



PROSPERA
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Urbano Naturale / Nature within the City

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Public Green Spaces in Reggio Emilia

Parks (192)

- Historical parks
- Urban parks
- Neighbourhood parks
- Natural spaces (greenways, urban forests)

Green Public Services

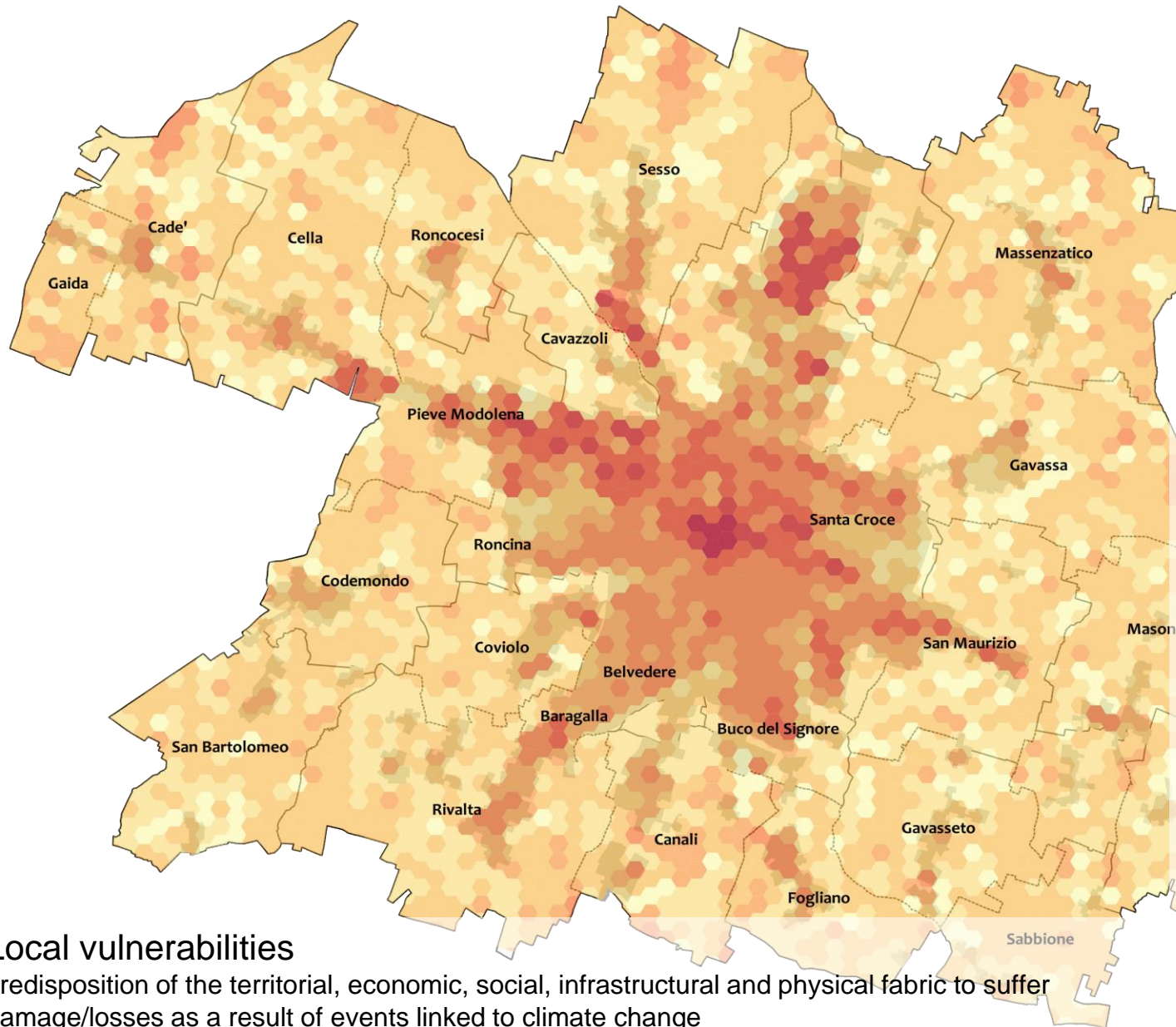
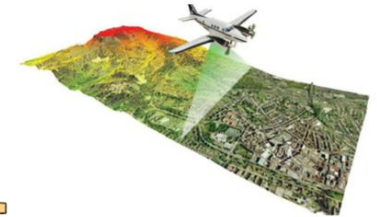
- Sport
- Schools
- Hospitals
- Cemeteries

Urban Green Mitigation Spaces

- Boulevards
- Mitigation islands
- Streetscape



The Adaptation Strategy: Analysis



ANALYSIS WITH FLIGHT LIDAR

1. vegetation, exploiting the response of chlorophyll activity (INDVI index);
2. permeable or impervious surfaces;
3. sky view factor (SVF), portion of the sky visible from an observation point;
4. solar exposure of surfaces (kWh);
5. height and slope;
6. flow directions and accumulation areas

Local vulnerabilities

predisposition of the territorial, economic, social, infrastructural and physical fabric to suffer damage/losses as a result of events linked to climate change

The Adaptation Strategy: Risks

Impacts and issues of greatest urgency

Changes in climate parameters determine climate risks and corresponding impacts on the territory. Based on the data and studies conducted, in the coming decades Reggio Emilia will have to face phenomena such as :



Heat waves in urban areas

problems for the health of citizens
(with critical summer ozone pollution
and increased demand for
electricity).



summer drought and
water shortage

increased drought and difficulty in
supplying water for irrigation purposes
and domestic consumption.

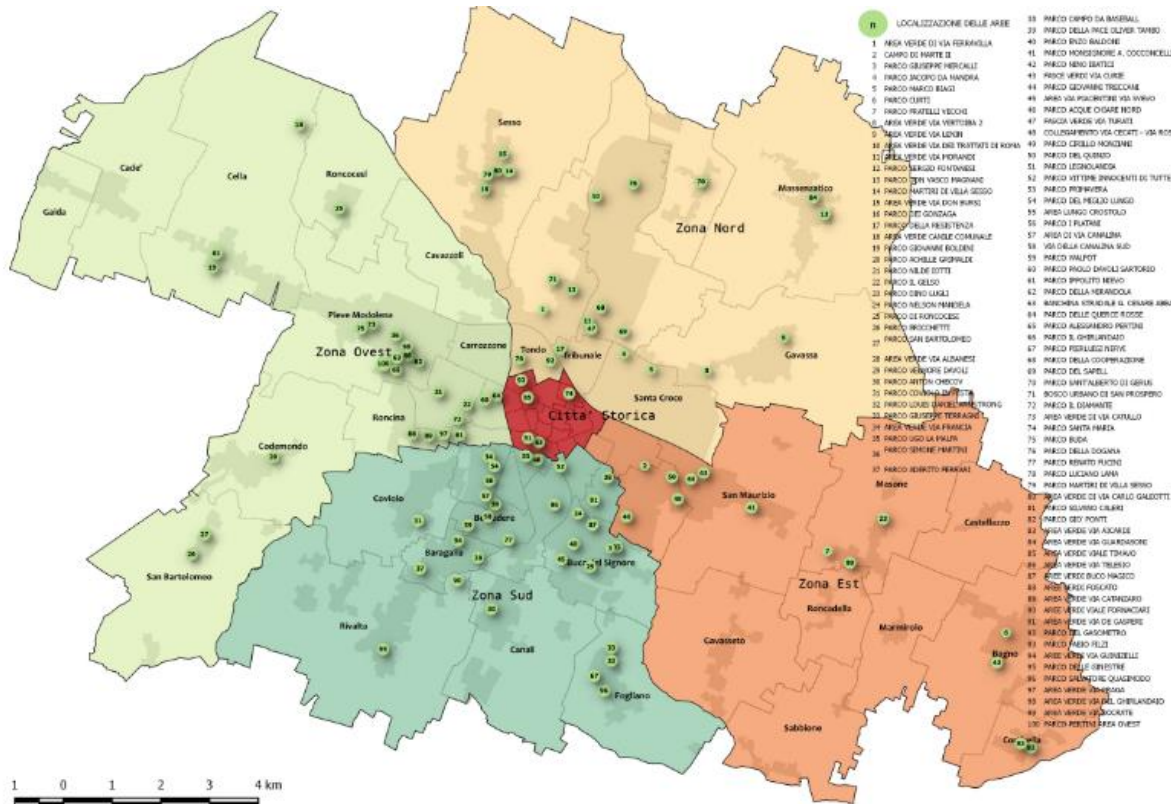


extreme rainfall events
with hydrogeological risk

increased risk of urban flooding.



The Adaptation Strategy: Objectives



1. Strongly increase the presence of vegetation in the city to create a dense network of urban and extra-urban greenery.
2. Guarantee the multifunctionality of the infrastructure network for adaptation and mitigation.
3. Increase the territorial fragmentation of the built fabric and with it the potential for development with prevention of impacts and increase in urban and peri-urban resilience.
4. Converge territorial usability and development potential with the prevention of impacts and the increase of urban and peri-urban resilience.
5. Protect citizens by ensuring their safety and health.
6. Guarantee an improvement in the management of water resources and efficiency of its infrastructure network

Nature within the City: 3 shades of Urban Forestation

Strategies and projects of the Municipality of Reggio Emilia for adaptation to climate change and urban forestation.
One integrated approach to



1 FORESTATION
PROJECTS WITH
CITIZENS AND PRIVATE
COMPANIES

2 PARKS FOR
CLIMATE

3 GREEN SPACES
AND STREETSCAPE



Nature within the City: Tools

experimental microforests



country hedges



multiphyte meadow



rows of trees



Cityadp3 - Reggio Emilia

LEAA - Luca Emanuelli, Gianni Lobosco, Barbara Stefani

Nature within the City: Tools





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Thank you!

Questions welcome



Project smedia