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100



CITIES

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**RESILIENT
MILAN**



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100 RESILIENT CITIES

DEDICATED TO HELPING CITIES AROUND THE WORLD BECOME MORE RESILIENT

2013 Created by the Rockefeller Foundation

2013 The first group of 32 cities is announced in December

2014 The second 100 Resilient Cities Challenge is carried out, where 330 applications were received from 94 counties. 2013 – The first group of 32 cities is announced

2015 November marks the third 100 Resilient Cities Challenge

2016 Final group of cities was announced in May after reviewing over 1,000 applications from prospective cities.

2017 **The city of Milan joins 100 Resilient Cities in December**

Innovative mayors, a recent catalyst for change, a history of building partnerships, and an ability to work with a wide range of stakeholders.

WHO WE ARE:

WE WANT TO HELP MILAN BECOME RESILIENT TO THE PHYSICAL, SOCIAL AND ECONOMIC CHALLENGES FACED IN THE 21ST CENTURY



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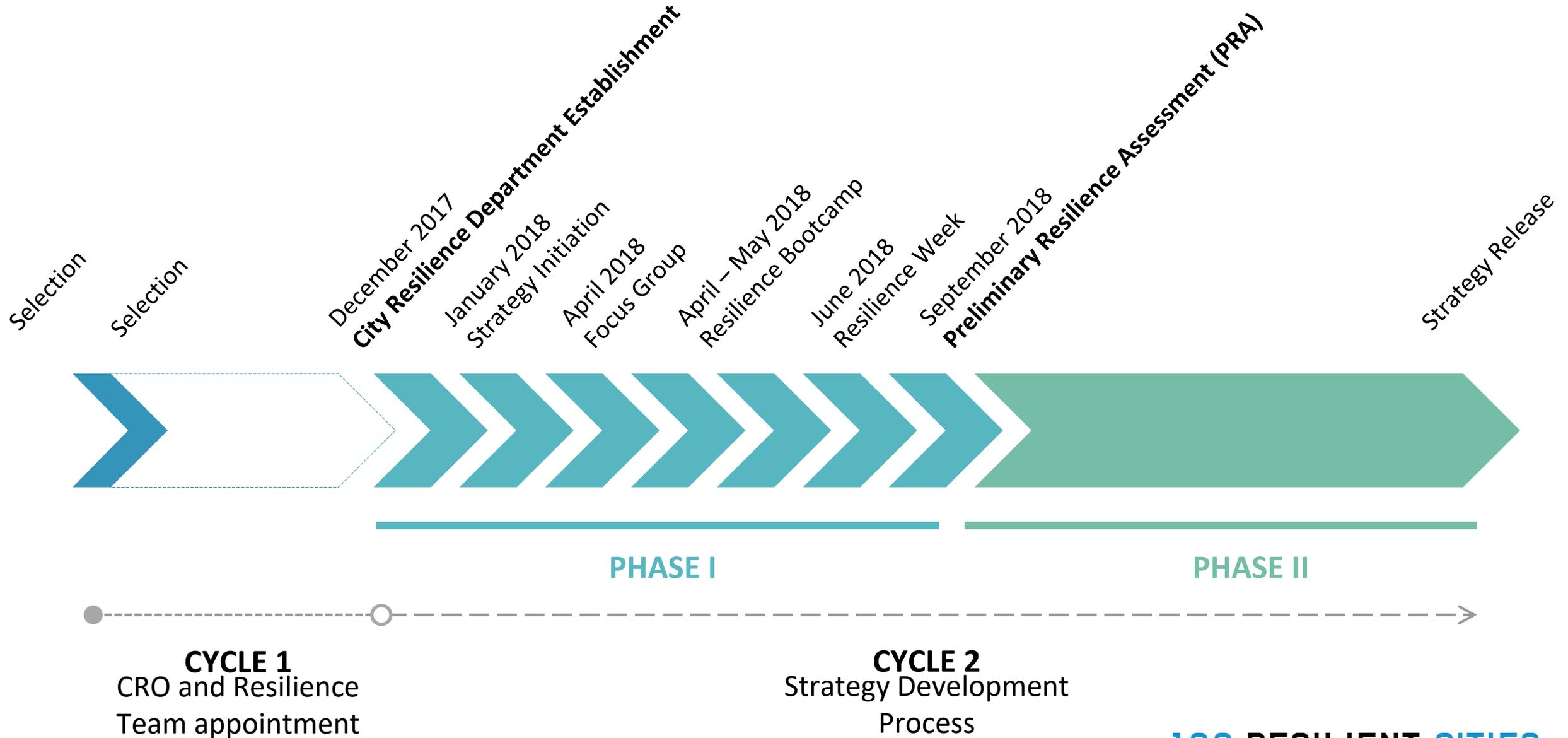


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WHERE WE ARE NOW AND NEXT STEPS



THE RESILIENCE FRAMEWORK

Leverages 4 support systems to tackle these challenges

Identifying a specific figure within the administration: the Chief Resilience Officer

Development of a Resilient Strategy for the City of Milan

Access to a platform providing services and support towards implementation of the strategy

Integration in the 100 Resilient Cities Network



Helping complex urban systems become more integrated and organized

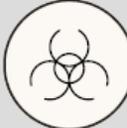
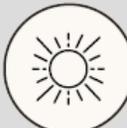
Valuing solutions efficiently

WHAT ARE THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE CHALLENGES FACED BY MILAN?

SHOCK

-  Rainfall Flooding
-  Infrastructure Failure
-  Financial/Economic Crisis
-  Cyber attacks
-  Hazardous Materials Accident

STRESS

-  Water and air pollution
-  Extreme heat and heatwaves
-  Degradation of urban areas
-  Disruption due to construction sites
-  Social exclusion and inequality
-  Terrorist attacks & security risk
-  Influx of migrants
-  Riots or civil unrest
-  Lack of affordable housing
-  Aging population

THE 6 DISCOVERY AREAS

OUR SIX DISCOVERY AREAS ENCOMPASS THE SHOCKS AND STRESSES IDENTIFIED FOR MILAN

1 Milan City of Water

Infrastructure & Energy |
Heritage & Future Services

2 Living Milan

Social innovation | Housing
Solutions | Training and Work

3 Cool Milan

Climate adaptation | Livability
and quality of life | Agriculture



4 Circular Milan

Resources | Waste | Food Policy
| Innovation | Productivity

5 Safer Milan

Security | Risk Management |
Digitalization

6 Next-US Milan

Future trends & infrastructure

MILAN FOOD POLICY



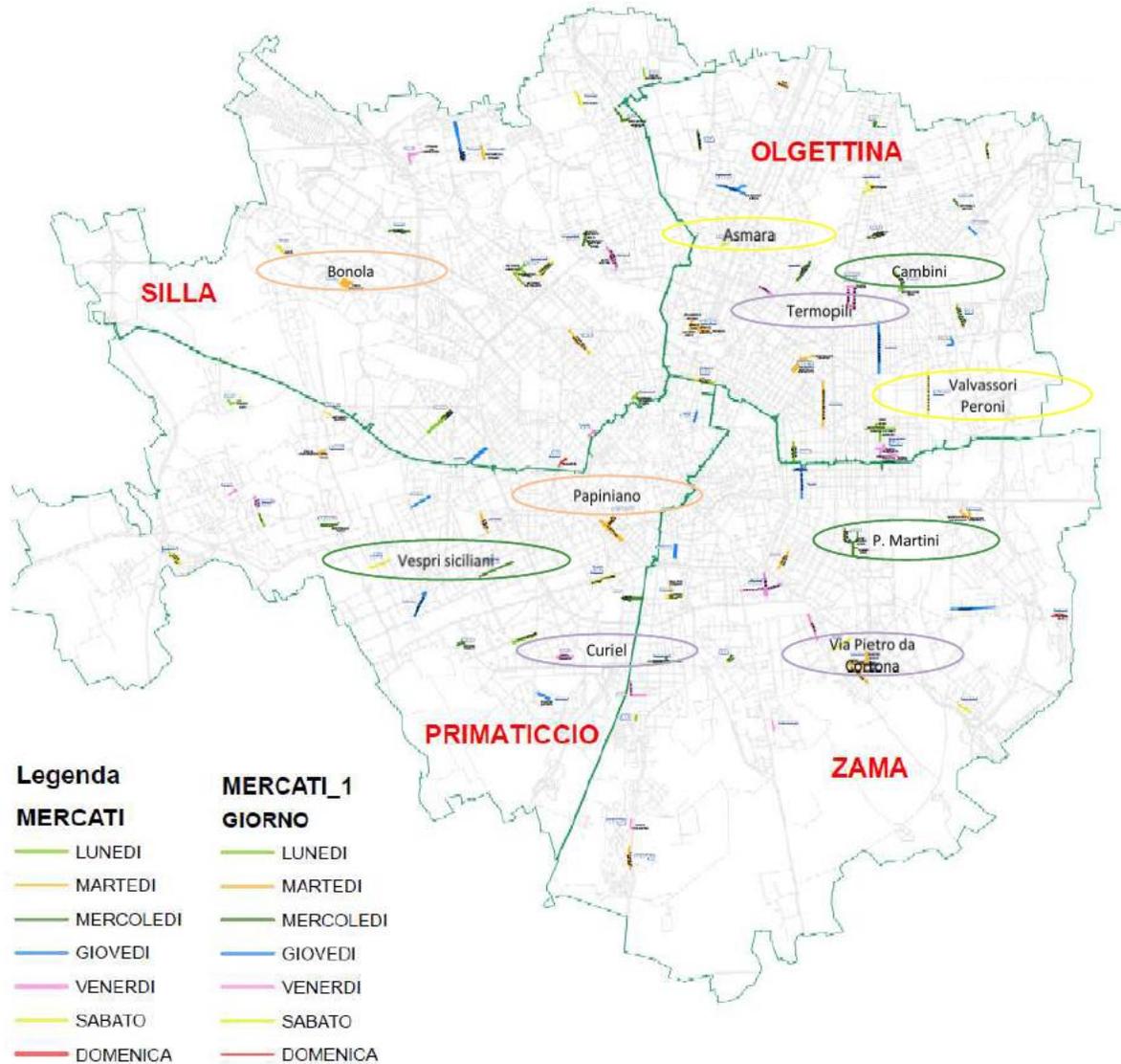
The Milan Food Policy, developed in 2015, is a multidimensional approach around 5 key priorities, 16 guidelines, 18 actions: **food loss and waste reduction** being one of the most important, engaging several local actors such as **research centers, food businesses, food banks, non profit organizations, foundations.**

4 GUIDELINES FOR FOOD LOSS AND WASTE

- Promote actions of **information and education** addressed to citizens and local actors in order to reduce losses and waste.
- Promote **circular economy** in the food system.
- Promote **recovery and redistribution of food losses** creating relations among the local players (charities and food banks).
- Promote more **rational use of packaging.**

CIRCULAR ECONOMY AND FOOD

OPEN AIR MARKETS TO REDIRECT FOOD



CIRCULAR ECONOMY AND FOOD

AGRICULTURE AND THE ROLE OF THE CITY OF MILAN



OPEN AGRI, a collaboration with the Comune di Milano, is a Hub that promotes development projects involving SMEs and startups to **accelerate new food enterprises** in the city, to **promote green transport for food** companies and to foster **skills and competences to lower the environmental impacts of farming**.

On the social dimension, community-led initiatives for inclusion, urban regeneration, social and territorial cohesion projects will be implemented.

Regarding the sustainable and technological dimensions, the project will prototype disruptive and innovative solutions for peri-urban agriculture through new ways for food production, and new tools such as the “kitchen fab-lab” and the aquaponics system will be tested.

CIRCULAR ECONOMY AND FOOD

UNDERSTANDING MILAN'S SOURCE OF WASTE IN THE FOOD SYSTEM

Contributors to food waste



38.5%

Production



3%

Transformation



16.5%

Distribution & Catering



42%

Consumption



100kg

Waste per capita-year
along supply chain

Domestic waste of an Italian family equivalent to monthly grocery bills of a Milanese family



399€ / month

Monthly grocery bill of a Milanese family



454€ / year

Domestic waste of an Italian family

CIRCULAR ECONOMY AND FOOD

COMBATTING MILAN'S FOOD WASTE THROUGH 3 INNOVATIVE PLANS

1. 20% TAX REDUCTION FOR DONATED FOOD LOSSES

In 2018 Milan adopted a reduction on the waste tax for food losses donation. This new regulation aims to reduce 20% of the tax for the first year in favour of food businesses (supermarkets, restaurants, canteens, producers etc.) that donate their food losses to charities.

2. GETTING SCHOOL CANTEENS INVOLVED

106 School Canteens
connected by charity
food donation systems

150 Tons of food provided

- 91t Fruit
- 50t bread
- 9t complete meals

31,000 reusable doggy bags to bring non perishable leftovers home.

3. OPEN STREET MARKETS TO REDIRECT UNSOLD FOOD

Waste Management Municipal Agency is supporting a non-profit Association active in the open street markets for food recovery and donation by engaging people in need. This means 150kg per market per week, and 90 tons of food per year

CIRCULAR ECONOMY AND FASHION

A NATIONWIDE INITIATIVE FROM THE CAMERA NAZIONALE DELLA MODA ITALIANA

Green Carpet Fashion Awards

On 23rd September 2018, CNMI in collaboration with the Municipality of Milan and the Italian Trade Agency, announced the green carpet fashion awards, which would take place during Milan Fashion Week, that awarded and celebrated the best in sustainability in the luxury fashion chain.

Manifesto for the sustainability in Italian Fashion

Also by the Camera Nazionale della Moda Italiana, the manifesto places emphasis on design for quality products that minimize impact on ecosystems as well the choice of raw materials.

International RoundTable on Sustainability 2018

In March, the CNMI carried out 3 roundtables that aimed to create a circular industry, to address the digital transformation on the fashion supply chain, and to address the use of chemicals in production cycles.

CIRCULAR ECONOMY AND FASHION

LINKING THE FOOD SYSTEM AND THE WORLD OF FASHION

700,000 Tons

Of citrus waste is produced annually in Italy

Illegal Disposal

or expensive disposal practices prompted many juice factories to close

Sustainable Textiles

are increasing in demand not only in Italy but for the entire fashion industry

ORANGE FIBER, an Italian company based in Sicily, developed a disruptive technology that creates innovation materials out of industrial by-products, mainly orange peels, that does not rival food consumption. This industry was facing several challenges, but the creators succeeded in overcoming them to bridge the gaps. Italian designer Salvatore Ferragamo is the first brand to use the exclusive Orange Fiber fabric.



CIRCULAR ECONOMY AND INDUSTRY 4.0

NEW CRAFT & URBAN MANUFACTURING



350,000 jobs are in manufacturing (in Milan)



1st city in Italy for manufacturing startups



10 Fablab/makerspace in the public register of the municipality

In the EU, "about 8 million jobs may be lost in the coming years in the field of digital manufacturing"

Fear of short-term job losses

Lack of skills in workers and companies

Impacts on social cohesion

Future of the middle class

"MANIFATTURA MILANO", is the municipality of Milan's new urban policy program that aims to improve the city's economic attractiveness, growth of enterprises in digital manufacturing and growth of new crafts:

- Create new jobs
- Regenerate the suburbs
- Promote social cohesion

CIRCULAR ECONOMY AND INDUSTRY 4.0

FABLAB MILANO – THE DIGITAL MANUFACTURING LABORATORY THAT'S TRANSFORMING MILAN'S SPACES, MANUFACTURING AND SKILLS

FabLab Milano is located in the heart of the industrial area of Milan Bovisa, and is part of the FabLab Network, a global network born 10 years ago from an idea by Neil Gershenfeld, director of the Center for Bits and Atoms (CBA) in Boston. FabLab is a fully equipped digital manufacturing laboratory. A place of sharing and coworking, designed to put students in communication with companies, artisans with businesses.



The location of FabLabs in previous industrial areas enables the transformation of abandoned areas into innovative spaces that encourage young entrepreneurs and startups. This regeneration of neighborhoods and areas that have either degraded or abandoned was a strategic decision to re-claim valuable land in Milan and utilize it in ways to advance social innovation and inclusion, increase new skills and training, transform the economy to be more circular and propel Milan to its future vision.

CIRCULAR ECONOMY AND URBAN METABOLISM

THE FLOW OF GOODS WITHIN THE CIRCLE OF MILAN

Increasing urban congestion and the sharp decrease in freight traffic has led shipping and logistics companies to disperse around the outskirts of the metropolitan area of Milan. This compromises the calculation of the flow of goods entering and exiting the city and makes it difficult to calculate the actual needs of the city

LABSUS

Collaborative agreement for shared management of common goods. This is a trial for social regeneration that will involve a vast array of stakeholders and include social enhancement of spaces

SOCIAL STREET TOOL

A tool that promotes circular economy through transforming economic activities that have by now become obsolete. Social street tool also looks to improve public transportation and logistics of transport of goods in the area

NEXT STEPS FOR A MORE RESILIENT AND CIRCULAR MILAN

Together with the Municipality of Milan and the support of stakeholders





**Thank you for
your attention**