



## *REFLOW Project: Milan Pilot City*

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**CITY SCIENCE INITIATIVE**  
**Circular Economy** | *Virtual Workshop*  
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# REFLOW Project

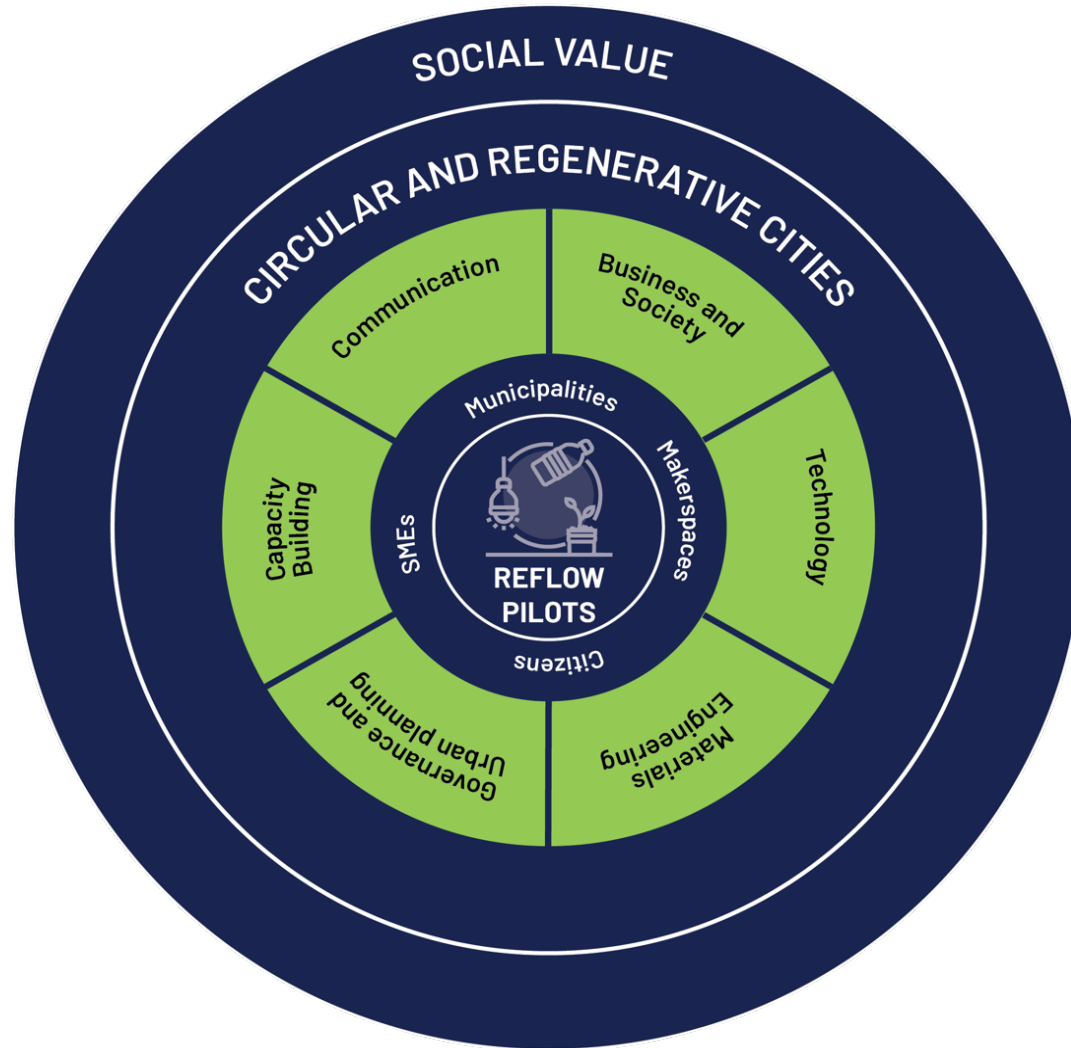


RESEARCH AND METHODOLOGY	
CBS	Denmark
POLIMI	Italy
WAAG	The Netherlands
META	The Netherlands
ECOV	Finland
P2P	Greece

SOFTWARE COMPONENTS	
DYNE	The Netherlands
FOKUS	Germany
IAAC	Spain
MAT	United Kingdom

AMSTERDAM		BERLIN		CLUJ-NAPOCA		MILAN		PARIS		VEJLE	
WAAG	AMS	AH	BWB	ARIES	CLUJ	WMK	MILAN	ARSL	PARIS	DDC	VEJLE
PDZ	BMA	MCS		ITIM		OP	POLIMI	FGCP	VOL		

# REFLOW's Approach to Circular Economy



Based on the REFLOW mission:

***"To understand and demonstrate how the reconfiguration of the urban metabolism can enable the transition to circular and regenerative cities"***



**BERLIN**



**AMSTERDAM**



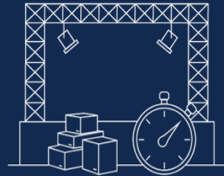
**MILAN**



**VEJLE**



**CLUJ-NAPOCA**



**PARIS**

# REFLOW Pilots

**AMSTERDAM:** Textile life cycling

**BERLIN:** Water heat waste

**CLUJ-NAPOCA:** Energy

**MILAN:** Food Markets 4.0

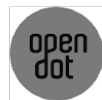
**PARIS:** Fairs' material recycling

**VEJLE:** Circular Plastic



# MILAN PILOT

Supporting the transition to a circular food system by connecting and adapting traditional food marketplaces to novel consumption patterns and lifestyles of citizens



**MILAN**  
Food Markets 4.0



# Circular Milan Targets

**20%**

Reduction in  
greenhouse gas  
emissions by  
2020

**70%**

Recycling rate by  
2030 –  
“Towards Zero  
Waste”

**25%**

Reduction of  
traffic in areas of  
moderate speed  
by 2030 (PUMS)

**142%**

Increase in  
population served  
by local public  
transport (over  
the next 10 years)

**15%**

Cut amount of  
waste produced by  
each citizen by 2030  
(Towards Zero  
Waste)

Increased  
usage and types  
of  
**Car Sharing**  
(PUMS + PGT)

**70%**

Reduction soil  
consumption by  
2030  
(PGT)

Planting  
**3 MLN  
trees**  
by 2030

# Circular Milan: the approach

Topics Instruments	Waste	Energy	Food	Creativity	Manufacturing	Mobility
<b>Awareness raising &amp; Networking</b>	«Towards zero waste» Declaration	C40 Network	Milano Food City Food Policy	100 Italian Circular Economy Stories	Manifattura Milano	EU Week of Sustainable Mobility
<b>Regulation</b>	PAES Food Policy	PGT PAES	Food Policy	National Chamber for Italian Fashion Agreement	PGT	PGT PUMS PAES
<b>Procurement/ PPP</b>	Smart Bin (AMSA)	LED Lighting (A2A)	Food Hot Pot (in coll. with Cariplo Factory)	BASE Milano	Makerspaces & Fablabs	ATM Fleet replacement (electrical bus)
<b>Fiscal Policies &amp; Business support</b>	TARI Tax relief	Call for Boilers Call for Energy Efficiency	TARI Tax relief Street Food Call Ellen MacArthur Found Partnership	Incubators for Circular Startups (Orange Fiber)	Call FabriQ III Call FabriQ IV «Innovazione di Quartiere»	Call for Business Vehicles substitution Carpooling Call Call for Electric Vehicles
<b>Pilot projects</b>	Environmental Meter Milano Plastic Free	EU Project: Sharing Cities (Smart Cities Lighthouse)	<b>EU Project: OpenAgri REFLOW</b>	Green Carpet Fashion Awards Call for Reuse of Fuorisalone Furniture	<b>EU Project: REFLOW</b>	EU Project: Sharing Cities (Smart Cities Lighthouse)

# Circular Milan: Partnership and international networks

With the **Ellen MacArthur Foundation**, the Municipality has a strategic partnership on:

- **local food short supply chains**
- **fashion and sustainable design**
- **circular urban metabolism**

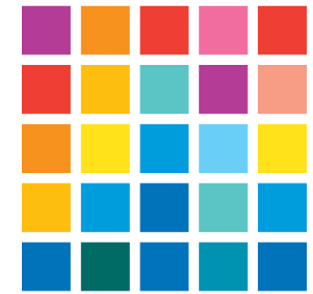


PIONEERED BY THE  
ROCKEFELLER FOUNDATION

100

RESILIENT

CITIES



EURO  
CITIES



# Milan Pilot aims at:

- Focusing on **local Agrifood products** (urban and periurban areas)
- Focusing on **Municipal Covered Markets** as physical/social nodes
- Making their entire **supply chain and logistic** more circular



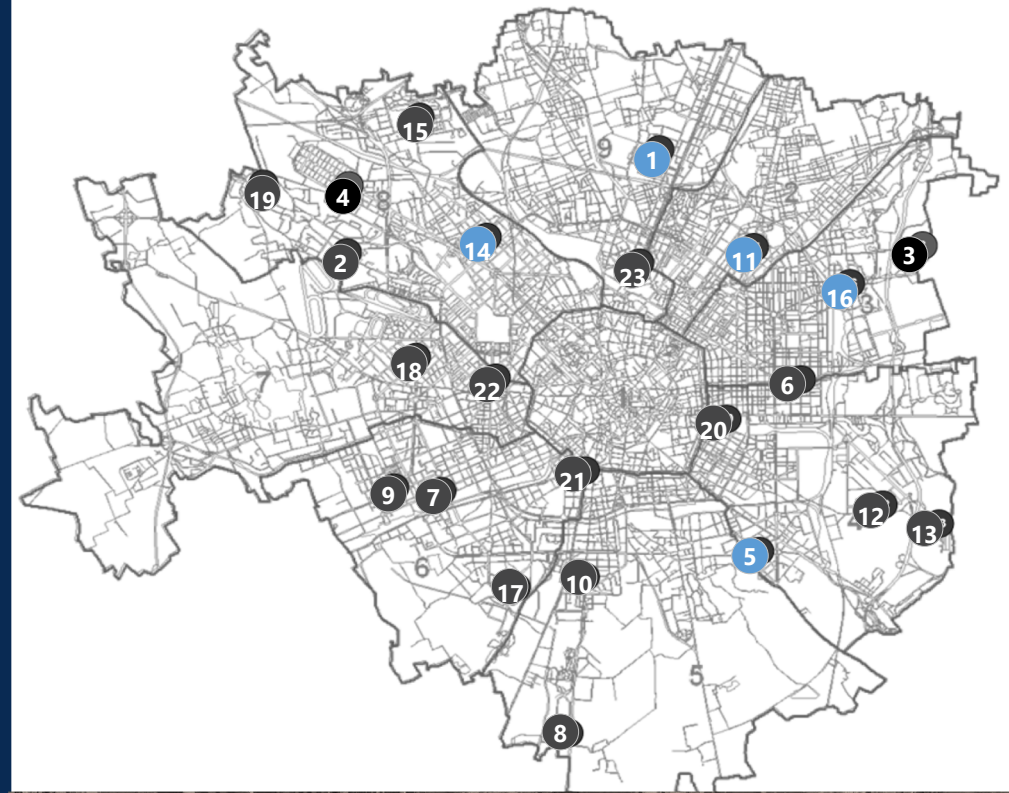


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## Active Market

within very diverse contexts  
(some of them within **key peripheral areas**)

An overall surface of about  
**30.500 sqm**





Ongoing experiments aimed at  
hybridizing food trade  
with cultural and social activities





Combining agrifood topics with the experimental and entrepreneurial attitude of the urban ecosystem of Fablabs

Involving startups focused on developing circular business models in the agri-food sector





**NEED 1.**  
FOOD WASTE IN MARKETS



**AREA OF OPPORTUNITY 1.**  
UPCYCLE & FOOD WASTE  
MANAGEMENT



**SCENARIO 1. (NUDGING)**  
Pay for what you waste



**SOLUTION 1. (example)**  
Tool that measures how much  
and what gets wasted



**SCENARIO 2. (RETHINK)**  
Transforming unsold goods  
into new products



**SOLUTION 2. (example)**  
Matching with startups  
operating in this field

# Barriers for circular economy in cities

## Need for science-based knowledge

## Capturing Data – Scanning Material Flows within cities

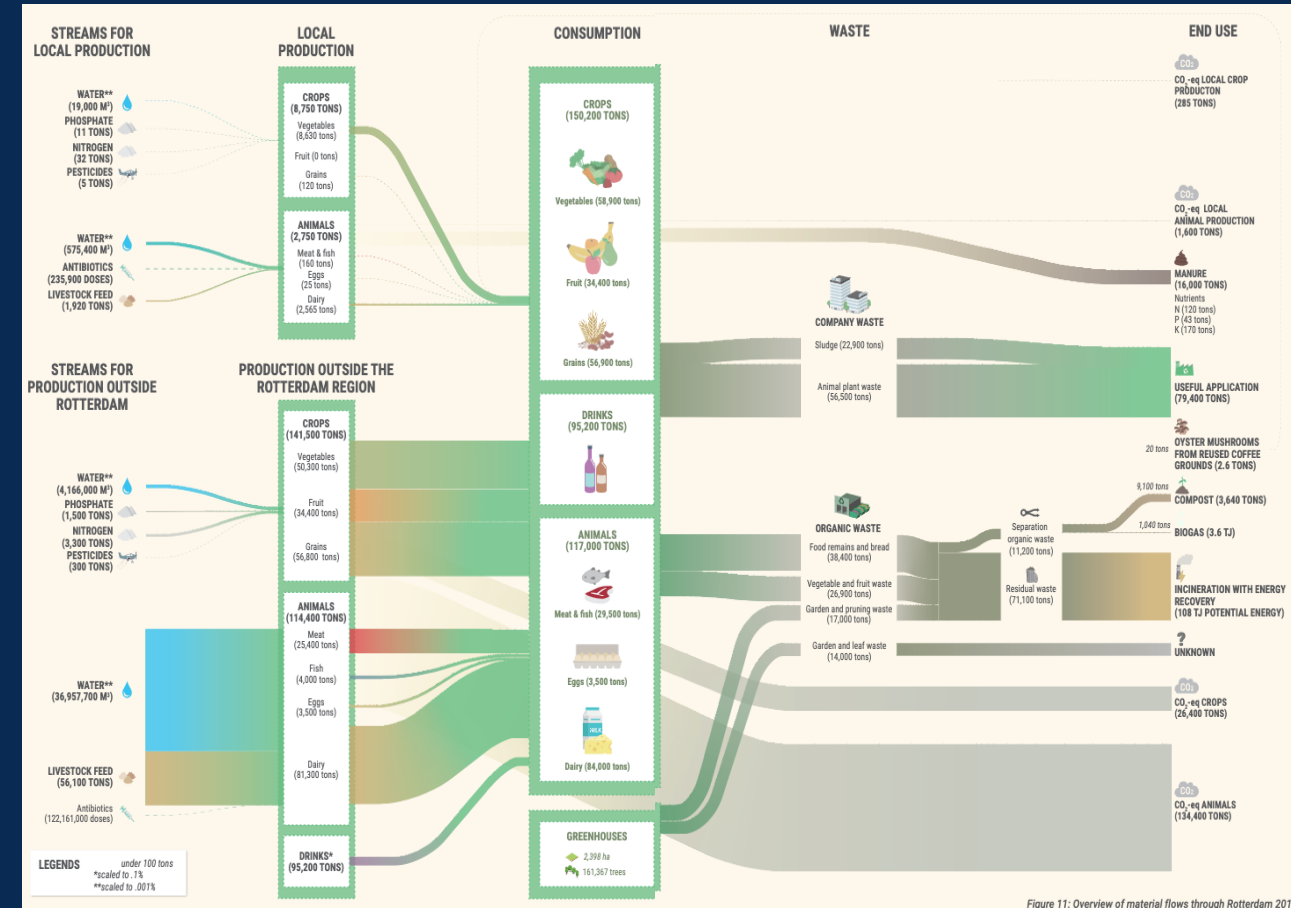


Figure 11: Overview of material flows through Rotterdam 2015

Source: Metabolic



*THANK YOU!*

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