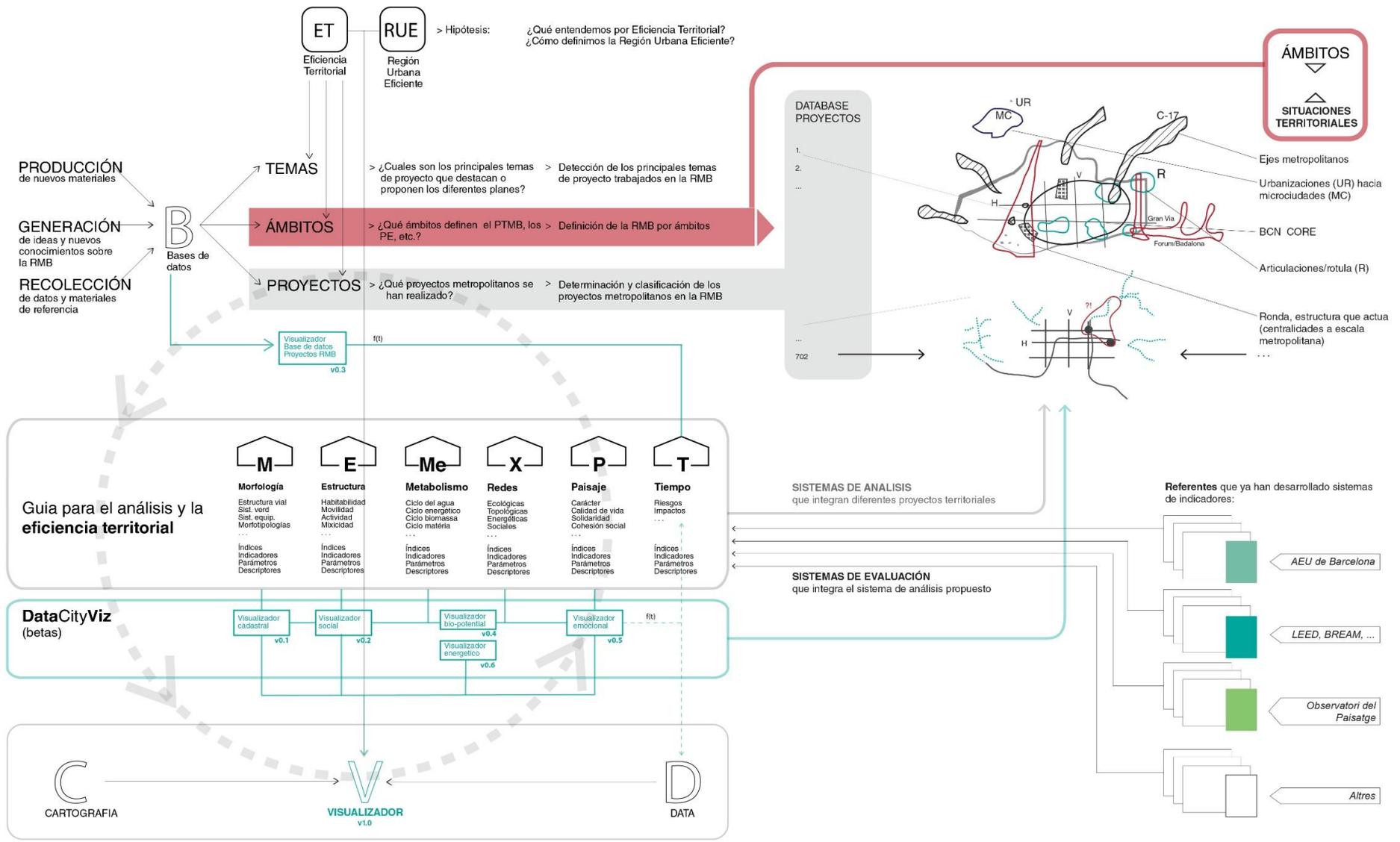


# RESEARCH PRACTISE ON PLANNING THE TERRITORIAL EFFICIENCY IN THE METROPOLITAN REGION OF BARCELONA

Marta Carrasco Bonet  
Department of Urban and Territorial Planning  
UNIVERSITAT POLITÈCNICA DE CATALUNYA – BARCELONA TECH

Energie!-Raum! Planung!  
Synthese- und Vernetzungsworkshop  
Wien 2016

# INTRODUCTION THE RESEARCH FRAMEWORK



Source: Territorial Mosaic City Team



**Metropolitan Region of Barcelona**  
(164 municipalities. It doesn't exist a public administration for the whole region)

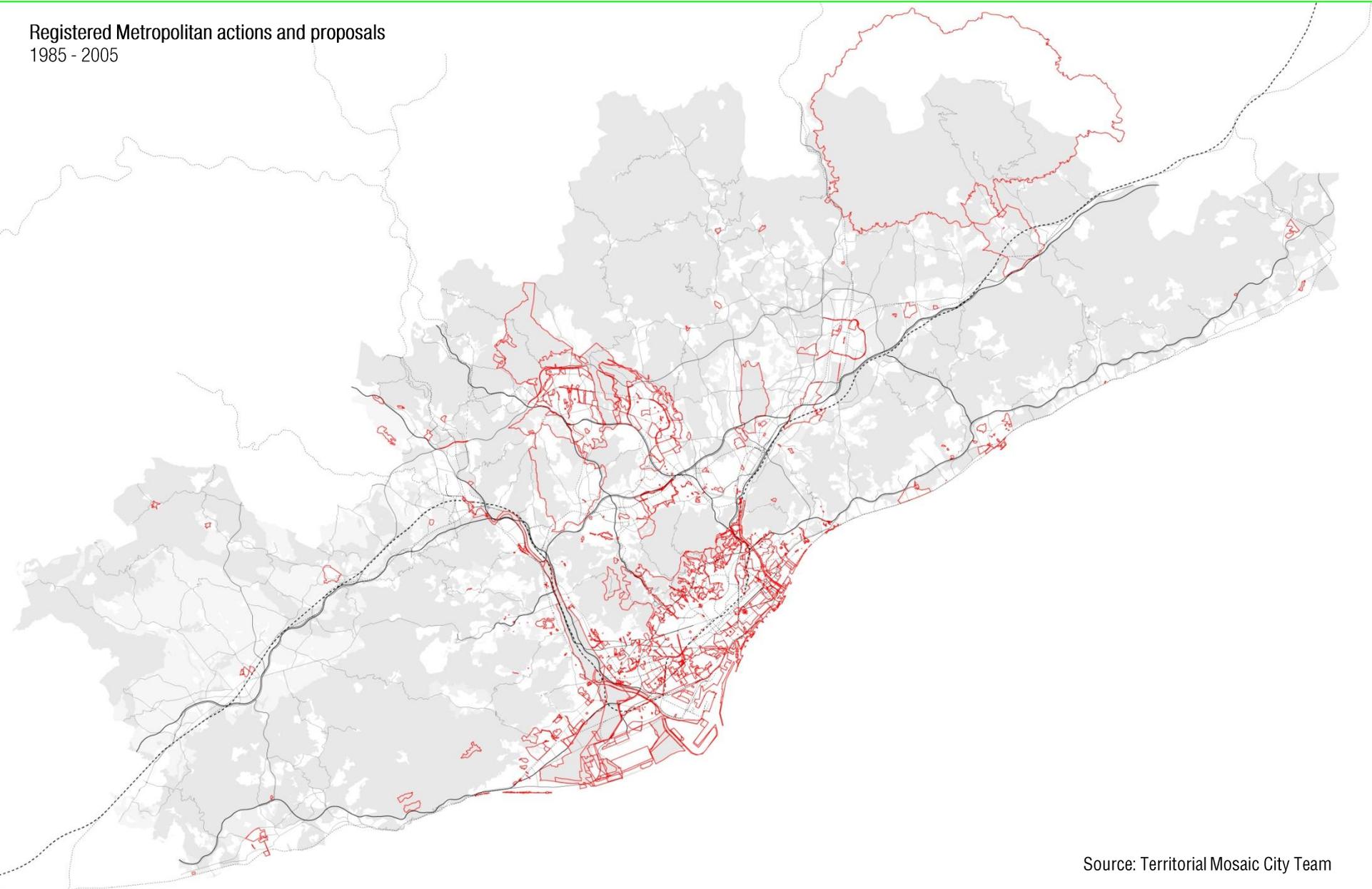
Area 3.237 km<sup>2</sup>  
Popul. (2010) 5.012.961 inhab.  
Density 1492,4 inhab./ km<sup>2</sup>

**Metropolitan Area of Barcelona**  
(36 municipalities organised in a public administration)

Area 633 km<sup>2</sup>  
Popul. (2010) 3.225.058 inhab.  
Density 16.055,6 inhab./ km<sup>2</sup>

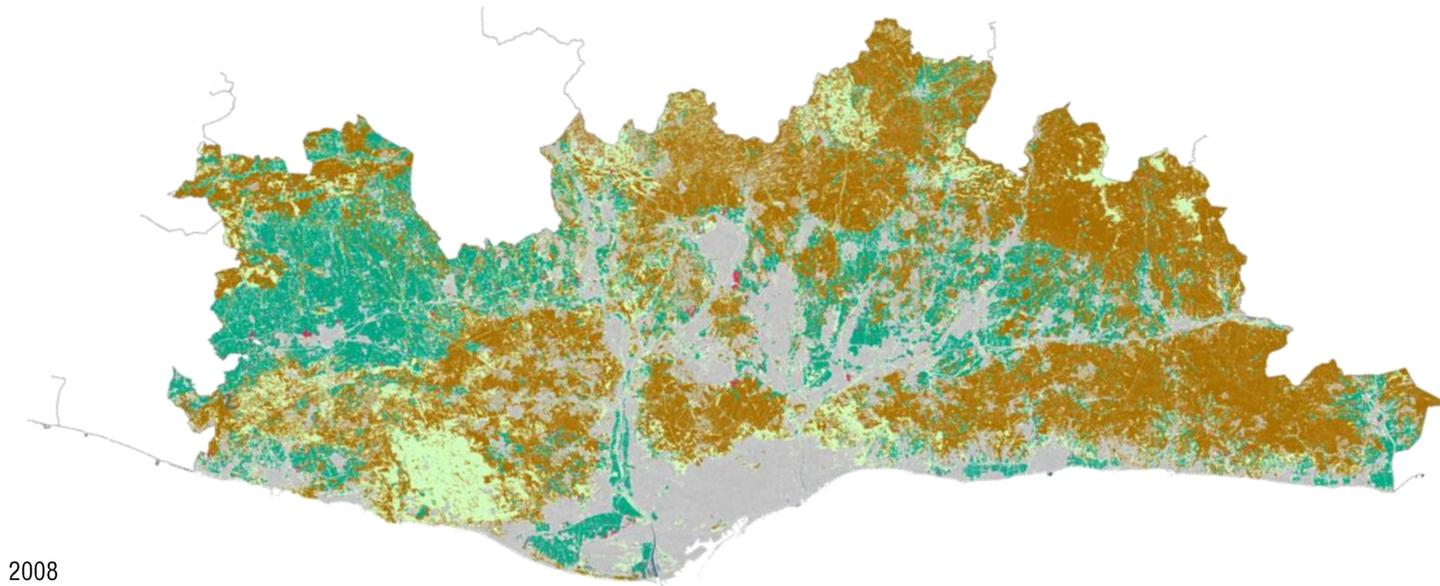
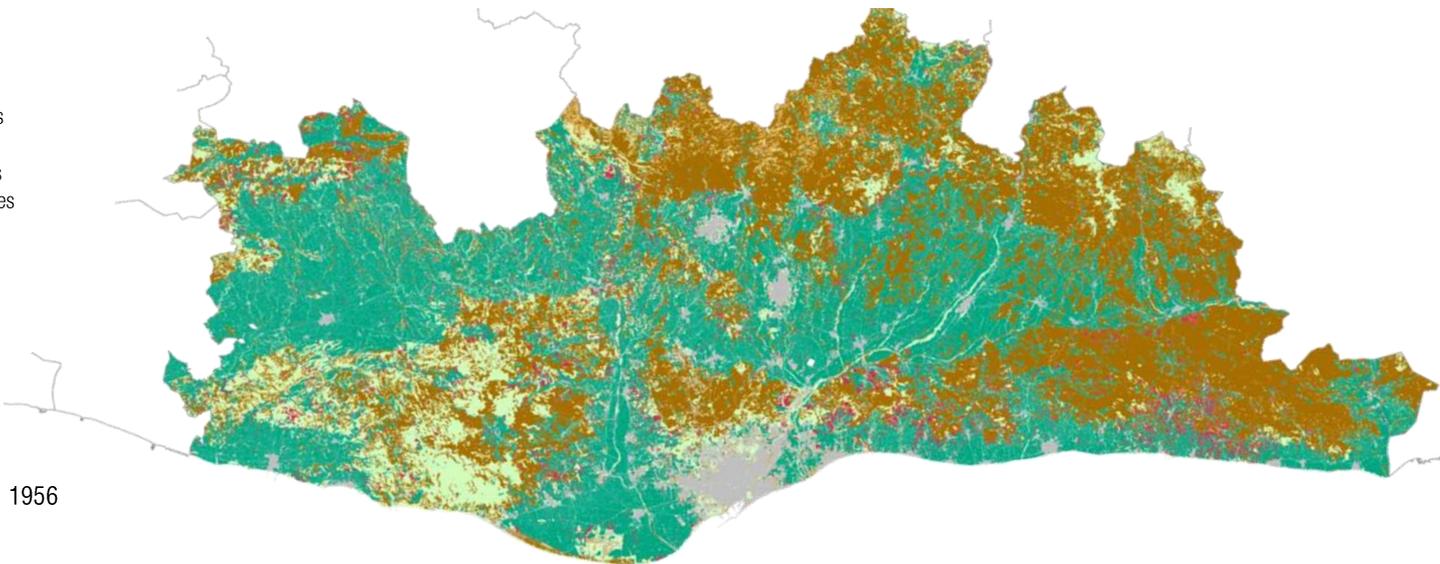
Source: Google Maps

Registered Metropolitan actions and proposals  
1985 - 2005



Source: Territorial Mosaic City Team

- Land Uses**
- Forest
  - Water
  - Abandoned crops
  - Crops
  - Urban and others
  - Fields and brushes



Source: Marta Carrasco (data used: Land-uses CREAF)



Image: Miguel À. Hernández, Sandra Murica (ETSAV Students)



Image: Miguel À. Hernández, Sandra Murica (ETSAB Students)

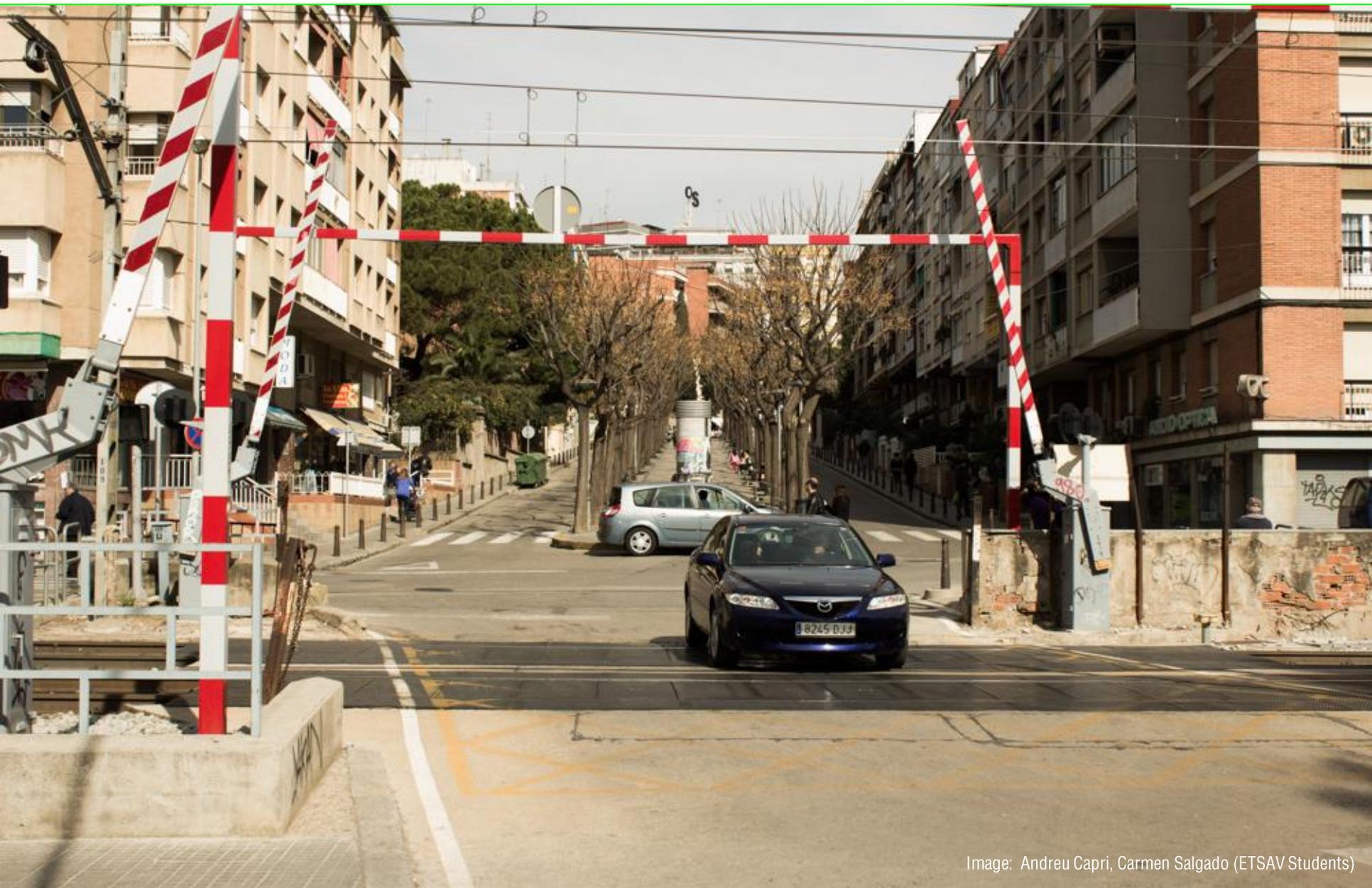


Image: Andreu Capri, Carmen Salgado (ETSAV Students)





Image: Andreu Capri, Carmen Salgado (ETSAV Students)



Image: Google Maps

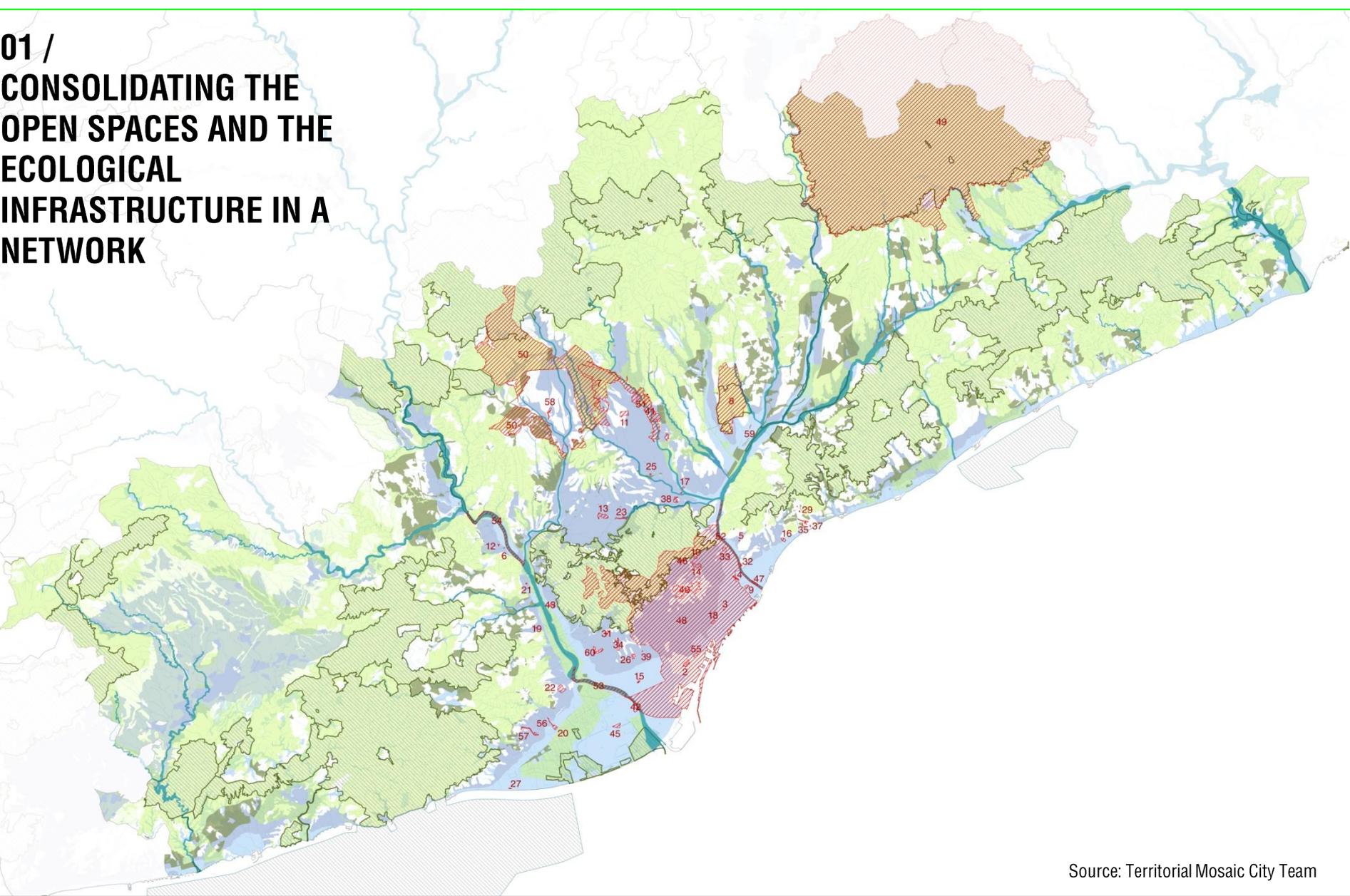


Image: Albert Sarmiento, Joe Yoon(ETSAV Students)



Image: Anna Gonzalvo, Uge Argelich(ETSAV Students)

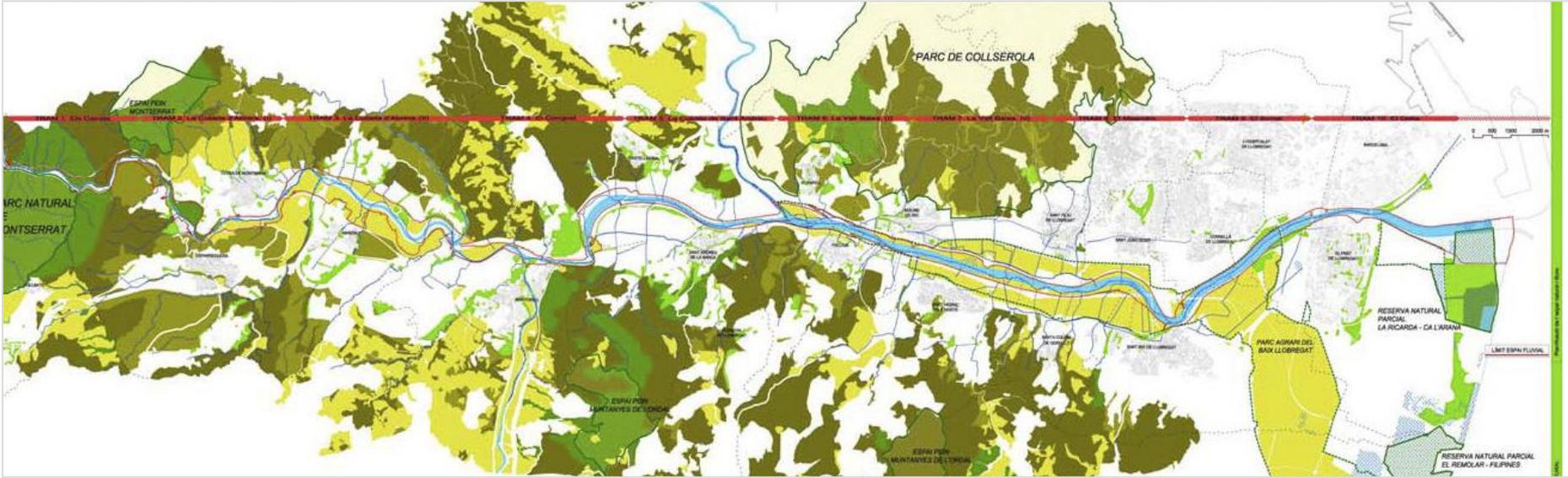
# 01 / CONSOLIDATING THE OPEN SPACES AND THE ECOLOGICAL INFRASTRUCTURE IN A NETWORK



Source: Territorial Mosaic City Team

### TO CONSIDER THE RIVER SYSTEM AS A STRUCTURAL ELEMENT FOR THE METROPOLITAN OPEN SPACES

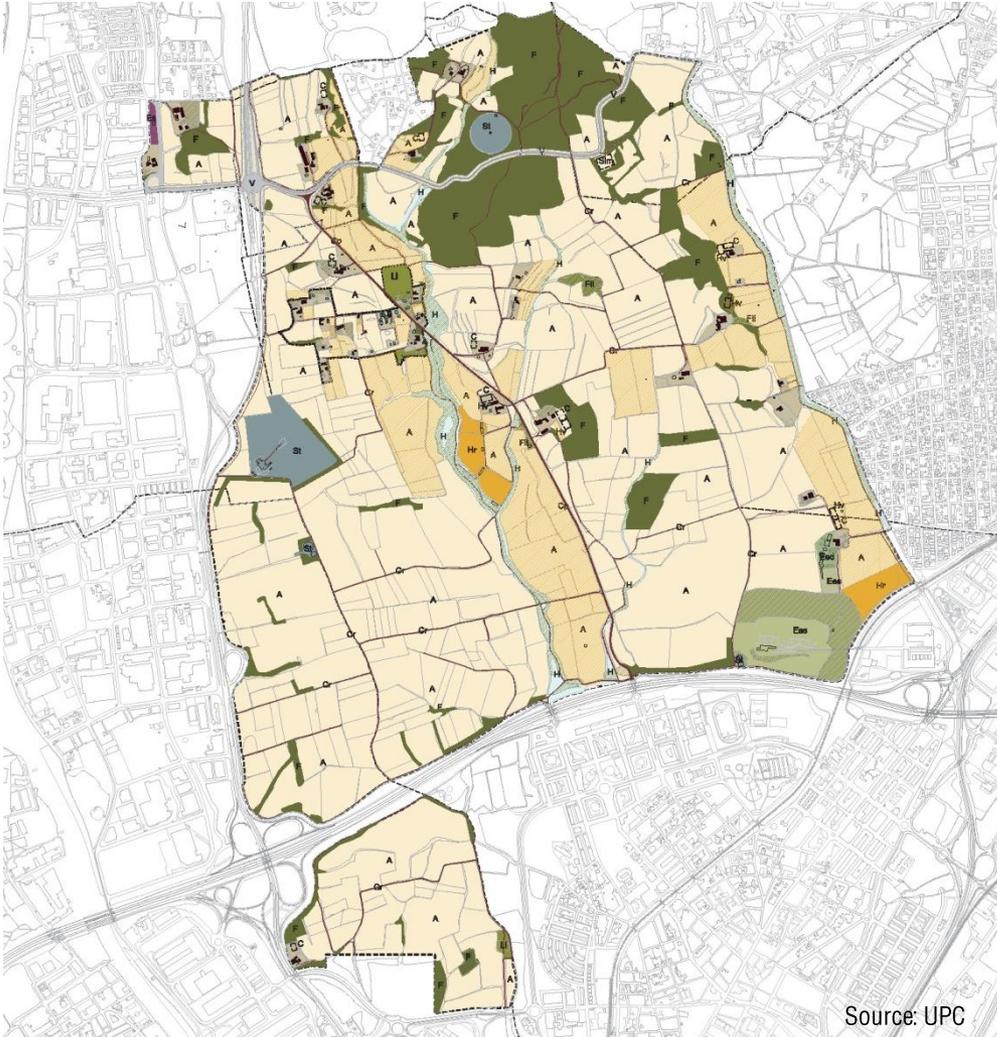
PROJECT REFERENCE: The Llobregat River Park (several municipalities)



Source: AMB

## TO RE-FARM THE METROPOLITAN TERRITORY THROUGH THE DYNAMISATION OF THE AGRICULTURE

PROJECT REFERENCE: Gallecs Agricultural Space, Mollet del Vallès



Source: UPC



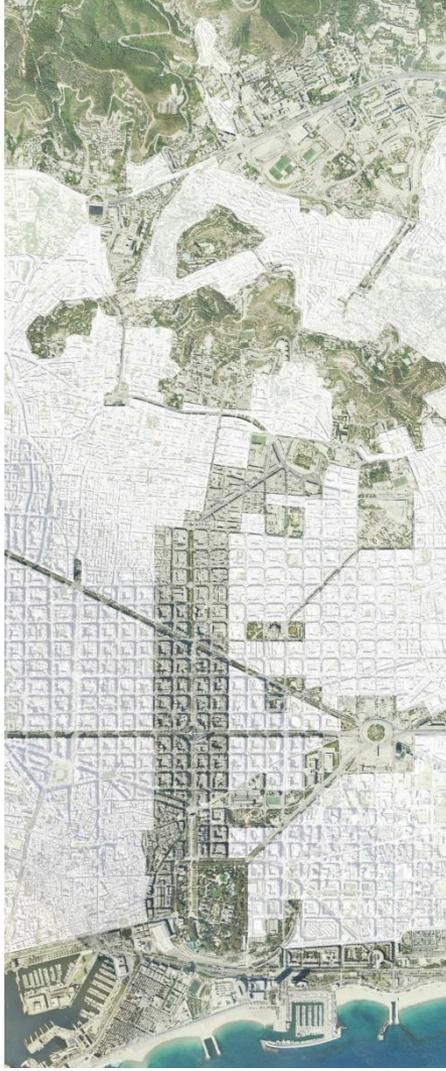
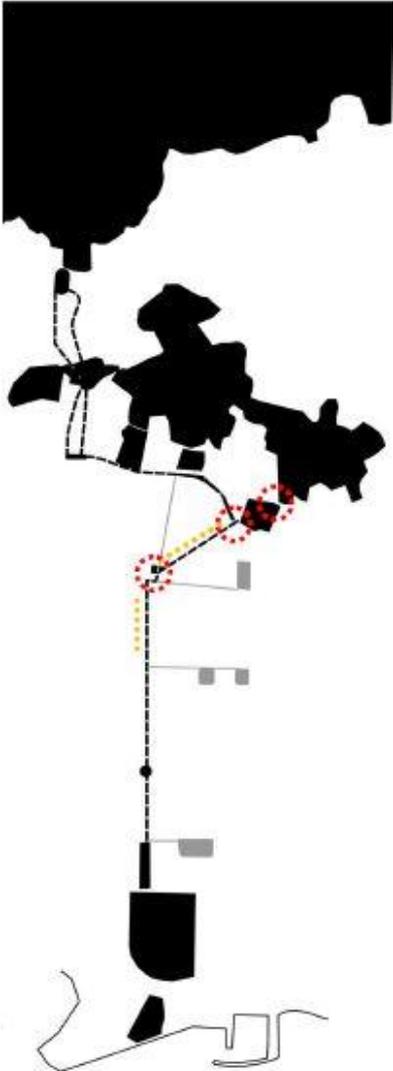
Image: Albert Torelló



Image: Albert Torelló

### TO ARTICULATE AND INTRODUCE THE URBAN VOIDS TO THE SYSTEM OF METROPOLITAN OPEN SPACES

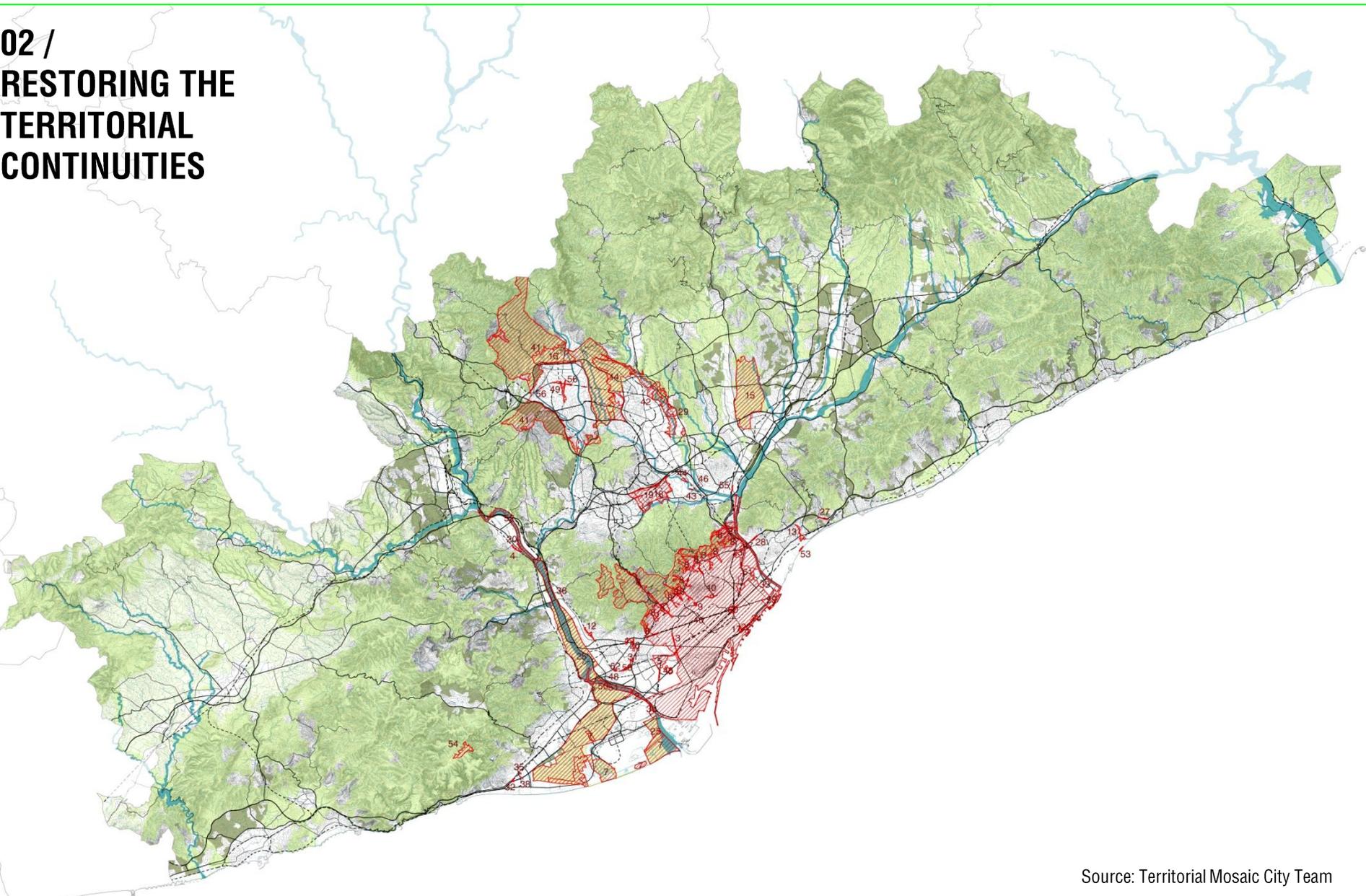
PROJECT REFERENCE: Plan of the Green and the Biodiversity, Green Corridors, (Barcelona)



Source: Ajuntament de Barcelona



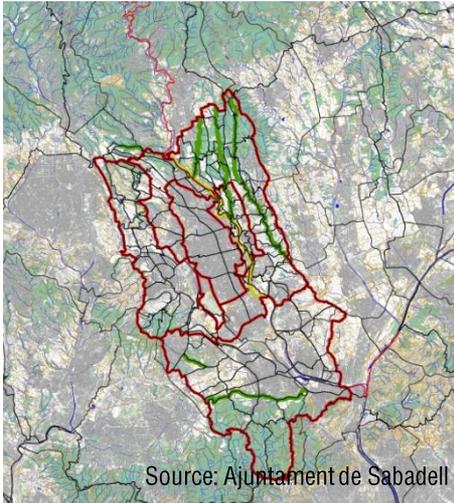
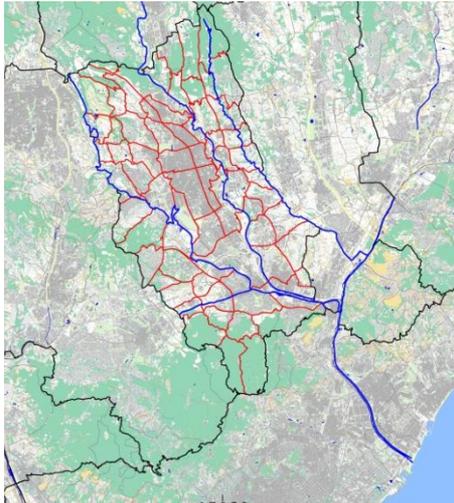
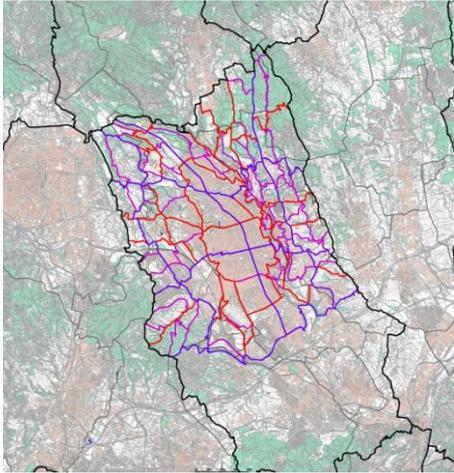
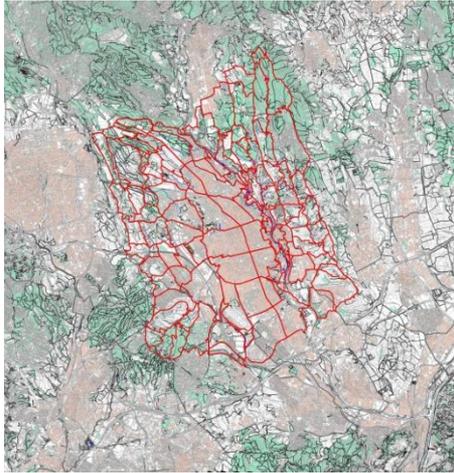
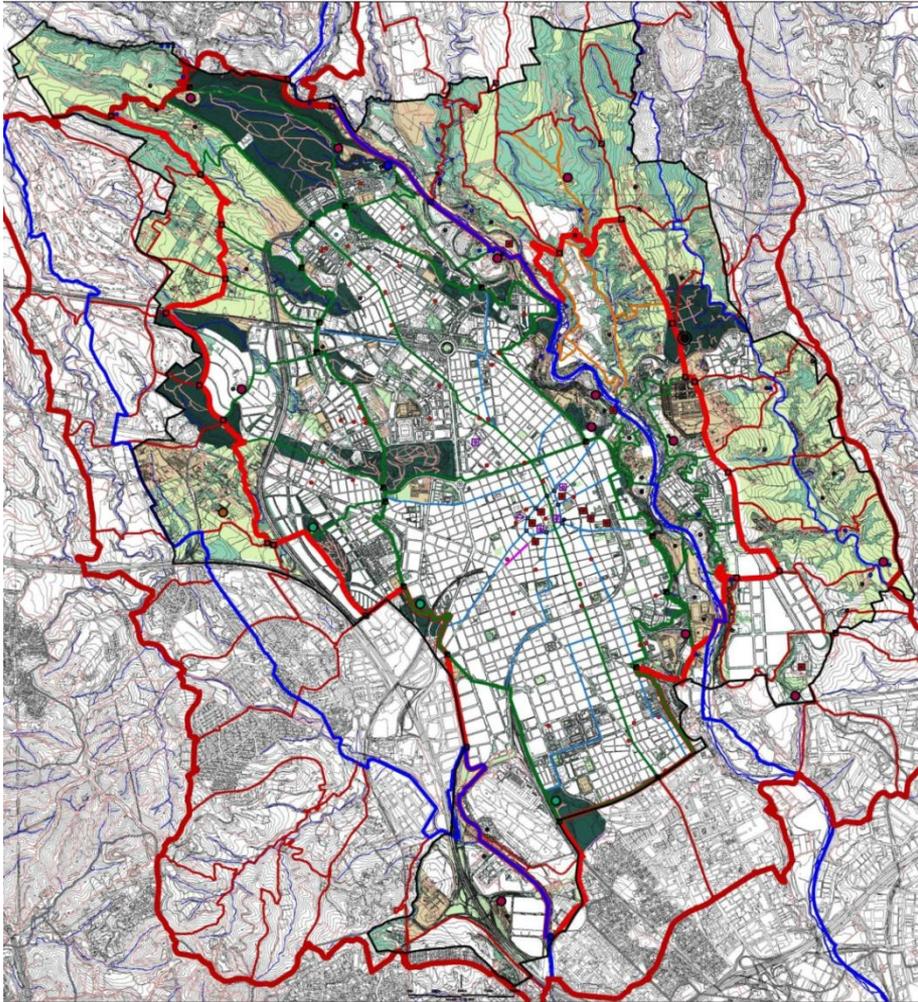
# 02 / RESTORING THE TERRITORIAL CONTINUITIES



Source: Territorial Mosaic City Team

**TO DESIGN THE NETWORK OF LANDSCAPE AND HERITAGE FROM A MULTI-SCALAR PERSPECTIVE  
AS A NEW ELEMENT WHERE TO SUPPORT THE NEW CONNECTIONS**

PROJECT REFERENCE: Special Plan of the Paths in Sabadell



**TO BUILD NEW COMPLEX URBAN SPACES OF CONNECTION WITH THE NECESSARY ATTRIBUTES AND QUALITIES  
TO BE A NEW SPACE WITH ADDED VALUE**

PROJECT REFERENCE: Solidaritat Park (Esplugues de Llobregat)



1992



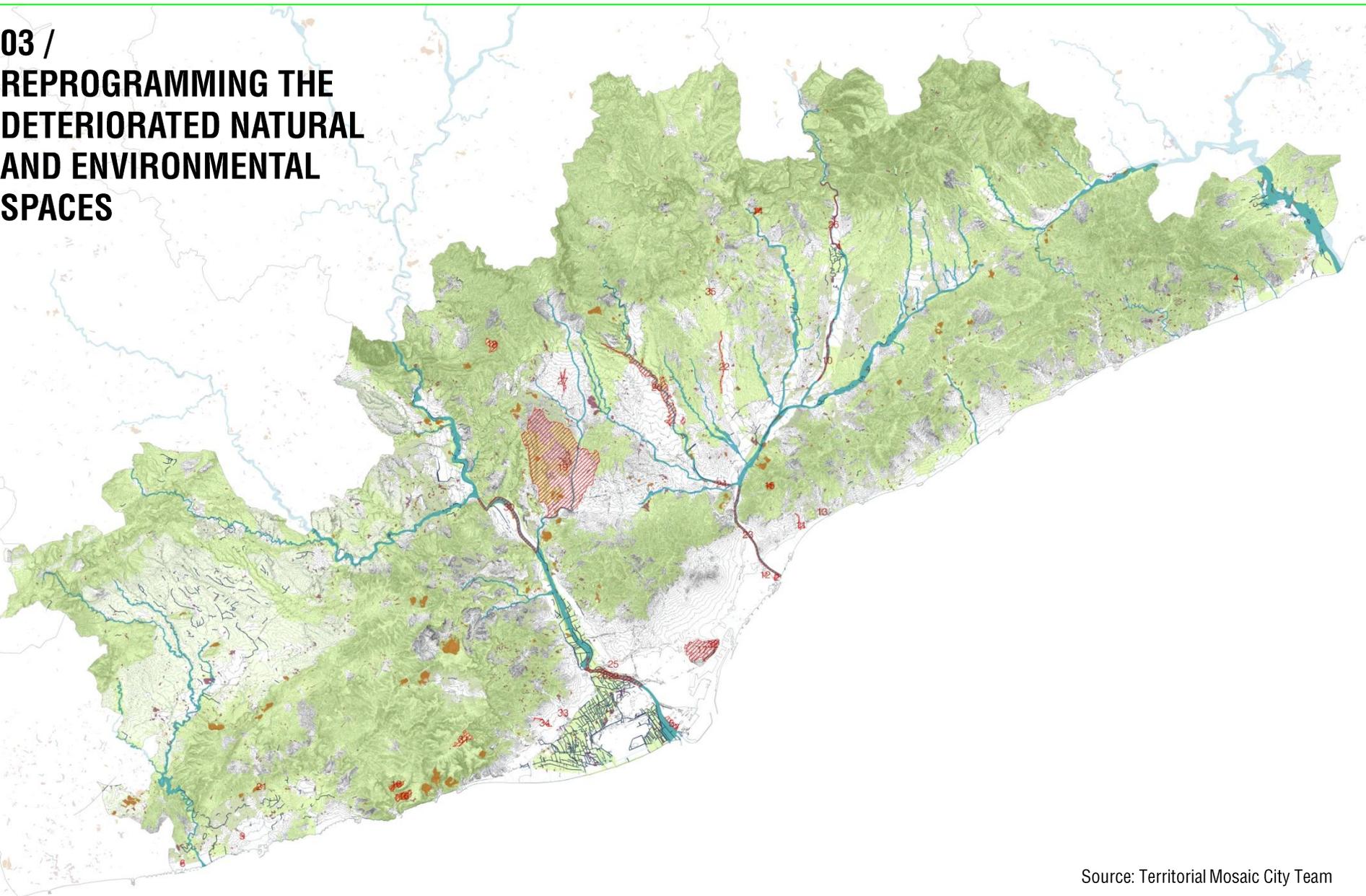
2014

Source: ICGC



Source: AMB

# 03 / REPROGRAMMING THE DETERIORATED NATURAL AND ENVIRONMENTAL SPACES



Source: Territorial Mosaic City Team

**TO MINIMISE THE ENVIRONMENTAL IMPACT CAUSED BY WASTES GENERATION AND MANAGEMENT**

PROJECT REFERENCE: Landscape restoration of Vall de'n Joan Landfill



Image: Jose Hevia

PROJECT REFERENCE: Restoration of La Vallença quarry



Image: Sorenike (Wikimedia Commons)



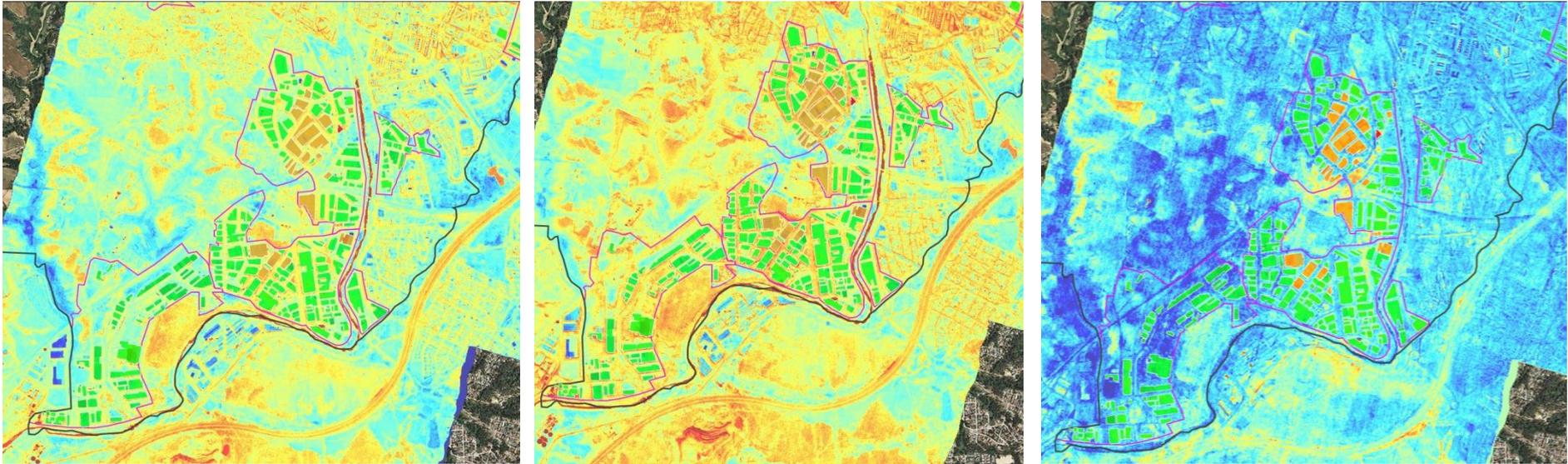
Source: Batlle i Roig Arquitectes



Source: Jansana, De la Villa i De Paauw Arquitectes

# THE OPTIMISATION OF THE METABOLIC CYCLES THROUGH THE REVALORISATION OF LATENT INFRASTRUCTURES

PROJECT REFERENCE: Strategic Plan Rubí Brilla

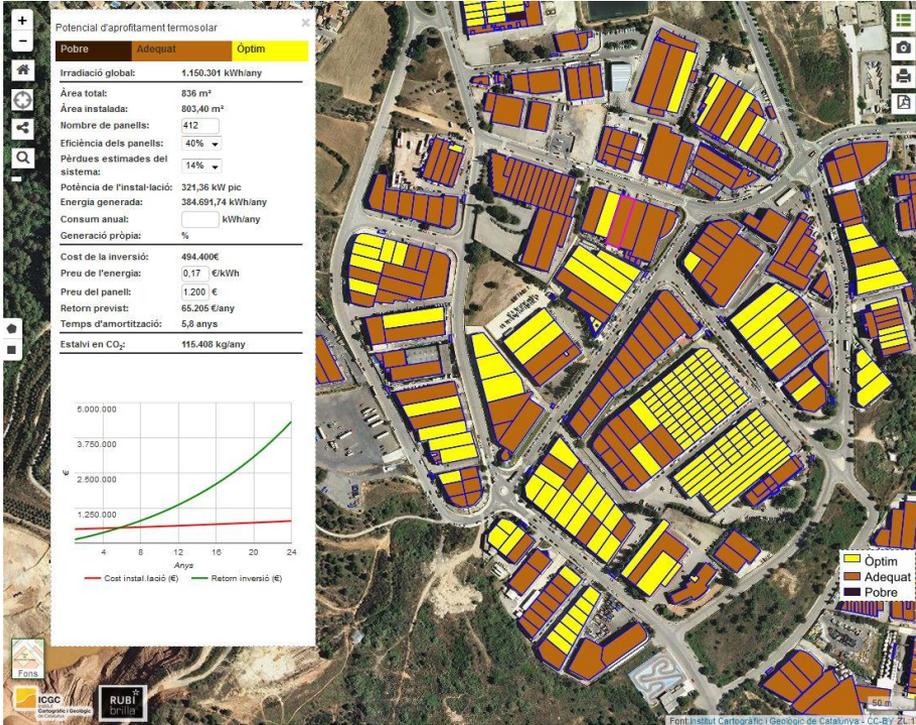


Energy efficiency of the industrial roofs along the day

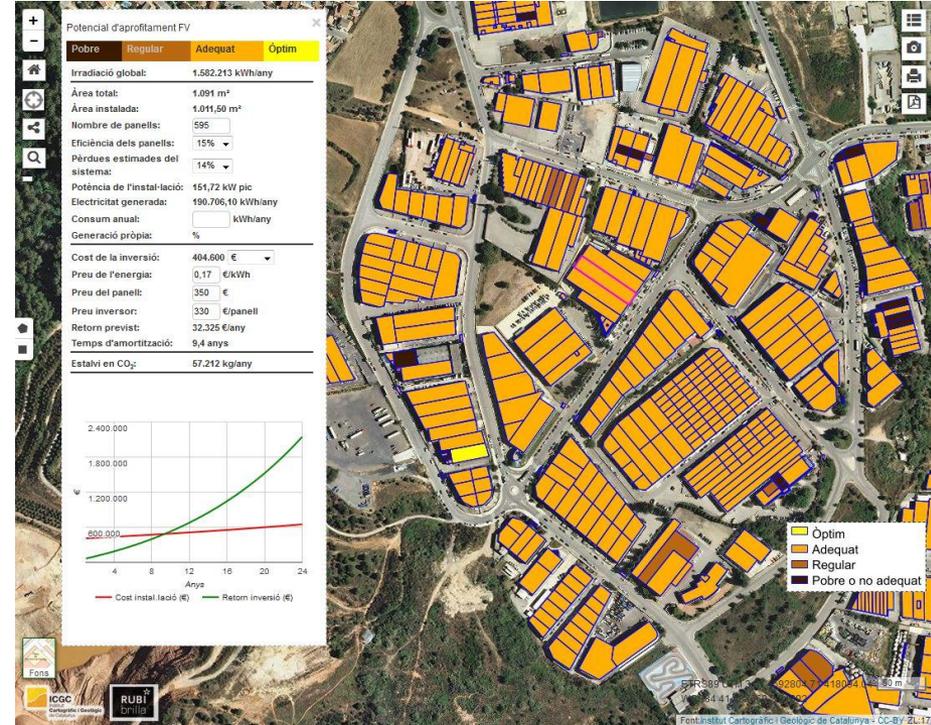
Source: Ajuntament de Rubí

# THE OPTIMISATION OF THE METABOLIC CYCLES THROUGH THE REVALORISATION OF LATENT INFRASTRUCTURES

PROJECT REFERENCE: Strategic Plan Rubí Brilla



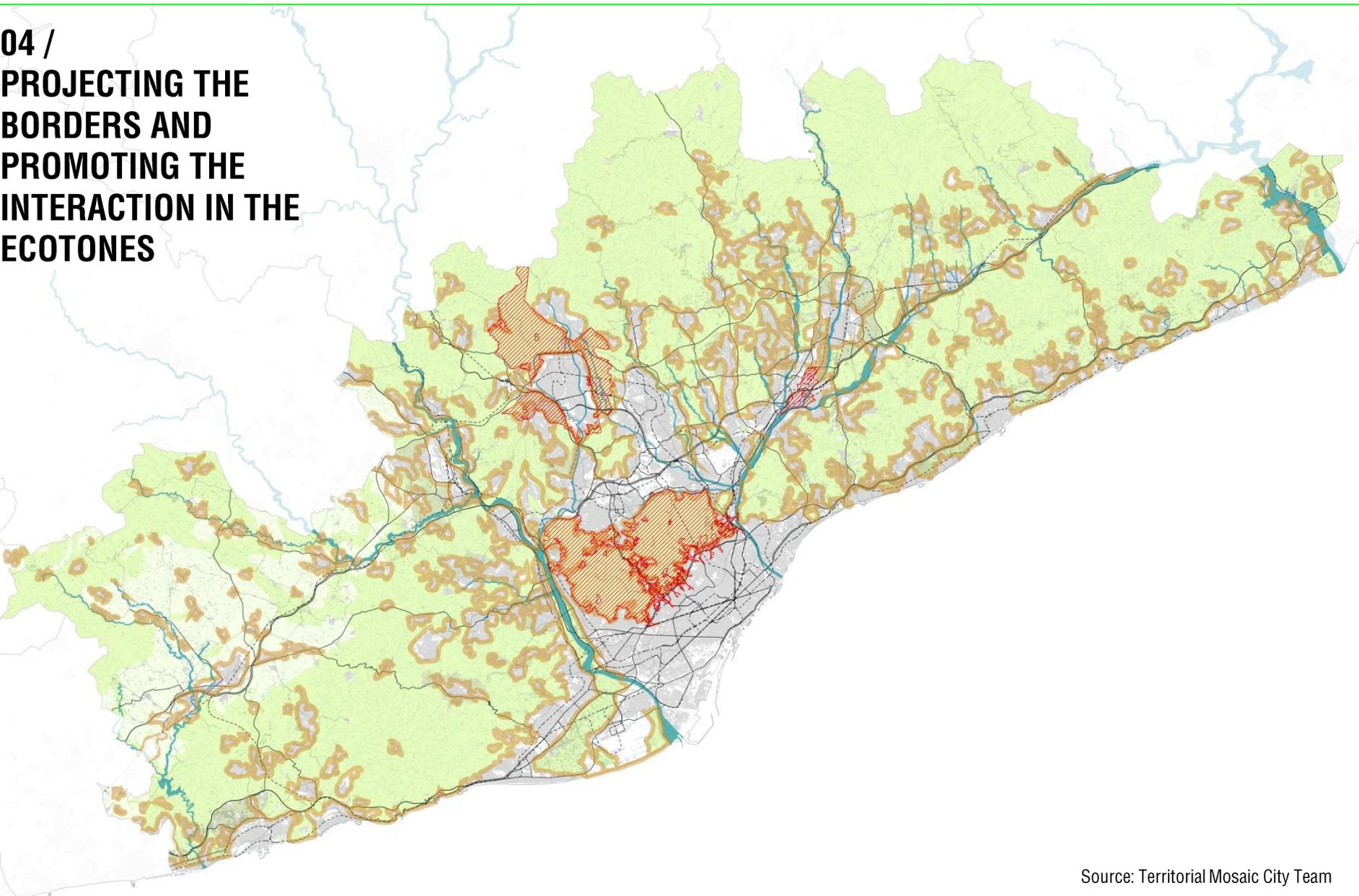
Potential of Solar Exploitation  
Photovoltaic suitability of industrial roofs



Potential of Solar Exploitation  
Thermosolar suitability of industrial roofs

Source: Ajuntament de Rubí

# 04 / PROJECTING THE BORDERS AND PROMOTING THE INTERACTION IN THE ECOTONES

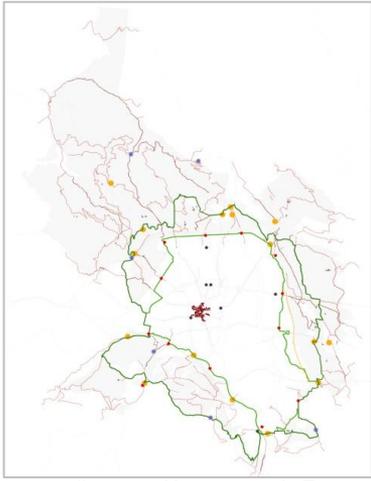
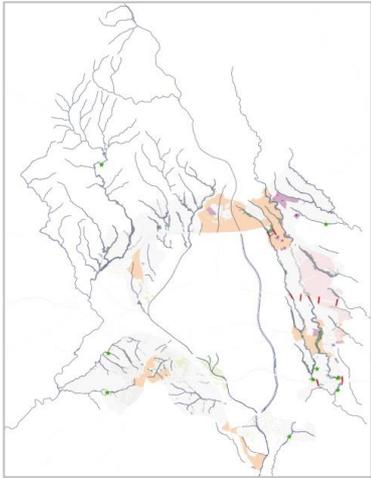
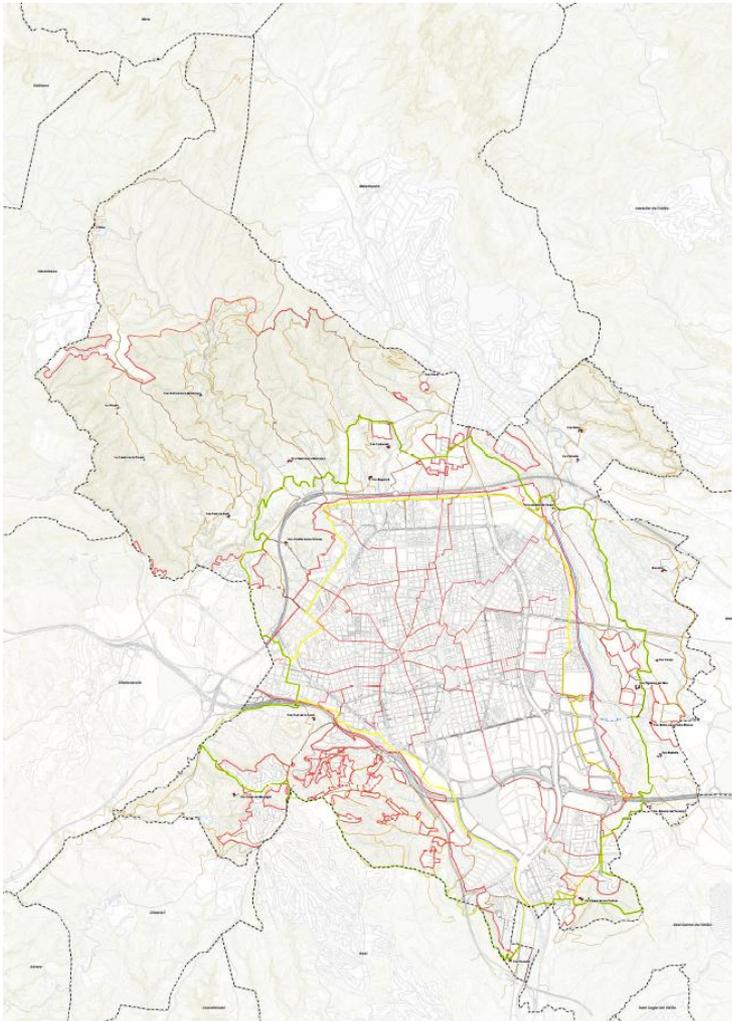
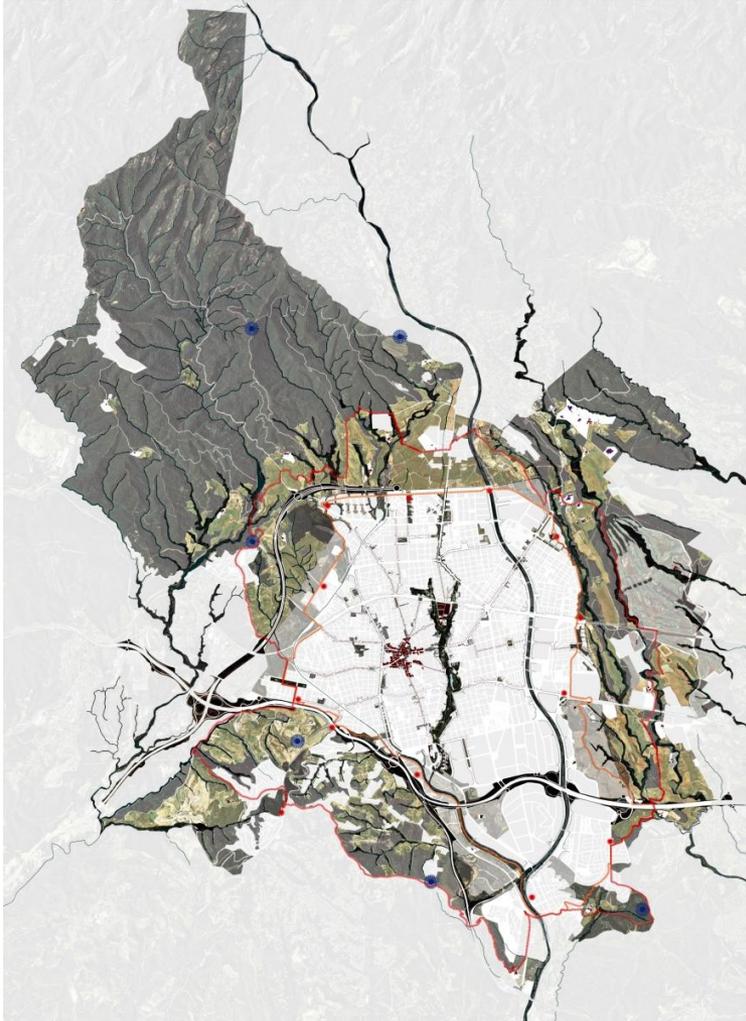


Source: Territorial Mosaic City Team



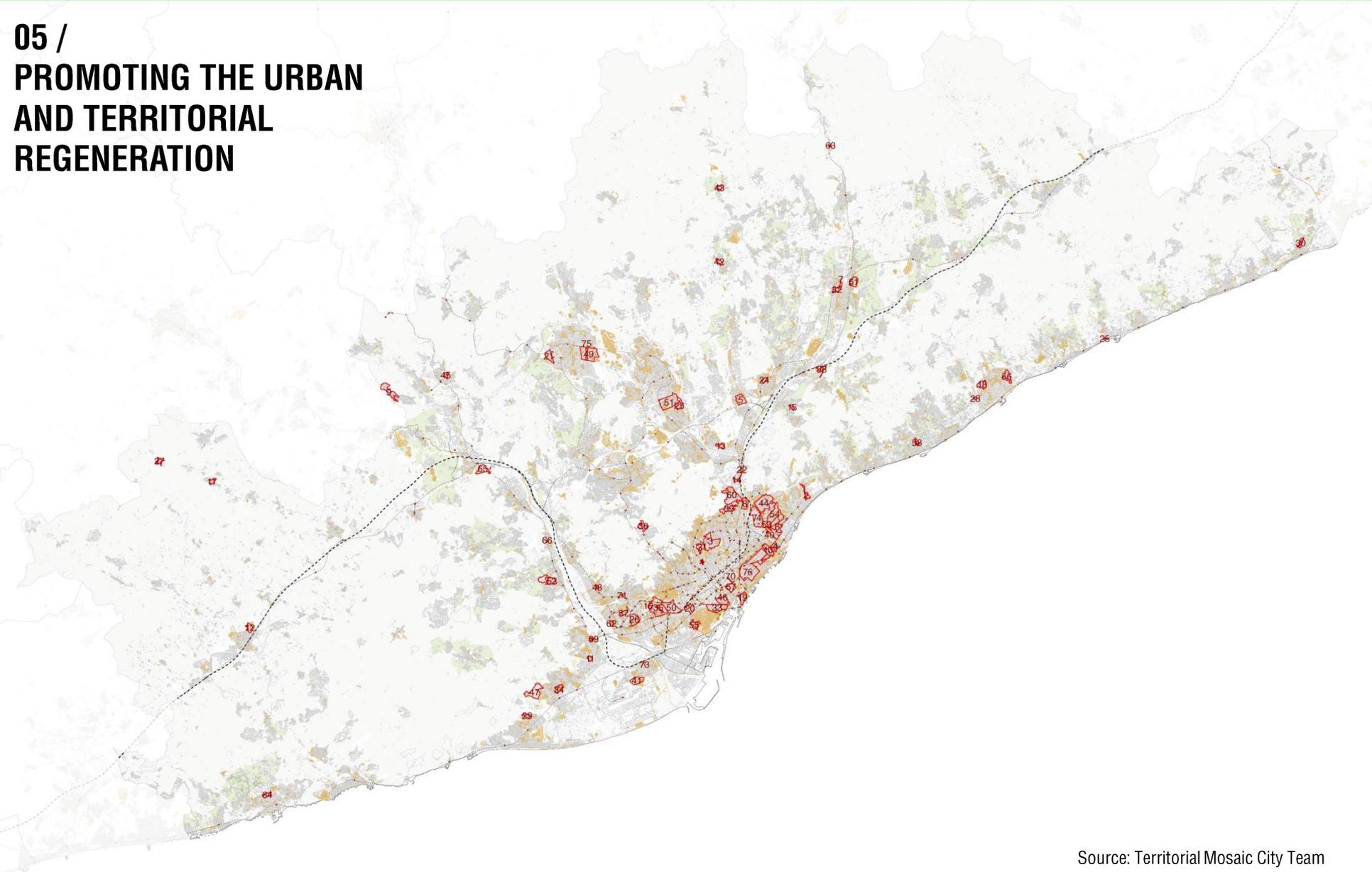
### TO DESIGN THE LIMIT SPACE BETWEEN URBAN AREAS AND OPEN SPACES

PROJECT REFERENCE: The Green Belt of Terrassa



Source: Ajuntament de Terrassa

# 05 / PROMOTING THE URBAN AND TERRITORIAL REGENERATION



Source: Territorial Mosaic City Team

**INTRODUCE NEW URBAN MORPHO-TYOLOGIES TO INCREASE THE SOCIAL DIVERSITY**

**STRUCTURE THE NEIGHBORHOODS IMPROVING THE ACCESSIBILITY TO THE MOBILITY FLOWS**

**INCREASE AND ARTICULATE THE LOCAL GOVERNANCE NETWORKS PROMOTING THE SOCIAL PARTICIPATION**

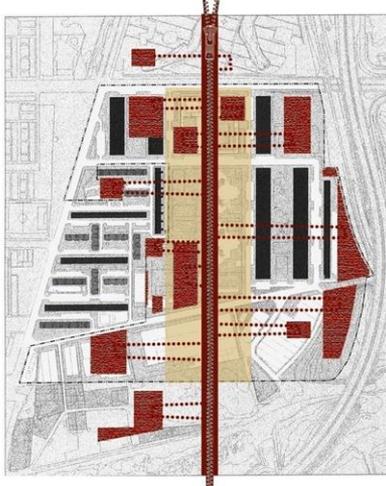
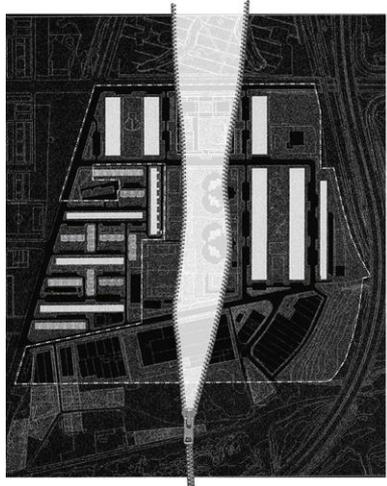
**DEVELOPE PROGRAMMES OF SOCIAL, ECONOMIC AND URBAN IMPROVEMENT**

PROJECT REFERENCE: Pla de Barris (Neighborhoods Plan) (several municipalities)



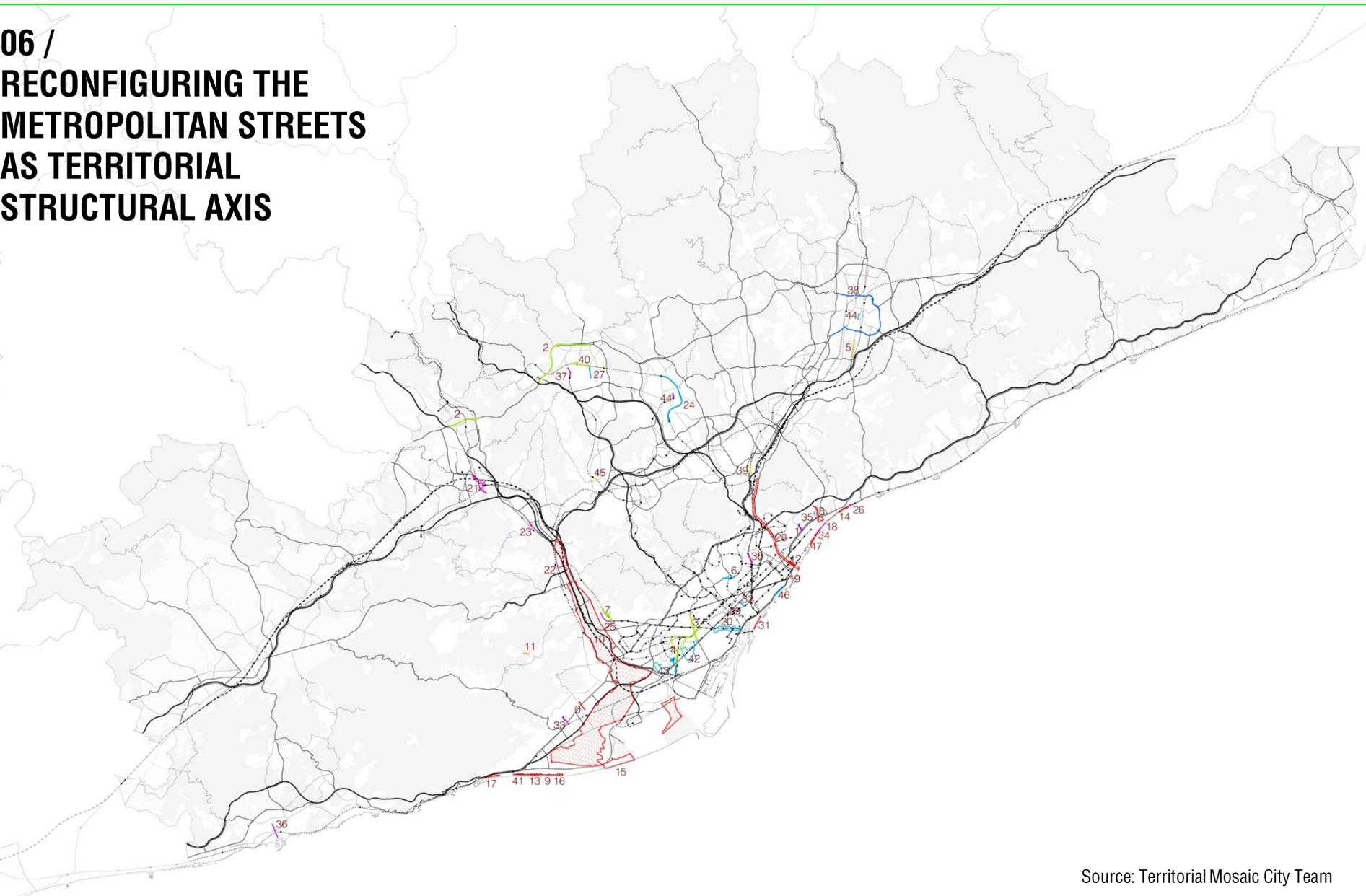
Source: Pla de Barris (Generalitat de Catalunya)

PROJECT REFERENCE: Transformation Plan of La Mina Neighborhood (Sant Adrià de Besòs)



Source: Jornet Llop Pastor Arquitectes

# 06 / RECONFIGURING THE METROPOLITAN STREETS AS TERRITORIAL STRUCTURAL AXIS



Source: Territorial Mosaic City Team

### THE TRANSFORMATION OF REGIONAL ROADS TO URBAN-METROPOLITAN AVENUES

PROJECT REFERENCE: Laureà Miró Street (Sant Feliu de Llobregat)



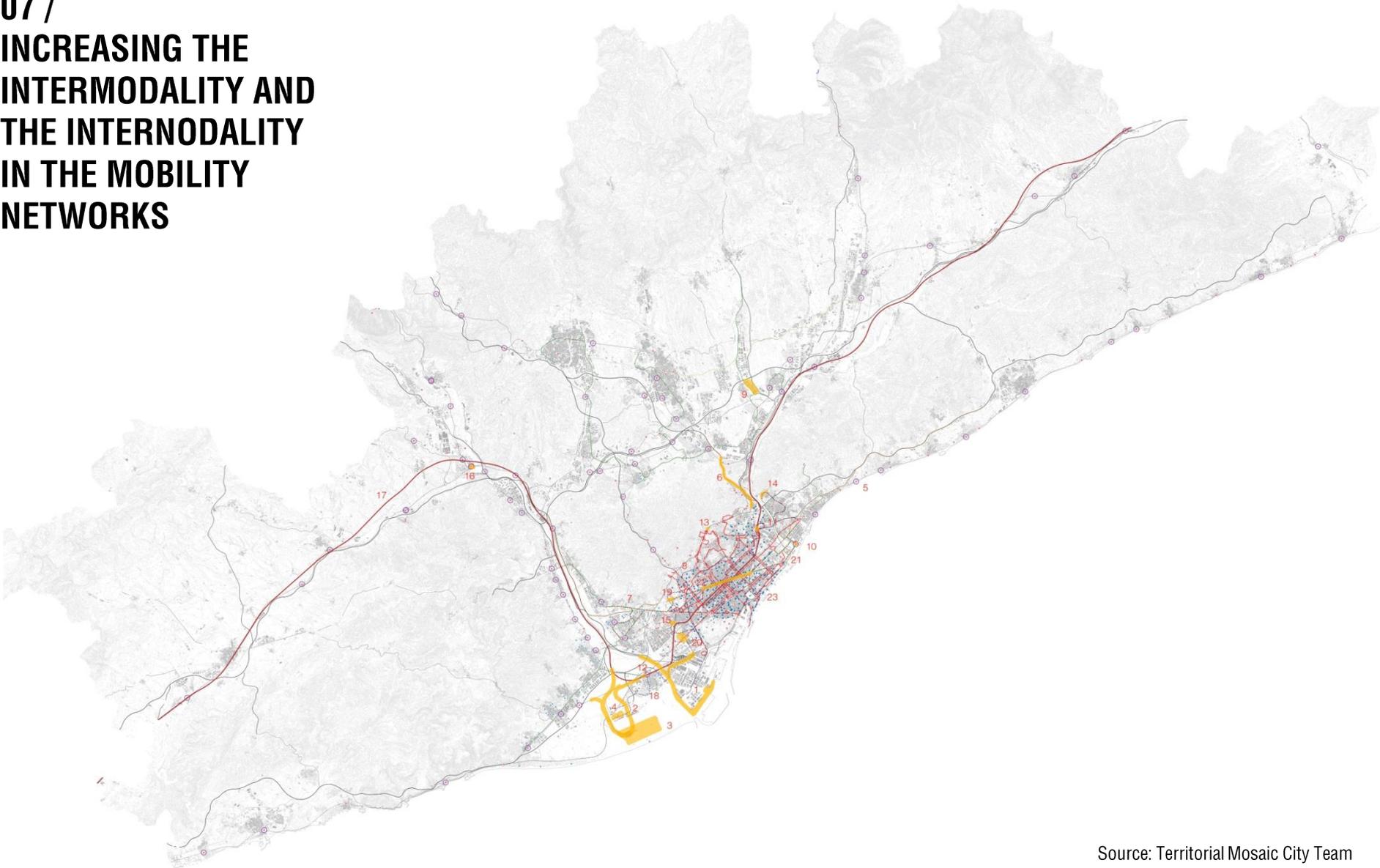
Source: Tòrnet Llop Pastor Arquitectes

PROJECT REFERENCE: Ronda Guinardo (Barcelona)



Source: Ajuntament de Barcelona

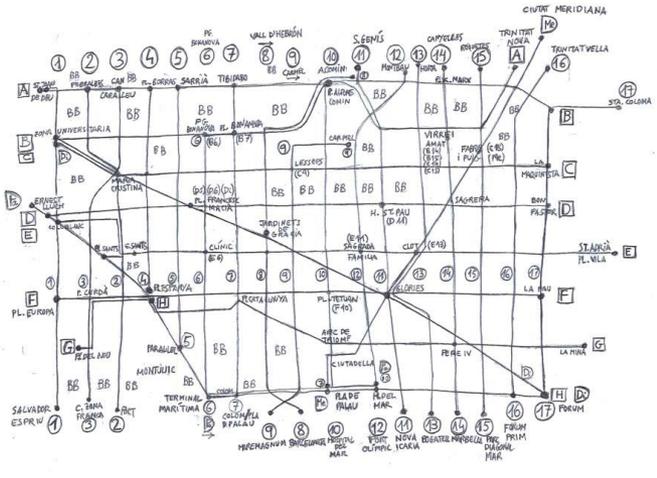
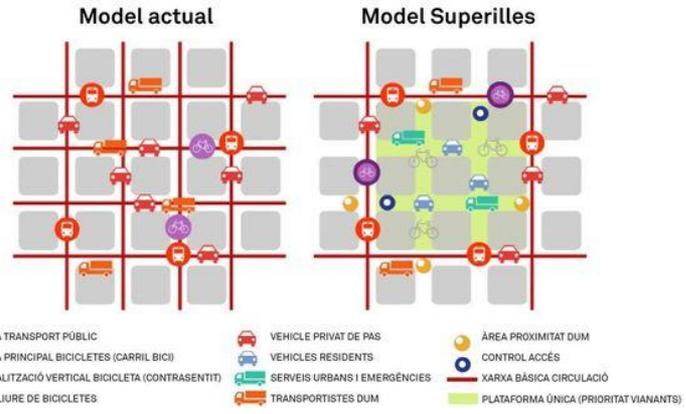
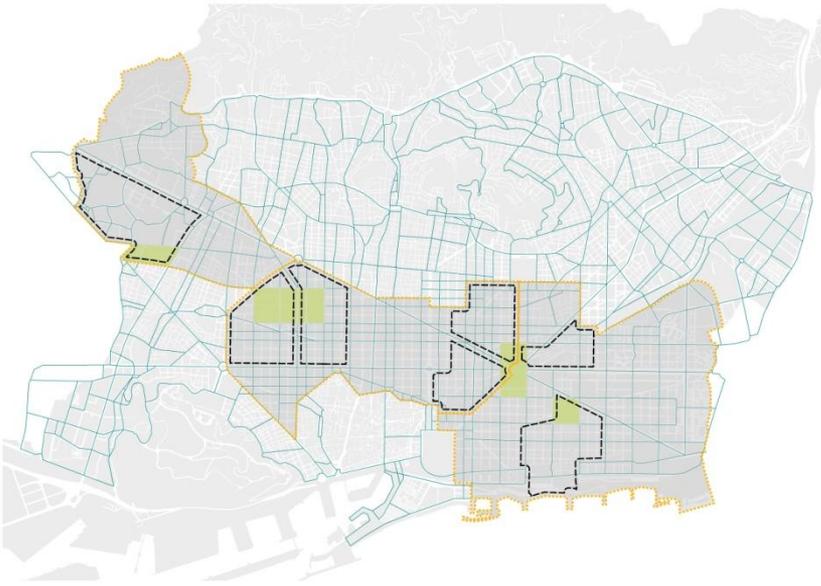
# 07 / INCREASING THE INTERMODALITY AND THE INTERNODALITY IN THE MOBILITY NETWORKS



Source: Territorial Mosaic City Team

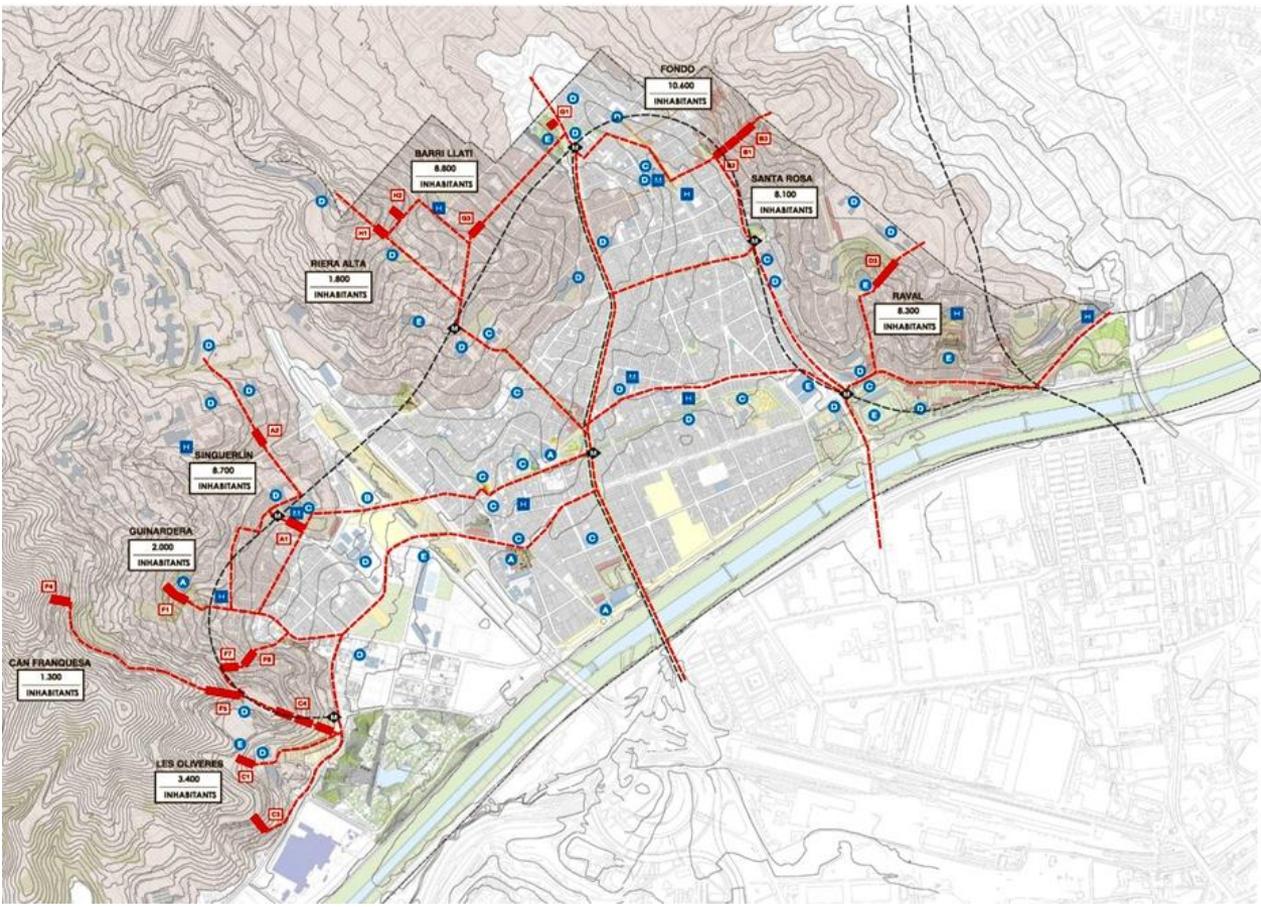
# THE INTERCONNECTION OF DIFFERENT MEANS OF TRANSPORT, ENSURING THE ACCESSIBILITY TO FLOWS

PROJECT REFERENCE: Projecte pilot de les superilles de l'Eixample (Barcelona)



Source: Ajuntament de Barcelona

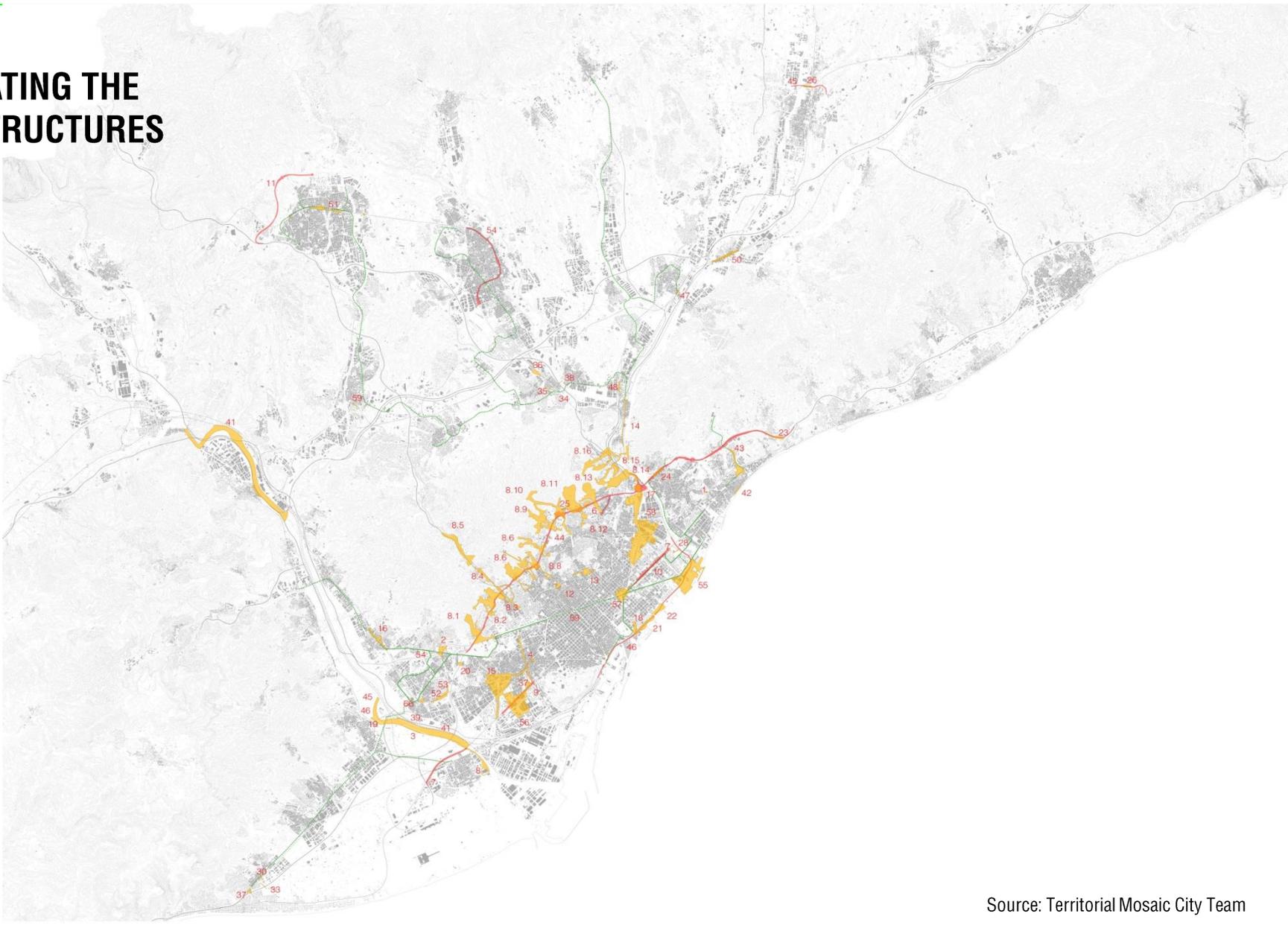
PROJECT REFERENCE: Mechanical access in Santa Coloma de Gramenet



Source: Ajuntament de Santa Coloma de Gramenet



# 08/ INTEGRATING THE INFRASTRUCTURES



Source: Territorial Mosaic City Team

# THE INTERCONNECTION OF DIFFERENT MEANS OF TRANSPORT, ENSURING THE ACCESSIBILITY TO FLOWS

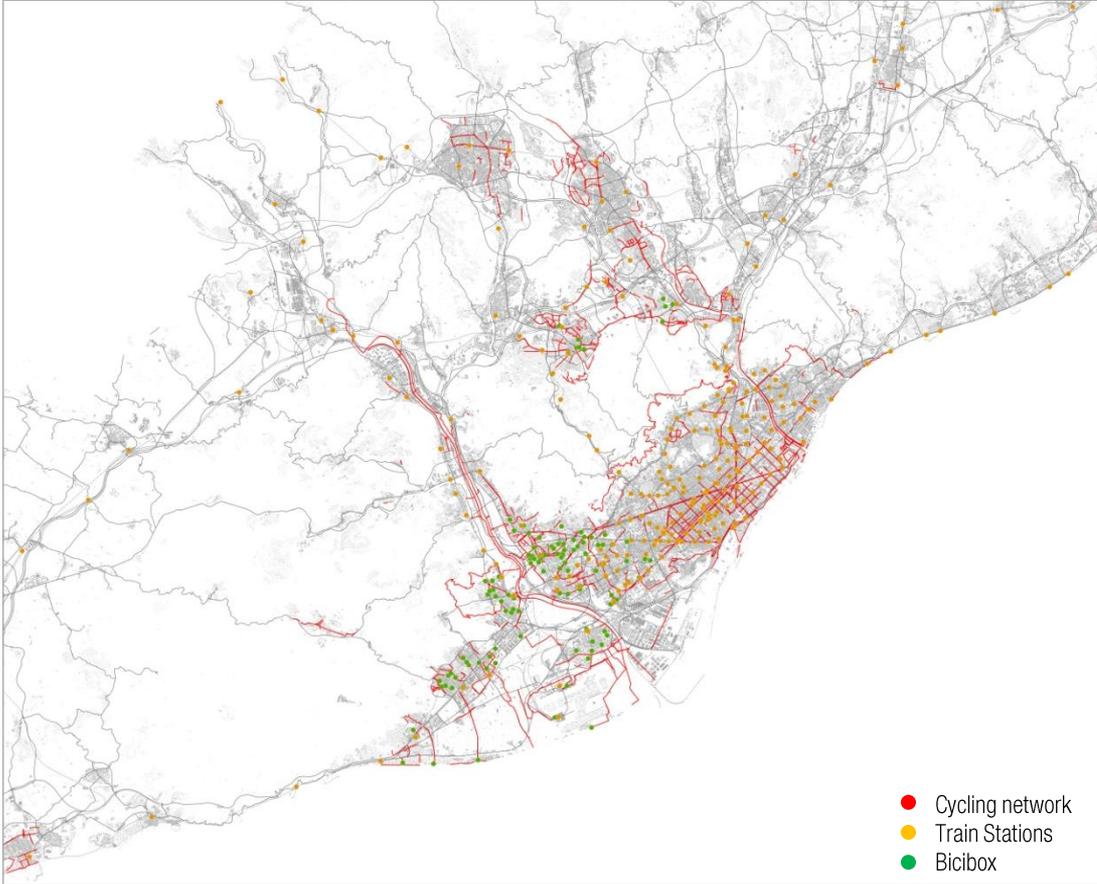
PROJECT REFERENCE: TMB Park



Source: a+t journal

# THE INTEGRATION OF THE BICYCLE AS A MEAN OF TRANSPORT IN A METROPOLITAN SCALE

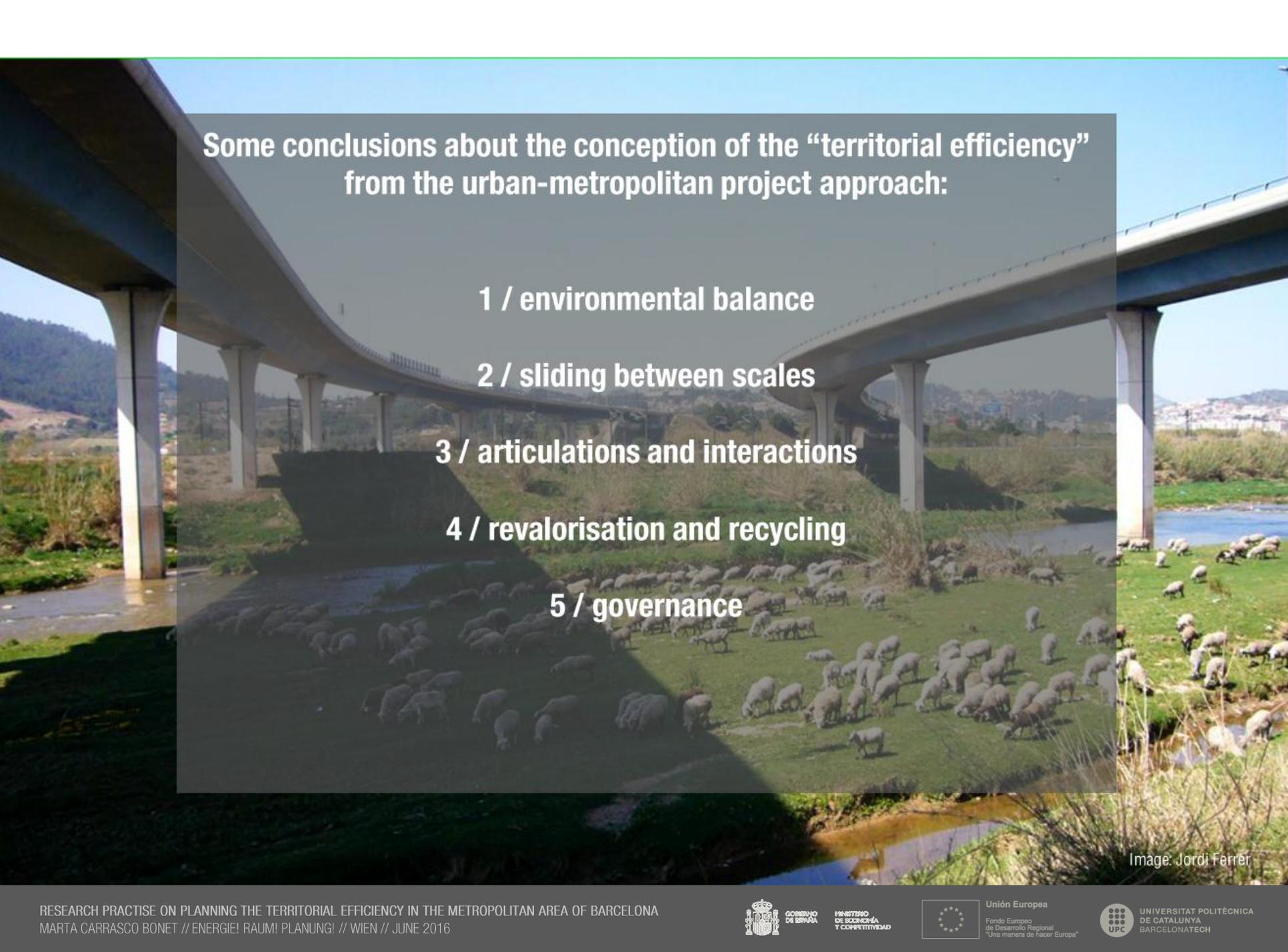
PROJECT REFERENCE: Bicibox (several municipalities)



Source: Territorial Mosaic City Team



Source: AMB



**Some conclusions about the conception of the “territorial efficiency”  
from the urban-metropolitan project approach:**

**1 / environmental balance**

**2 / sliding between scales**

**3 / articulations and interactions**

**4 / revalorisation and recycling**

**5 / governance**

Image: Jordi Ferrer

# THANK YOU!

[marta.carrasco@upc.edu](mailto:marta.carrasco@upc.edu)

TERRITORIAL MOSAIC CITY research team  
[www.ciutatmosaicterritorial.com](http://www.ciutatmosaicterritorial.com)