

Faculty of Design

2021

## Acting on a Company to Relaunch a Territory: The application of the systemic design methodology

Marchesi, Alice, Moldovan, Denisa, Puglielli, Mariapaola, Troppino, Martina, Tonelli, William and Wu, Xinwei

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# **Acting on a company to relaunch a territory: the application of the Systemic Design Methodology.**

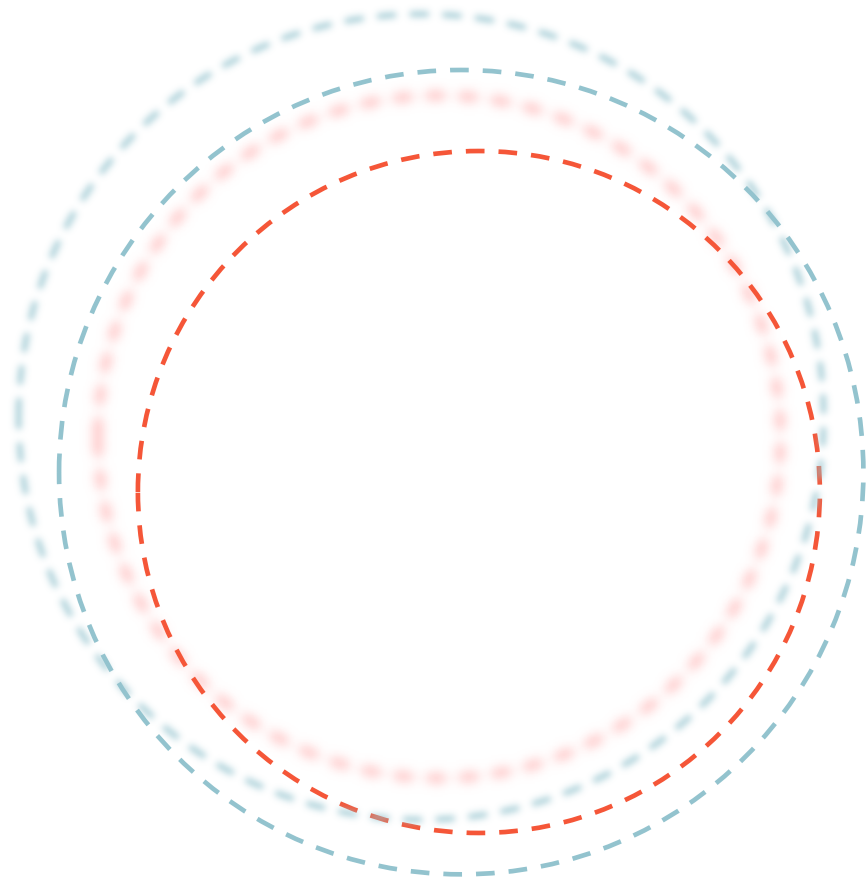
**A case study in the province of Biella, Italy.**

**Authors: Alice Marchesi, Denisa Moldovan, Mariapaola Puglielli, Martina Troppino,  
William Tonelli, Xinwei Wu**

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Biella  
province

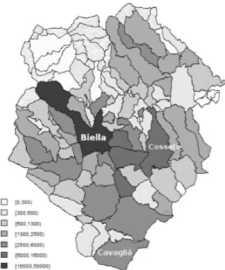
dairy  
industry



“This involves recognizing the nature of firms not only as legally bounded entities and owners of proprietary assets (both tangible and intangible) but also as institutions with **permeable and highly blurred boundaries**—in other words, conceptualizing them as “networks within networks” or “systems within systems.” (Dicken & Malmberg, 2001).



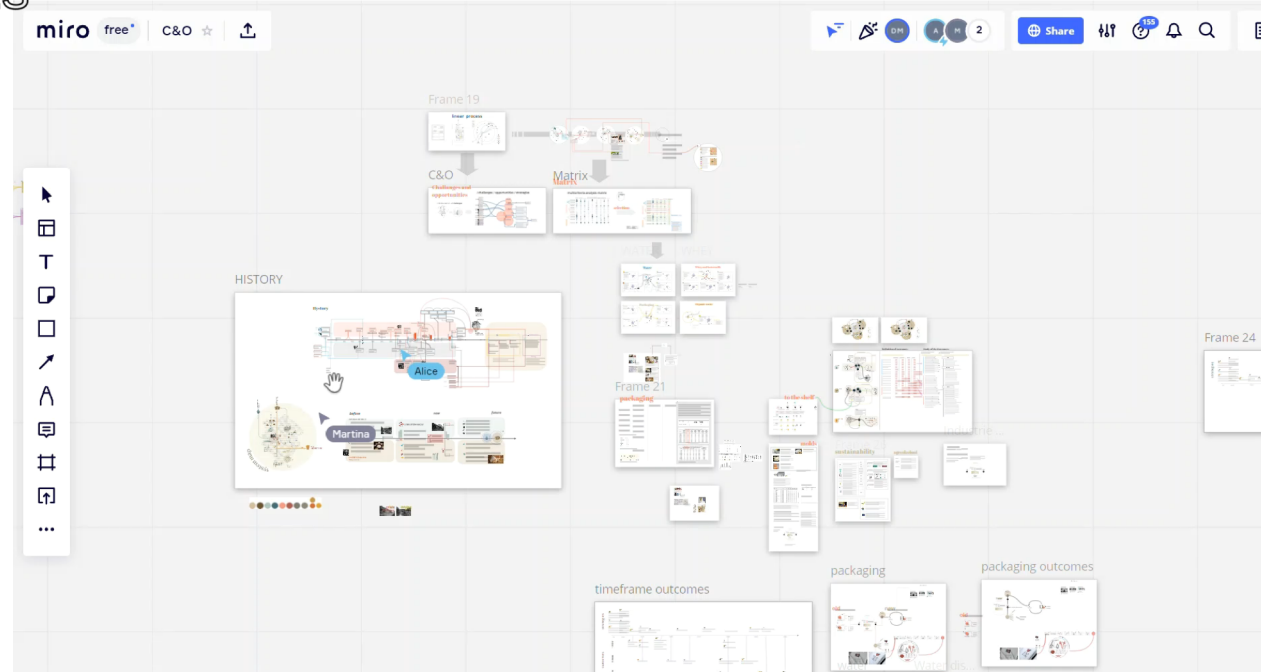
# desk research - data collection

<div> <div>File Home Inserisci Layout di pagina Formule Dati Revisione Visualizza Guida</div> <div> <div>Incolla</div> <div>Calibri 11 A<sup>+</sup> A<sup>-</sup></div> <div>G C</div> <div>Unisci e allinea al centro</div> </div> <div> <div>Appunti</div> <div>Carattere</div> <div>Alloingamento</div> <div>Numeri</div> <div>Stili</div> <div>Celle</div> <div> <div>Somma automatica</div> <div>Riempimento</div> <div>Cancella</div> </div> <div> <div>Condividi</div> <div>Ordina e filtra</div> <div>Trova e seleziona</div> </div> </div> </div>									
	A	B	C	D	E	F	G	H	I
1	Categories (to be customized)	Sub-categories (to be customized)	Data	Unit	Year	Source	Link	Notes	
2	PROVINCE OF BIELLA	Municipalities	74		2019	Tuttitalia	<a href="https://www.tuttitalia.it/piemonte/provincia-di-biella/29-comuni/">https://www.tuttitalia.it/piemonte/provincia-di-biella/29-comuni/</a>		
3									
4	Inhabitants								
5		Number of inhabitants	174170	people	2020	ISTAT	<a href="https://www.istat.it/it/files/2020/05/01_Piemonte_Scheda_DEF.pdf">https://www.istat.it/it/files/2020/05/01_Piemonte_Scheda_DEF.pdf</a>		
6	per age	0 - 14 years	17	%	2021	Italiapedia	<a href="http://www.italiapedia.it/provincia-di-biella_Statistiche-01-096">http://www.italiapedia.it/provincia-di-biella_Statistiche-01-096</a>		
7		15 - 64 years	46	%	2021	Italiapedia	<a href="http://www.italiapedia.it/provincia-di-biella_Statistiche-01-097">http://www.italiapedia.it/provincia-di-biella_Statistiche-01-097</a>		
8		65+ years	36	%	2021	Italiapedia	<a href="http://www.italiapedia.it/provincia-di-biella_Statistiche-01-098">http://www.italiapedia.it/provincia-di-biella_Statistiche-01-098</a>		
9	per territory								
10		 <p>Popolazione dei comuni del Biellese</p>							
11		Foreign inhabitants	9796	people	1/12/2014 r		<a href="http://www.osservabiella.it/wp-content/uploads/2014/12/12/2019_Tuttitalia">g.4 http://www.osservabiella.it/wp-content/uploads/2014/12/12/2019_Tuttitalia</a>		

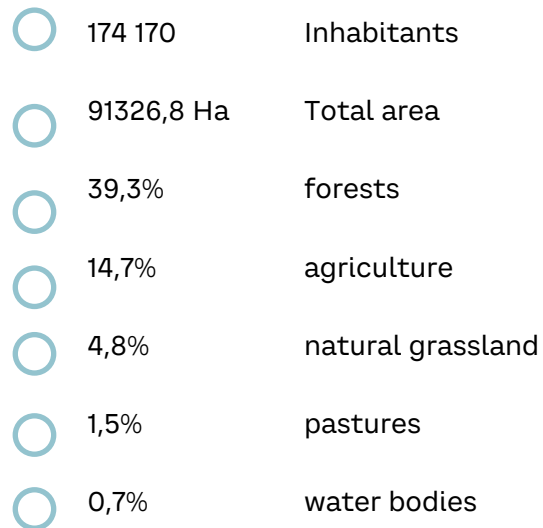
# field research - visit to the company



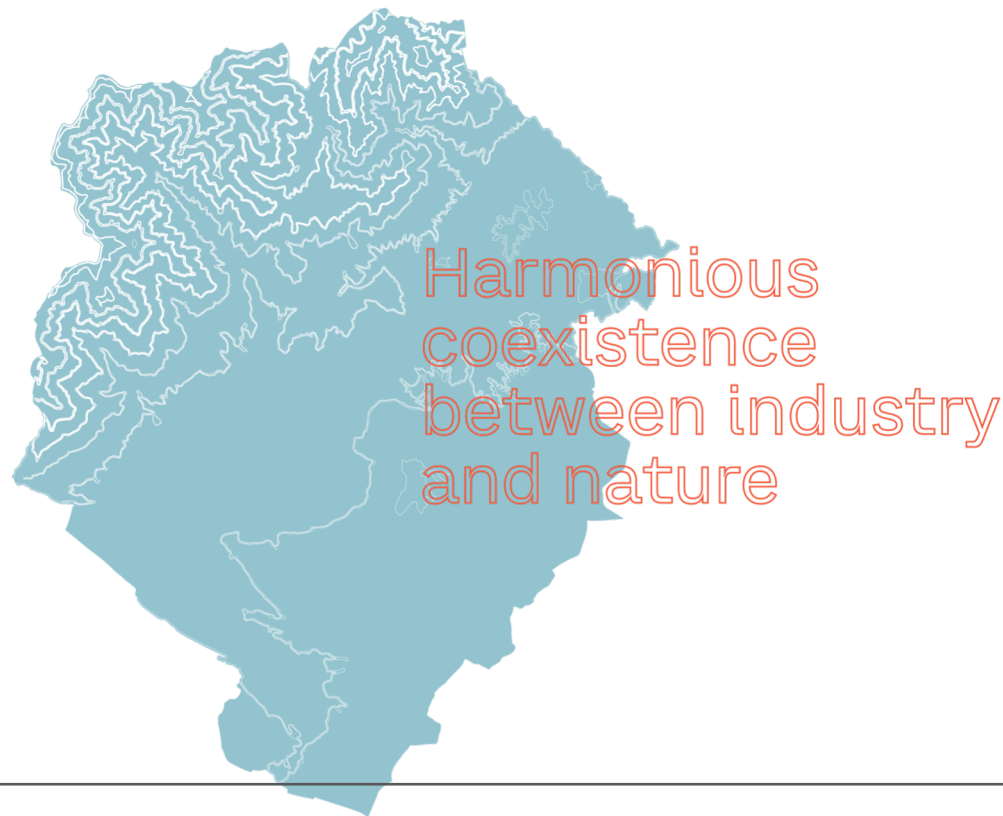
# data processing - Challenges & Opportunities Multi-criteria analysis Strategies



# Holistic Diagnosis of the territory



Biella - a province of Piedmont, located in the northwest of Italy. It is divided in three parts almost equal between **mountains, hills, and flatlands**. The air quality is the cleanest in Piedmont and the population is the oldest in the region.



# Holistic Diagnosis of the territory

The predominantly mountainous topography favored **animal breeding**. Since the XV century, small landowners played a key role: having animals allowed to raise their own livestock and work wool and fabrics on their own properties (lanedibiella.com, n.d). Still, now, the primary sector is composed of 37% of the enterprises dedicated to farming.

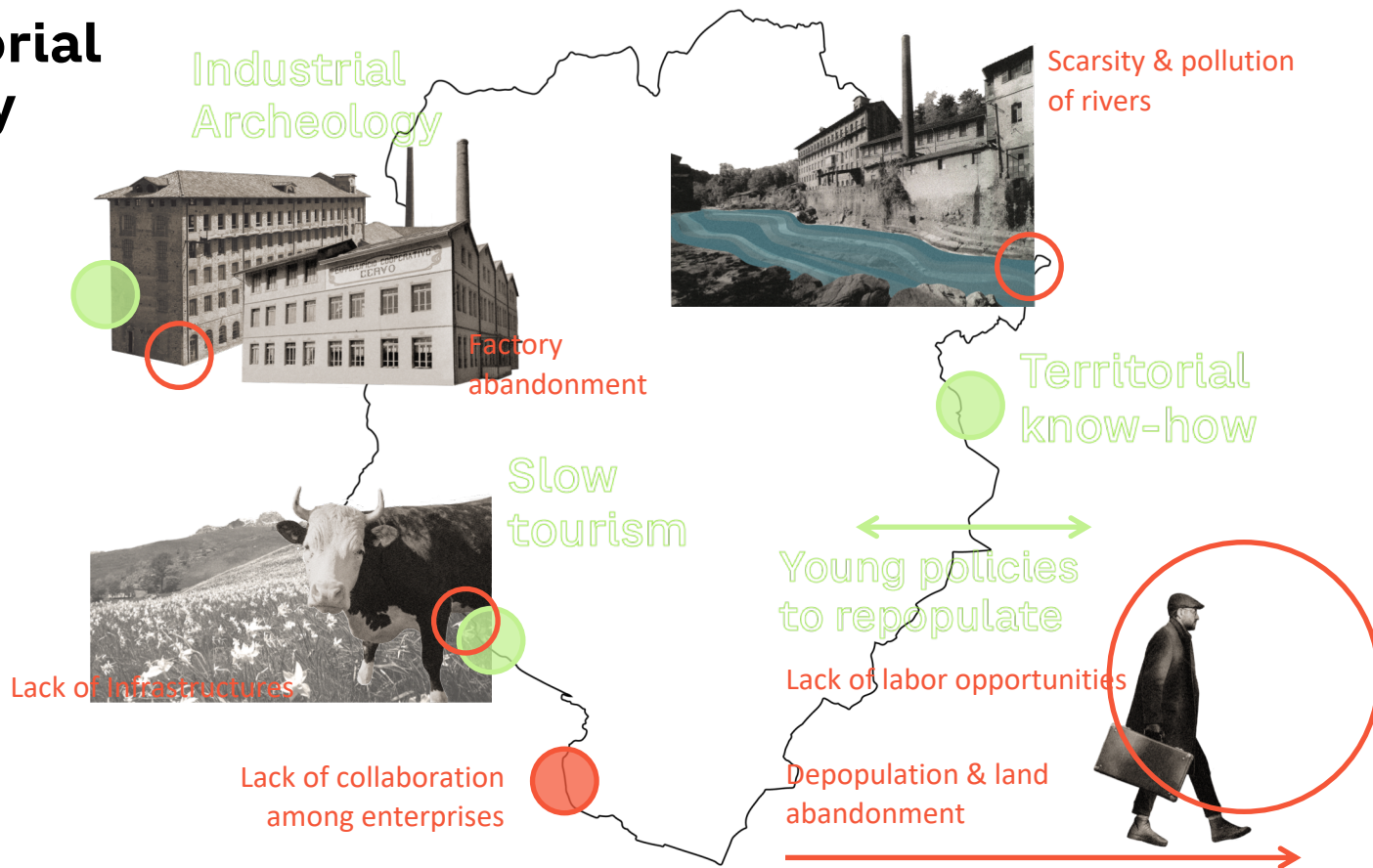


**Textile sector**  
€ 8.905.004 revenue per year



**Agri-food sector**  
€ 2.565.566 revenue per year

# The territorial complexity



The economic crisis has brought with it a socio-identity crisis. The need now is to recover and enhance the strengths of the province, such as **the recognition of the province outside its borders and the safeguard of natural resources**, a source of wealth and the basis of the economy.

# Holistic Diagnosis of the Company

Foundation year - 1894

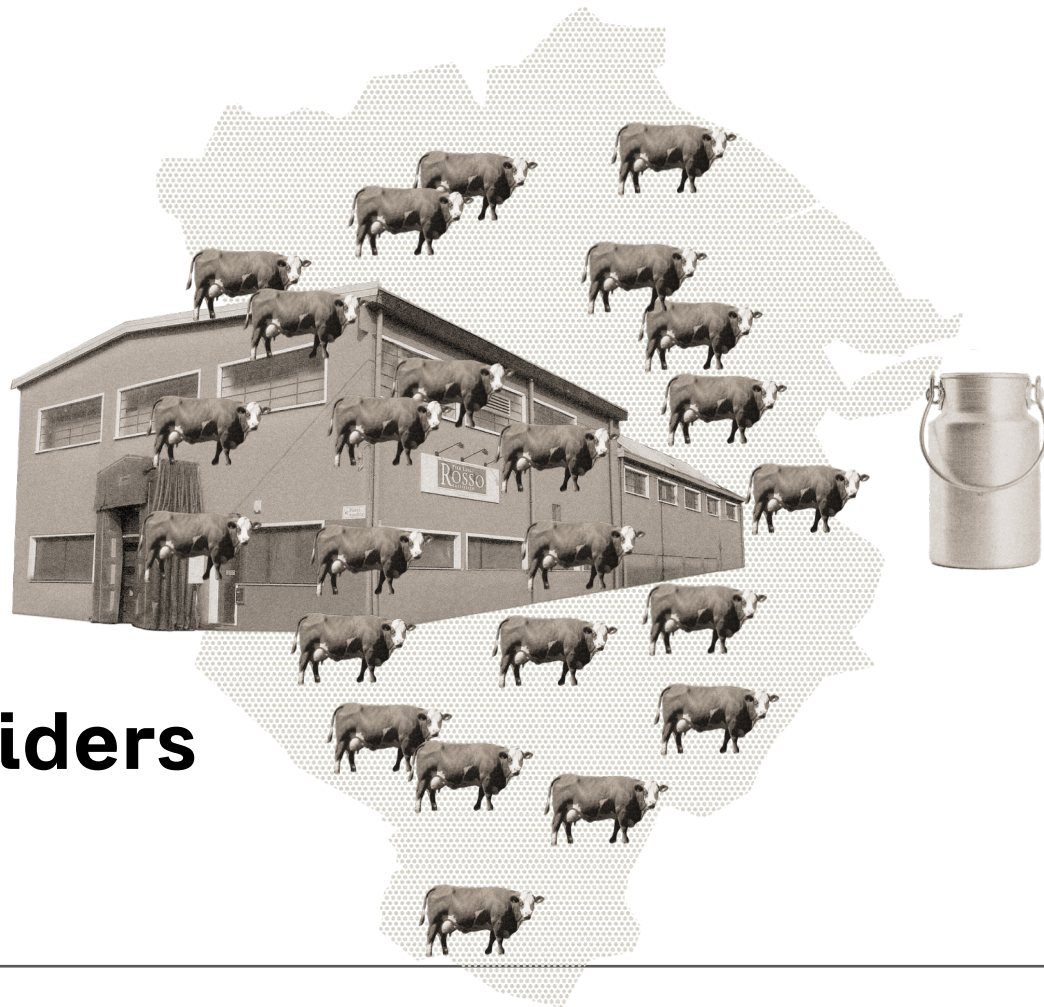
Run-family enterprise

Small size dairy

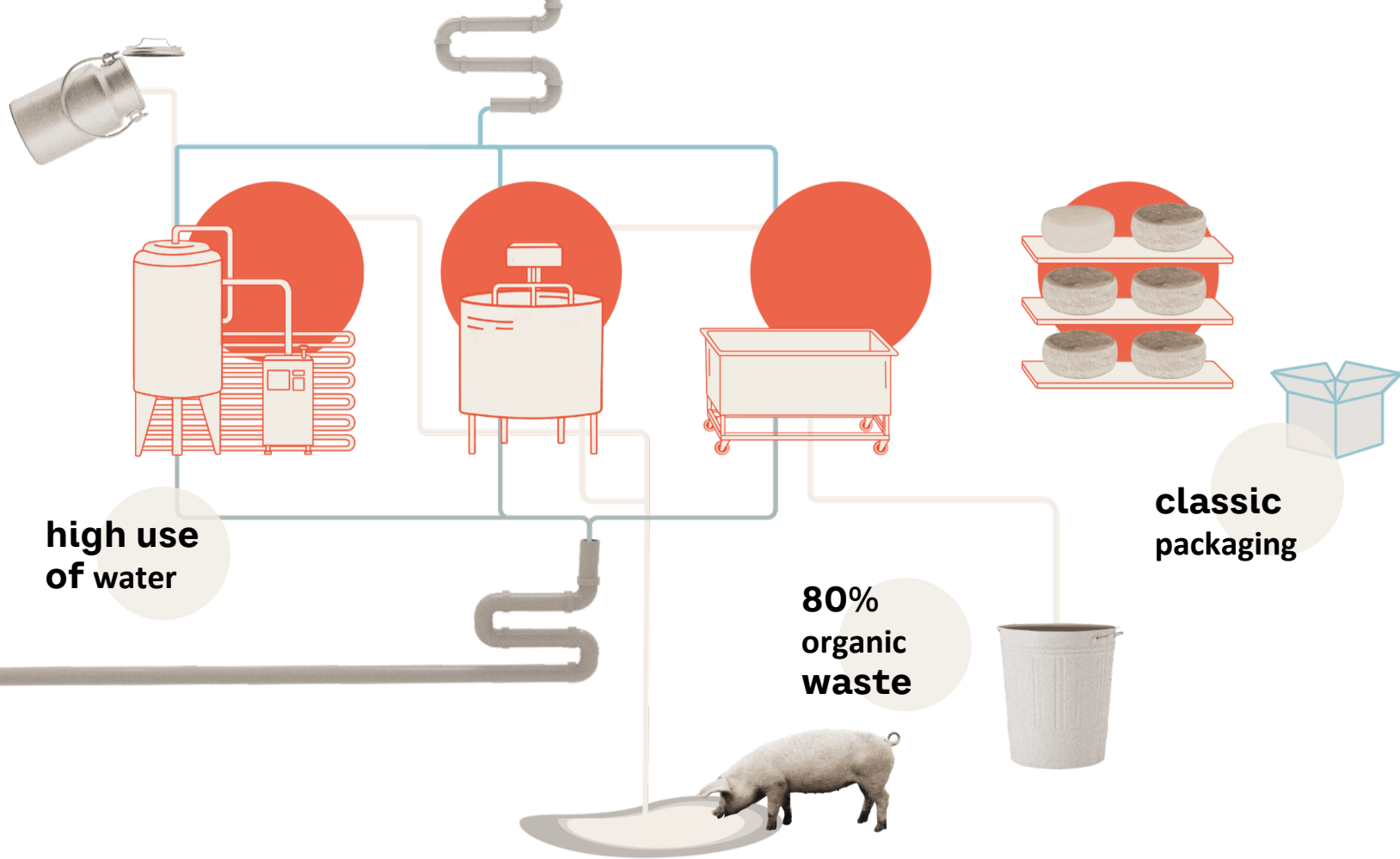
Artisanal approach

Reuse of resources within the  
company

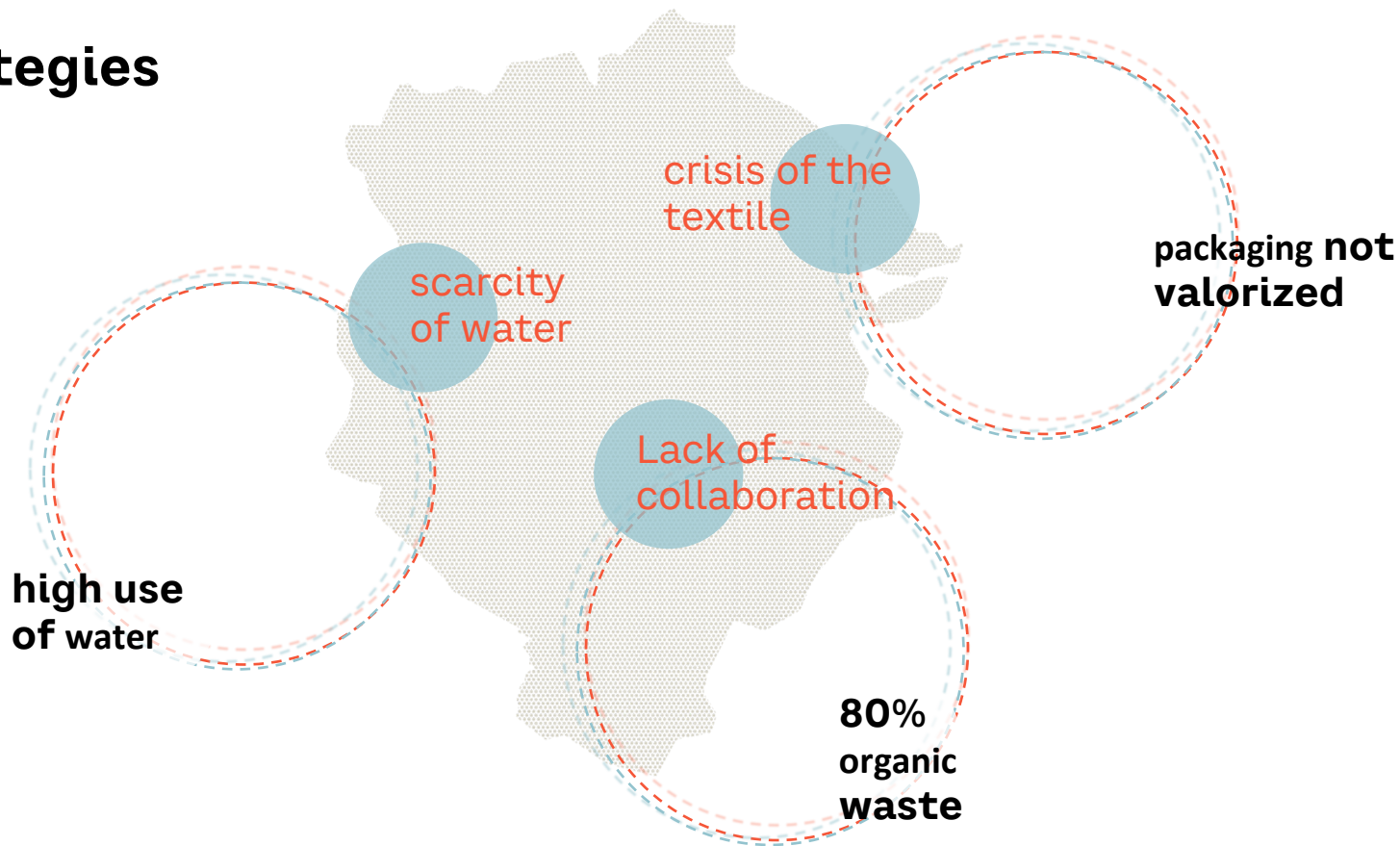
Local providers **24 Local providers**







# Strategies



# Water reduction



RSD 10

short paper

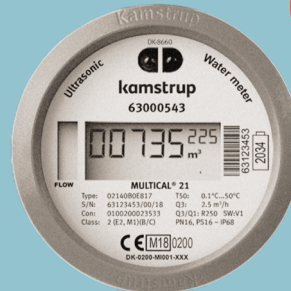
03/15

flow regulators

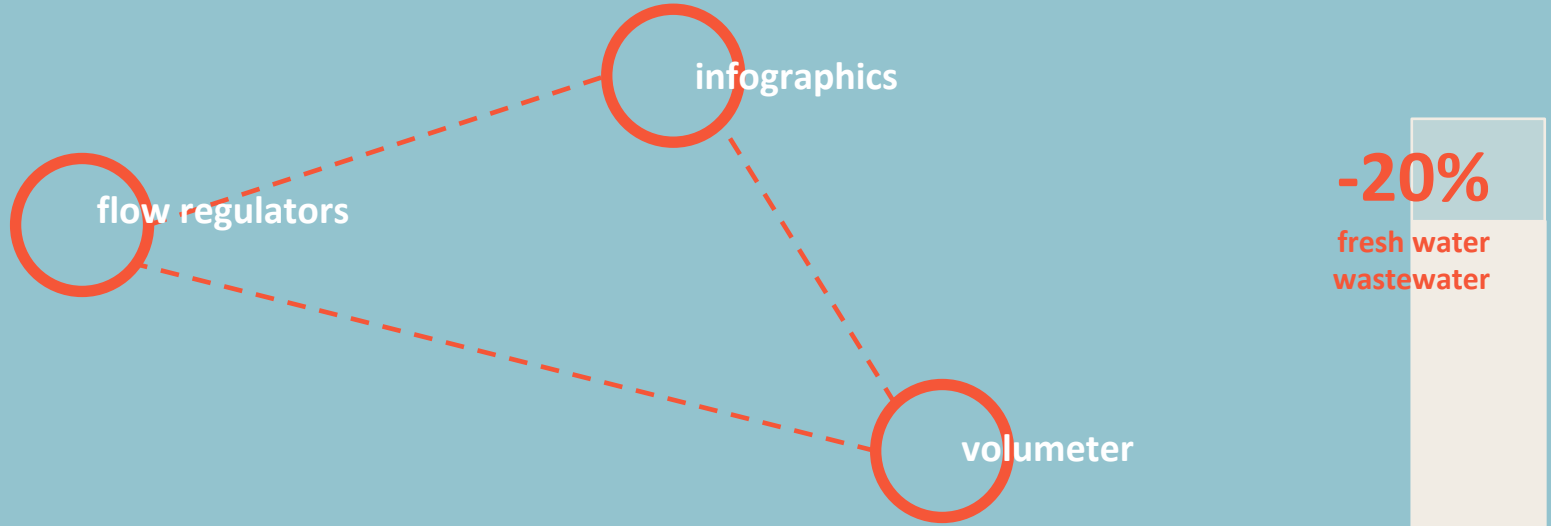


infographics

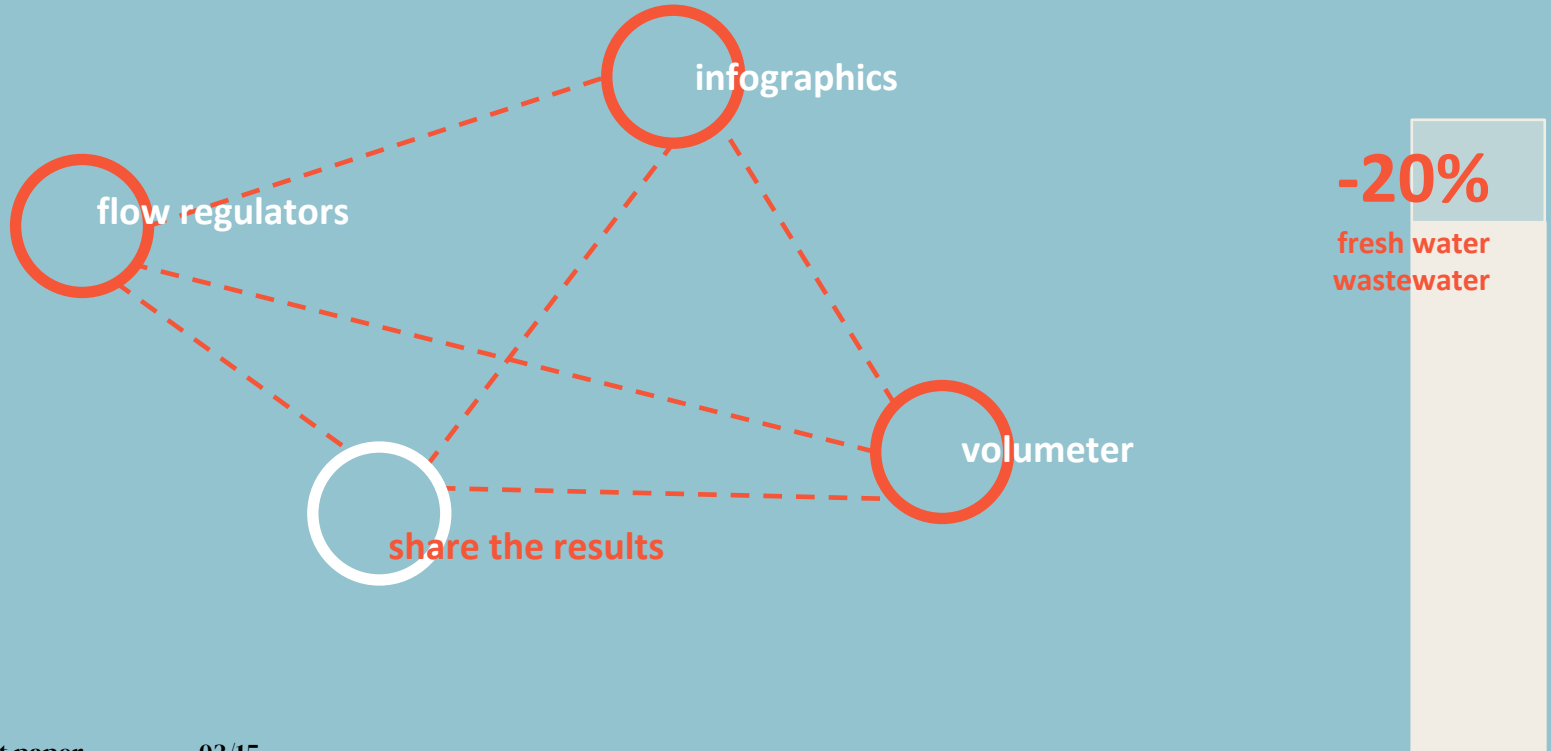
volumeter



# Water reduction



# Water reduction



# Collective composting

Dairy industry



Food factory



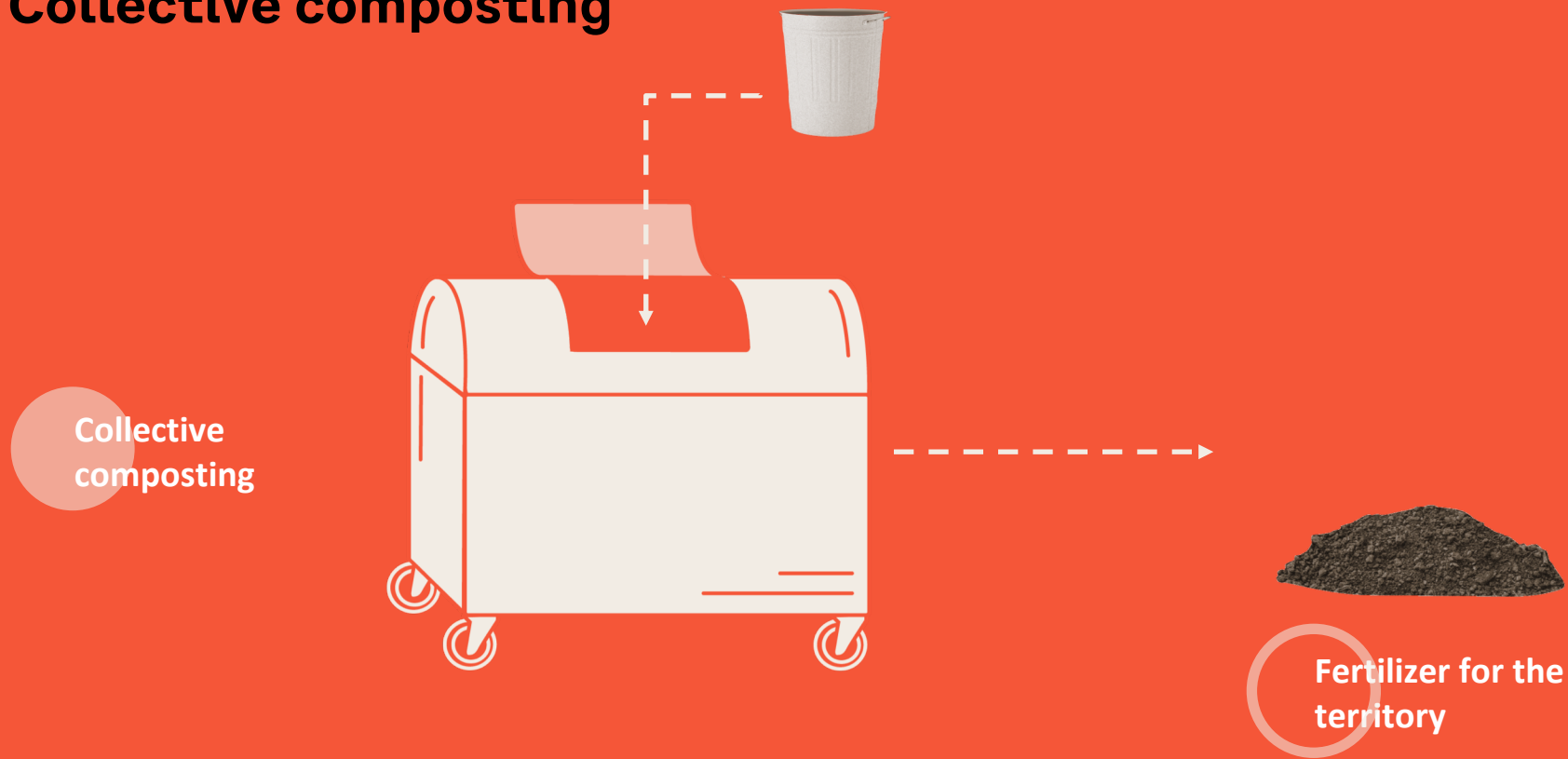
Wood  
factory



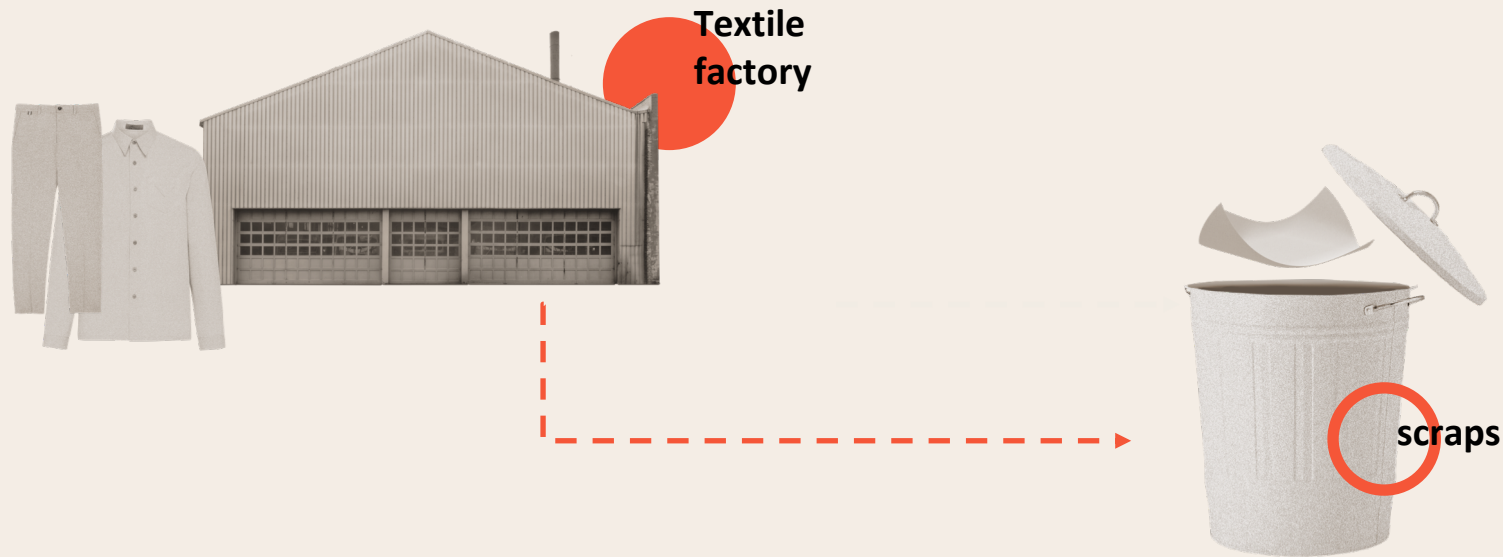
Farming



# Collective composting

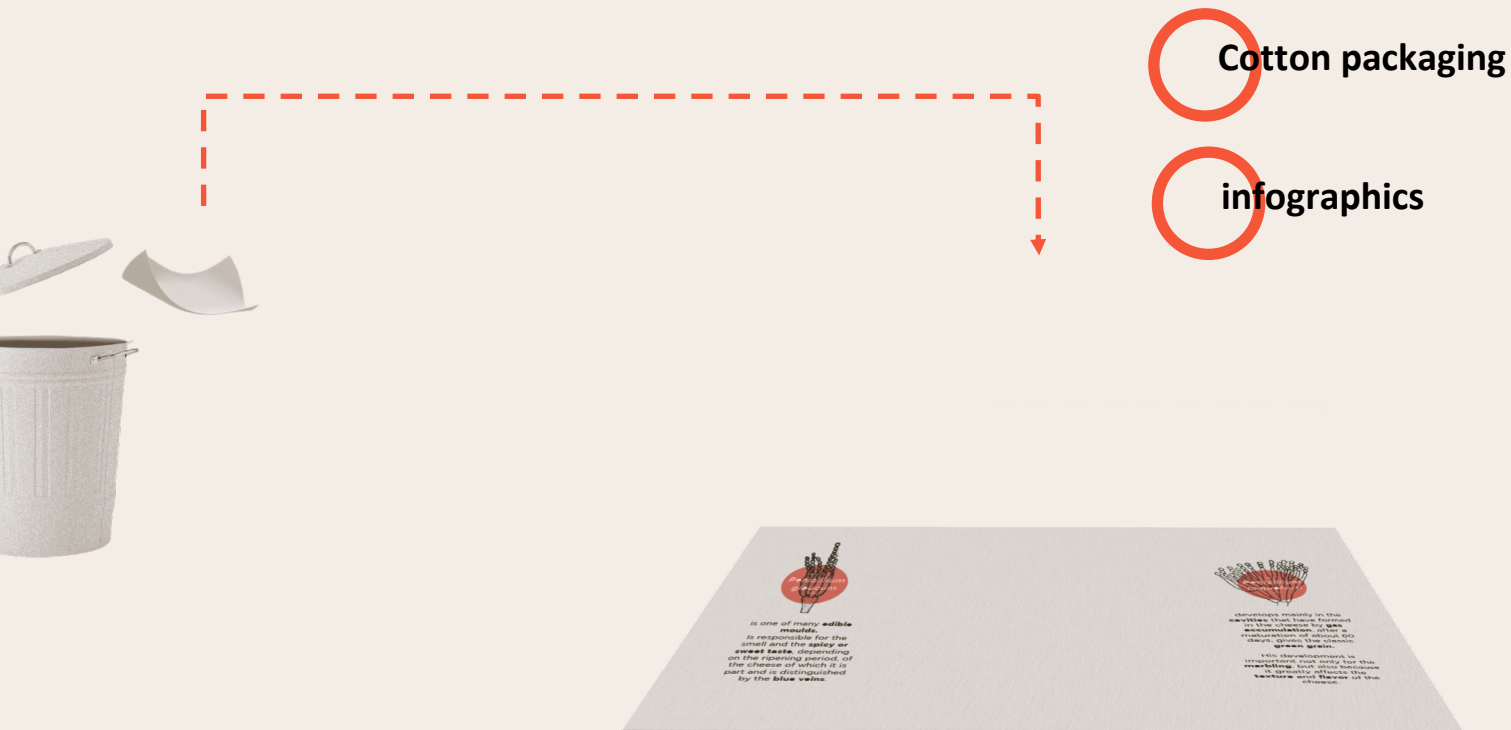


# Cotton packaging

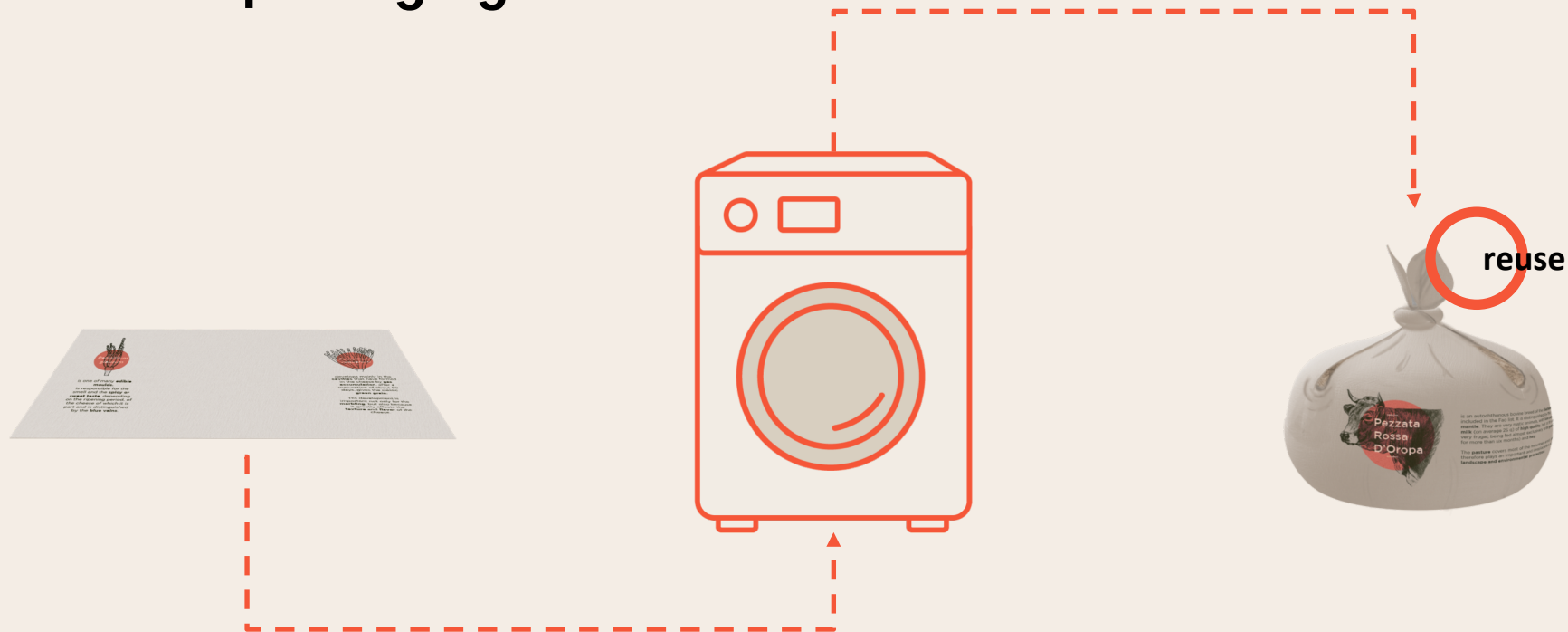


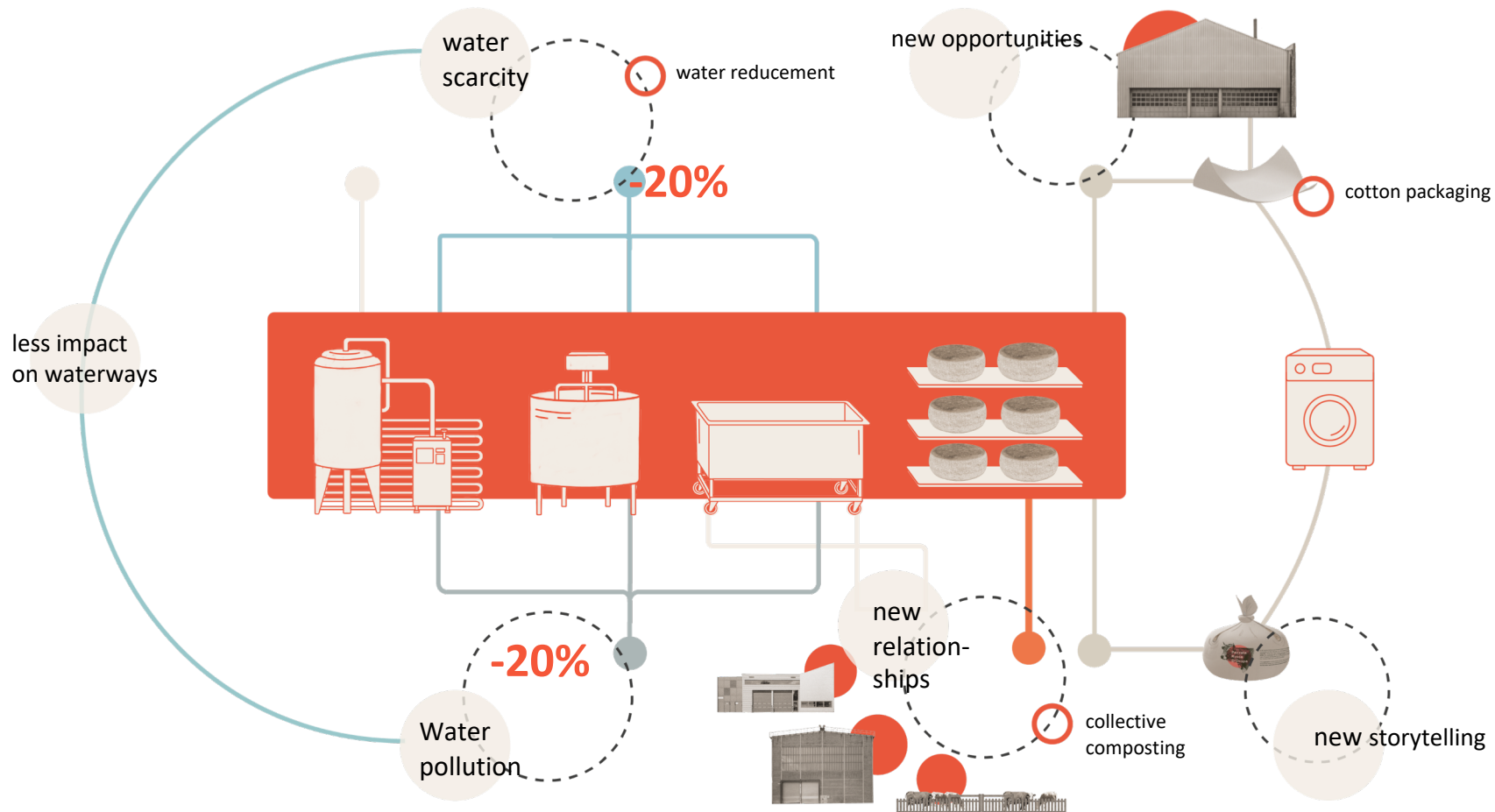


# Cotton packaging



# Cotton packaging





Biella  
a territory  
province

dairy  
a company  
industry

