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# FAIRCHAIN PROJECT TO TEST BUSINESS MODELS FOR SMALL FRUIT & VEGETABLE PRODUCERS

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\* *ISEKI-FOOD Association*







# Food Value Chains: Where we are and where we should go



# Food value chains



**LONG**



**SHORT**



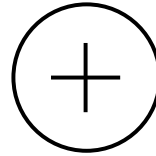
# Food value chains



Economies of scale

Diversity

Affordable prices



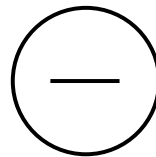
LONG

Unsustainable

Low power of farmers

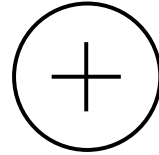
Unhealthy foods

Low resilience



# Food value chains

## SHORT



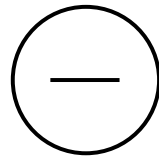
fresh and seasonal foods

local economic benefits

fairer prices for farmers

social cohesion

empowerment of farmers



insufficient quantities

high prices

limitation in expanding

inadequate marketing

over-reliance on a few key people

# Food value chains





# Food value chains



**SHORT**



**ALTERNATIVE**

**INTERMEDIATE**



**HYBRID**

**INCREASE RESILIENCE of  
farmers and processors**

**LONG**



**DOMINANT**

**Goal and  
intention**

# Food value chains

## SHORT



local or regional

- local actors
- local initiatives
- few intermediaries

## INTERMEDIATE



regional or inter-regional

- actors from SVC and LVC
- small or mid-sized

## LONG



national, international

- large producers, retailers, distributors etc

**Geographic scope**

**Actors**

# Food value chains

## SHORT



Close, personal values

- high quality, fresh, seasonal food
- small quantities, narrow range

**Relationships**

**Product range**

## INTERMEDIATE



- Transparent, trusting
- Farmers as partners

high-quality in significant quantities

## LONG



business

quantity and a large range of different, but standardized products

# Food value chains

## SHORT



## INTERMEDIATE



## LONG



**Distribution**

direct

Cooperatives with higher and stable prices for small and mid-sized actors

many intermediaries to reach large retailers

**Innovation processes**

social

Social, organisational and technological, sometimes jointly

technological and organisational

# Food value chains

## SHORT



- farmers' markets
- farm shops
- (organic) box schemes
- community supported agriculture (CSA)

## INTERMEDIATE



- hybrid food hubs
- Systèmes alimentaires du milieu
- mid-tier food systems

## LONG



supermarkets

## Examples

## FAIRCHAIN Project definition of Intermediate Food Value Chain



- *Intermediate value chains are characterized by the **cooperation of small- and mid-sized actors** - from farmers, to processors, distributors, retailers, supporting organizations and other enterprises in a **network** or **strategic alliance** in order to supply fresh, sustainable and high-quality food products beyond the local market in **greater quantities**.*
- *The main objective of intermediate value chains is to increase **economic resilience** of smaller actors in the value chains by an **equal distribution** of value created. By committing to **common values, collective organisation, trusted and transparent relationships**, the actors can reach collaborative advantages and **win-win situations** through technological, social and economic innovations.*

# Food value chains

SHORT



NEW PARADIGM

Intermediate



LONG

**INNOVATIVE BUSINESS MODELS ARE REQUIRED**

To:

- Integrate new innovations
- Create new collaborations
- Increase value creation





# Business models in Food Value Chains



  
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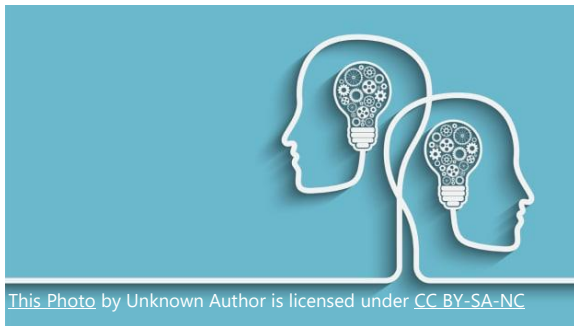
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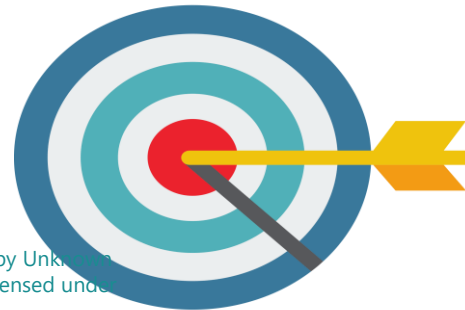


# What is a business model?

A business model has **three main elements**:



**VALUE PROPOSITION**



**VALUE CREATION  
AND DELIVERY**



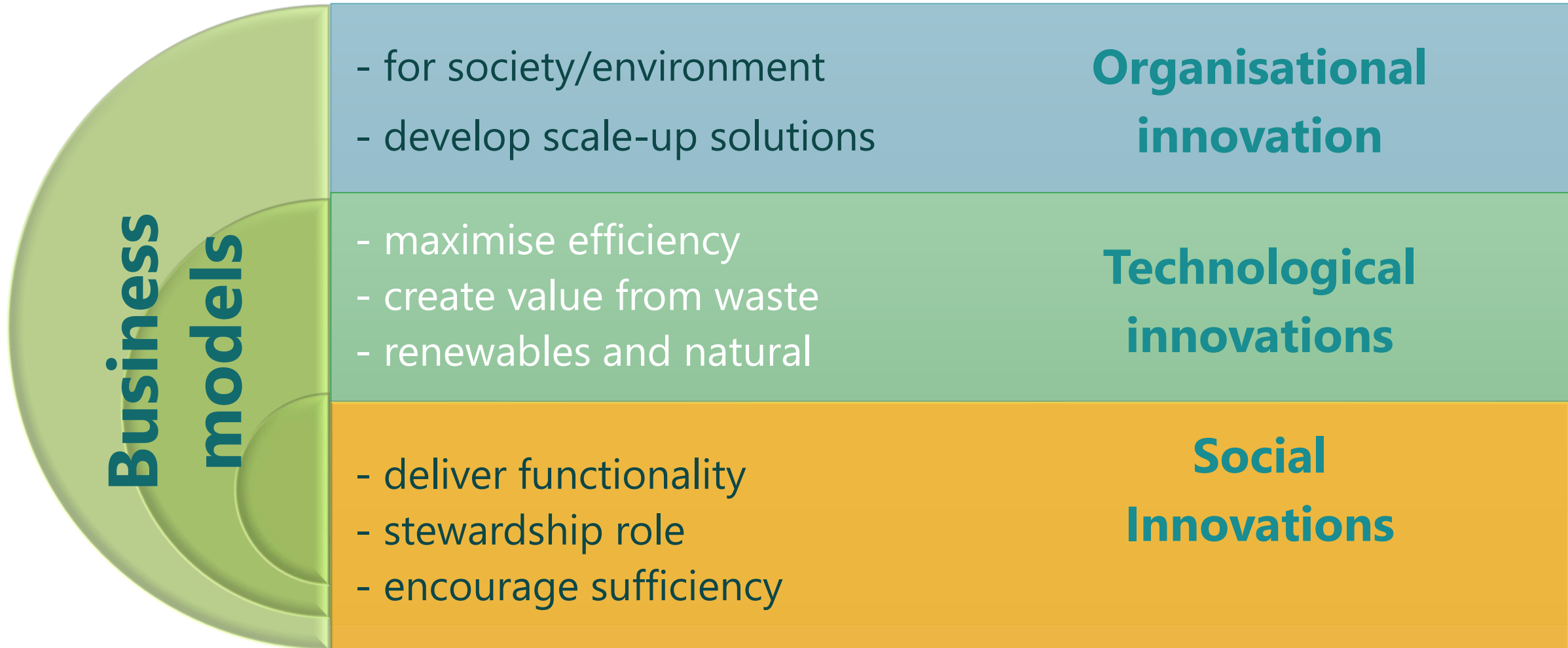
**VALUE CAPTURE**

# What is a sustainable business model?

- **CIRCULAR BUSINESS MODELS**
- **PRODUCT-SERVICE SYSTEMS**
- **BOTTOM-OF-THE-PYRAMID BUSINESS**
- **SOCIAL ENTERPRISES**



# Sustainable business models based on their innovations

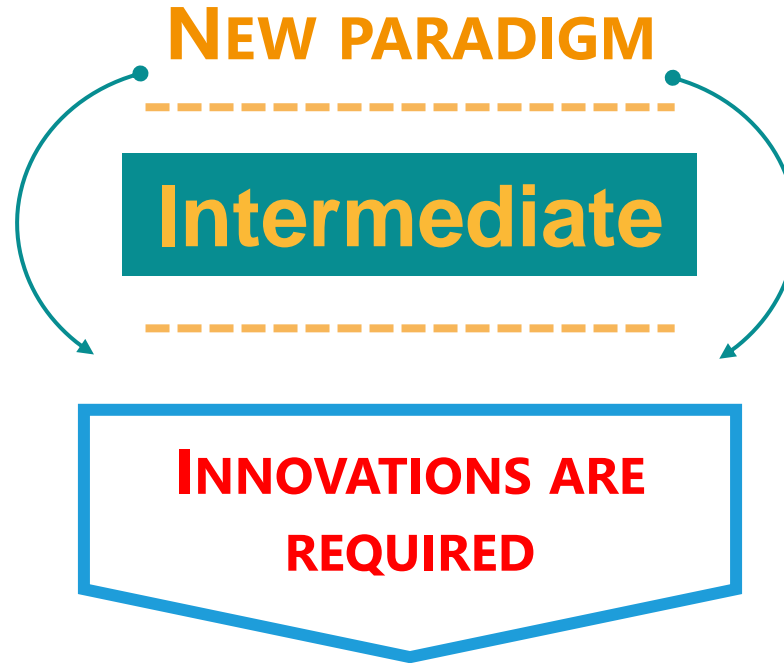


Based on Bocken, Short, Rana, & Evans (2014)

# Food value chains

SHORT

UP - SCALING



DOWN - SCALING

LONG



SOCIAL  
ORGANIZATIONAL  
TECHNOLOGICAL

# Economic Indicators



Issue	Definition	Indicators
<b>INVESTMENT</b>	Positive return on investment due to the sale of the product produced by the innovation	<b>Profitability</b>
<b>VULNERABILITY</b>	actions and mechanisms are put in place ensuring the target volume of production and quality standards are met.	<b>Stability of Production</b>
	actions and mechanisms are put in place ensuring the stable inputs for the production made by using the innovation.	<b>Stability of Supply</b>
	actions and mechanisms are put in place ensuring a diversified and consolidated sales channels for the new products.	<b>Stability of Market</b>
<b>PRODUCT QUALITY &amp; INFORMATION</b>	Having food hazards and safety control measures in place that comply with correspondent and applicable regulations.	<b>Food Safety</b>
	The quality of products (incl. nutritious quality) meets the highest standards applicable to the respective type of product.	<b>Food Quality</b>
	Complying with applicable product labelling codes and traceability standards for the new products.	<b>Product Information</b>
<b>LOCAL ECONOMY</b>	there are recruitment policies that prioritize regional candidates in case the skills are similar.	<b>Value Creation</b>
	purchases of inputs/ingredients for the new products are done from local suppliers when equal or similar conditions exist, in comparison to non-local suppliers.	<b>Local Procurement</b>

# Social Indicators



Issue	Definition	Indicator
<b>DECENT LIVELIHOOD</b>	All producers and employees in enterprises of all scales have time for family, rest and culture, and the ability to care for their needs, such as maintaining adequate diets and earn at least a living wage	<b>Quality of Life</b>
	primary producers and employees have opportunities to increase skills and knowledge, to advance within the enterprise in which they work or to build the future of their own enterprise	<b>Capacity Development</b>
<b>FAIR TRADING PRACTICES</b>	Addresses fair contracts and fair pricing. Buyers through their policies and practices recognize and support suppliers' rights to fair pricing and fair contracts and agreements	<b>Responsible Buyers</b>
	Addresses collective bargaining. Buyers explicitly recognize and support in good faith primary producers and suppliers' rights to freedom of association and to collective bargaining for all contracts and agreements.	<b>Rights of Suppliers</b>
<b>LABOUR RIGHTS and EQUITY</b>	maintaining contracts that are compliant with national laws, respecting freedom of association, non-discrimination and equal opportunity policies and proactively support vulnerable people and minorities.	<b>Labour rights and Equity</b>
<b>HUMAN SAFETY &amp; HEALTH</b>	ensuring workplace safety and health for employees and contributing to healthy and safe lifestyles of the local community through financial support to health services or providing access to locally produced healthy products.	<b>Workplace Safety and Health Provisions, Public Health</b>
<b>CULTURAL DIVERSITY</b>	producing new, regional products while respecting the traditional practices, universal rights of indigenous communities to protect their knowledge and avoiding food fraud at all causes.	<b>Indigenous Knowledge</b>

# Environmental Indicators

Issue	Definition	Indicator
<b>ATMOSPHERE</b>	Addressing greenhouse gas emissions	<b>Climate change</b>
	Addressing Ozone depletion	<b>Ozone depletion</b>
	Addressing Ionising radiation	<b>Ionizing radiation</b>
	Addressing Photochemical ozone formation	<b>Photochemical ozone formation</b>
	Addressing Particulate matter/respiratory inorganics	<b>Particulate matter</b>
<b>RESOURCE USE</b>	Impact of energy consumption of the value chain (related to transformation, transportation, storage, etc.).	<b>Energy use</b>
	Use of critical material by innovation (covering packaging materials, and waste)	<b>Material use</b>
	Whether the innovation imply rebound effects on land use (e.g. building of roads, buildings, etc.)	<b>Land use</b>
	Impacts on water withdrawal and water quality (e.g., Acidification, Eutrophication, Marine/freshwater and Plastic use)	<b>Water withdrawal and water quality</b>
<b>BIODIVERSITY</b>	Impact of the innovation on diversity, functional integrity and connectivity of natural ecosystem.	<b>Biodiversity</b>
<b>ANIMAL WELFARE</b>	Impact on animal welfare by the stable condition (space, temperature, humidity, etc.)	<b>Animal welfare</b>



# FAIRCHAIN Project approach





# Objectives of FAIRCHAIN project

## Main Objective



Test, pilot and demonstrate technological, organisational, social innovations that have the potential to support intermediate value chains and address some of their issues

## Specific Objectives



Deliver a set of innovations



Develop business models



Formulate recommendations,

# Case studies and innovations of FAIRCHAIN




**CS-Aut**  
Food Innovation Incubator for scaling-up short food supply chains

Food Innovation Incubator



**CS-Gre**  
Traceability and reliable information sharing in local dairy production

Blockchain



**CS-Bel**  
Innovative packaging machine for small and mid-sized actors

Flexible filling machine

Sharing of processing equipment and/or infrastructure

Funding system based on philanthropic income streams



**CS-Swe**  
Establishing a wild berry business to boost local economy and social cohesion in Sweden northern regions

ICT tool for berry picking



**CS-Fra**  
Production and distribution of innovative dairy drinks based on

Fermented whey-based drink

Distribution with reduction of packaging consumption

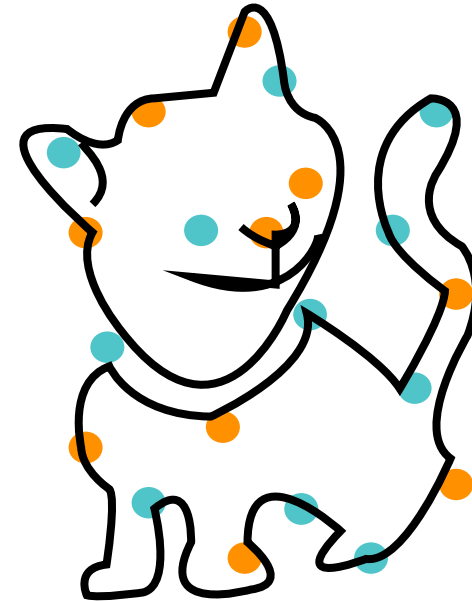
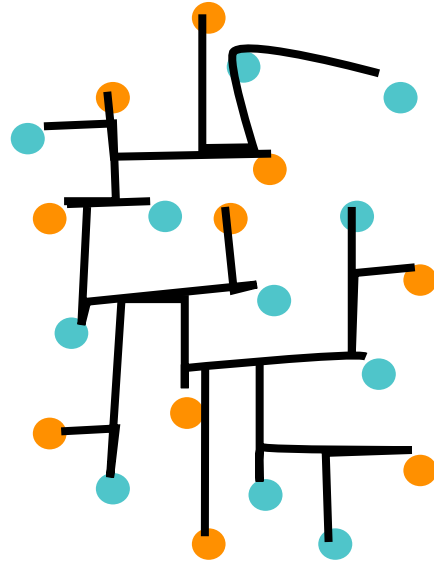
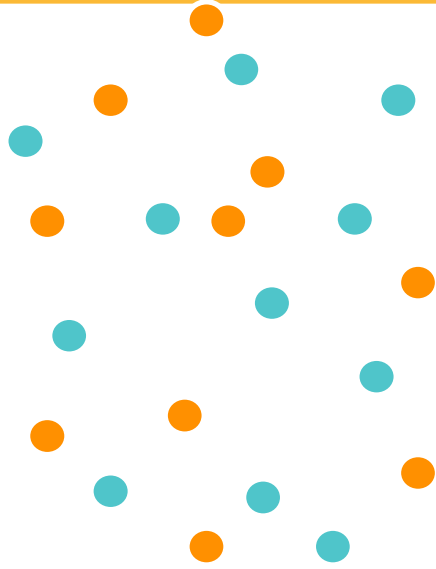


**CS-Swi**  
Fruit co-products valorisation to develop circular business concepts

Alternative cleaning agent

Sharing of processing equipment and/or infrastructure

# CO-CREATION with local actors



1. Agree on common goals

- *goal defining workshop with local actors*



2. Define a workplan and start technical development

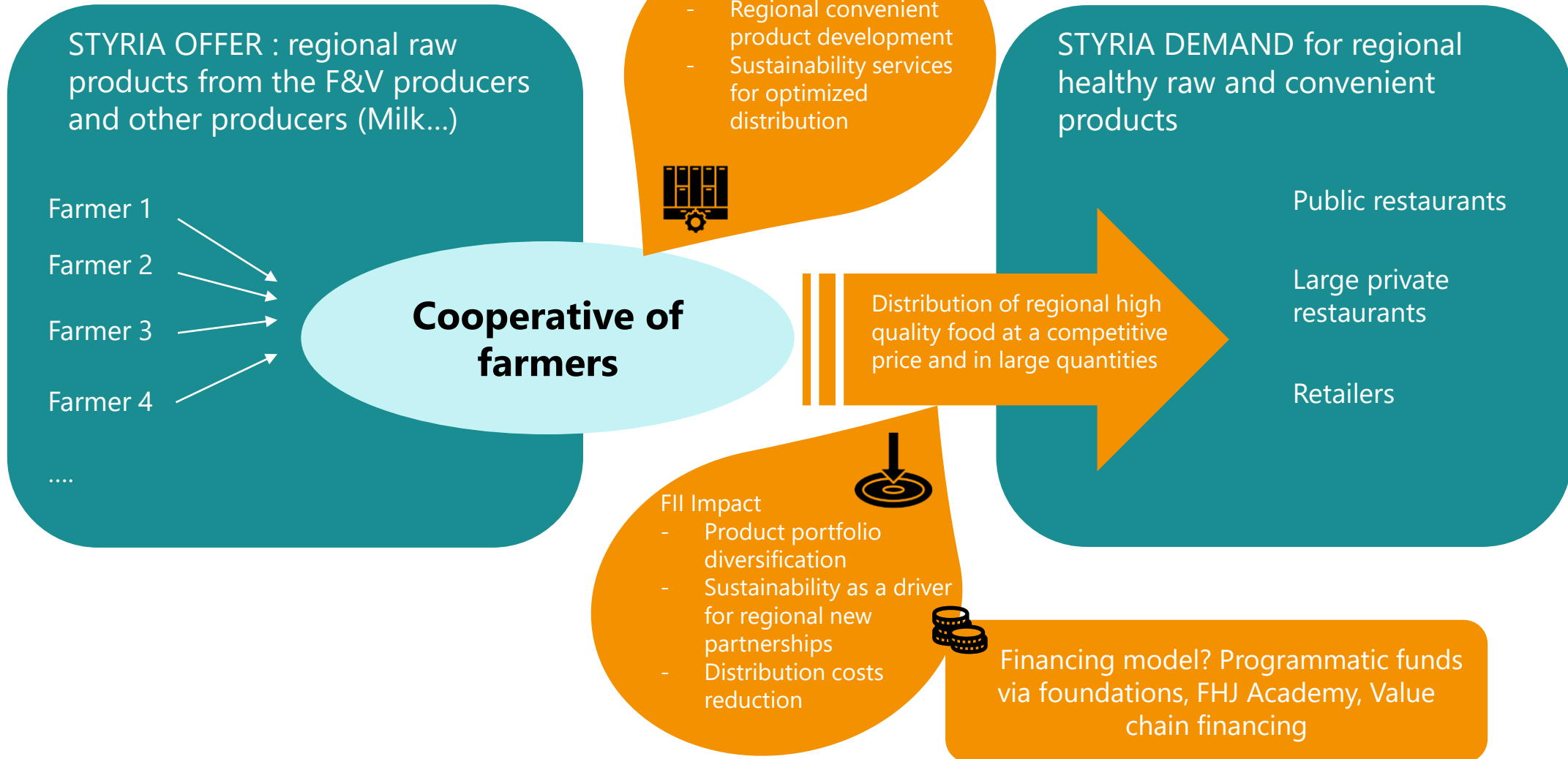
- *Sustainability hotspots & guidance*
- *Consumers/market studies*
- *Implementation workshop with same local actors*



3. Valorize all inputs

- *Assessment workshop*
- *Business Model generation workshops*

# Austrian Case Study : Food Innovation Incubator (FII) Business Concept



**FOOD INNOVATION  
INCUBATOR to:**

**BRING TOGETHER FOOD  
CHAIN ACTORS**

**and**

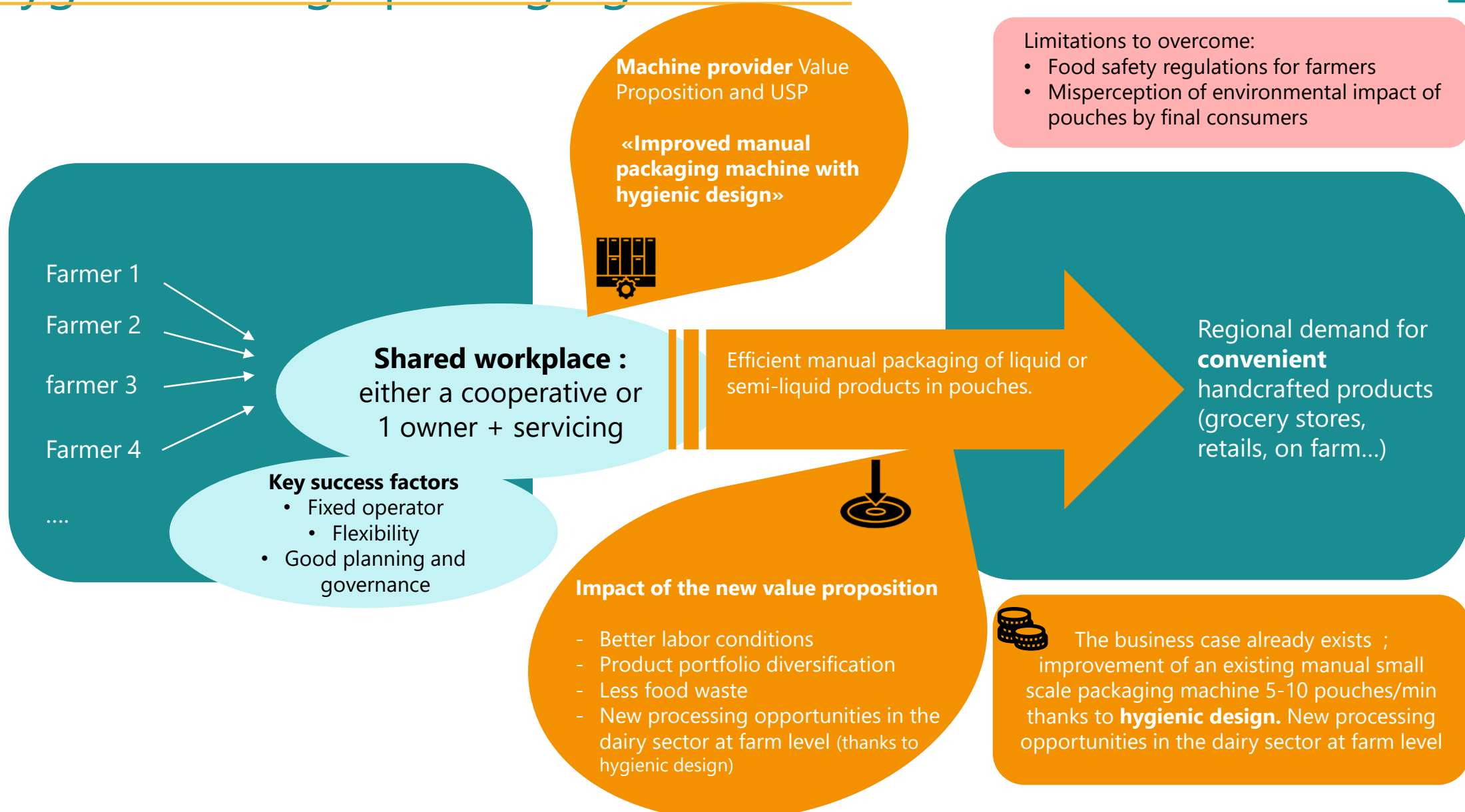
**PROMOTE KNOWLEDGE  
TRANSFER**



Scan me!



# Belgian Case Study : Business Concept for the small hygienic design packaging machine



**INNOVATIVE  
PACKAGING MACHINE  
for  
LIQUIDS and VISCOUS  
FOODS  
made for  
SMALL AND MID-SIZED  
ACTORS**



INRAE

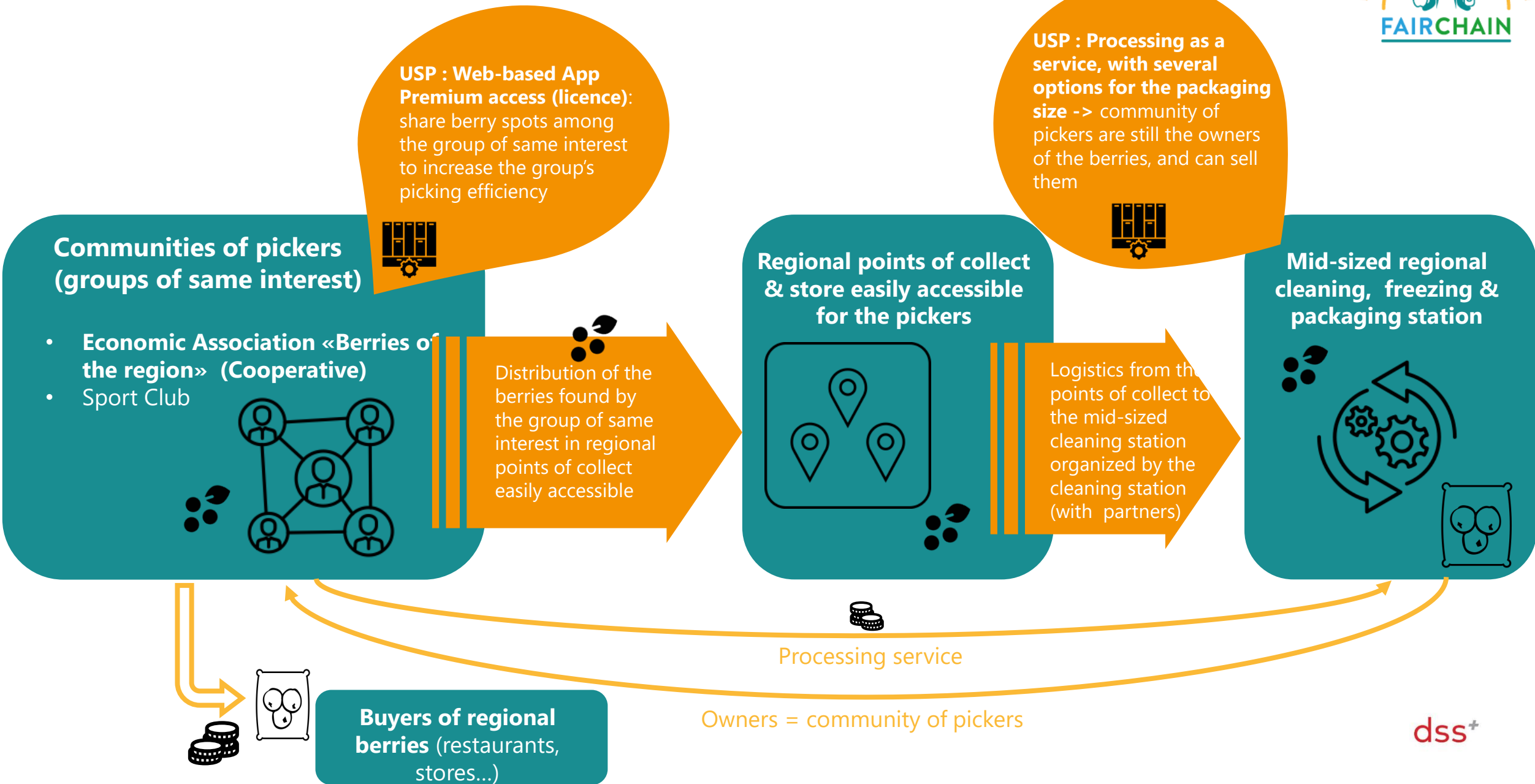


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AI QUAD CAMERA

# Swedish case study: regional Business Concept





DEVELOPING THE WILD  
BERRY BUSINESS IN  
NORTHERN SWEDEN TO:

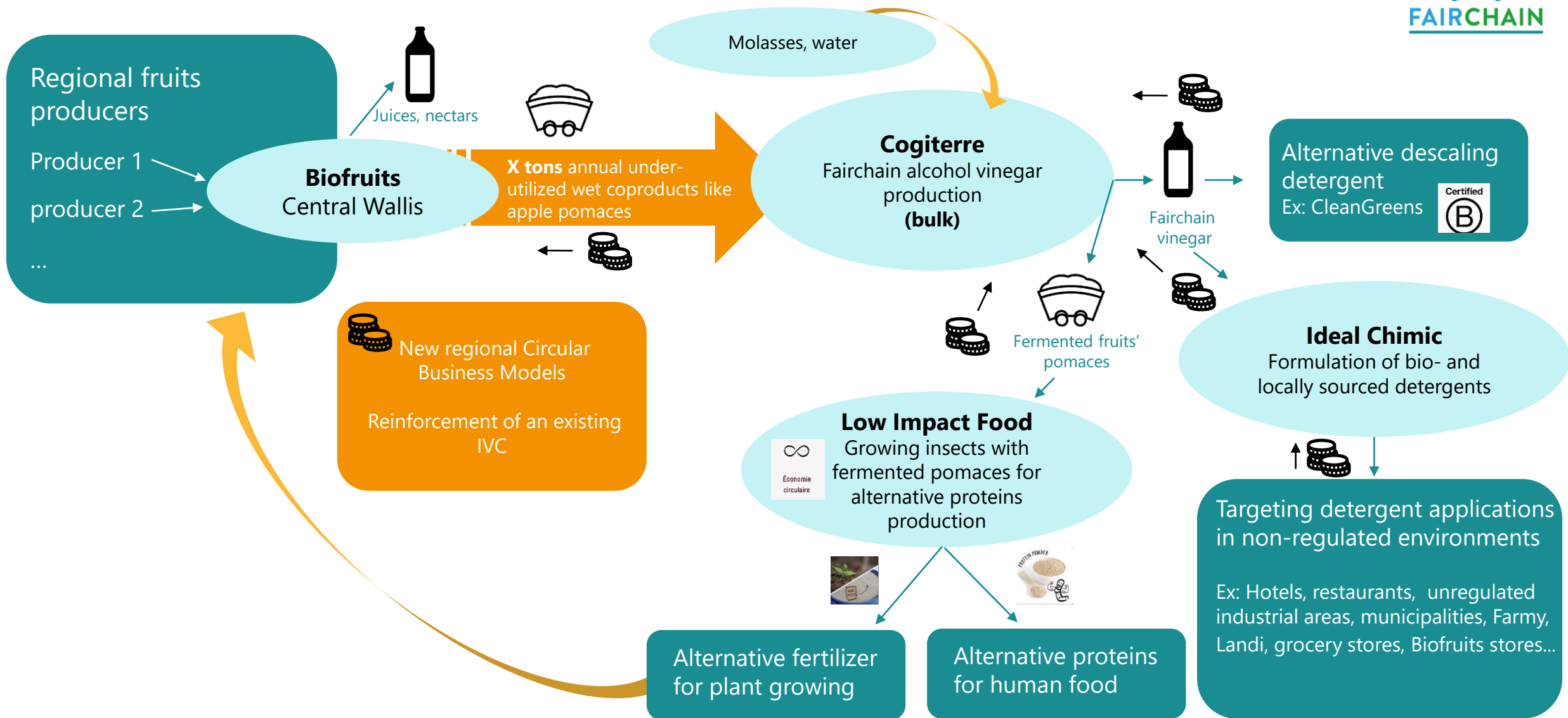
BOOST THE LOCAL  
ECONOMY

and

INCREASE SOCIAL  
COHESION



# Swiss case study: valorizations of co-products



# INCREASED VALORIZATION OF APPLES POMACES AND APRICOT PITS:

1. PRODUCING VINEGAR-BASED CLEANING AND BIOSTIMULATING PRODUCTS

2. EXPLORING BIOCHAR-BASED CLIMATE POSITIVE REGIONAL BUSINESS MODELS



**SCAN ME!**





# Conclusions



**Συμφαλία**

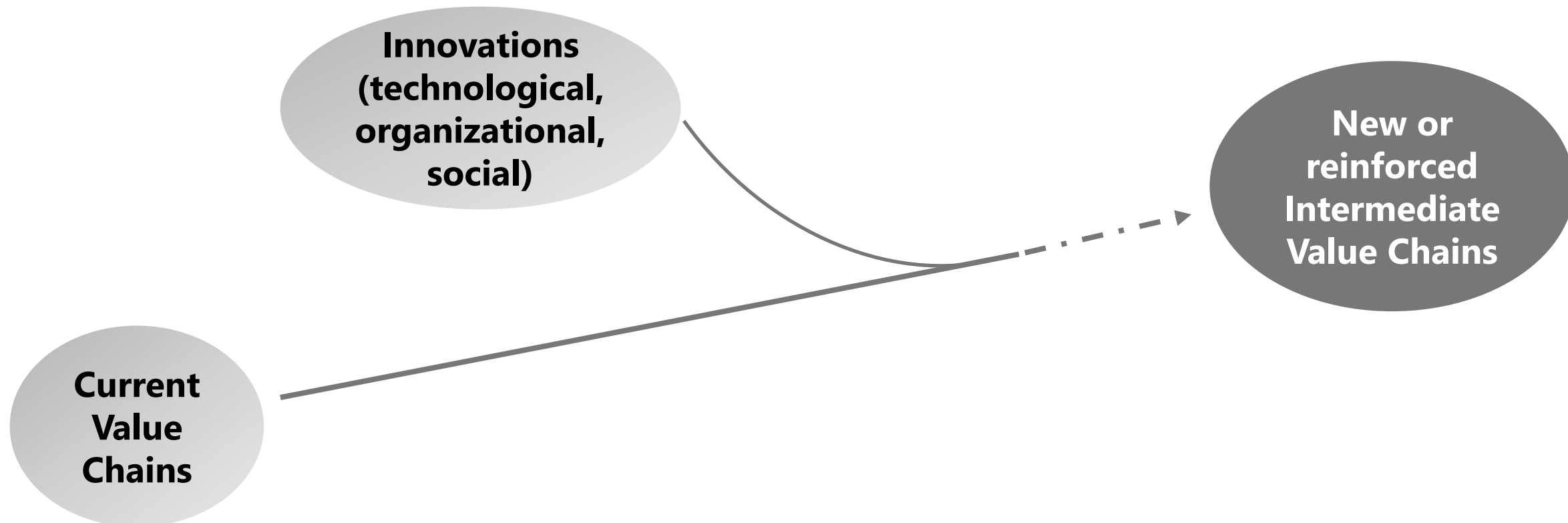
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## FAIRCHAIN :

Integrate new business models into existing value chains



# CONSORTIUM



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Pack4Food

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SLU  
Swedish University  
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MONTS & TERROIRS  
De merveilleux fromages

# Thank you for your attention



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