

2nd Transnational Project Meeting: “Methodology and toolkit”

Ascoli Piceno, November 22-23, 2022

Session 1: Healthy urban planning Teaching Methodological Guidelines (R2) and Educational Toolkit for healthy urban planning and urban participation(R3)

Project Scenarios and proposal for the Toolkit (CYI and Unicam)

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Scenario analysis is not linked to a forecast of the future, but it is a reflection on possible effects of the changes that may occur.

European Awareness Scenario Workshop (EASW)

the goal of the scenario workshop is to identify and share actions for adaptation to climate change and to protect the health of city dwellers.

EASW is built on two main activities: the development of visions and the proposition of ideas.

For the Clicche Project two possible Scenario :

➤ **the '0' Scenario (or *Business-as-Usual*)**

It involves maintaining the current 'status' of places, and leaving everything as it is. This means taking responsibility for having evaluated the consequences, dealing with an expected climate framework that will evolve in a certain way, and assessing the impacts on health, well-being, and quality of life in the neighbourhood

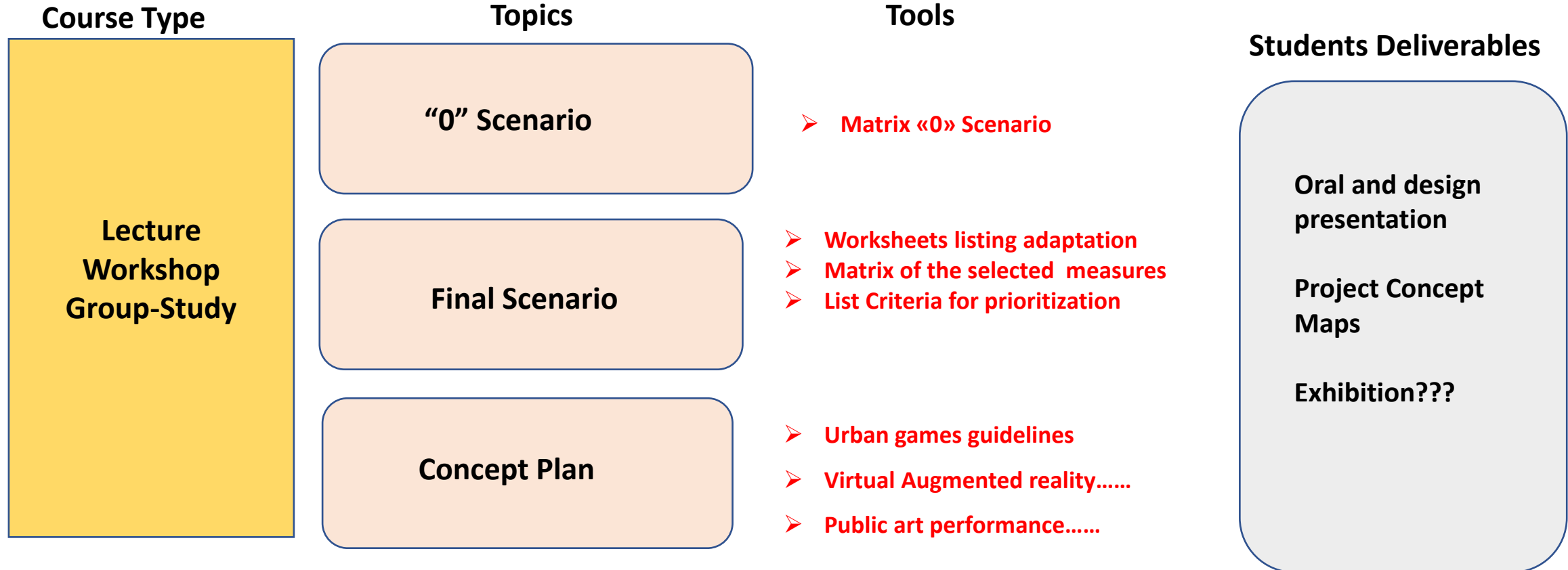
and

➤ **the 'Final Scenario' (or *Shared and sustainable Scenario*)**

It suggests responding to the major issues of climate change raised in the neighborhood, to the expected and anticipated threats and risks of negative repercussions of incautious decisions on the populations' health and well-being.

3 Main Steps and tools :

Scenario Project



Draft

Basic materials : Selections of adaptation measures sections (From: R1 Results, European Projects and literature)



Inspired by: F.4 WORKSHEETS: CONSEQUENCES OF CLIMATE CHANGE.
 Methods and Tools for Adapting to Climate Change A HANDBOOK FOR PROVINCES, REGIONS AND CITIES
 by Environment Agency Austria. From: [Methods and Tools for Adaptation to Climate Change](#)
<https://climate-adapt.eea.europa.eu>

Tools

A. Scenario “0” Matrix

Climate Parameter: Temperature								
Climatic parameter s trend	Climatic variables	Sectors/ Areas	Potential Effect	Potential Impacts	Actual Risks Level and evolution at 20/30/50 years	Potential Health Risks	Actual Risks Level (A) and evolution (E) at 20/30/50 years	Particular Potential health risks
-Expected <u>increase</u> -Expected decrease -Trend uncertain, Etc.	-Open spaces -Construction and housing -Energy Supply -Transportation infrastructures -Economy -Tourism - Nature Conservation/ <u>Bio diversity</u> -etc.	-Open Urban Spaces	Longer growing season in green and open spaces	-Increased water and maintenance <u>demands</u> in green and open spaces	A: !: Low; !!: Moderate; !!!: High E: +: <u>Growth</u> ; -: <u>Decline</u> ; = no <u>change</u> ; ? not know;	-Increasing spread of disease vectors and establishment of new pathogens -Spread of allergenic plants and animals -Shift/extension of the pollen season	A: !: Low; !!: Moderate; !!!: High E: +: <u>Growth</u> ; -: <u>Decline</u> ; = no <u>change</u> ; ? not know;	-Higher risk of skin <u>tumours</u> and cancer through the increase in UV radiation
			Changes in urban plant and animal species -Spread of thermophilic plant and animal species (especially allergenic plants and animals and harmful organisms) -Changes in the demands on species (e.g., urban trees) -Shift/extension of the pollen season					
Legend: - Expected increase - Expected decrease - Trend uncertain or slightly increase - Trend uncertain or slightly decrease - No trend - Trend uncertain or slightly increase - Trend uncertain or slightly decrease	Number of hot days (daily high temperature ≥30°C) Higher temperatures on hot days Variability in temperature							

Climate Parameter: Precipitations

Climatic parameters trend	Climatic variables	<u>Sectors/ Areas</u>	Potential Effect	Potential Impacts	Actual Risks Level (A) and (E) evolution at 20/30/50 years	Potential Health Risks	Actual Risks Level (A) and evolution (E) at 20/30/50 years	<u>Particular Potential health risks</u>
- <u>Expected increase</u> -Expected decrease -Trend uncertain, Etc.		-Open spaces -Construction and housing -Energy Supply -Transportation infrastructures -Economy -Tourism - Nature Conservation/ <u>Bio diversity</u> -etc.			A: !: Low; !!: Moderate; !!!: High E: +: <u>Growth</u> ; _: <u>Decline</u> ; = no <u>change</u> ; ? not know;		A: !: Low; !!: Moderate; !!!: High E: +: <u>Growth</u> ; _: <u>Decline</u> ; = no <u>change</u> ; ? not know;	
	Large-scale heavy precipitation Intensive local precipitation Dry periods/droughts Changes in snow consistency (wet snow Heavy snowfall	<u>Open Urban Spaces</u>	Hail, etc. Flooding/risk of flooding Mass movements	-Damage to buildings/building structures/infrastructure -Overburdening of building and urban rainwater drainage and sewer systems -Potential overburdening of building and urban rainwater drainage and sewer systems -Threat to residential areas -Increasing conflicts over the use of space, e.g., due to requirements for active and passive flood protection or the expansion of hazard zones and the resulting narrowing of options for spatial development		Potential injuries and deaths Post-Traumatic Stress Disorder (PTSD) Mental problems due to <u>mould</u> infestations arising from water damage to homes		

OPEN SPACES

Tools

B1. Final Scenario: Working sheets

What concrete measures are recommended in the literature?		Is the measure relevant?	Implementation status	Examples
Flood retention areas & flood discharge areas	Prevention of further uncontrolled development <u>in order to</u> maintain soil function			
	Promotion of the renaturation of watercourses			
	Identification and designation of essential flood discharge and flood retention areas			
	Prevention of further uncontrolled development <u>in order to</u> maintain soil function			
	Development of contractual flood protection models for the functional use of flood discharge and retention areas			
Safeguarding of water resources	Promotion of compact residential structures <u>in order to</u> facilitate the cost-efficient connection of households to the public water supply network and reduce the degree of individual supply			
	Adaptation of water management strategies for urban green and open spaces			
	-Testing and promotion of the use of rainwater and construction of rainwater ponds (collection basins) -Promote, increase, and improve the retention functionality of green and open spaces to prevent local flooding -Increase the proportion of surfaces that allow infiltration -Promote, increase, and improve the retention functionality of green and open spaces to prevent local flooding -Increase the proportion of surfaces that allow infiltration -Information and networking of involved actors in the city administration, especially at the interface between water and land management			
	Awareness-raising and informing the population about the options for planting (private green spaces, small gardens, commercial areas), use of rainwater, etc.			
Fresh and cool air generation areas	Survey of the already existing green, water, and open spaces as a foundation for the			

	determination of additional needs under changing climate conditions			
	identification and preservation of fresh and cool air generation areas and ventilation			
	Safeguarding, maintenance, and networking of green and water areas in densely built-up urban areas (green and blue infrastructure)			
	Increase water retention in surfaces			
Quantitative soil protection & soil management	Adaptation of soil management: -Prevention of further sealing. If this is not possible, alternative techniques (e.g., the use of permeable materials) should be employed. Only when these two options are not feasible should compensation measures be undertaken			
Urban green and open spaces	Development of green and open spaces from the perspective of adaptation of urban structures to climate change (distribution, networking, cooling, air filtering) -Testing and, as needed, adaptation of plant selection to climatic changes -Increased use of surfaces that permit infiltration -Improvement of structures <u>with regard to</u> rising usage pressure; increased use of alternative irrigation systems and water collection systems (e.g., use of rainwater)			
Safeguarding ecologically significant open spaces	Enhanced creation of legal spatial planning foundations that will facilitate the addition of ecological functions to green space categories in regional planning			
	Safeguard habitats and ecological corridors in regional spatial planning programmes, with a binding effect on local planning			
Touristic infrastructure				
Additional measures				

References

<https://www.labsimurb.polimi.it/nbs-catalogue/>

<https://urbanat.eu/nbs-catalogue/>

<https://www.felixx.nl/projects/nbs-catalogue.html>

<https://www.gfdrr.org/en/publication/catalogue-nature-based-solutions-urban-resilience>

https://climate-adapt.eea.europa.eu/en/knowledge/tools/urban-ast/step-3-1/index_html?widgets.impact%3Alist=NOVALUE--&widgets.impact-empty-marker=en&widgets.sector%3Alist=HEALTH&widgets.sector-empty-marker=en

Iwaszuk, E., Rudik, G., Duin, L., Mederake, L., Davis, M., Naumann, S., Wagner, L., 2019: Addressing Climate Change in Cities. Catalogue of Urban Nature-Based Solutions. Ecologic Institute, the Sendzimir Foundation: Berlin, Krakow.

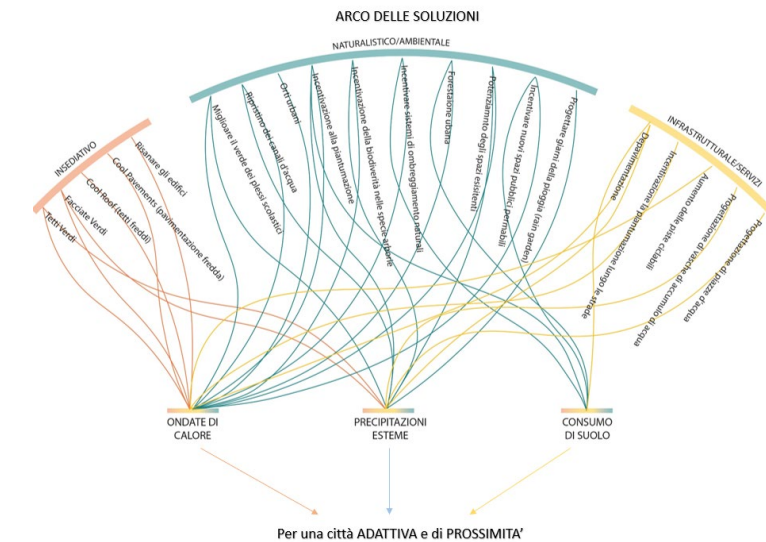
<https://clevercities.eu/resources/useful-links/>
<https://www.nature4cities.eu/nature-based-solutions>
Nature Based Solutions – Technical Handbook - UNaLab

<https://unalab.eu/system/files/unalab-technic...>

B2. Final Scenario: **Matrix of the selected measures**

Each measure that has been identified through as worth pursuing should be characterized by means of the matrix below

TITLE OF THE MEASURE SELECTED	
Adaptation objective	What will be achieved with this measure?
Description of the measure	What is this measure about?
Primary responsibility for implementation	Which department/organization/actors are responsible for this measure?
Significance of the measure	What climate change-related impacts are addressed by the measure?
Link to existing instruments	Are there any existing instruments (laws, strategies, networks) that support the measure's objectives? What instruments (laws, regulations, strategies, funding programmes) are well suited to integrating the measure's objectives? What instruments conflict with the measure's objectives?
Status of implementation	What steps have been/are being carried out in the implementation of the measure?
Potential obstacles	What obstacles could impede the success of adaptation? How can these barriers be removed?
Effects on other sectors	Which areas/sectors interact with the measure or will be affected by it? Are positive or negative impacts on other sectors expected? If yes, how can these be utilized or prevented?
Additional affected actors/sectors within the organization	Which areas within the organization/additional stakeholders can support the measure's implementation or will be affected by the measure?



B3. Final Scenario: Criteria for measures Prioritization and Weighting

Criteria :

- Importance/ significance
- Urgency
- Robustness and flexibility
- Environmental consequences
- Social Consequences
- Economic efficiency
- Etc.

ADAPTATION MEASURE	WEIGHT						
	Result of weighting	Importance/significance	Urgency	Robustness and flexibility	Environmental consequences	Social consequences	Economic efficiency

Evaluation of measures on a scale from 1 (low) to 5 (high).

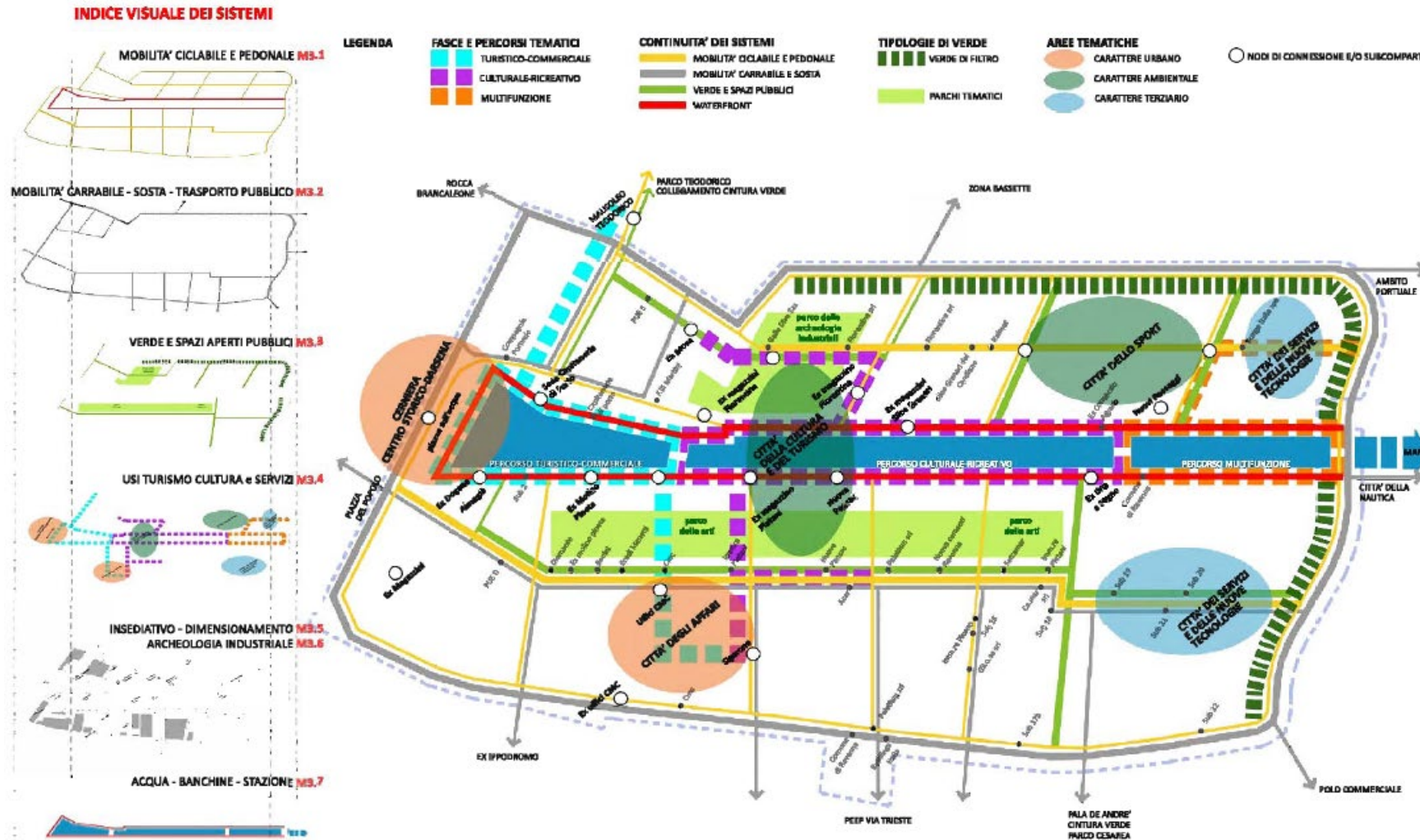
Tools

C. The Project Concept Maps

The Project concept is the basic idea of the project, it shows how the general design principles respond to the opportunities and constraints identified in the neighborhood study. It is used to explain a first idea of a project and guide decision-making. The construction of the Project Concept provides a summary of the objectives and actions selected in the construction of the “Final scenario”.

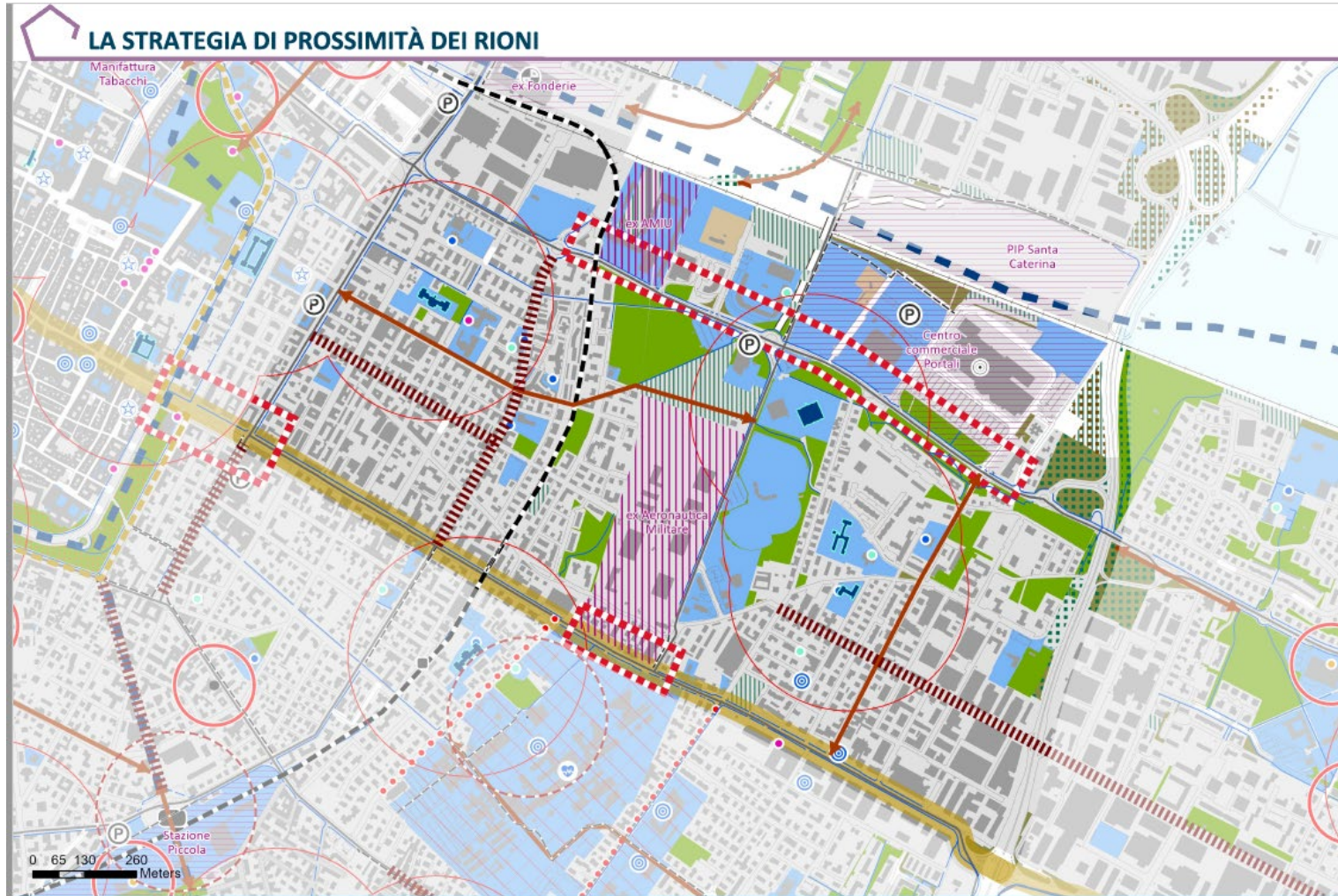
These actions are represented on the Maps.





Concept Plan: POC Ravenna

<https://www.comune.ra.it/aree-tematiche/gestione-del-territorio/urbanistica/rup-ravenna-urban-planner/poc/darsena/>



LEGENDA

LA CITTÀ PUBBLICA ESISTENTE

- Centri Storici
- Poli sanitari
- Strutture Universitarie e Ricerca
- Poli scolastici (scuole secondarie di II grado)
- Scuole primarie e secondarie di I grado (progetto "Zone quiete")
- Scuole dell'infanzia
- Nidi d'infanzia
- Polisportive
- Attrezzature culturali principali
- Polarità Commerciale
- Centri di vicinato
- Attrezzature e spazi collettivi
- Dotazioni ecologico-ambientali
- Impianti tecnologici
- Verde di uso pubblico
- Aree boscate
- Immobili dismessi di proprietà comunale disponibili al riuso
- Aree libere di proprietà comunale
- Strade a velocità limitata a 30 km/h
- Connessioni ciclabili esistenti

AZIONI DI QUALIFICAZIONE, POTENZIAMENTO E RIGENERAZIONE CITTÀ PUBBLICA

- Potenziamento delle attrezzature urbane e servizi pubblici
- Potenziamento e qualificazione delle polarità aggregative locali
- Potenziamento accessibilità fermate TPL
- Aree interessate dal progetto "Zone quiete"
- Riassetto urbano dello spazio pubblico
- Connessioni da potenziare/realizzare
- Assi commerciali di qualificazione
- Assi stradali di qualificazione urbana e paesaggistica

- Riquilibrare aree verdi
- Aree boscate/forestazione urbana esistenti da potenziare e valorizzare
- Aree boscate/forestazione urbana di nuova progettazione
- Corridoio ecologico "cardine" da progettare

PROGETTI DI STRUTTURA COMPLESSA

- Progetti Complessi della città pubblica
- Opportunità di trasformazioni complesse della città pubblica
- Potenziamento accessibilità e qualificazione del tessuto specialistico
- Sistema funzionale Via Emilia

INTERVENTI SULLA RETE INFRASTRUTTURALE

- Nuove infrastrutture
- Caselli autostradali
- Nuovi caselli autostradali dell'Autostrada Modena-Sassuolo
- Scalo merci di Marzaglia
- Dorsali trasportistiche (PUMS)
- Progetto Nuovo Trasporto Pubblico Locale
- HUB Intermodali
- Stazioni ferroviarie secondarie
- Parcheggi scambiatori (PUMS)
- Strade a velocità limitata a 30 km/h in progetto a breve termine (PUMS)
- Ciclabili in progetto (PUMS)

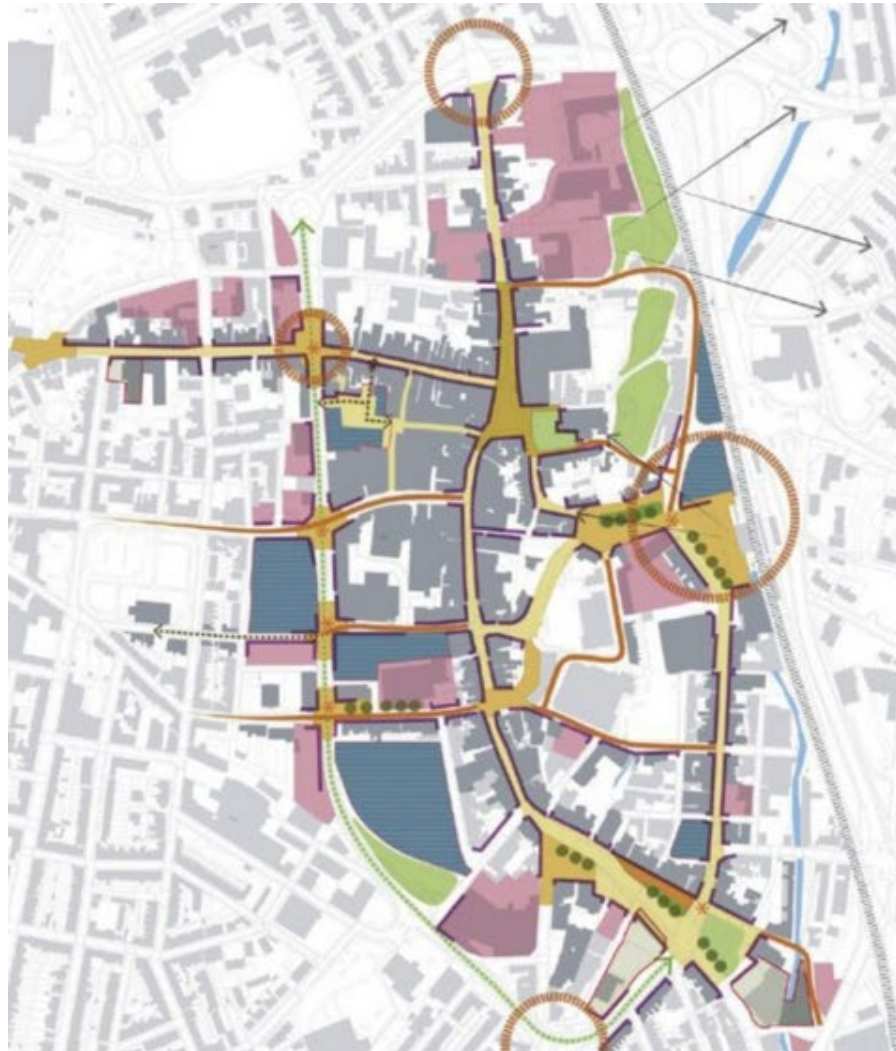
ELEMENTI DEL PAESAGGIO

- Paesaggio Periurbano "Progetto città/campagna"
- Perifluviale dei fiumi Secchia Panaro

BASE

- Corsi d'acqua
- Territorio urbanizzato
- Territorio comunale

https://urbanistica.comune.modena.it/pug/materialeInformativo/index_MaterialeInformativoPUG.html



- Existing buildings
- Existing buildings along a key route
- Approved planning applications
- Plots with potential for improvement
- Potential site for intensified/modernised town centre parking alongside development
- Improved public realm (crossings/vehicular movement integrated parking)
- Improved public realm
- Pedestrian only public realm
- Improved pedestrian crossing
- New street planting
- New green space/planting
- Improve environment through planting
- Improved links and wayfinding
- Potential new pedestrian links
- Strengthened frontages along key routes
- Optimising the topography - views
- Key gateways
- Existing green space

<https://www.placenorthwest.co.uk/comment-central-intelligence/#.XFwAbSOFiC0.linkedin>



OVERALL CONCEPT DIAGRAM



The simulation game tools as a way to interact with stakeholders

-the Stone soup urban game

Participants contribute with 'an ingredient', writing the solution they understand to be the best for a specific climate change's challenge on the post-it, etc, etc.

- REBUS® RENovation of Public Buildings and Urban Spaces (Reinterpretation)

the choice of adaptation actions and then the realization of the urban design is foreseen within a “fake design call” in which 3 interdisciplinary groups compete and challenge each other.

Thank you very much for your attention!

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