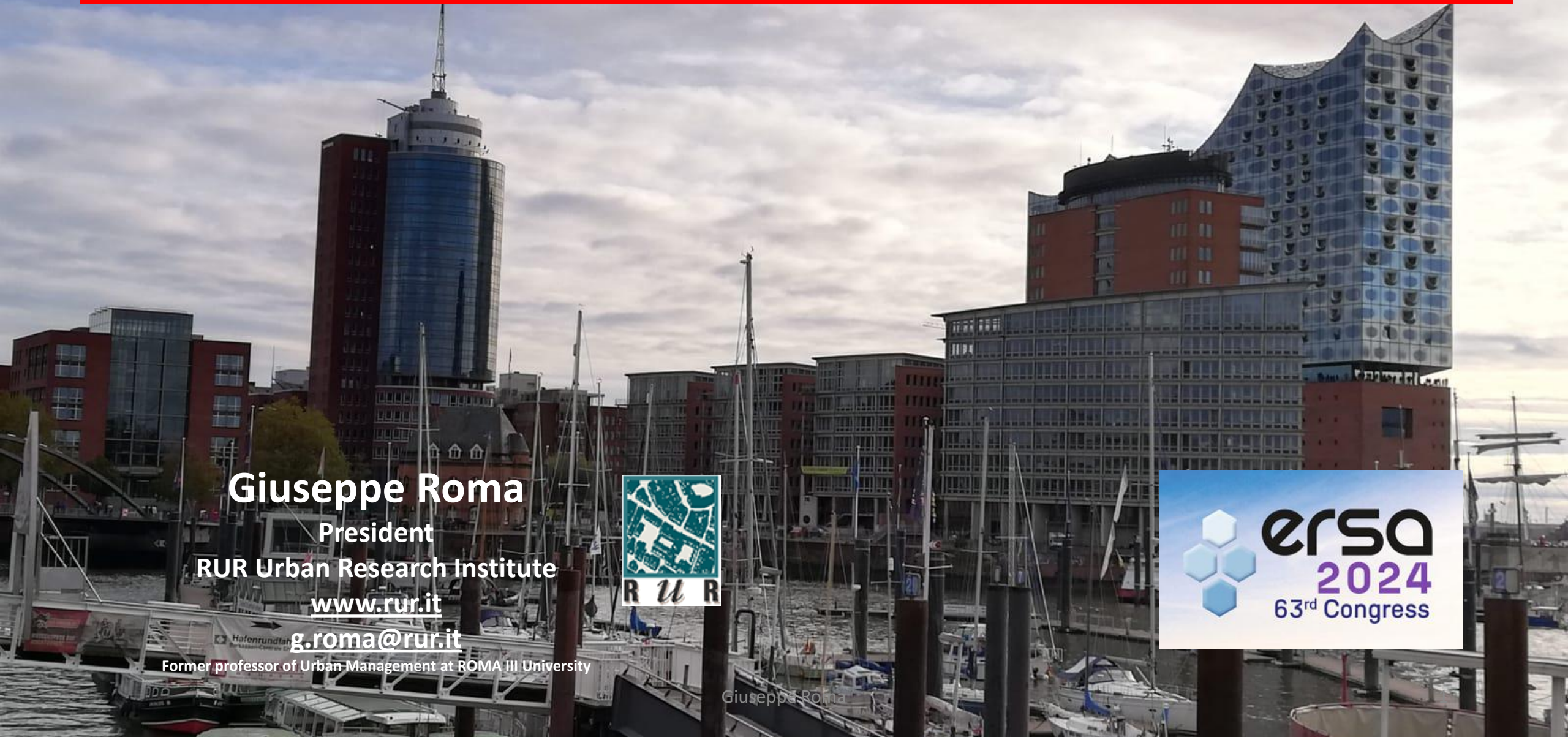
Conceptual model and concrete projects for Urban Regeneration



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ersa 2024 63rd Congress

Preconditions for urban regeneration

Run-down assets to new life

Projects and investments aimed at re-using run-down assets. In this way new functions are given to significant areas of the cities.

Zero land consumption objective

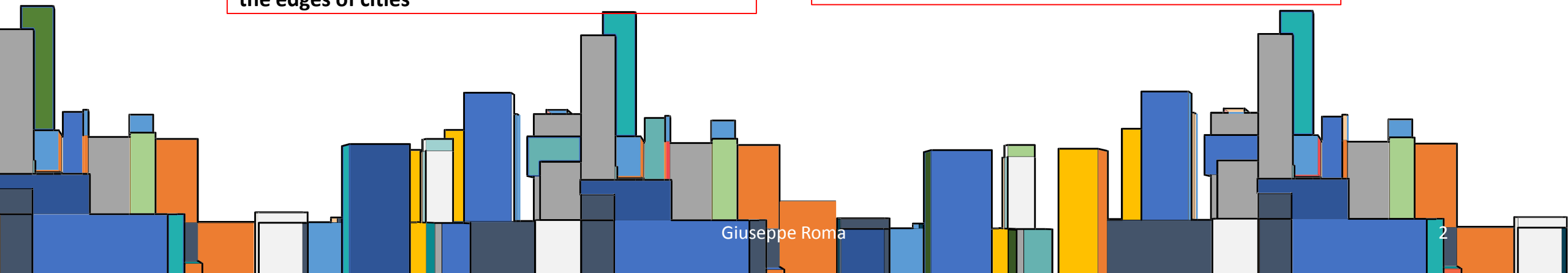
Urban renewal includes phisical redevelopment of industrial, public or residential buildings, as well free areas within urbanized areas. The ultimate aim is not to expand construction in rural or natural areas on the edges of cities

A comprehensive approach

Urban Regeneration is a comprehensive approach that merges vision and action in view of trasforming deprived urban areas into Eco-settlements

An Eco-friendly way to revalue dead asset

The area before the intervention is an inert asset, through the assembly of a project, with the related investments, is transformed in a living area of the city without wasting new territory



The different types of urban regeneration

ECONOMIC REGENERATION

Interventions aimed at the setting up of companies or tertiary headquarters for urban development and employment growth

RESEARCH AND UNIVERSITY

Areas dedicated to research, innovative business parks, data centers. University campuses connected to research centers or hospitals

HERITAGE REGENERATION

Recovery of historic centers (especially in medium-small cities - or valuable architectural and cultural sites

ENVIRONMENTAL REGENERATION

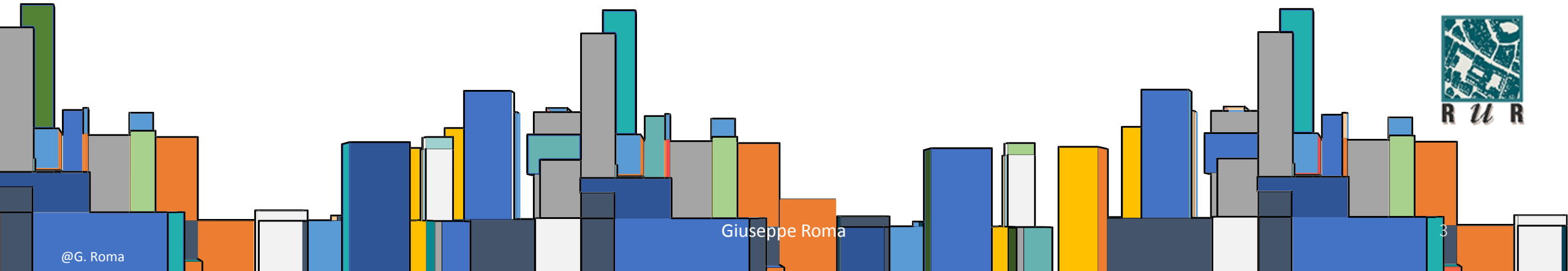
Creation of parks, cycle paths, sports areas and new rurality in abandoned and degraded areas. Interventions for recycling plants, energy production from renewable sources

HOUSING & SOCIAL REFENERATION

Revitalization of abandoned areas located in suburbs and urbanized areas through the localization of carbon-free residences and services for social life

INFRASTRUCTURE REGENERATION

Interventions in abandoned areas belonging to disused infrastructures (railways, power plants...) converted into mobility hubs

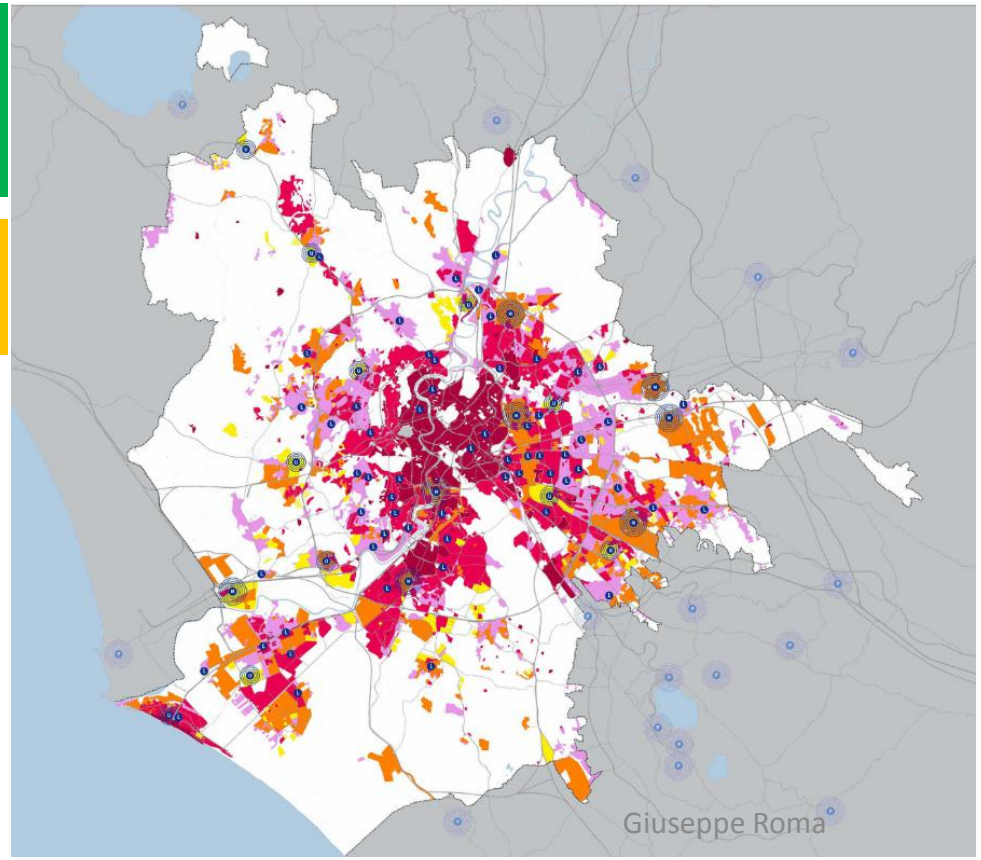


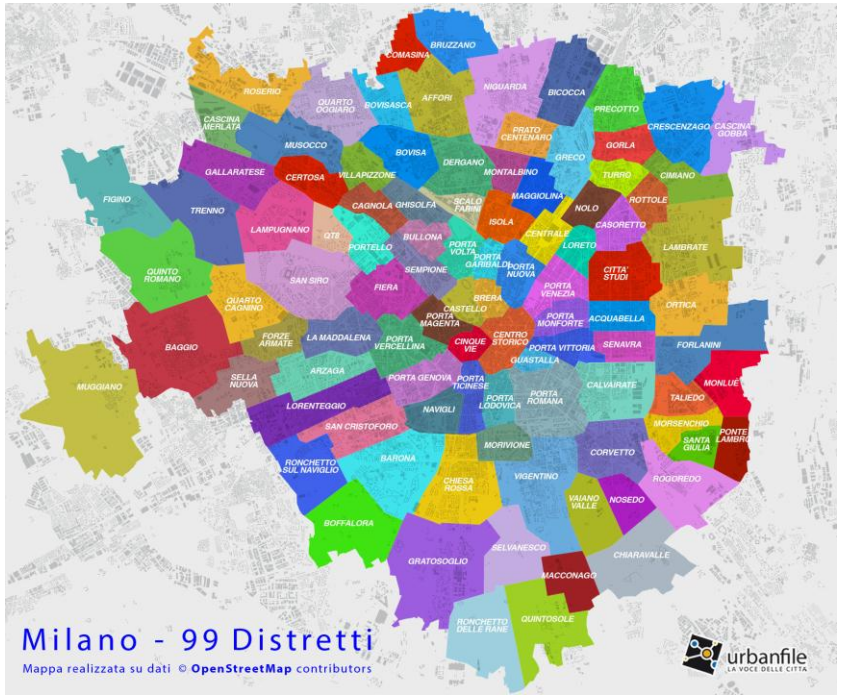
Mosaic Metropolies:
Identify districts for transformation

**Discover, design and manage the many cities that make up the Metropolis City
and transform them into many slow cities**

Reconcile administrative divisions with the actual map of settlements

In Rome 15 municipalities and 93 small towns

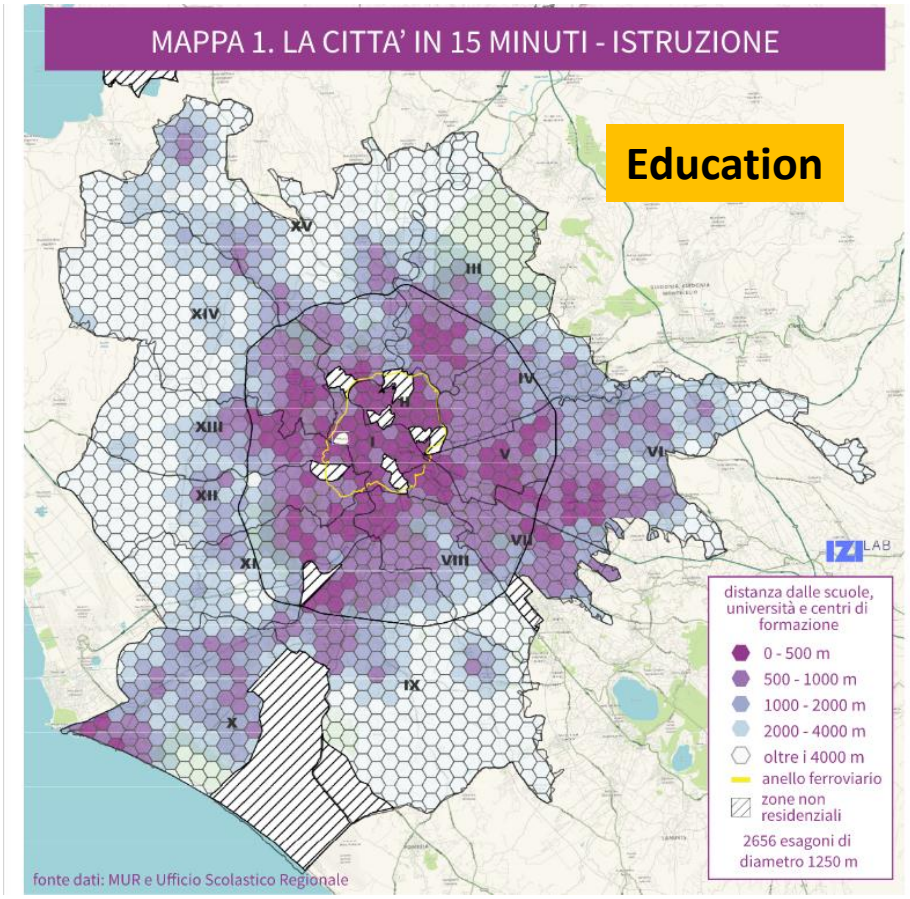


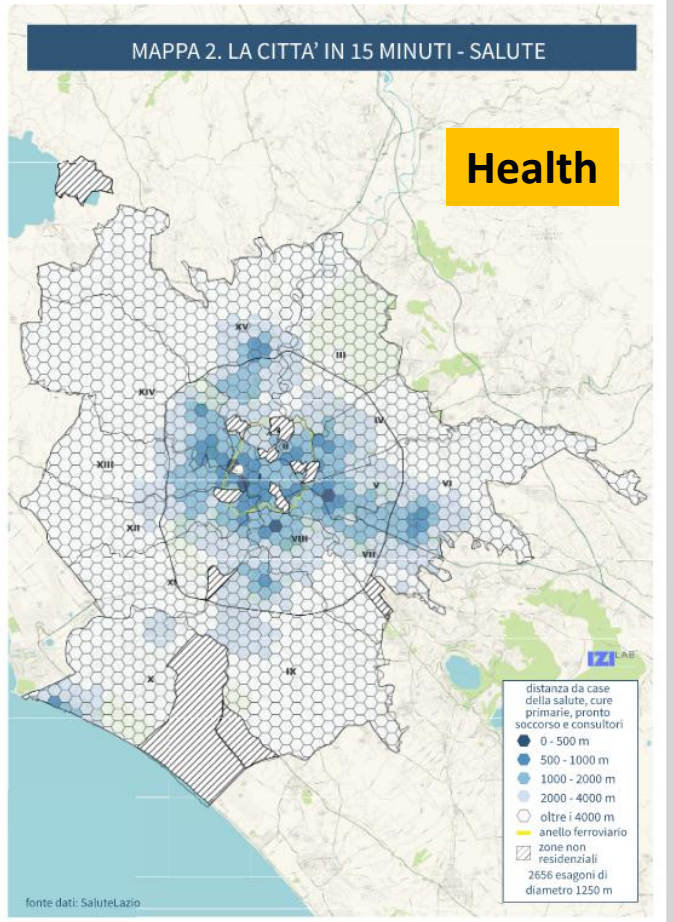


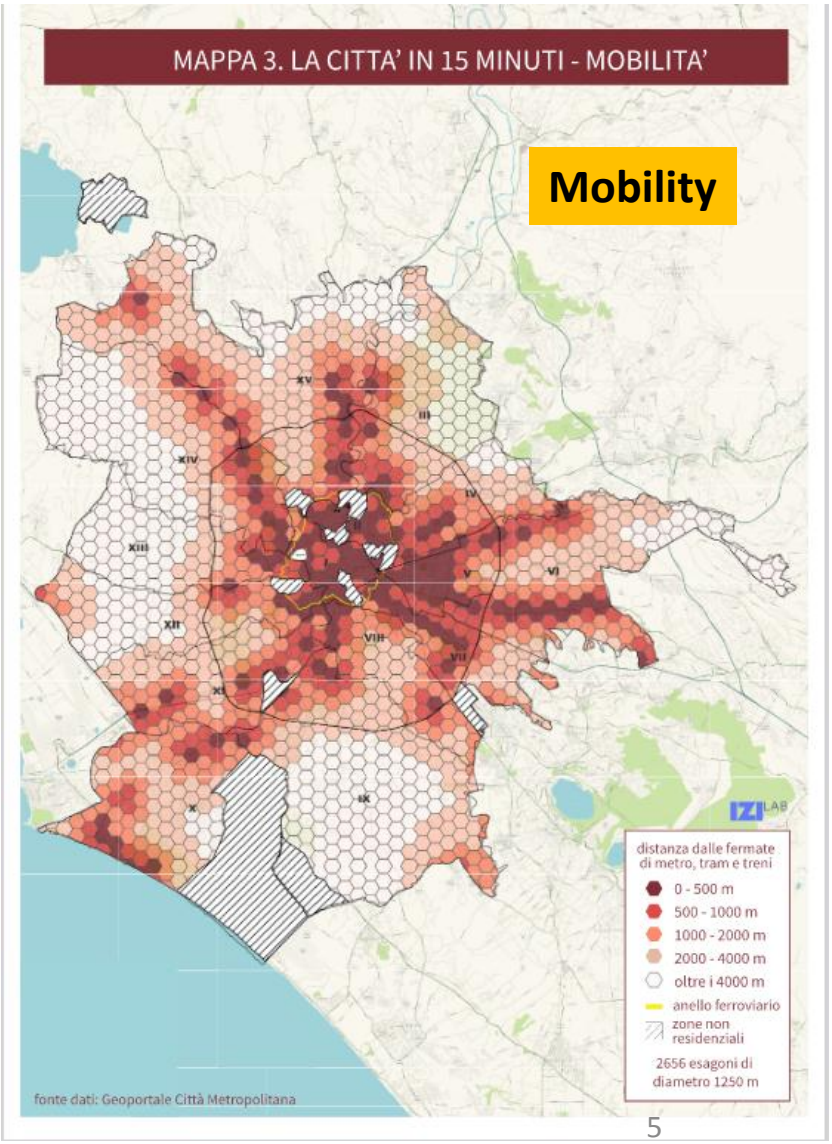
In Milan 99 districts

Metropolises remain open territories with a high intensity of relationships. In addition to raising the quality of peripheral services, it is necessary to rebuild the connection networks between the various neighborhoods

Reduce metropolitan inequalities : education, health and mobility







The distance from the main services of metropolitan residential areas

Starting from the end:

1 environmental sustainability

2 social utility

3 economic performance

Determinate Returns

1

- Energy saving and de-carbonisation of buildings
- New green spaces and soft mobility

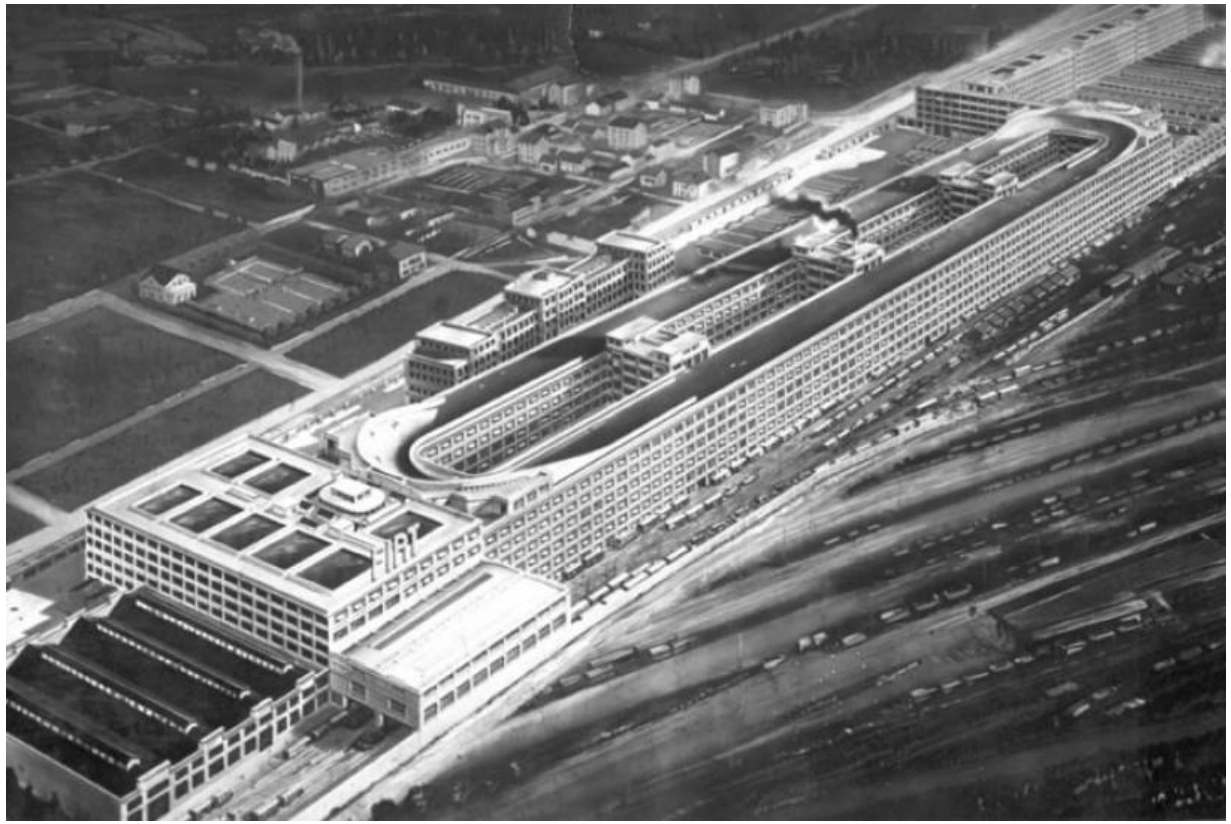
2

- Integrate public and private functions
- Provide different types of housing (social, students, elderly...)

3

- Attract private investors on the basis of a fair yaild
- Within the framework of the city's strategies, aim to encourage private improvement initiatives

One of the first examples: the Lingotto car factory in Turin.
360,000 sq.mt. transformed by Renzo Piano into the vital center of the city (1990s)



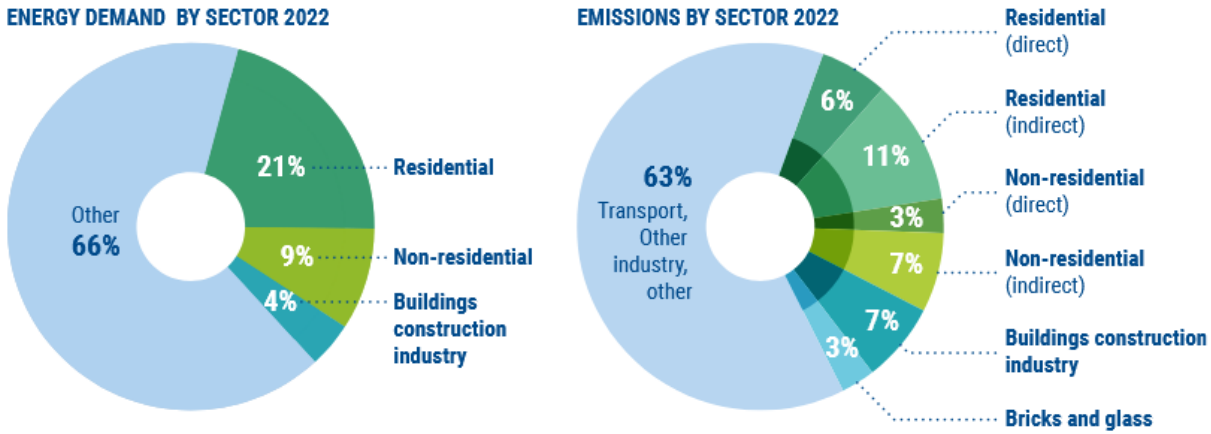
Hamburg Hafen City


ELBE

The «Eco- Quartier» Clichy Battignolles in Paris

36% of global Co2 emissions depend on buildings

Figure 1 Share of buildings in total final energy consumptions in 2022 (left) and share of buildings in global energy and process emissions in 2022 (right)



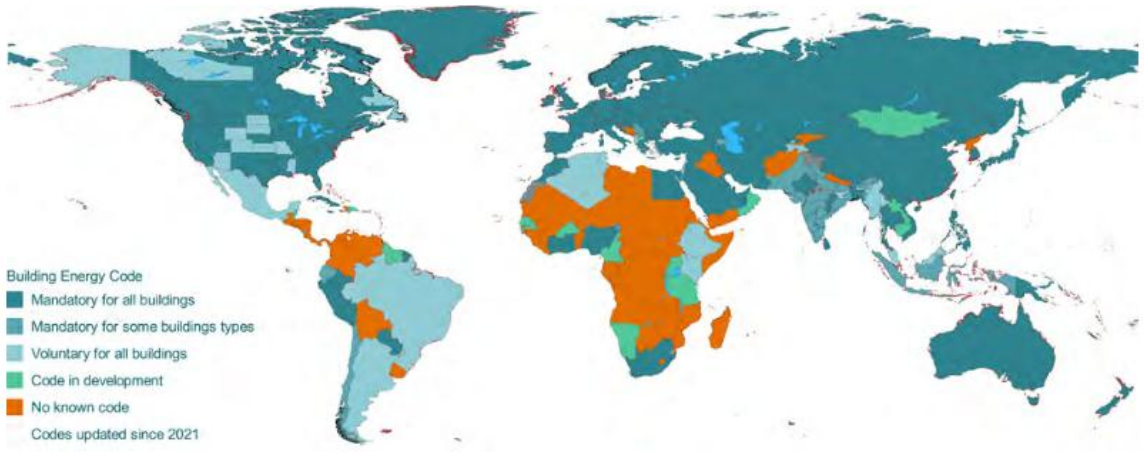
(Source: IEA 2023a. Adapted from 'Tracking Clean Energy Progress')

Our Cittaslow are largely made up of buildings on which local governments must intervene to reduce energy consumption and emissions

Modernize Building Codes

- Requirements for energy efficency envelopes and energy systems
- Buildings equipped with smart meters, sensors and user control technologies
- On-site renewable energy systems
- Smart electric Vehicle charging

Figure 11 Adopted global building energy codes by type and status



(Source: IEA 2023a)

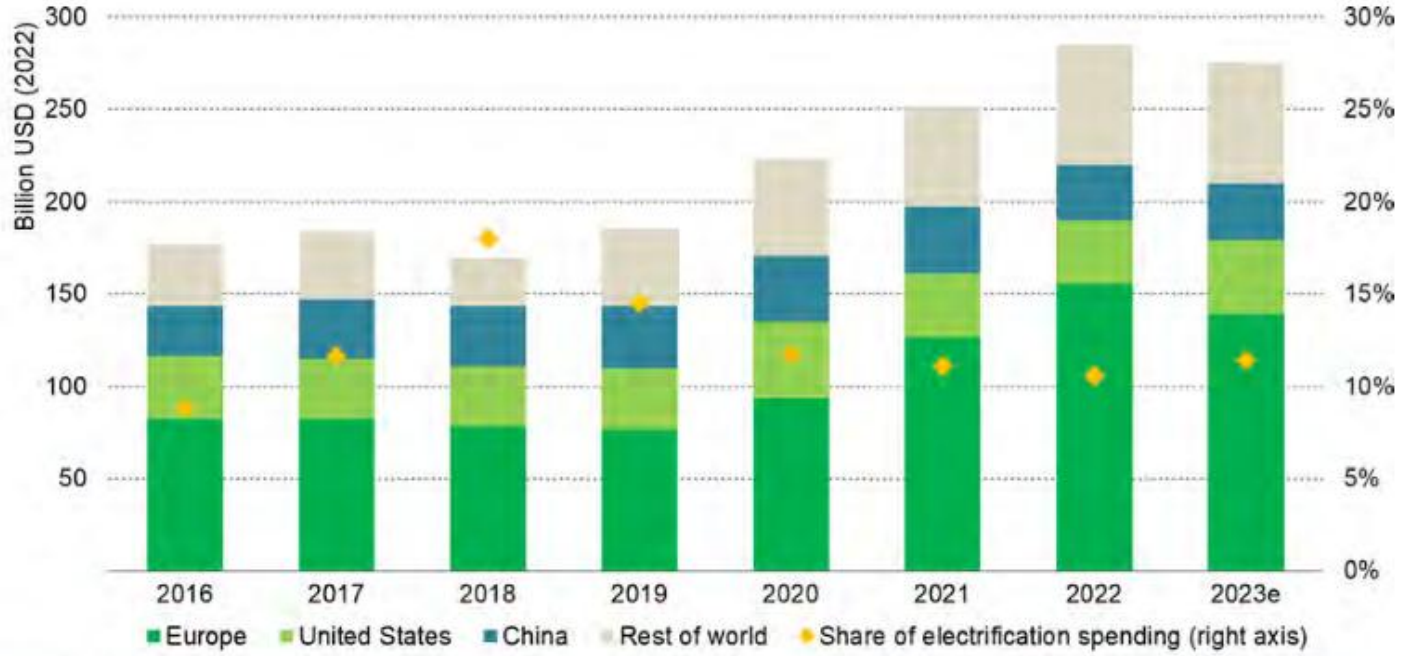
Notes: Countries with dark 'red' outline have adopted updated building energy codes since 2021

Two possible policies to achieve the objectives:

- incentivize private investments through tax credits
- Intervene in the building process with low-emission technologies and eco-materials

There is a great need for investments which, however, have decreased in the last year and remain very unbalanced in the world

Figure 14 Investment in energy efficiency in buildings and construction



Notes: Spending on electrification (e.g., Heat pumps) is included in the total spending, and represented as a share of total spending on the right axis; 2023e = estimated values for 2023

(Source: IEA 2023a)

ECO BONUS
Energy efficiency buildings
Tax deduction on expenditure

Windows, biomass or condensing boilers Class A 50%

Global renovation of the buildings/ Insulation / Micro Generators Building automation 65 %

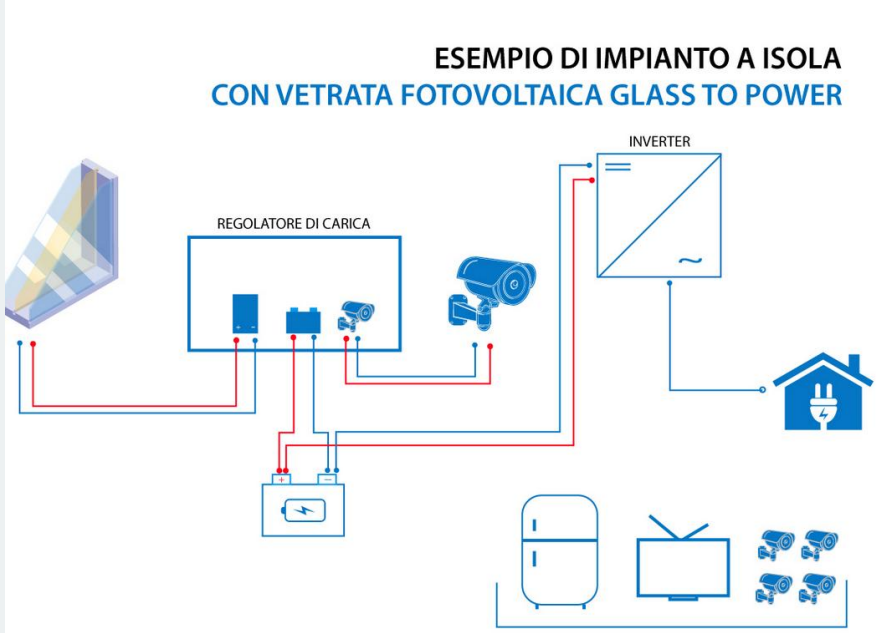
Interventions on common parts of condominium buildings from 70% to 80%

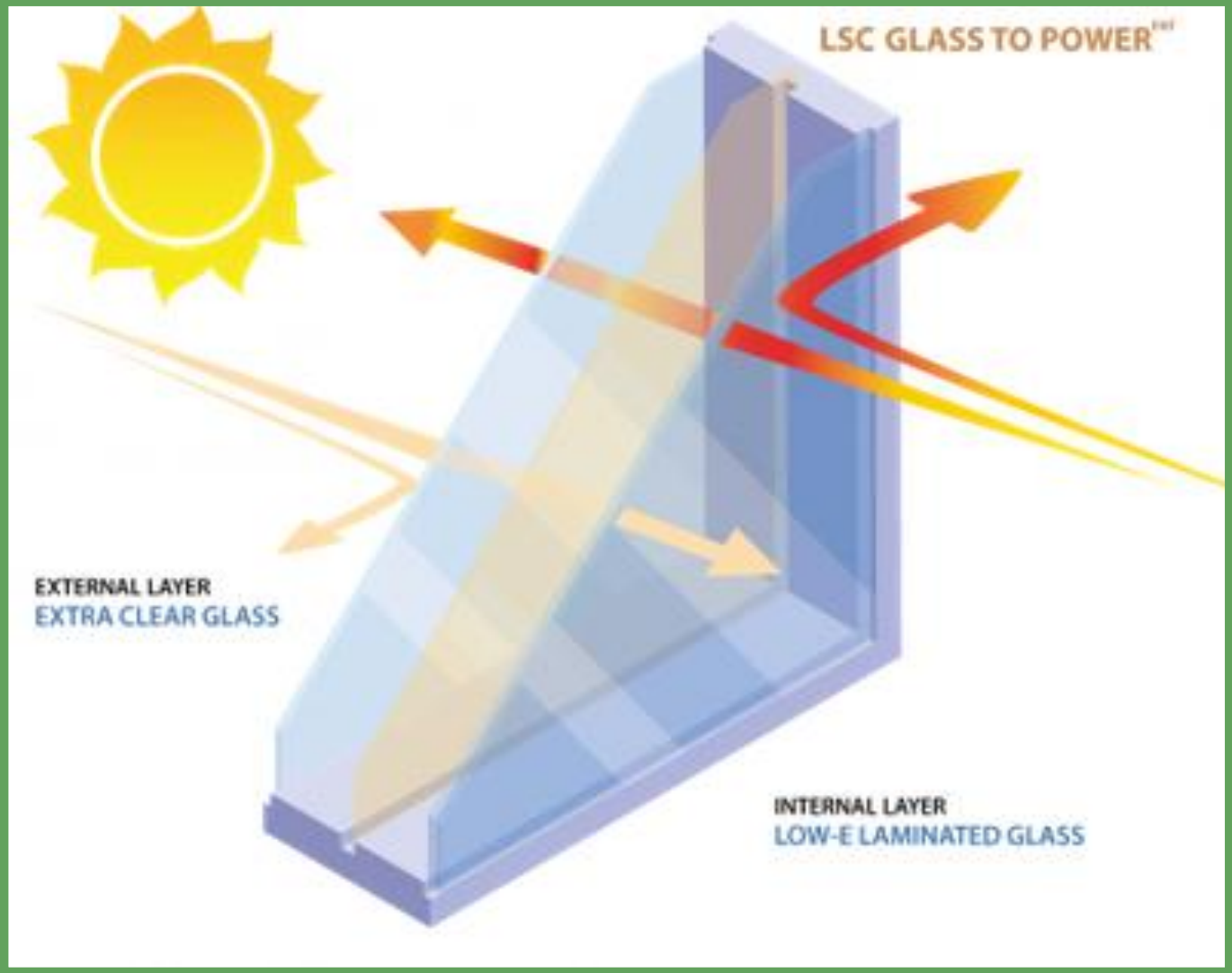
Interventions for seismic risk 85%

Renovation of the building facades 60%

GLASS to POWER

A technology that makes active and photovoltaic insulating glass curtain walls This produces energy from generally passive surfaces





archiproducts AWARDS WINNER SUSTAINABILITY

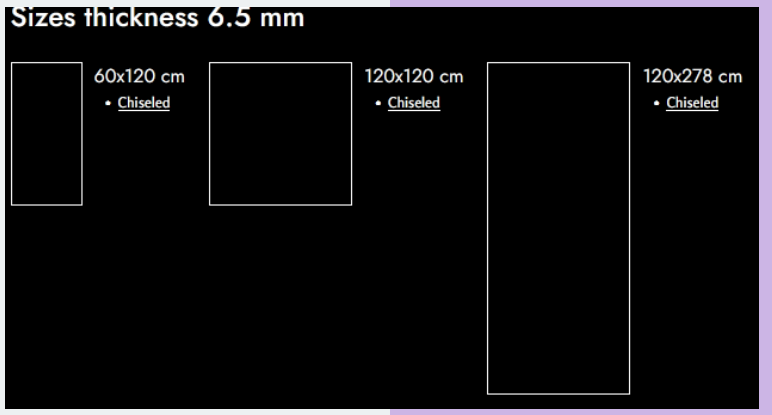
Ultra-thin limestone slab

for interior design, outdoor and architectural envelope

COTTO D'ESTE
EXCLUSIVE SURFACES

- - 65% consumption of raw material
- - 80% of water
- - 30% of energy
- - 30% of CO2 in atmosphere
- - 66% of pollution caused by transport

Reduction of environmental impacts



3 THICKNESSES
6.5 mm, 14 mm, 20 mm

6 SIZES
30x60, 60x60, 60x120, 90x90, 120x120, 120x278 cm

4 COLOURS
GREY, IVORY, PEARL, SAND

4 FINISHES
Chiseled, Rolled, Hammered, Honed