FAIRCHAIN Project Overview

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Project ID card

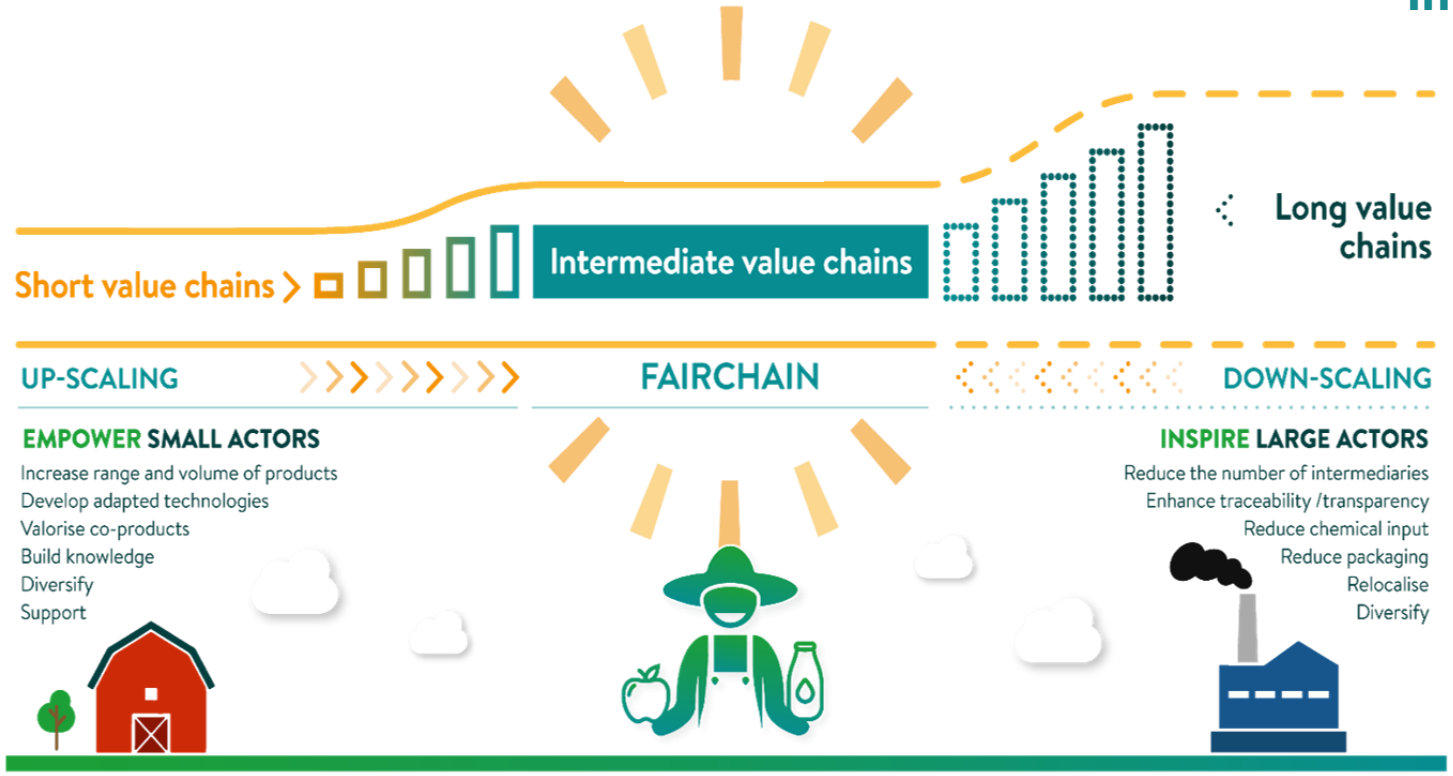
Acronym	FAIRCHAIN
Title	**Innovative technological, organisational and social solutions for FAIRer dairy and fruit and vegetable value CHAINs**
Topic RUR-06-2020	Innovative agri-food value chains : boosting sustainability-oriented competitiveness under the programme SC 2 “Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bioeconomy” → Innovation Action
Budget & funding	Overall budget: 8 036 566 € EU contribution: 6 996 636 €
Duration	1 November 2020 – 31 October 2024 (48 months)
Consortium	A total of 20 partners from 8 countries

Context

- Dominant agri-food systems are based on **long supply chains**
  - Mass production, lower prices, economies of scale, resources efficiency … ✅
  - Globalised, concentration of profit, high-tech processing ❌
    → economic, social, environmental issues
- **Short food value chains** involve a limited number of actors (no more than one intermediary)
  - Greater social cohesion, fairer price for farmers, creation of jobs at local level, … ✅
  - Insufficient production volumes, higher prices, limited distribution, difficulties on treating and valorizing small volumes of co-products, effluents … ❌

→ **Mismatch** between **demand** of the citizen for local, affordable and nutritious food produced in a fair and sustainable way and **supply** of such food by actors of the food value chains

Goal : Enable small and mid-size farmers and food producers to scale up and expand production of nutritious food through **competitive intermediate value chains** at the local and regional level



Intermediate value chain combine elements of both, short and long supply chains

They are characterized by:
. Mid-scale food chains, **cooperation of small and midsized actors**
. **trusted and transparent relationships** and an **equal distribution** of value created among the involved actors
implementation of **common values** through **collective organisation**.

They make it possible to supply **fresh, sustainable and high-quality food products** to consumers beyond the local market **in greater quantities** - often on a regional level.

Focus on **postharvest steps in dairy and fruits & vegetables sectors**

Objectives

Enable small and mid-size farmers and food producers to scale up and expand production of nutritious food through **competitive intermediate value chains** at the local and regional level.

SPECIFIC OBJECTIVES

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

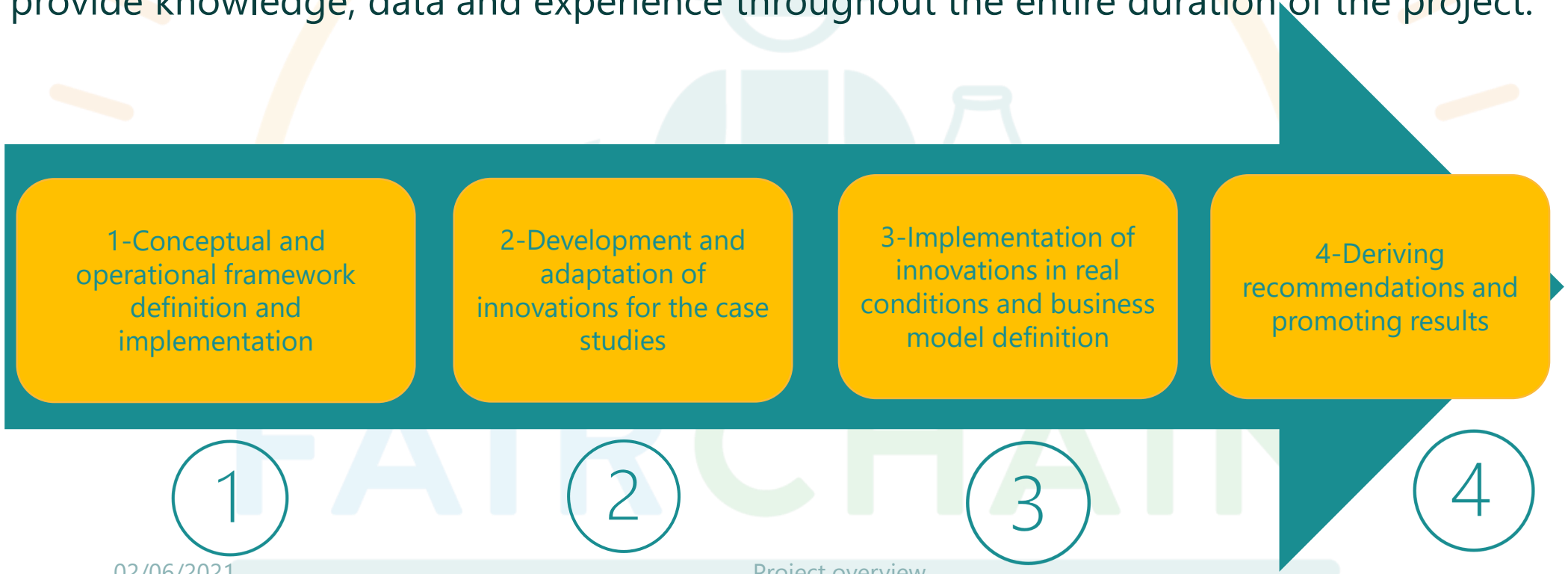
Deliver a **set of innovations** at technology readiness level (TRL) 7.

Develop **business models** associated to these innovations and carry out environmental, social and economic impact assessment.

Formulate **recommendations,** create **tools and guidance documents** to ensure uptake and replicability of value chains developed within FAIRCHAIN.

FAIRCHAIN methodology

- **Multi-actor approach**, with a consortium including scientific and private partners, and involving all relevant stakeholders along the case-study specific value chains in the different Case Studies
- All actors will actively participate in the **co-creation and co-innovation process**, and will provide knowledge, data and experience throughout the entire duration of the project.



FAIRCHAIN methodology

1

- **STEP #1: CONCEPTUAL AND OPERATIONAL FRAMEWORK DEFINITION AND IMPLEMENTATION**

in 5 phases:

  - A mapping of innovations
  - The implementation of a multi-actor co-creation process with each Case Study
  - The definition of Case study activities
  - A multi-perspective analysis of the Case studies in terms of technological, organisational, and social innovation potential, consumer perception and sustainability in regional/national contexts
  - The multi-stakeholder validation during and at the end of the project through the dissemination of open-source results

2

- **STEP #2: DEVELOPMENT AND ADAPTATION OF INNOVATIONS FOR THE CASE STUDIES**

FAIRCHAIN methodology

3

- **STEP #3: IMPLEMENTATION OF INNOVATIONS IN REAL CONDITIONS AND BUSINESS MODEL DEFINITION**

The implementation will take into account:

- The pre-assessment of options performed with data collected at initial stage following harmonised recommendations

- Consumers'/citizens' preferences, as major active actors, driving the development of innovative agri-food value chains.

- An iterative multi-perspective analysis of each Case study in terms of technological, organisational, and social innovation potential, consumer perceptions and sustainability in regional/national contexts

- Eco-innovative Business Models will be developed thanks to a Business Model Generation (BMG)

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- **STEP#4: DERIVING RECOMMENDATIONS AND PROMOTING RESULTS**

Technological innovations

Examples

- **Emerging postharvested technologies** adapted to co/by-products
  - Innovative **beverages based on whey**
  - **Cleaning agent** from fermentation of unfit for consumption co-products from food and vegetable processing
  - **Co-product (pits) valorisation** via pyrolysis
- **Information & Communication Technologies (ICTs)**
  - **GPS tool** to effectively localise wild berries
  - **Application using blockchain technology** to select, retrieve and interpret measurable data from operational processes
- **Flexible filling machine** using green / sustainable packaging materials, designed to fulfil hygienic requirements and able to be used for short up to long production runs

Organisational/social innovations

- **Sharing of processing equipment and/or infrastruture**
- Logistical models which **reduce the consumption of packaging (returnable packaging)**
- **Innovative funding systems** based on philanthropic income streams
- **Food innovation incubator** for co-creation of solutions by different actors in a regional value chains

Case Studies

Case study	Description title	Country	Sector	Partners
CS-Swi	Generation of new value propositions for SMEs & regional stakeholders through improved co-products valorisation	Switzerland	Fruits & Vegetables	
Cs-Fra	Production and distribution of innovative dairy drinks based on co-products of the cheese manufacture (mainly whey)	France	Dairy Fruits & vegetables	
CS-Swe	Establishing a wild berry business to boost local economy and social cohesion in Sweeden Northern regions	Sweeden	Fruits & Vegetables	
CS-Bel	Innovative packaging machine for small and mid-sized actors	Belgium	Dairy Fruits & Vegetables	
CS-Gre	Traceability and reliable information sharing in local dairy production	Greece	Dairy	
CS- Aut	Food innovation incubator for scaling-up short food supply chain	Austria	Fruits & Vegetables Dairy	

Consortium

A multidisciplinary partnership including **20 organisations** in **eight countries**

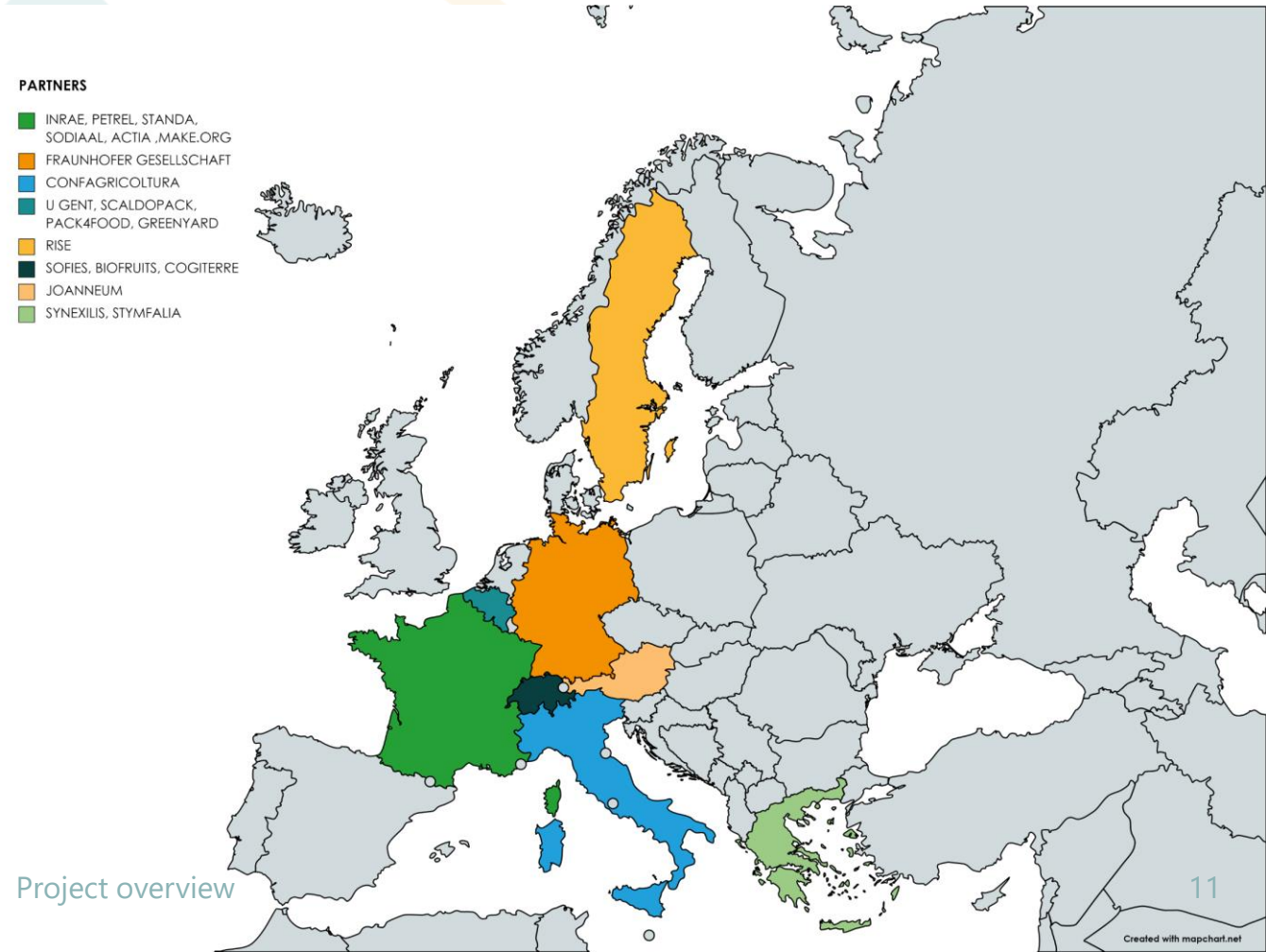
(process engineering, environmental science, supply chain management, logistics, economy, marketing, social science, sensory and consumer science, information and communication technology, technology transfer…)

Research — **INRAE, RISE, FH JOANNEUM, Fraunhofer-Gesellschaft, Universiteit Gent**

SMEs — **Scaldopack, Petrel, Laboratoires Standa, Sofies SA, Biofruits SA, Cogiterre SARL, Synexilis, Stymfalia**

Industry — **Pack4Food, Greenyard, Sodiaal**

NGOs — **Confagricoltura, ISEKI-Food, ACTIA, Make.org**



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ACTIA

Pack4Food

Confagricoltura

PETREL
COMMERCE CIRCULAIRE

scaldopack

sofies
leading sustainability

SYNELIXIS

Bi fruits

Cogiterre

Stymfalia

ISEKI Food Association

MAKE.ORG FOUNDATION

SODIAAL INTERNATIONAL

Linked third parties

FAIRCHAIN

GREENYARD

itab
l'Institut de l'agriculture et de l'alimentation biologiques

ACTALIA

SLU Swedish University of Agricultural Sciences

MONTS & TERROIRS
De merveilleux fromages

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Keep in touch with us!

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