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Post-industrial areas on the lens of systemic design towards flourishing urban resilience
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POST-INDUSTRIAL AREAS ON THE LENS OF SYSTEMIC DESIGN TOWARDS FLOURISHING URBAN RESILIENCE

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Topic 4 - Territorial metabolism and flourishing economies
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How can we make resilient cities work?

In the present and the future.
How will we envision these urban systems to ensure enough water, food security for all, create quality jobs and income opportunities for millions of people in a more humane, sustainable and efficient manner?
+ Resilience in Post-industrial areas. What way to go?

SDG11
Make cities and human settlements inclusive, safe, resilient and sustainable

SDG12
Sustainable consumption and production patterns

Urban Transitions
Reactive local economies
Urban Ecologies
Social Cohesion
Innovative Governance

Circular Economy
Sustainable consumption and production patterns

Design Research
Urban Metabolism
Innovative Governance
Social Cohesion
Waste management

Post-industrial Areas
The decline of manufacturing industries left an abandoned urban fabric

Food Security
Jobs Scarcity

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on that complex scenario...

How to achieve an overall sustainable and cohesive urban transitions, that can reduce future economic, environmental and social costs, but at the same time strengthening economic competitiveness?
Conceptual framework of a circular city

Fig. 1. The circular city framework, adapted from the ReSOLVE framework (EMF, 2015).
how can a territorial thinking in post-industrial areas foster frameworks to address the current environmental and economic challenges of society?
+ Systemic Design for Territorial Thinking

Systemic Design

context

complexity

implementation

Post-industrial areas

Circular Economy

Urban Transitions

STRATEGIES

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+ RSD7 - Territorial metabolism and flourishing economies
Through which principles? Systemic Design

**OUTPUT > INPUT**
The outputs (wastes) of a system become the inputs (resources) of another one.

**RELATIONSHIPS**
The relationships developed within the system generate the open system itself.

**ACT LOCALLY**
The operational context is prioritised.

**MAN AT THE CENTER**
The relationship between man and context is the heart of the project.

**AUTOPOIESIS**
The autopoietic open systems are self-supported and reproduced, and they evolve together.
How Systemic Design can enable the design Circular Economy strategies to promote sustainable urban transitions in post-industrial areas?

.... which are economically self-sustaining providing multiple benefits for the economic, ecological and social regeneration of deprived urban areas suffering from the consequences of deindustrialization.
Systemic Design research Method

1. Holistic Diagnosis
   Qualitative-quantitative analysis

2. Potential and Criticism
   framework of a circular city

3. System Design strategies

4. Analysis of possible results

5. Implementation

6. Results analysis and feedback
STEP 1 holistic diagnosis

Demography
- population diversity
- density and variation
- average number of people
- average income
- Associations

Economic
- tertiary, industry,
- SMES
- dimensions,
- economic value,
- type of enterprise

Geography
- land features
- natural resources
- urban metabolisms
- climate
- temperature

Cultural
- identity
- geo-cultural features
- historical influence
- architecture
- gastronomy
- traditional festivals

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+ STEP 2 Assessment potentialities & criticalities

High value & sleeping assets

Current strategies on the territory

TOP-DOWN
policy

government

BOTTOM-UP
social innovation / entrepreneurial activities

government

resources / industry / services

citizenship

industries

NGOs

entrepreneurs

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STEP 3 systemic design

CRITICALITIES INTO POTENTIALITIES

TOP-DOWN + BOTTOM UP

Strategic Thinking

planning

implementation
citizenship

CIRCULAR CITY FRAMEWORK

Systemic Design

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+ Systemic Design exploration

**Turin, Mirafiori Sud District**

- 400,000 inhabitants on 12km²
- Located on a periurban area along the river Sangone
- 1940 FIAT Industrial district
- 1960 working class district
- 2003 FIAT economic crisis
Mirafiori Sud

- poverty
- security problem.
- social segregation
- poor quality of urban environment (gray infrastructure)
- social groups ([Rom, Sinti, gypsies])

Empty post-industrial sites

Predominant social housing

Vast periurban area (toxic soil)
+ Systemic Design exploration

**Mirafiori key strengths**

- **URBAN VOIDS OPPURTUNITIES**
- **STRONG SENSE OF BELONGING**
- **STRONG STAKEHOLDER RELATIONS**
- **INCREASING ENTREPRENEURIAL ACTIVITY**

**Geography**
Expected results deliver innovation at multiple levels:

- **Technical Level**
- **Ecological Level**
- **Social Level**
- **Economic Level**
- **Policymaking Level**
Thank You!

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