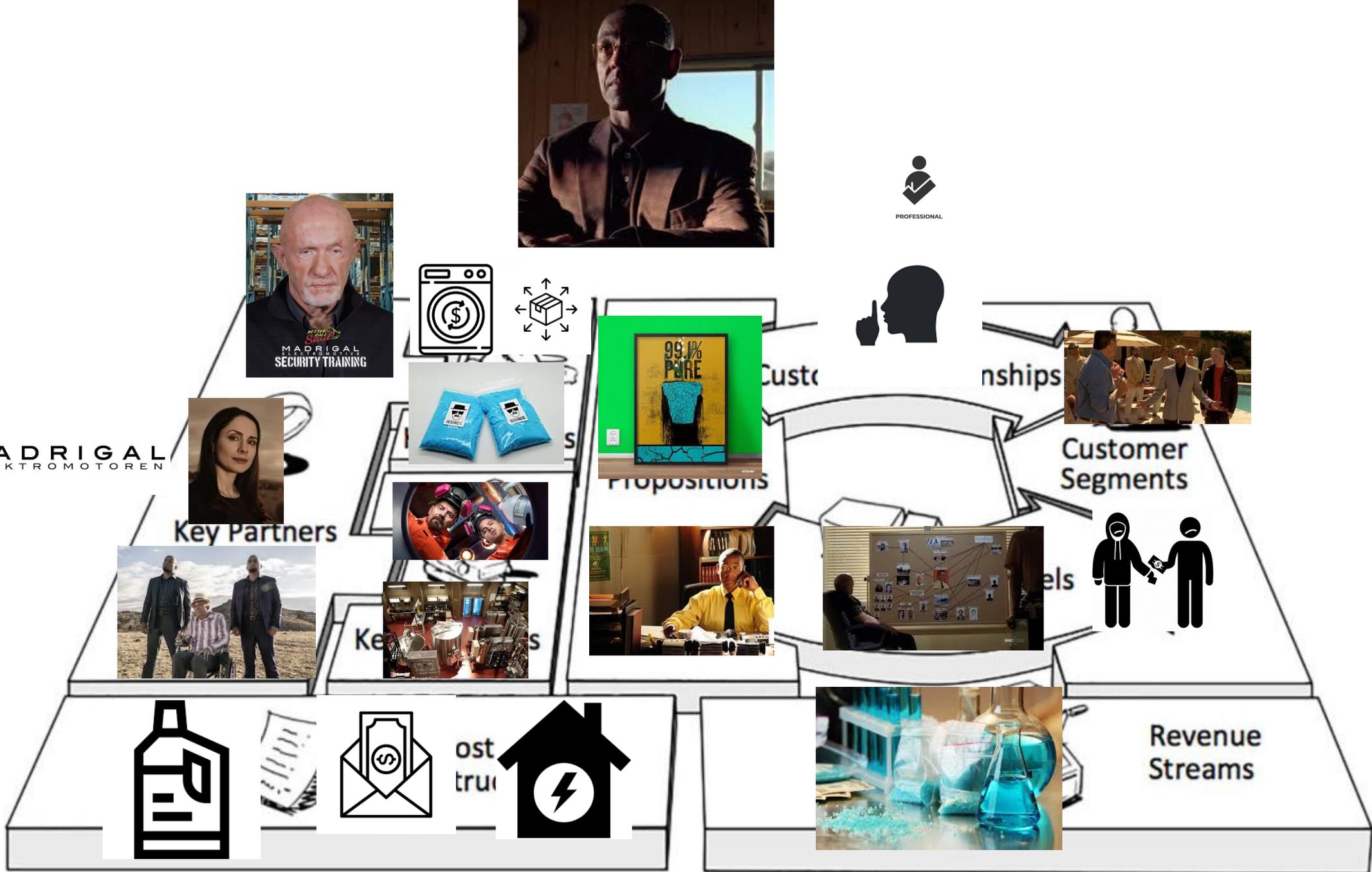


Business Model Development





MADRIGAL
ELEKTROMOTOREN



The Business Model in the Lean Startup Methodology

- The Lean Startup approach translates the **vision of a business model** into **hypotheses** regarding:
 - Content (What)
 - Structure (How)
 - Governance (Who)
 - Value logic (Why)
- Entrepreneurs then:
 - Prioritize the hypotheses
 - Test them in the market
 - Learn from feedback
- Based on the results, they may:
 - continue with the current model
 - **pivot** (change the content, structure, governance, or value logic)
 - abandon the model



In short...

1. A business model is not simply a product or a marketing strategy.

It is the **entire system of activities, partners, and monetization mechanisms** that make the business possible and sustainable.

2. The goal is not “just” about making money.

A successful business model creates value for **multiple stakeholders**.

If customers, partners, and other actors do not perceive value, they will not participate in the system.



In short...

3. Entrepreneurship involves designing innovative business models.

Entrepreneurs must decide:

- what product to launch
- how to produce it
- how to sell it
- how to charge for it
- which partners to collaborate with
- what overall value logic connects these elements



In short...

4. Testing the business model using Lean methods reduces risk.

Instead of investing heavily in a single large idea, entrepreneurs can test assumptions incrementally:

- MVP (Minimum Viable Product)
- experiments
- pivots

This allows learning from the market before committing large investments.



Sustainable Business Models

The Triple Layered Business Model Canvas

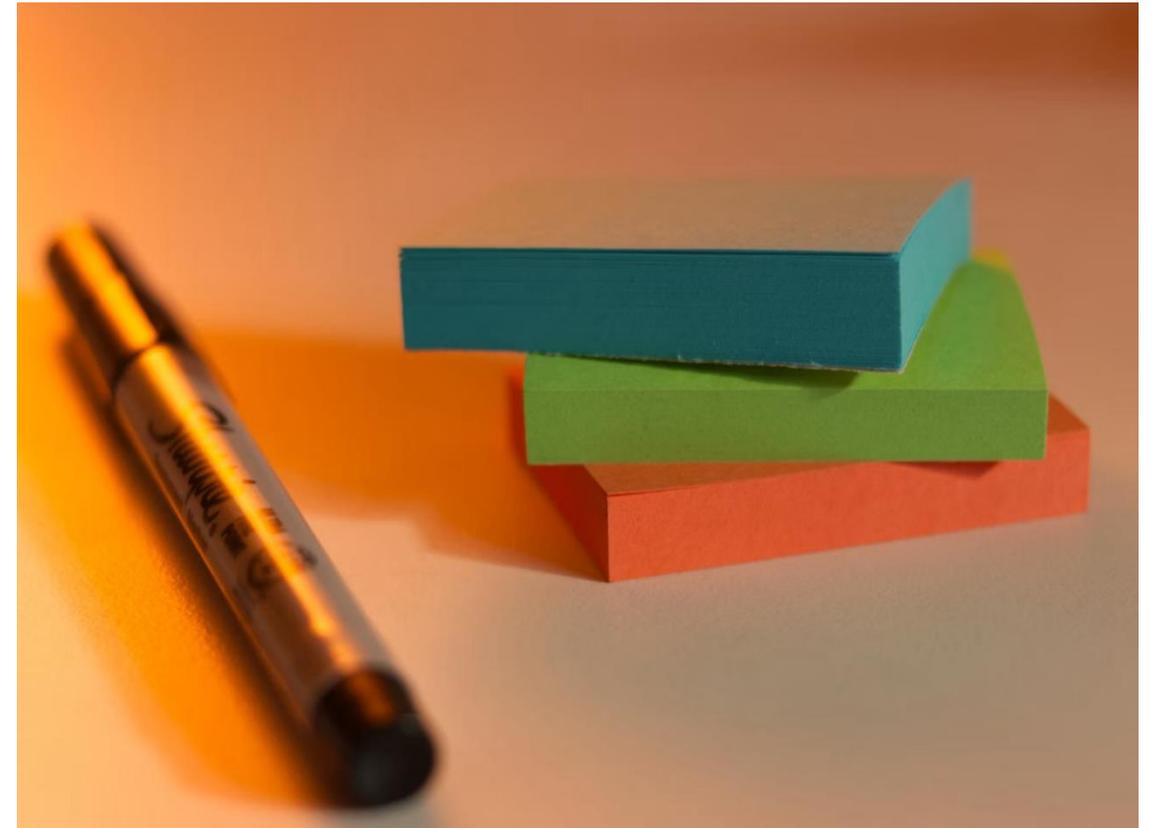
The **Triple Layered Business Model Canvas (TLBMC)** is a tool designed to create and innovate **more sustainable business models**.

It explicitly integrates three dimensions:

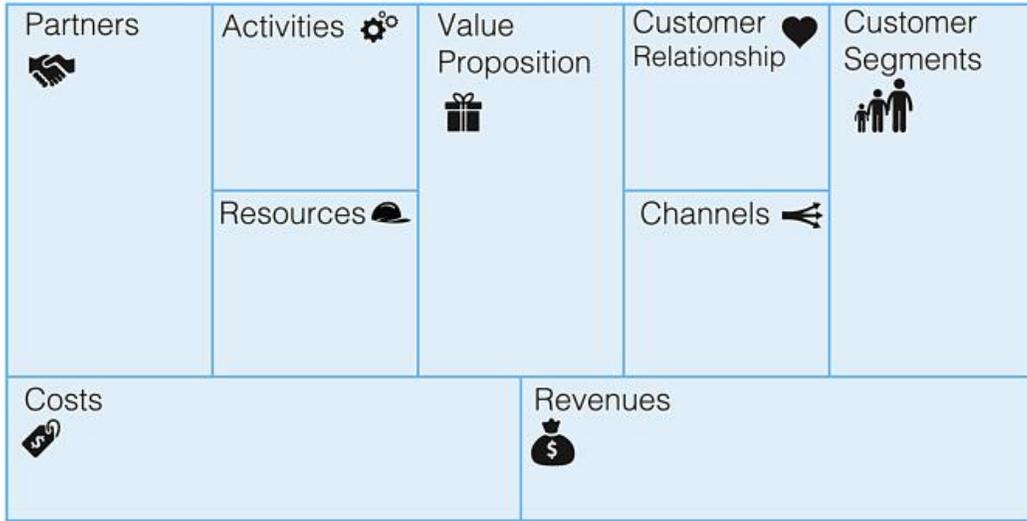
- Economic (*what we have already known*)
- environmental
- social

It extends the traditional Business Model Canvas by adding **two additional layers**:

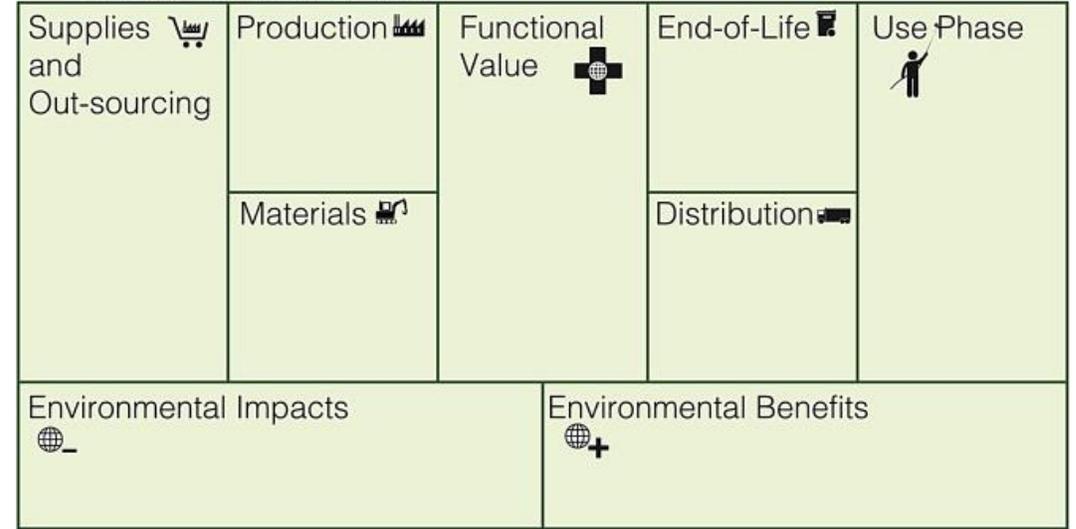
- An **environmental layer** based on the product life-cycle perspective
- A **social layer** based on a stakeholder perspective



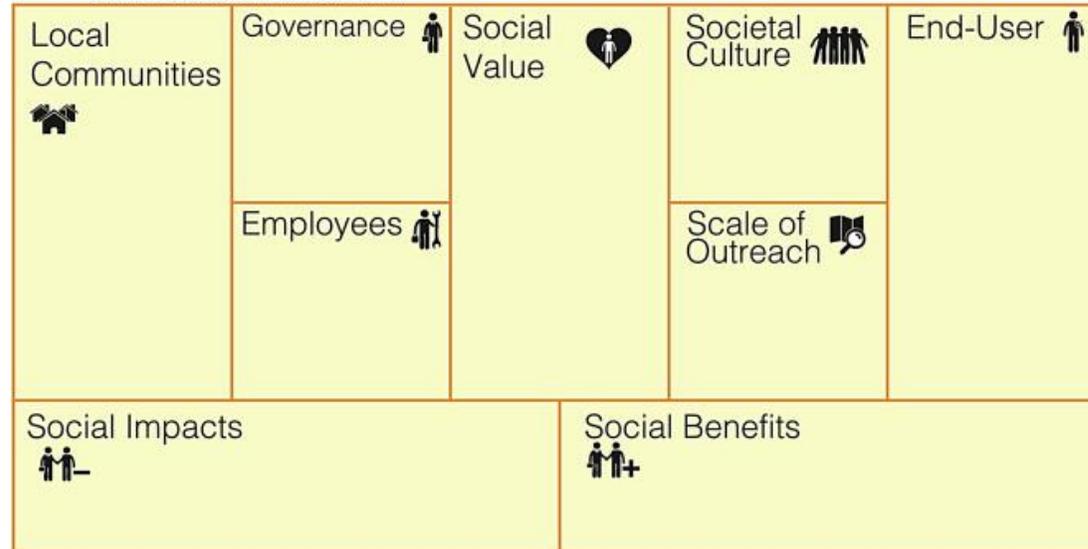
Economic Business model Canvas



Environmental Life Cycle Business model Canvas



Social stakeholder Business model Canvas



Triple Layered Business Model Canvas

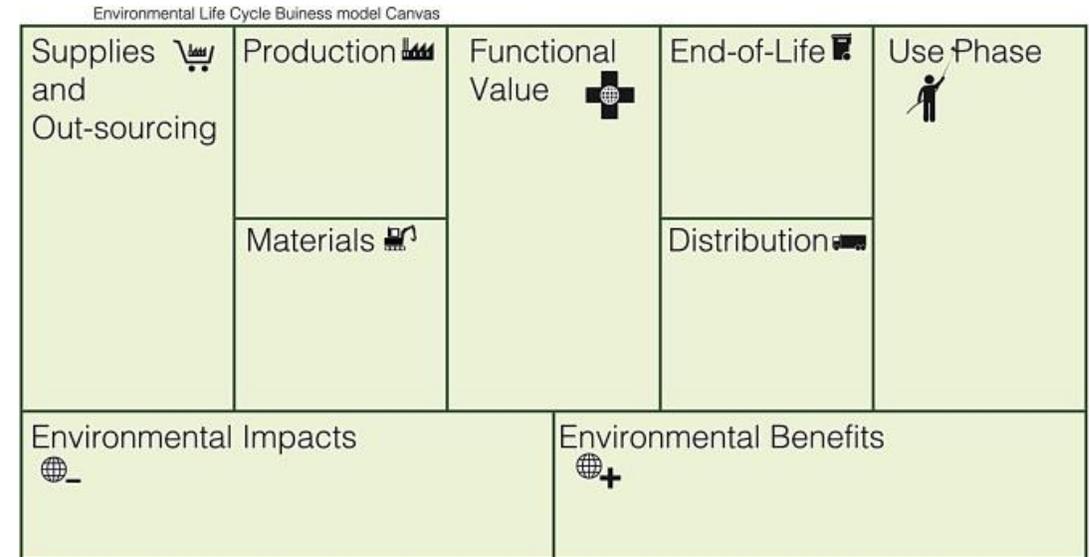
Environmental Layer

Instead of focusing only on activities and resources, this layer examines:

- What **materials** are used?
- How is **production** carried out?
- What **energy** and **water** inputs are required?
- How are products **distributed**?
- What happens during the **usage phase**?
- What happens at the **end** of the product's life?

Key concerns include:

- **environmental impacts** (CO₂ emissions, water use, resource consumption)
- **environmental benefits** (impact reduction, regenerative solutions)

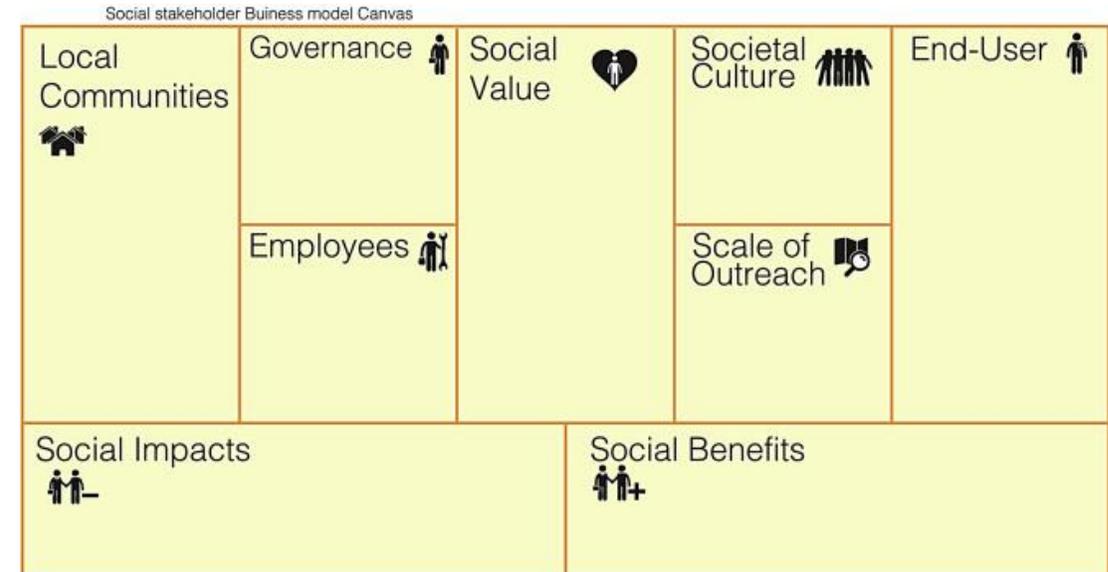


Triple Layered Business Model Canvas

Social Layer

This layer adopts a **stakeholder management perspective**. Instead of focusing only on customers and partners, it asks:

- What **social value** does the company create? (e.g., inclusion, health, wellbeing, quality of life)
- Who are the key **stakeholders**?
 - employees
 - local communities
 - end users
 - NGOs
- How is **governance** structured?
 - transparency
 - participation
 - ownership structure
- What **cultural** and **societal** context is involved?
- What is the **geographic** and **relational** reach of the company?



It also evaluates: negative social impacts & positive social contributions

Triple Layered Business Model Canvas

Integration of the three layers: 2 types of coherence

Horizontal coherence

Within **each** layer (economic, environmental, social), the blocks should **match** & form a **consistent logic**.

E.g.

An environmental value proposition should align with:

- Materials: recyclable
- production methods: clean energy
- usage phase: 3R guidance
- end-of-life management: bottle collect mechanism

“Every box within each layer has to match”

Vertical coherence

When the three layers are aligned, we can examine whether:

- economic choices
- environmental impacts
- social outcomes

are **consistent or contradictory**.

This helps identify:

- **contradictions**
- opportunities for sustainable **innovation**

Will what you do in a layer destroy another?



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TRIPLE-LAYERED BUSINESS MODEL CANVAS



Case Study

Nespresso

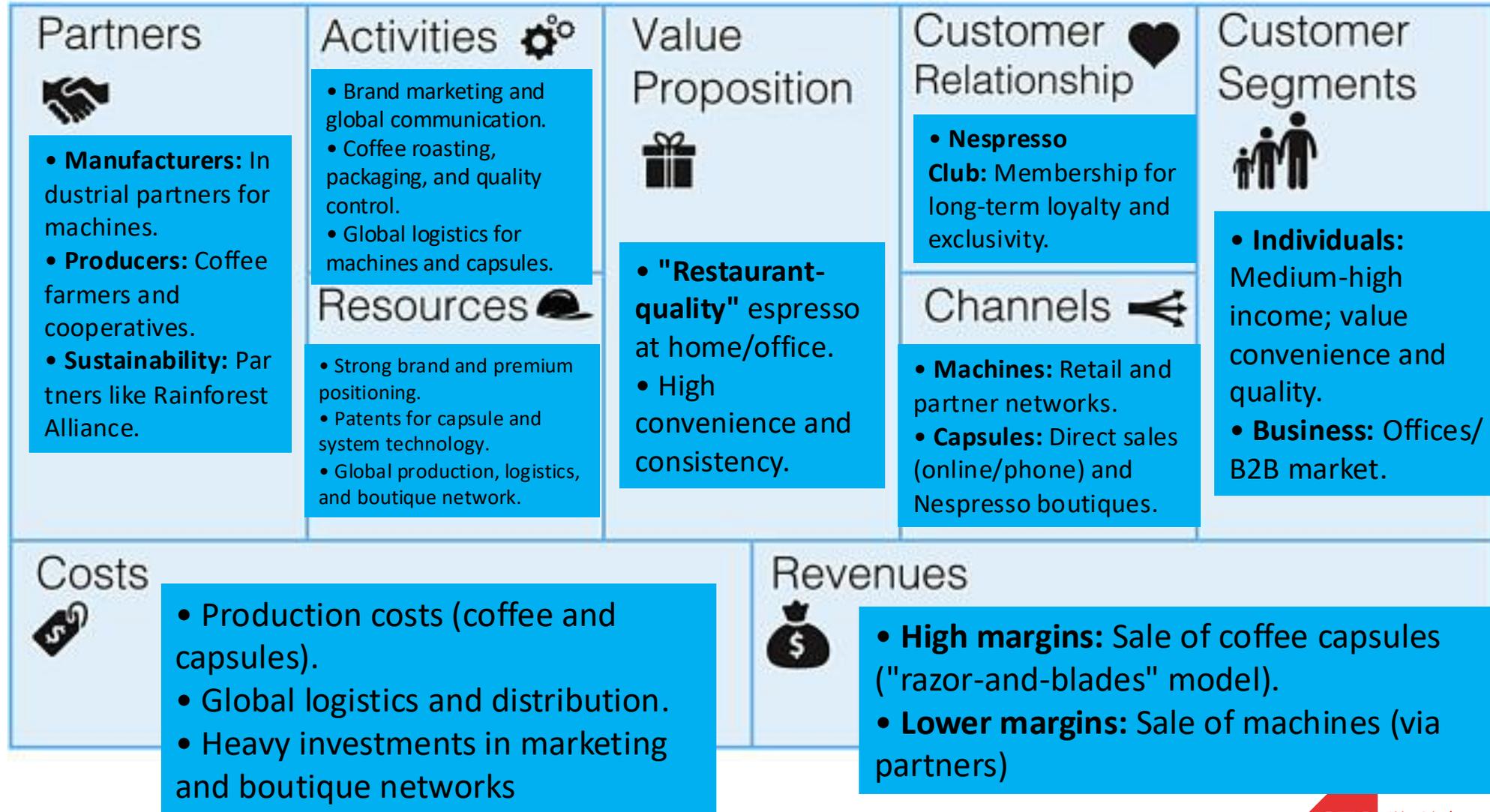
Triple Layered Business Model Canvas

Adapted from Joyce & Paquin (2016)



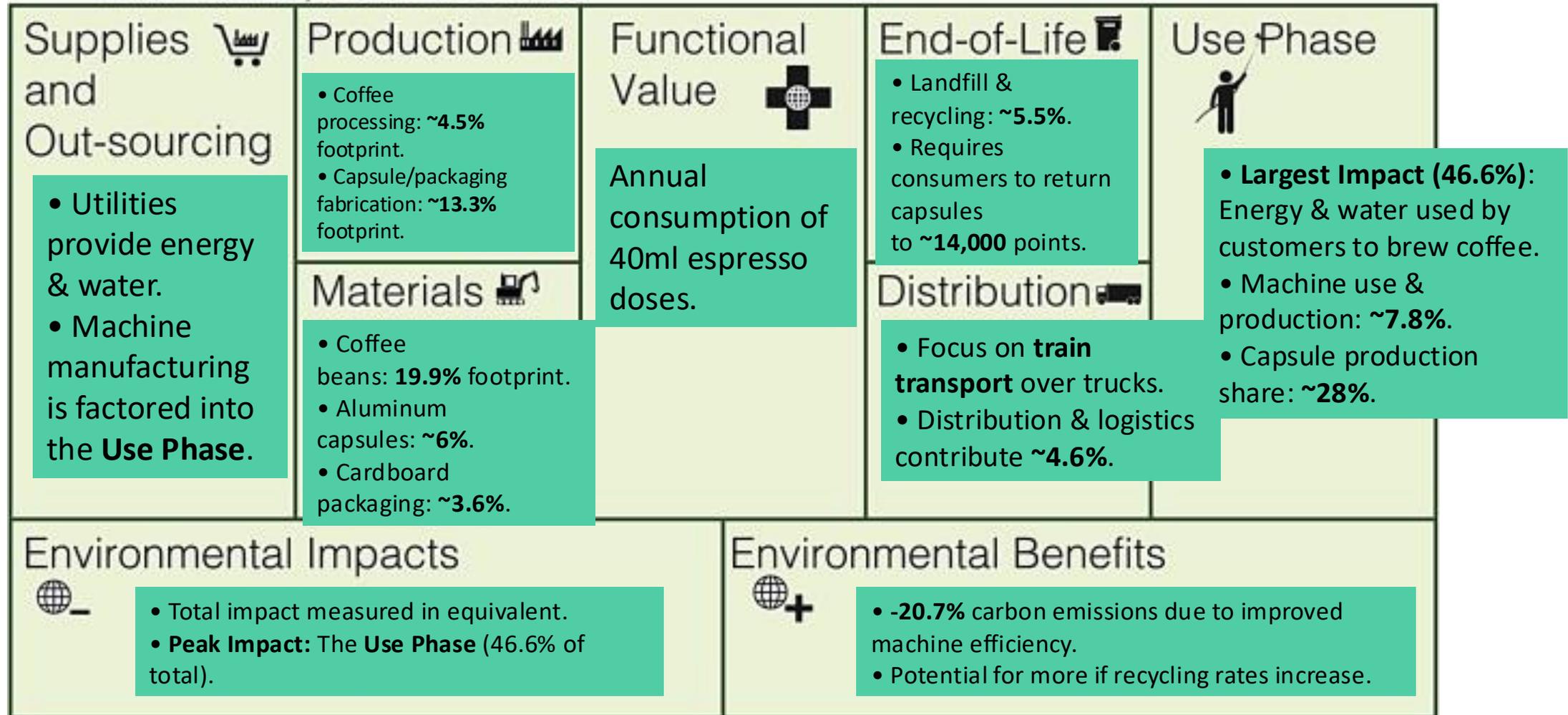
Economic Canvas

Economic Business model Canvas



Environmental Canvas

Environmental Life Cycle Business model Canvas



Social Canvas

Social stakeholder Business model Canvas



TLBMC Block	Economic Layer (Business Model)	Environmental Layer (Life Cycle)	Social Layer (Stakeholders)
Value created	High-quality, consistent, convenient espresso coffee for home and office.	Functional value: number of coffees (doses prepared with the Nespresso system).	"Shared value": better quality of life (pleasure, comfort, energy) and long-term relationships with producers.
Customers / users	Mid-high income consumers and companies/offices.	Users who consume energy, water, and materials when preparing coffee.	Final users + coffee producers + workers + affected communities.
Channels / distribution	Machines via retailers/partners; capsules via online, phone, mail, and Nespresso boutiques.	International transport of coffee and capsules; use of packaging (cardboard, etc.).	Global reach in over 60 countries; physical presence in boutiques and impact in producer regions.
Relationships / stakeholders	Nespresso Club/membership for loyalty and exclusivity.	Relationship with suppliers of energy, water, materials, and logistics throughout the chain.	Relationships with farmers, NGOs, and partners (e.g., AAA programs, Rainforest Alliance); community involvement.
Revenues / benefits	Revenues primarily from capsule sales (high margin); lower margin machines.	Potential environmental benefits; greater energy efficiency of machines; possibility of capsule recycling.	Social benefits: training and support for producers; employment and development opportunities for workers.
Activities / production	Marketing, purchasing, roasting, and packaging of coffee; global logistics and distribution.	Roasting and industrial processing; capsule and packaging manufacturing; machine operation in use phase.	Programal support programs, microcredit, and capacity development in producing communities.
Resources / materials	Strong brand, patented technology, boutique network, production and logistics infrastructure.	Coffee beans, capsule aluminium, packaging materials (cardboard, etc.); energy and water.	Human capital (diverse team, 70% in contact with customers), local knowledge in supply chains.
Partnerships / communities	Machine manufacturers; coffee producers; commercial and sustainability partners.	Suppliers of energy, water, materials, transport, and manufacturing (outsourcing)	Farmers and cooperatives; NGOs and certifiers; local communities linked to coffee production.
Costs / negative impacts	Production, logistics, marketing, and boutique operation costs.	Relevant carbon footprint in use phase and in capsules; aluminium, packaging, and end-of-life machine residues.	Risks of economic dependency for producers; influence on agricultural practices; potential future criticism of caffeine.

Business Model Innovation

The Case of the Circular Economy

The **circular economy** is an economic development model that aims to keep products, components, and materials **in use for as long as possible**, minimizing waste and the extraction of natural resources.

To achieve this, it relies on strategies e.g. **reuse, repair, remanufacturing, sharing, and recycling**, while simultaneously creating **economic, environmental, and social value**.

- **Slowing loops:** Use products for longer (durability, repair, sharing)
- **Closing loops:** Return materials to the system (collection, recycling, remanufacturing)
- **Narrowing loops:** Use fewer resources per unit of value (eco-design, efficiency)



Circular Business Models

A **circular business model** describes how an organization **creates, delivers, and captures value** in ways that **slow, close, or narrow material and product loops**, maximizing value over time while reducing the need for new resources.

The focus of the business model **shifts** from simply **selling more new products** to:

- Using existing products more effectively
- Recovering value at the end of each cycle
- Creating **economic, environmental, and social value**



Circular Economy & Entrepreneurship

- Circular economy: **new sustainability paradigm**: stakeholders collaborate to maximize the value of products and materials while reducing environmental and social impacts.
- **Entrepreneurship plays a key role** in exploring new circular opportunities, both in **new ventures** and in **incumbent firms undergoing transition**.

Circular Business Models (CBM) and the Triple Layered Business Model Canvas (TLBMC)

How do **CBM** extend the logic of the **TLBMC**?

Economic Layer

The model shifts from “**selling products**” to “**selling services or usage**”, such as:

- Leasing
- Pay-per-use
- Subscriptions
- Resale
- Repair
- Second-hand markets
- Sharing platforms

Environmental Layer

The model is designed to:

- **Slow loops** - longer product lifetimes, repair, upgrades
- **Close loops** - collection, remanufacturing, recycling
- **Narrow loops** - fewer materials and less energy per service unit

Social Layer

Requires networks of **stakeholders**:

- Suppliers
- Recyclers
- Municipalities
- NGOs
- Local communities
- Customers

Circular business models push the TLBMC to its limit -
all three layers are designed for **circularity**, not only efficiency.

The Logic of Circular Business Models (1)

1. Start with the Purpose and Resource Problem

What **resource problem** do we want to solve?

Examples:

- Textile waste
- Disposable electronics
- Food waste

in addition to profit → do you have **clear environmental and social goals?**



(Bocken et al., 2018; Suchek et al., 2022)

The Logic of Circular Business Models (2)

2. Use the Three Principles of Circularity

Close loops

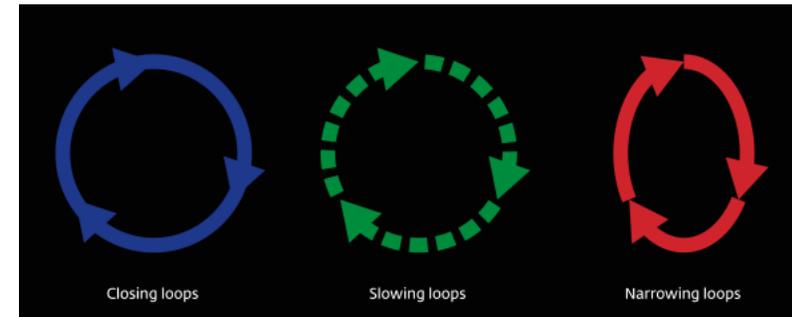
Ensure materials **return** to the system
(collection, remanufacturing, recycling, waste-to-resource)

Slow loops

Use products for **longer**
(durability, repair, upgrade, resale, sharing)

Narrow loops

Use **fewer** resources per unit of value
(eco-design, material and energy efficiency)



(Bocken et al., 2018; Suchek et al., 2022)

The Logic of Circular Business Models (3)

3. Four Critical Blocks When Designing a Circular Business Model

Circular Value Proposition

What service do we promise?
Where does circularity lie?

Examples:

- service instead of ownership
- second-hand markets
- sharing systems

Value Creation and Delivery

What new activities are required?

collection

- sorting
- repair
- remanufacturing
- digital platforms

What new partners are required?

- recyclers
- municipalities
- cooperatives
- technology startups

Value Capture

How do we generate revenue?

- subscriptions
- leasing
- resale
- repair
- shared savings models

How do we measure **environmental and social value**?

- less waste
- lower CO₂ emissions
- local employment

Experimentation (Lean Logic)

Small experiments on:

- value proposition
- operations
- revenue model
- pilots in real environments

The objective is to **learn quickly with low risk**, adjusting the model until it becomes viable and aligned with the business purpose.

Example: Mud Jeans (Leasing Jeans)

Value proposition

Leasing jeans. Customers pay a monthly fee to use jeans and can exchange them later.

Economic layer

Recurring revenue (subscription) instead of one-time product sales.

Environmental layer

Returned jeans are reused or recycled into new garments, closing the fiber loop.

Social layer

Encourages more responsible consumption patterns and creates opportunities in collection and recycling chains.



<https://mudjeans.com/pages/sustainability-mud-jeans>

Example: Peerby (Sharing Platform)

Value proposition

A platform where neighbors lend objects to each other (tools, equipment, etc.) instead of each person buying their own.

Economic layer

Platform-based service model, reducing the need to produce and sell new products.

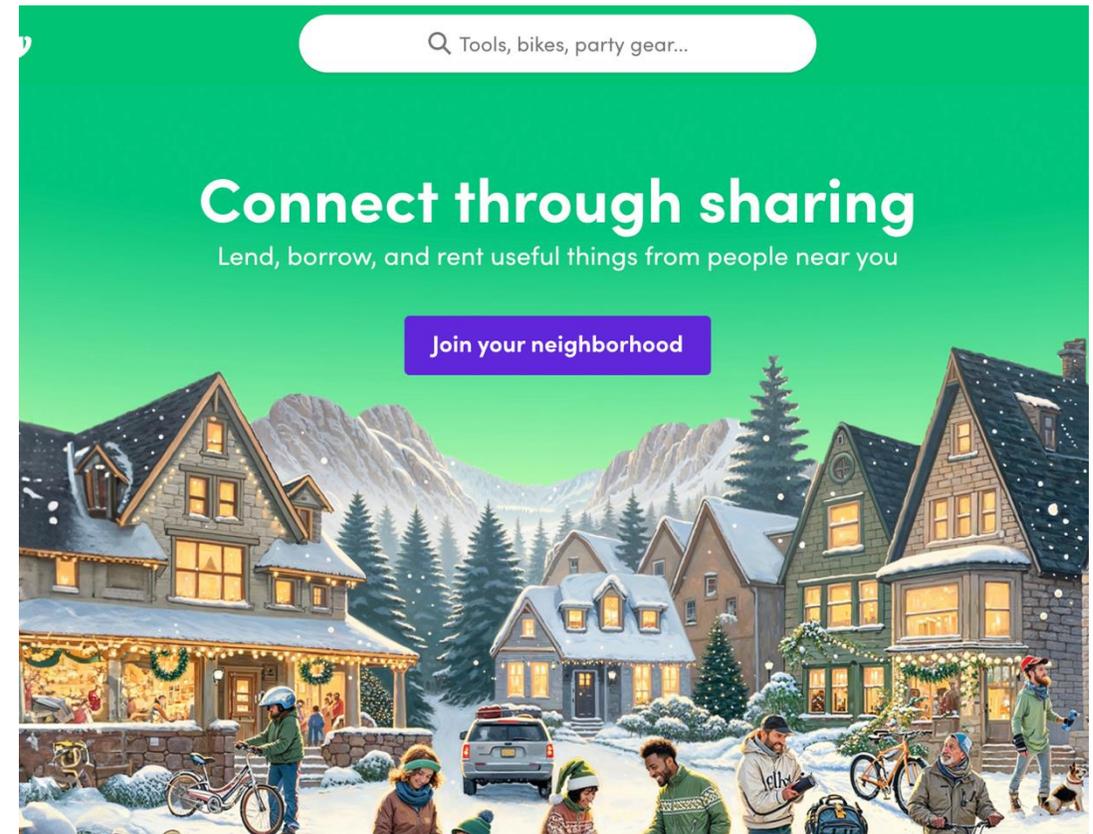
Environmental layer

Increases the utilization rate of each object (slowing/narrowing loops - more service per product).

Social layer

Strengthens community ties and local collaboration.

Some monetization models were rejected because they contradicted the core purpose (encouraging more purchases instead of sharing).



<https://www.peerby.com/en-us>

Lessons Learned 2

1. What do you have to present?

- Results of stakeholder validation (minimum requirement)
- Minimum Viable Product Design and Business Model (minimum requirement)
- Validation of Minimum Viable Product and Business Model

2. Each group has 15 minutes to present.

3. All groups must submit their presentation up to 2 hours before the first class after Easter.

4. The order of presentations will be drawn in class. Date decided today

2026-04-08 (Wednesday)	Lessons Learned II: Validation Pivoting Business Models
2026-04-13 (Monday)	Lessons Learned II: Validation Pivoting Business Models

Bibliography

- Joyce, A., & Paquin, R. L. (2016). The triple layered business model canvas: A tool to design more sustainable business models. *Journal of cleaner production*, 135, 1474-1486.
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers*. John Wiley & Sons. (Available [here](#))
- Zott, C., & Amit, R. (2024). Business models and lean startup. *Journal of Management*, 50(8), 3183-3201.

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