



Dealing with the urban heat in Barcelona: to green or not to green?

Enhancing urban heat resilience in sponge cities

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- 1,636,732 inhab.
- 15,992 inhab./km²
- 7.1 m2 green area/inh.

Collserola Park

Llobregat River

Besòs River

Mediterranean Sea



70 %
humedad relativa
(2015)



587 mm
de precipitación
media anual



2.867 h
de sol/año
(2015)



17,6 °C
Tª media anual



20,8 °C
Tª máx.
media
anual



14,3 °C
Tª mín.
media
anual



Context

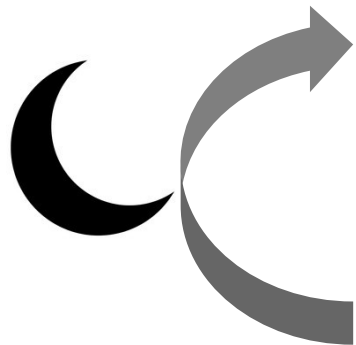
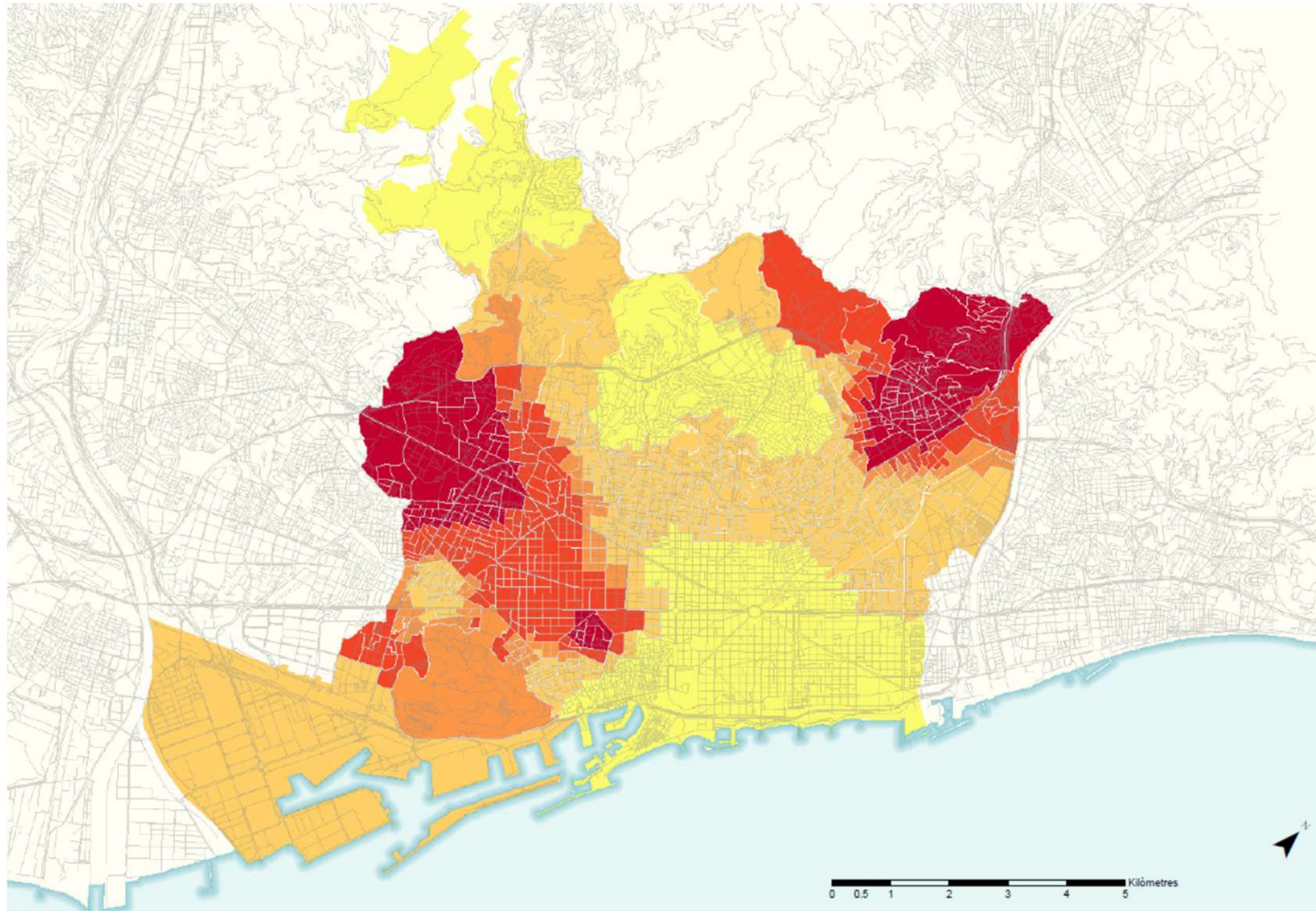
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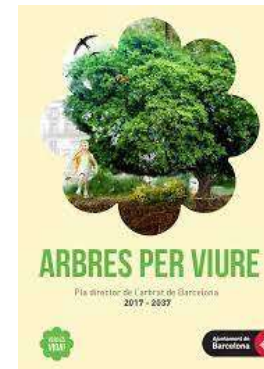
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Paris
Climate
Agreement



Pla d'actuació per prevenir
els efectes de les onades de
calor sobre la salut (POCS)

Estiu de 2021

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Green and Biodiversity Plan 2012- 2020



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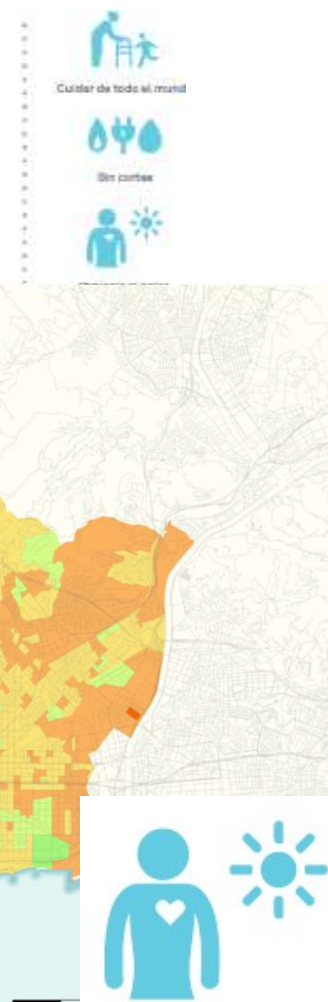
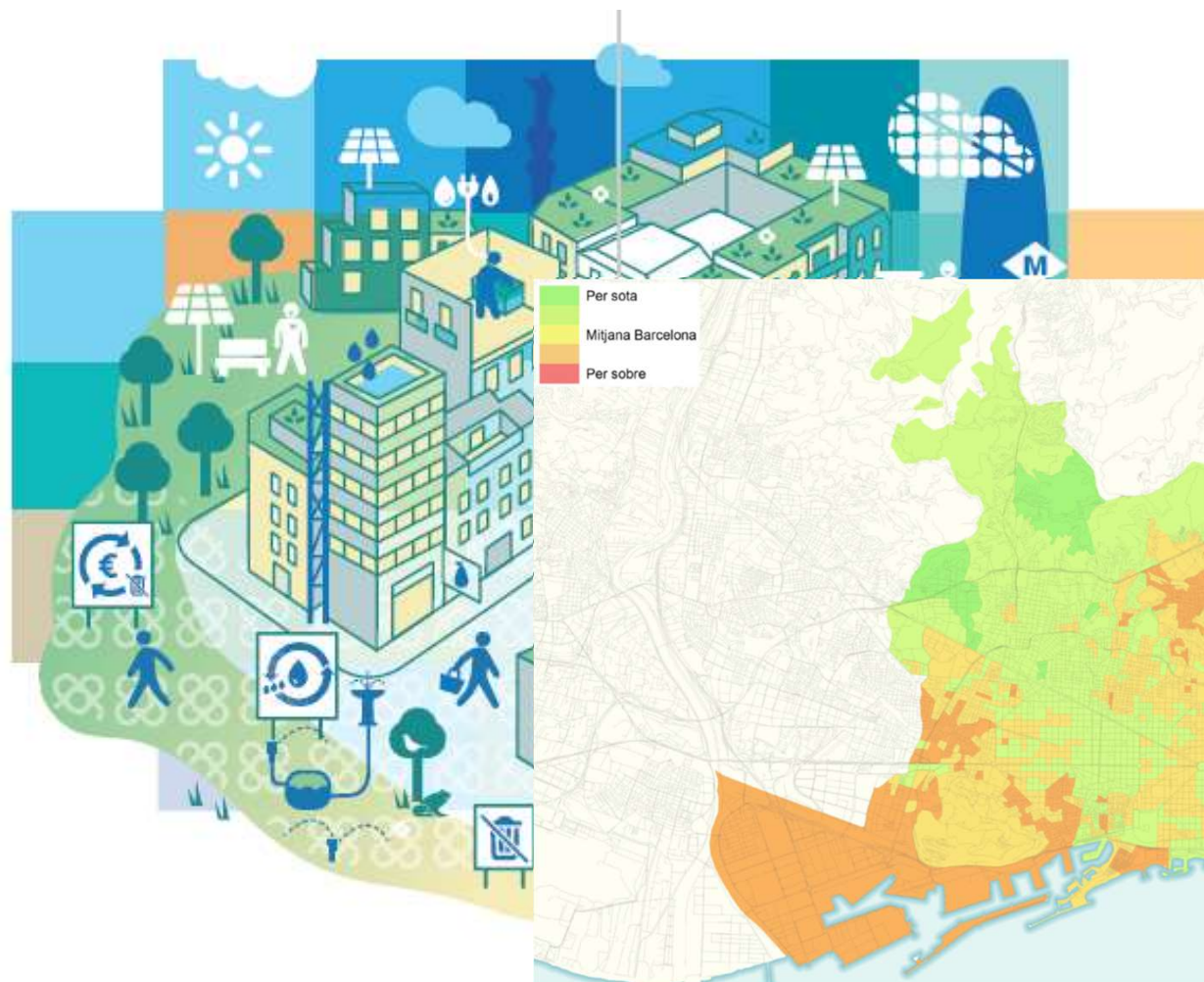
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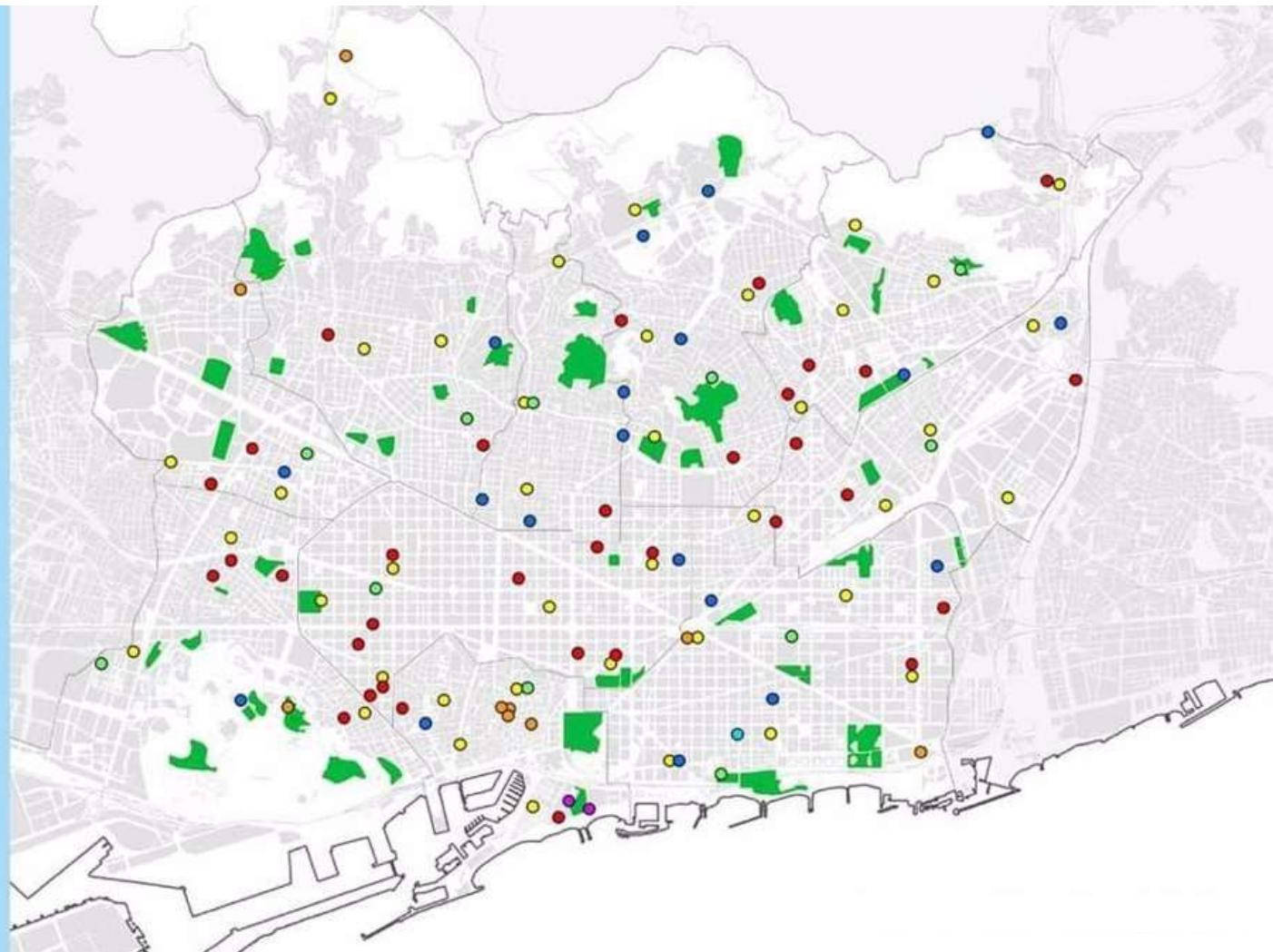
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1. Climate Shelters



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2. Green roofs and walls



Jardí vertical Plaza del Pedró



Jardí vertical Tarradellas



L'Eixample



Sants-Montjuïc



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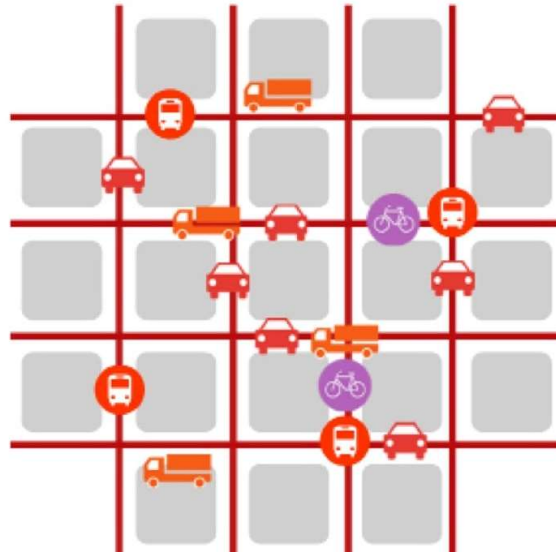
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3. Superblocks



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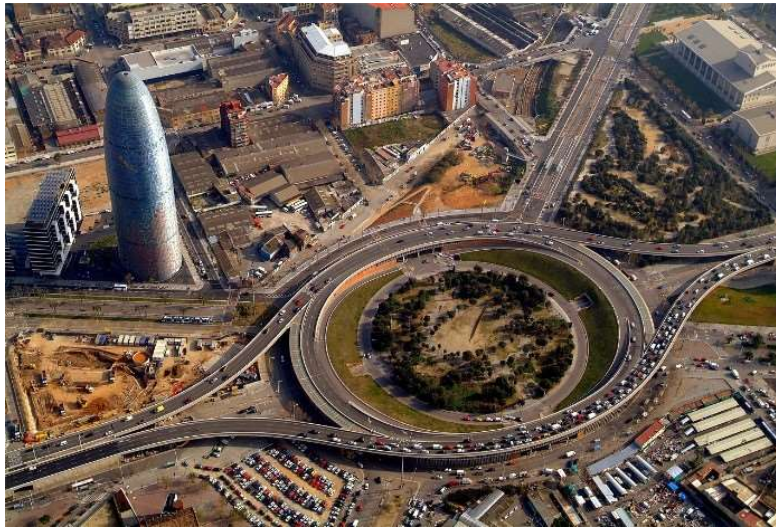
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4. Greening public space: Urban upgrading projects



Les Glòries Park



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OPPORTUNITIES

- Strong influence of EU strategies (funds+guidelines)
- Obsolete infrastructures and numerous urban regeneration projects
- Time for change: Citizens demanding for more green areas
- More involvement of citizens through already existing platforms (eg. Decidim Barcelona; BCN + Sostenible)



CHALLENGES

- Maintenance issues (eg. SUDS in Bon Pastor and green areas)
- Green gentrification and displacement
- Political issues: power, knowledge, vulnerable groups, who wins and who loses? Solutions for whom? etc.
- Importance to acknowledge tradeoffs and implement compensatory measures (eg. Les Glòries park: observatories, follow up surveys, public housing, etc)
- Regulation of AC to 27°: solution?



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TAKE AWAYS FROM BARCELONA'S CASE

- Urban heat resilience finds **synergies** with the **multifunctional** character of NbS and urban greening (as it can address urban mobility + social + health + cultural + environmental issues, etc.)
- Measures applied in different **scales** and through **public-private partnerships**
- **Grey** and **green** infrastructure as **complementary**
- **Learning by doing**: eg. Super Illas
- **Co-production**: participatory processes + involvement of people w/ topic
- Difficulty to **monitor and evaluate** + which is the real **impact** it has on people?
- Importance to acknowledge **tradeoffs** and **political aspects**

**URBAN HEAT
RESILIENCE &
SPONGE CITIES**

for whom?

where?

why?

how?

Figure sources

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