

**WORLD HERITAGE FOR  
SUSTAINABLE DEVELOPMENT**

**ROME**  
MUSEUM EXHIBITION



FIERA  
INTERNAZIONALE  
SUI MUSEI, I LUOGHI  
E LE DESTINAZIONI CULTURALI

**25-27**  
Novembre 2020

## **Converging Routes towards sustainability: 2 storylines and the SDGs**

November 27, 3.30 to 4.45 (CET)

*Online mode*

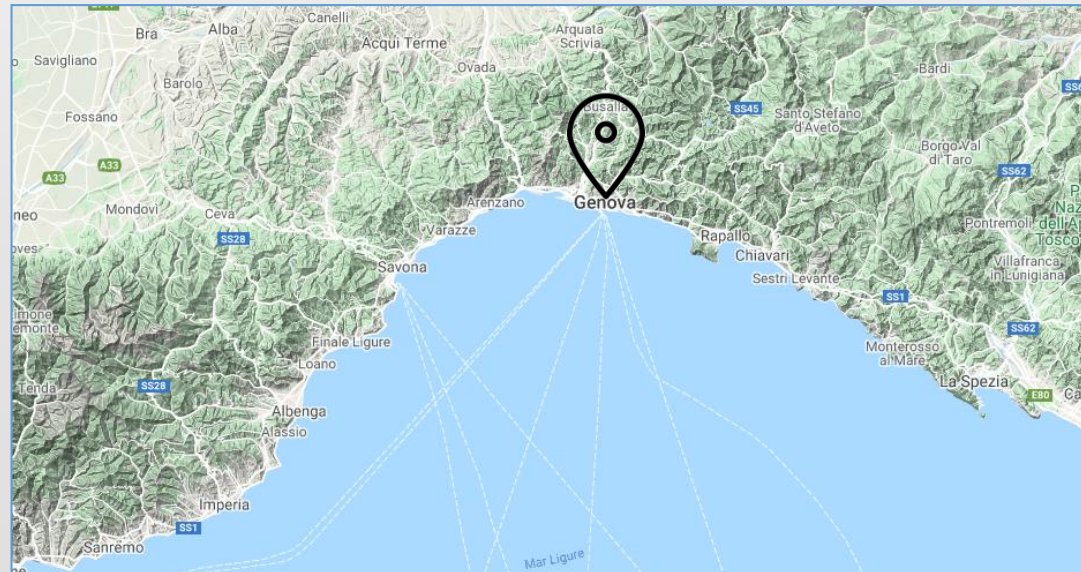
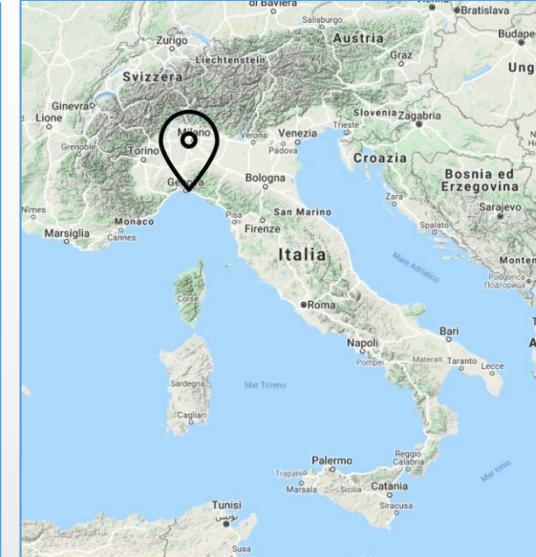
Genoa Municipality



Stefania Manca, Corrado Ragucci, Marzia Verucchi  
Resilience, EU Project & Unesco

Economic Development Innovation Strategic Project Department  
Genoa Municipality

## Genoa city context

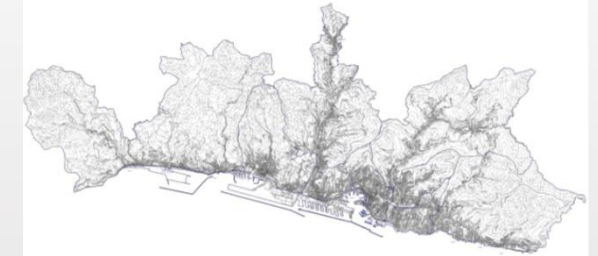




## Genoa city context



Genoa is the capital city of the Liguria region and the sixth-largest city in Italy. In 2018, Italian census, it counts 578.000 people lived within the city's administrative limits and 841.180 in the Metropolitan City area.



The city of Genoa covers an area of 243sqkm between the Ligurian Sea and the Appenine Mountains. The city stretches along the coast for about 30km, and for 10 kilometres from the coast to the north along its valleys Polcevera and Bisagno.

The Municipality coastline, nearly 35 km long and urbanized for more than 93% of its length, intersects the mouths of 65 river basin whose ramifications, main and secondary, cross nearly 235km of the built municipality area.

Genoa has historically been one of the most important ports on the Mediterranean: it is currently the busiest in Italy and in the Mediterranean Sea and twelfth busiest in the European Union.



## Genoa city World Heritage List (UNESCO) Le Strade Nuove and the system of the Palazzi dei Rolli



Part of the old town of Genoa was inscribed on the World Heritage List (UNESCO) in 2006 as “Genoa: Le Strade Nuove and the system of the Palazzi dei Rolli”.

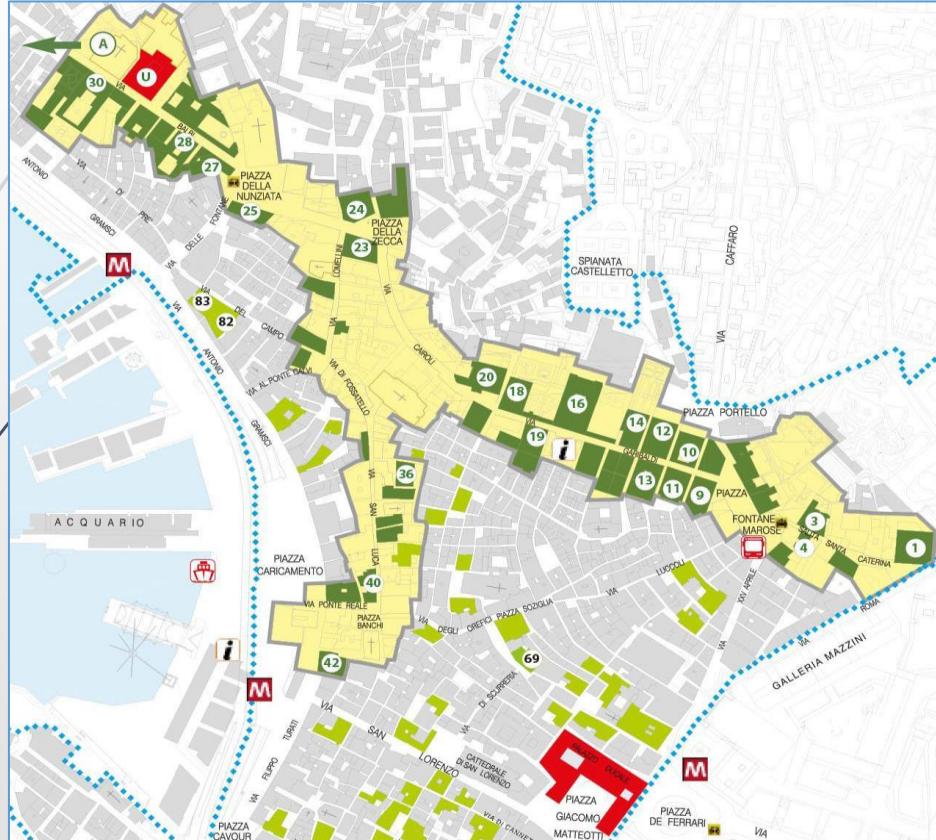


The system of the *Palazzi dei Rolli* is an original example of a network of private residences designated to host state visits.

It contributed to spread an architectural model and a culture that attracted the attention of artists and travelers, whose writings and works promoted it abroad.



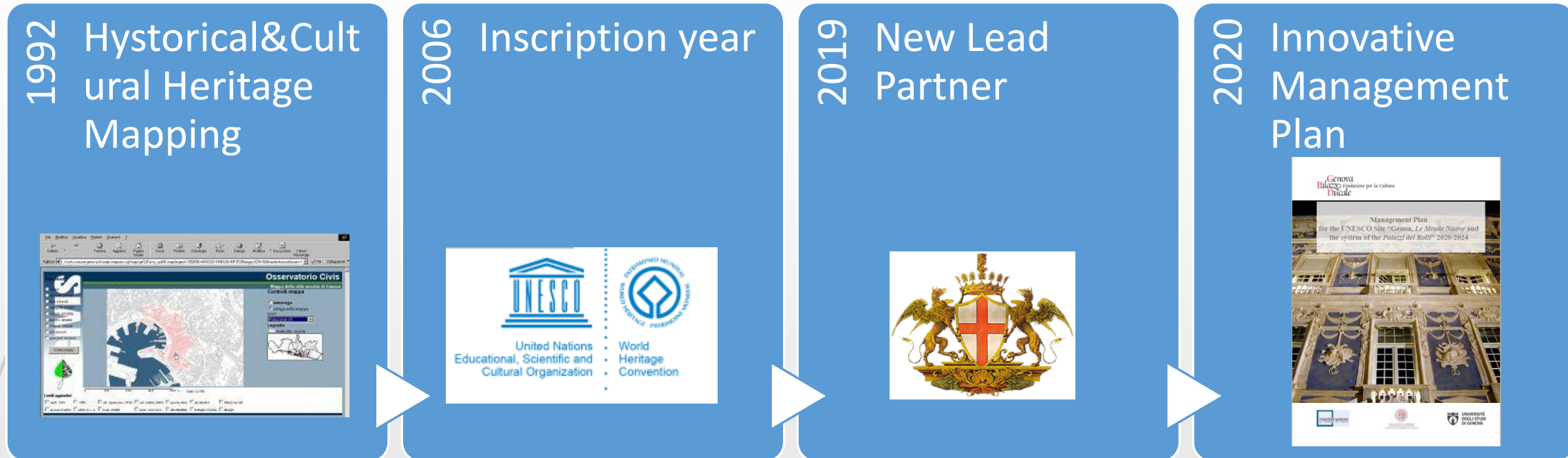
The Site “Genoa, *Le Strade Nuove* and the system of the *Palazzi dei Rolli*” was inscribed in the UNESCO World Heritage List in 2006. There are 42 *Palazzi dei Rolli* in all, noble residences concentrated in the old town



1. Palazzo Antonio Doria. Seat of the Prefecture.
2. Palazzo Clemente Della Rovere.
3. Palazzo Giorgio Spinola.
4. Palazzo Tomaso Spinola.
5. Palazzo Giacomo Spinola. Seat of the Bank of Sardinia.
6. Palazzo Ayrolo Negrone.
7. Palazzo Paolo Battista e Nicolò Interiano.
8. Palazzo Agostino Pallavicino. Seat of the Banca Popolare di Brescia.
9. Palazzo Pantaleo Spinola. Seat of the Banco di Chiavari e della Riviera Ligure.
10. Palazzo Franco Lercari.
11. Palazzo Tobia Pallavicino. Seat of the Chamber of Commerce.
12. Palazzo Angelo Giovanni Spinola. Seat of the Deutsche Bank.
13. Palazzo Gio Battista Spinola.
14. Palazzo Nicolosio Lomellino.
15. Palazzo Giacomo e Lazzaro Spinola.
16. Palazzo Nicolò Grimaldi (Tursi). Seat of the City Council of Genoa and of the *Musei di Strada Nuova*.
17. Palazzo Baldassarre Lomellini.
18. Palazzo Luca Grimaldi (Bianco). Seat of the *Musei di Strada Nuova*.
19. Palazzo Ridolfo Maria e Gio Francesco I Brignole Sale (Rosso). Seat of the *Musei di Strada Nuova*.
20. Palazzo Gerolamo Grimaldi.
21. Palazzo Gio Carlo Brignole.
22. Palazzo Bartolomeo Lomellino. Seat of the ITC *Vittorio Emanuele II*.
23. Palazzo Stefano Lomellini.
24. Palazzo Giacomo Lomellini.
25. Palazzo Antoniotto Cattaneo. Seat of the University of Genoa.
26. Palazzo Gio Agostino Balbi.
27. Palazzo Gio Francesco Balbi. Seat of the University of Genoa.
28. Palazzo Giacomo e Pantaleo Balbi. Seat of the University of Genoa.
29. Palazzo Francesco Balbi Piovera. Seat of the University of Genoa.
30. Palazzo Stefano Balbi (Reale). Seat of the *Museum di Palazzo Reale*.
31. Palazzo Giorgio Centurione.
32. Palazzo Cosma Centurione.
33. Palazzo Giorgio Centurione.
34. Palazzo Cipriano Pallavicini.
35. Palazzo Nicolò Spinola.
36. Palazzo Francesco Grimaldi (Spinola di Pellecceria). Seat of the National Gallery of Liguria.
37. Palazzo Gio Batta Grimaldi.
38. Palazzo Gio Battista Grimaldi.
39. Palazzo Stefano De Mari.
40. Palazzo Ambrogio Di Negro.
41. Palazzo Emanuele Filiberto di Negro.
42. Palazzo De Marini.

The original structure of many of the buildings has been preserved almost intact, and some of the Palazzi, as the seat of public institutions and museums, can be visited. These include the buildings of the system of the *Musei di Strada Nuova* - Palazzo Rosso, Palazzo Bianco and Palazzo Tursi - Palazzo Spinola di Pellecceria, seat of the National Gallery of Palazzo Spinola, and Palazzo Reale.

## Storyline 1: Le Strade Nuove and the system of the Palazzi dei Rolli



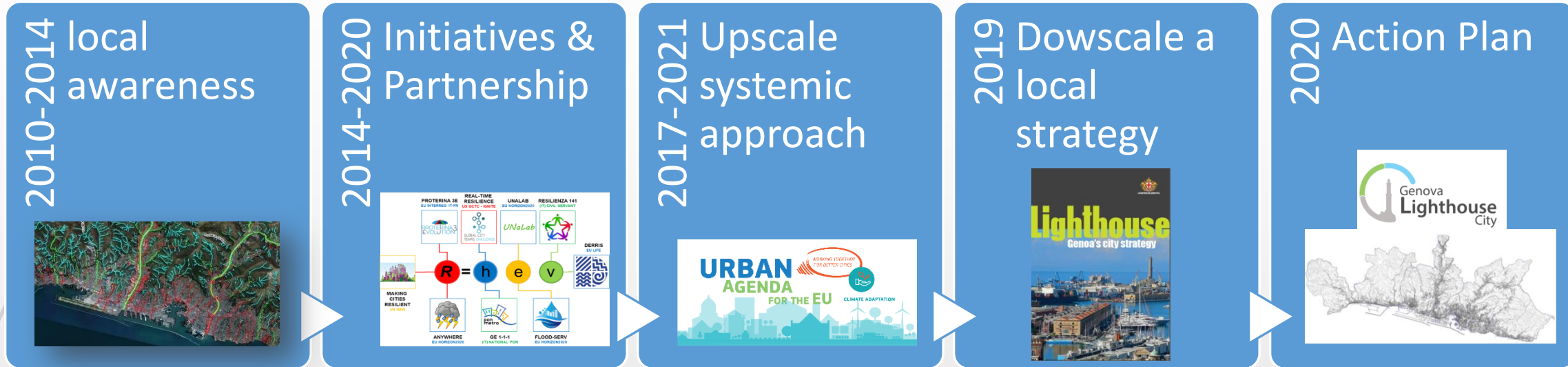
**1992** Awareness of the cultural values

**2019** Protect, Valorize, Interpret

**2006** Enhance territorial identity

**2020** Promote the hystorical heritage

## Storyline 2: Lighthouse City Strategy and Action Plan Genova 2050 back casting the future of the mega trends (Climate, Demographic change and Digitalisation)



2010-2014  
Learning from the past critical situations,

2017-2021  
Studying the future and prepare

2020...Transform challenge into opportunities

2014-2020 Sharing and mutual learning with the network

2018-2019  
Anticipate, prevent



## Climate Change

Major variability in temperature (rising) and precipitation rates (scarcity or extremely heavy) would exacerbate multiplier impacts all over the contexts (global, EU, National, Local)

### BIOGEOGRAPHICAL REGIONS IN EUROPE



#### Mediterranean region

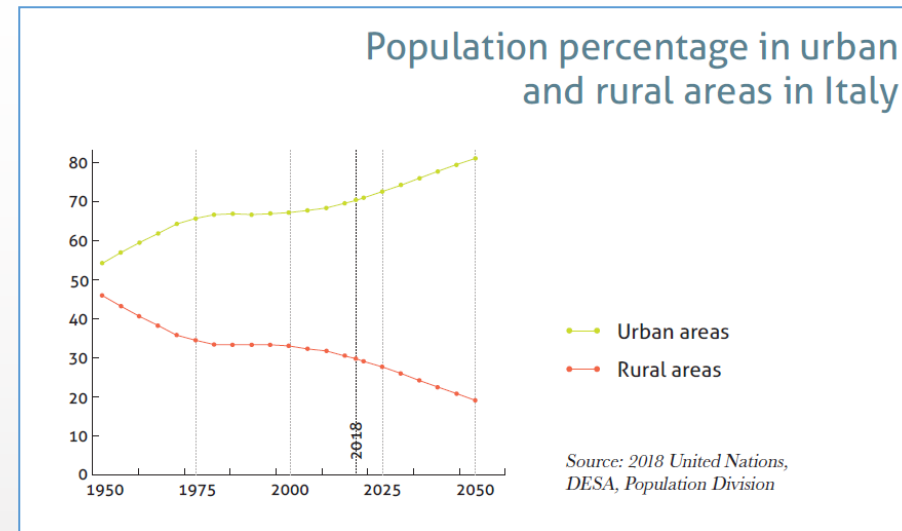
- Large increase in heat extremes
- Decrease in precipitation and river flow
- Increasing risk of droughts
- Increasing risk of biodiversity loss
- Increasing risk of forest fires
- Increased competition between different water users
- Increasing water demand for agriculture
- Decrease in crop yields
- Increasing risks for livestock production
- Increase in mortality from heat waves
- Expansion of habitats for southern disease vectors
- Decreasing potential for energy production
- Increase in energy demand for cooling
- Decrease in summer tourism and potential increase in other seasons
- Increase in multiple climatic hazards
- Most economic sectors negatively affected
- High vulnerability to spillover effects of climate change from outside Europe





## Demographic change

**Global perspective:** by 2050 68% of the world's population will live in urbanized areas of the planet



**European perspective:** in 2050 Europe's urban areas will host 82% of the population.

**Local impacts in Genoa context:** Genoa and its metropolitan area will face a similar process of urbanization, which will be accompanied by a progressive increase in population longevity and by the abandonment of rural and suburban areas.

This expected demographic change will require deep transformations of the urban ecosystem – as well as of its socio-economic fabric – and of the public services offered to citizens.

## Digital – Technological transition

**Global perspective:** future improvement and use of Artificial Intelligence, Automation, Robotics, 5G, Big Data, Augmented Reality, IoT, Cloud, etc. will improve our ability for anticipation, innovation and new experimentation if no-one is left behind



**European perspective:** new digital resources will improve collection and processing of fine-scale useful data for a plurality of subjects, if they will apply a collaborative process able to provide scenarios and solutions addressing the real problems of the different parties

**Local impacts in Genoa context:** it is perhaps the one that is more commonly utilized both in the traditional and innovative fields pertaining to the issue of resilience, both in terms of innovative capacity and flexibility of application in different sectors

The development of ICT technologies for the management of shocks and stresses will allow to experience innovative analytical methods, communication and a decentralized cooperative coordination.

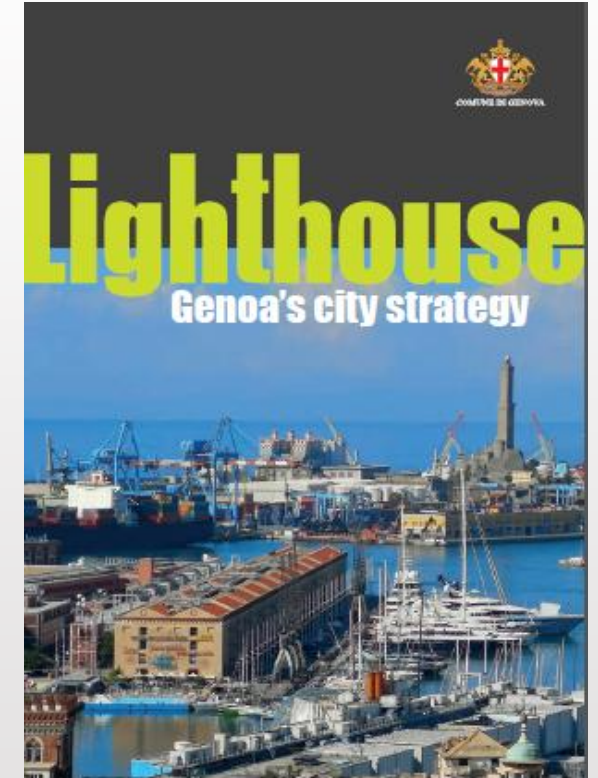


## SDG 2030 – Transforming our world

Storyline 1



Storyline 2

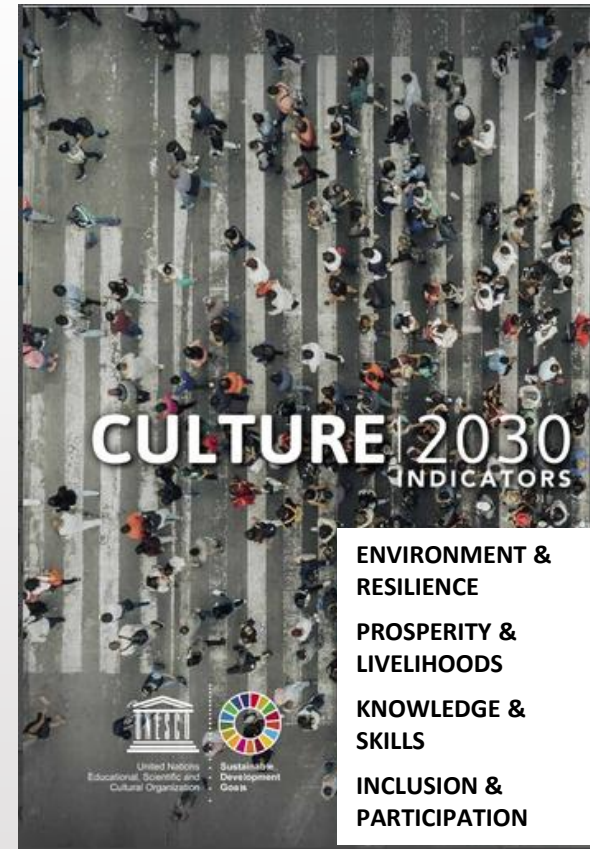
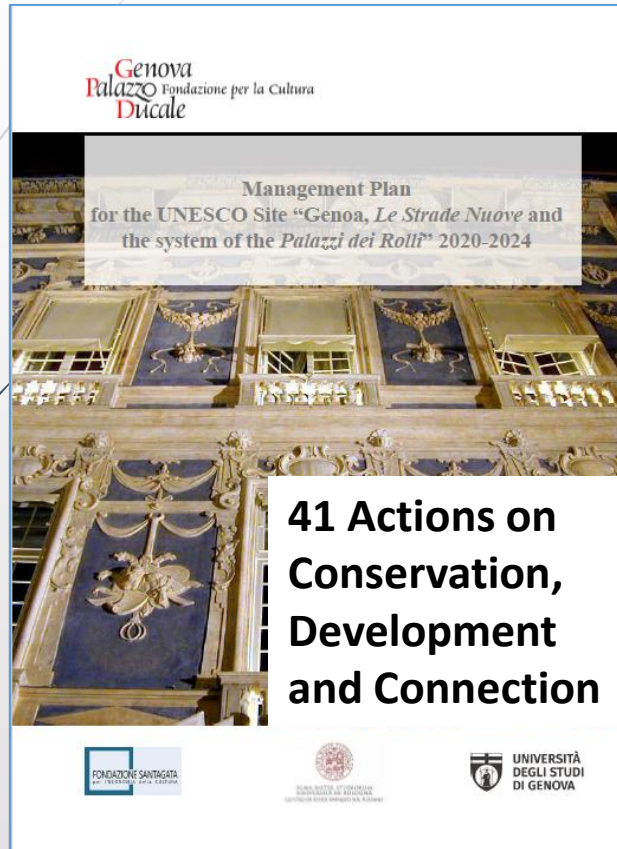


## Storyline 1: Le Strade Nuove and the system of the Palazzi dei Rolli towards SDG2030. Management Plan, Actions and their coherence with the Indicators Culture 2030



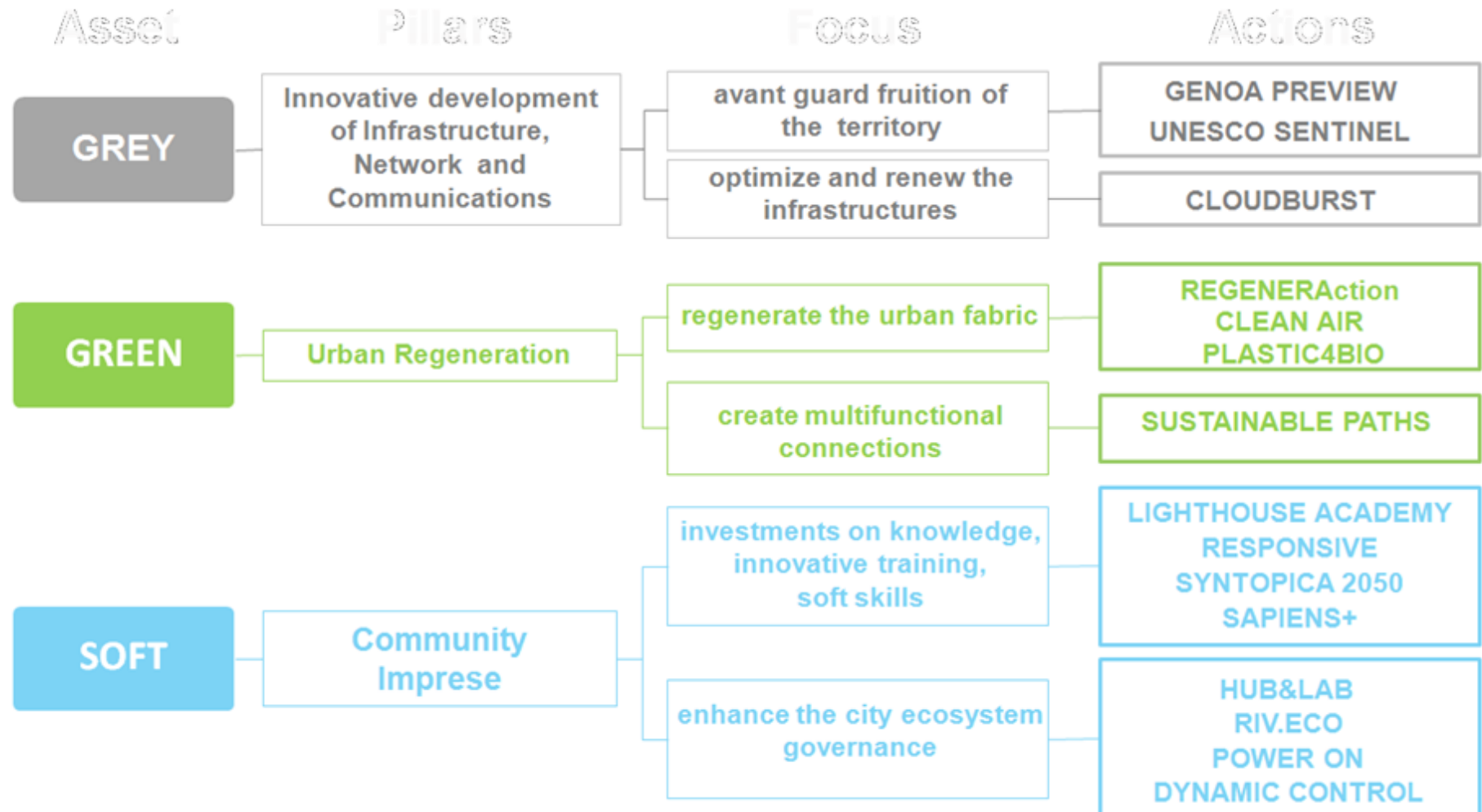


## Storyline 1: Le Strade Nuove and the system of the Palazzi dei Rolli towards SDG2030. Management Plan, Actions and their coherence with the Indicators Culture 2030



## Storyline 2: Lighthouse City Strategy and Action Plan Genova 2050

### Action Plan Core setting





## Storyline 2: Lighthouse City Strategy and Action Plan Genova 2050

### Actions: interconnection with SDGs 2030



#### Actions

GENOA PREVIEW

UNESCO SENTINEL

CLOUDBURST

RIGENERAction

CLEAN AIR

PLASTIC4BIO

SUSTAINABLE PATHS

LIGHTHOUSE ACADEMY

RESPONSIVE

SYNTOPICA 2050

SAPIENS+

HUB&LAB

RIV.ECO

POWER ON

DYNAMIC CONTROL

#### SGD2030



## Storyline 2: Lighthouse City Strategy and Action Plan Genova 2050 back casting the future of the mega trends (Climate, Demographic change and Digitalisation)

*Paths towards Genoa Lighthouse City - Focus: avant guard fruition of the territory*

### UNESCO SENTINEL



#### Scenarios

Acceleration of the natural deterioration of concrete structures due to the high temperatures



#### Challenge

The need arises from the widespread information on the conservation of the city's architectural heritage and its vulnerability to the effects of climate change.

The extreme complexity and accessibility of the built heritage of the historic city center could benefit of innovative technological experimentation such as planning support and predictive maintenance programs, guaranteeing continuous usability by users



#### Expected Results

- Conservative improvement of the historical heritage
- Positioning and new identity on safeguarding heritage
- Increased attractiveness for researchers and investors in the fields
- Sustainable use of architectural heritage



- Safety Spaces
- Risks awareness
- Infrastructure resilience

#### PROPOSED SOLUTION



*Experimentation on **satellite monitoring** of the structural conservation status of the Rolli and Unesco buildings, combined with sensors or other available technology to calculate effects from atmospheric pollution, rain on decorations and architectural elements.*

*Robustness on historical heritage.*



6 STEP



1.5 YEARS



3 local strategic goals



6-8 PARTNER



## Storyline 2: Lighthouse City Strategy and Action Plan Genova 2050 back casting the future of the mega trends (Climate, Demographic change and Digitalisation)

Paths towards Genoa Lighthouse City - Focus: avant guard fruition of the territory

### GENOVA PREVIEW



#### Scenarios

Reduction of attractiveness of tourist destinations due to the high temperatures and heat waves in urban areas



Increased need to enhance services during seasonal influx periods due to variation in touristic flows



#### Challenge

To give an innovative tourist vocation of the city to combine tradition, excellence and digitalization.

Systematise the 360° tourist offer to reach diversified, real and virtual complementary users.

Make the city more inclusive and always accessible even when it cannot be visited due to contingent restrictions (weather alerts, infrastructure breaks, safety or health measures).

#### Expected Results

Increase in tourist offer

New planning of services

Top positioning for the tourist attraction model and Innovations technology use

Increased attractiveness for researchers and investors in the sector



- Protection of Employees
- Social distance
- Safety Spaces

#### PROPOSED SOLUTION



Experimentation of new **interpretations** of the territory, physical and immersive virtual offer for latest generation, available in situ and online, multilingual also usable by people with disabilities.

Massive use of **IoT, bot for guide with virtual avatar** (Doge, Paganini, C.Colombo that accompany the user on unexplored and secret areas, time machine in a historical context of reference, etc.) Further development: serious gaming roleplay, situational and innovative teaching.



5  
STEP



1.5 YEARS



8 local  
strategic  
goals



6  
PARTNER



# Thank you



Stefania Manca, Corrado Ragucci, Marzia Verucchi  
Resilience & EU Project, Unesco  
Economic Development Innovation Strategic Project Department  
Genoa Municipality  
[Genova Lighthouse City](#)