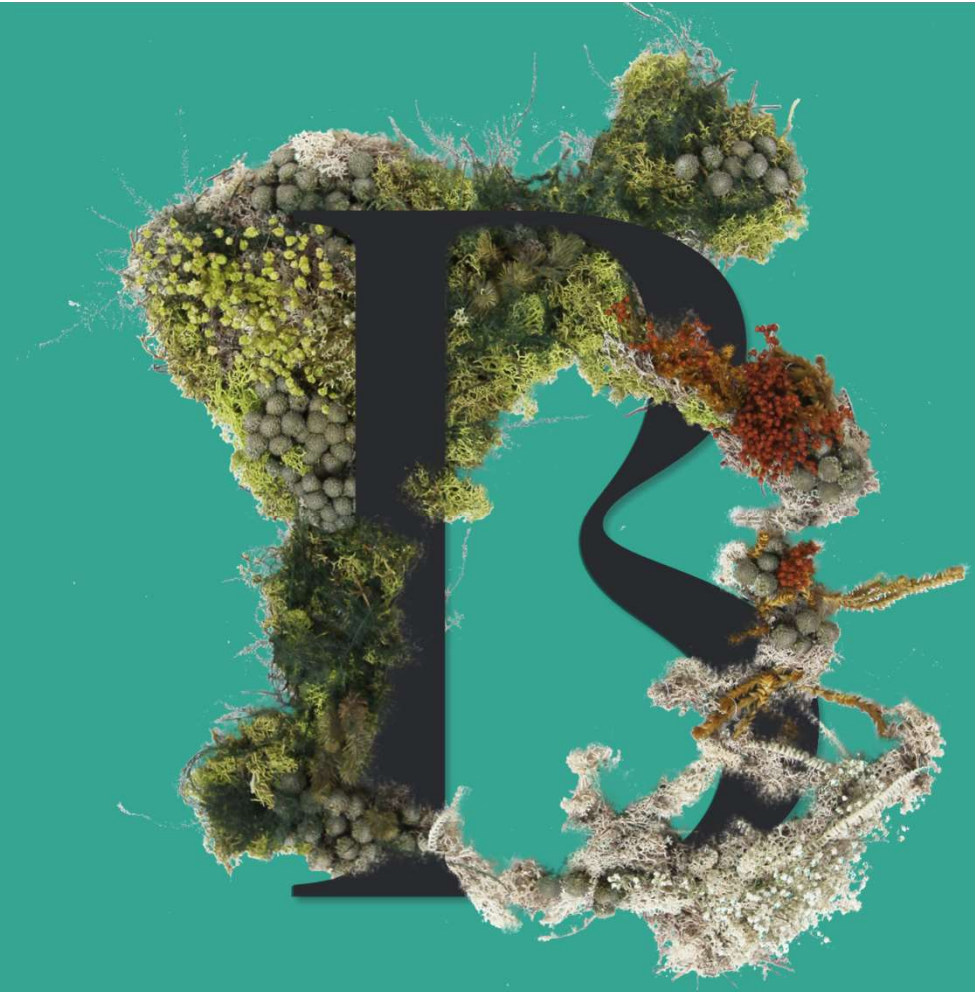


Madrid *Island of Color*

Javier Castaño Caro

Senior Adviser

Cooperation and International Affairs. Madrid City Council



Green Infrastructure in a metropolitan scale “**Metropolitan Forest**”

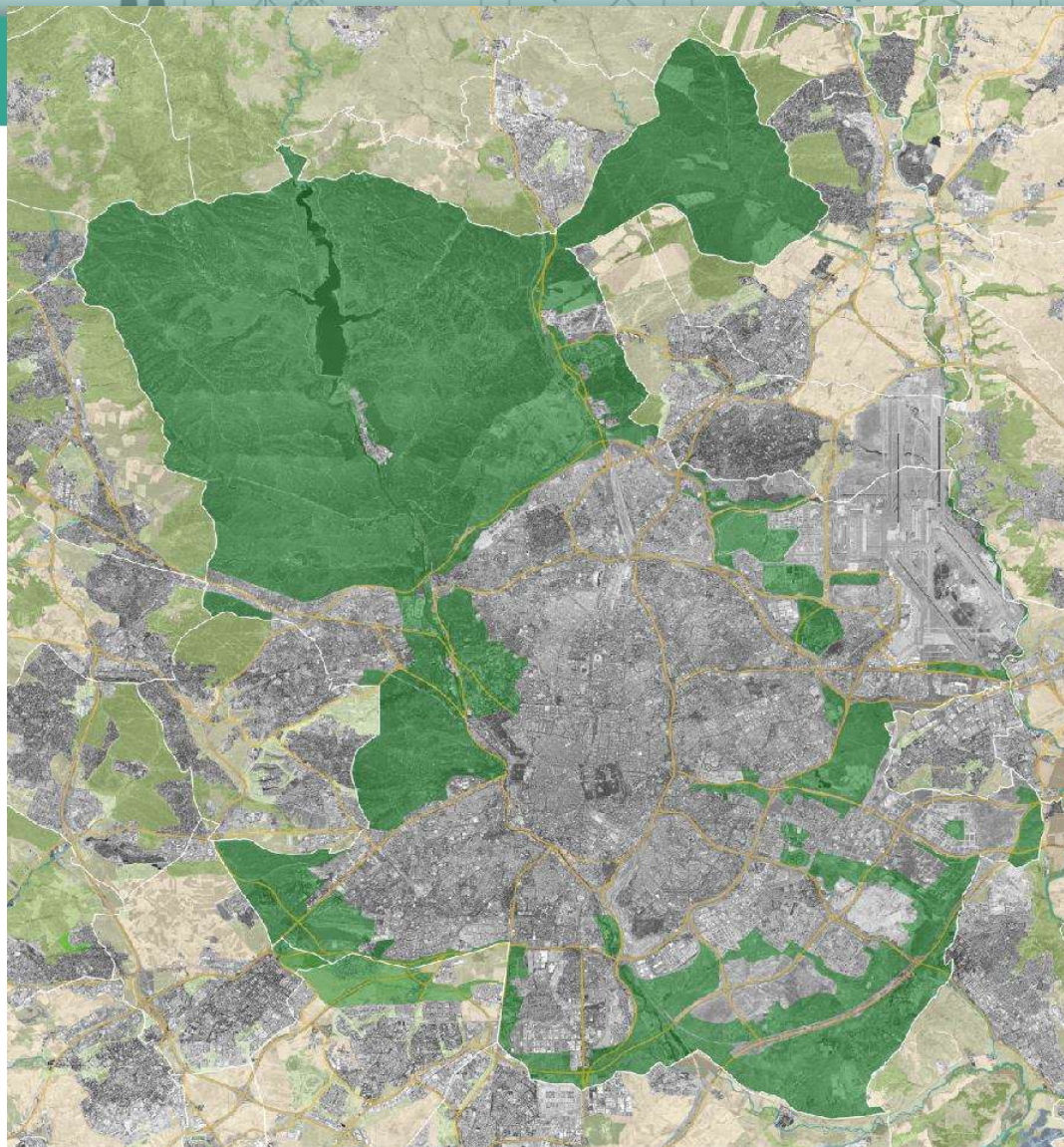
Renaturing of neighbourhoods with urban agriculture “**Producer Neighbourhoods**”



Urban Planning Context

- Madrid **Master Plan 1997**: Urbanization area of 6,000Has, more than 400,000 new dwellings and 20 Mill m² for economic activity. Meanwhile population growth is only 2%, with 3.2 Mill inhabitants.
- 2015 **Strategic Planning** to achieve SDG according to International Urban Agendas
- The **Renaturing Strategy** a multiscale conception.

Urban forest at the metropolitan level
Producer Neighborhoods Project at local level



The metropolitan forest

75 km length

32,000 Has of extensión

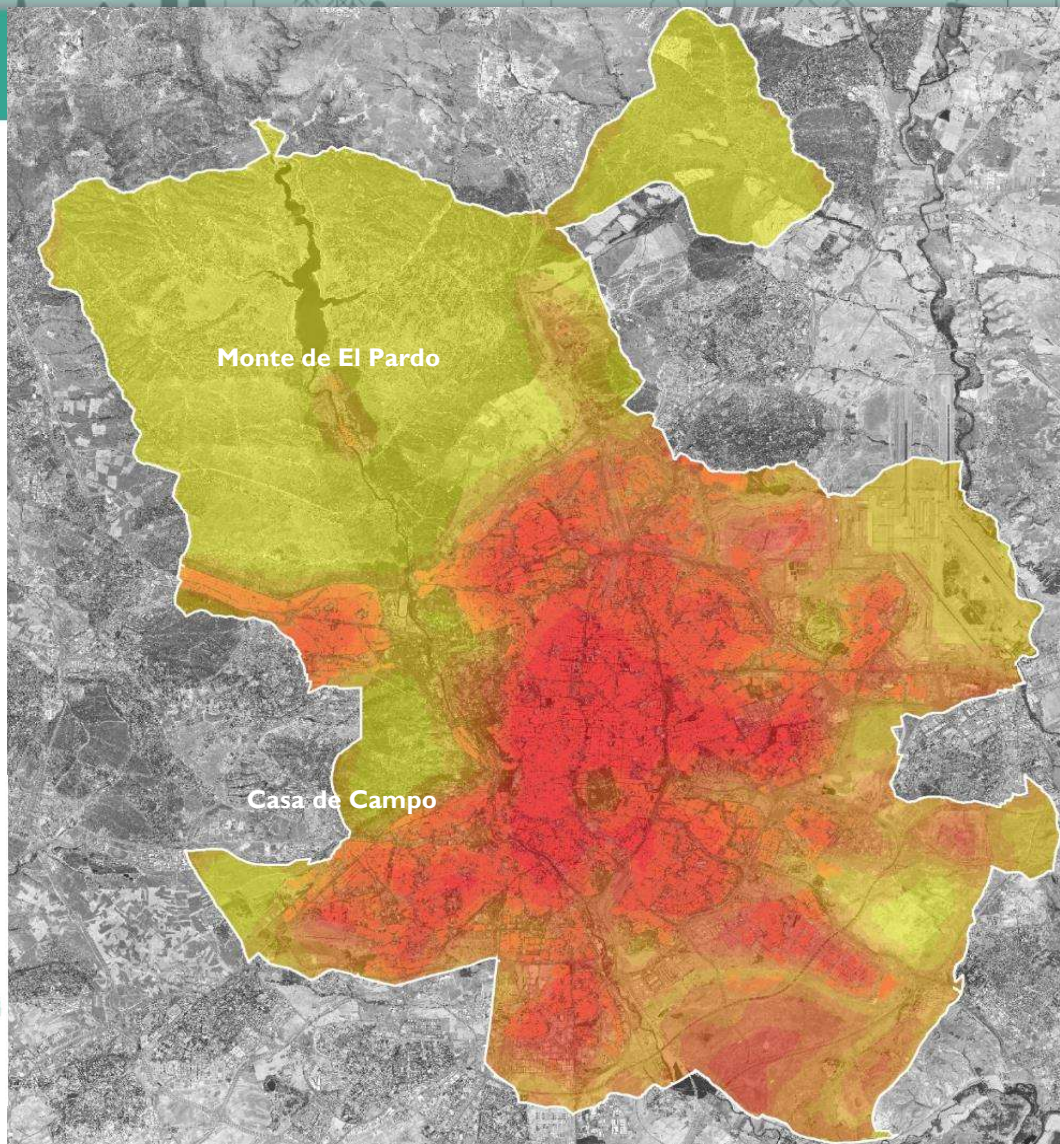
4,300 hectares (ha) of new
urban forests,

More than 15 green conectors

More than **1 Million trees**

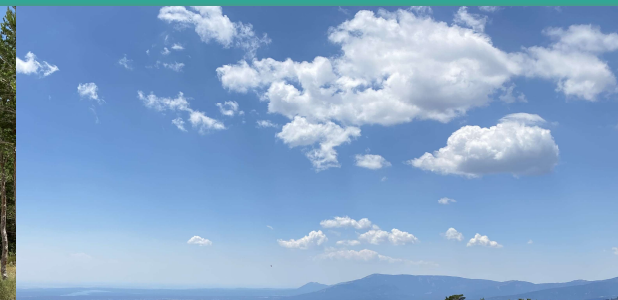
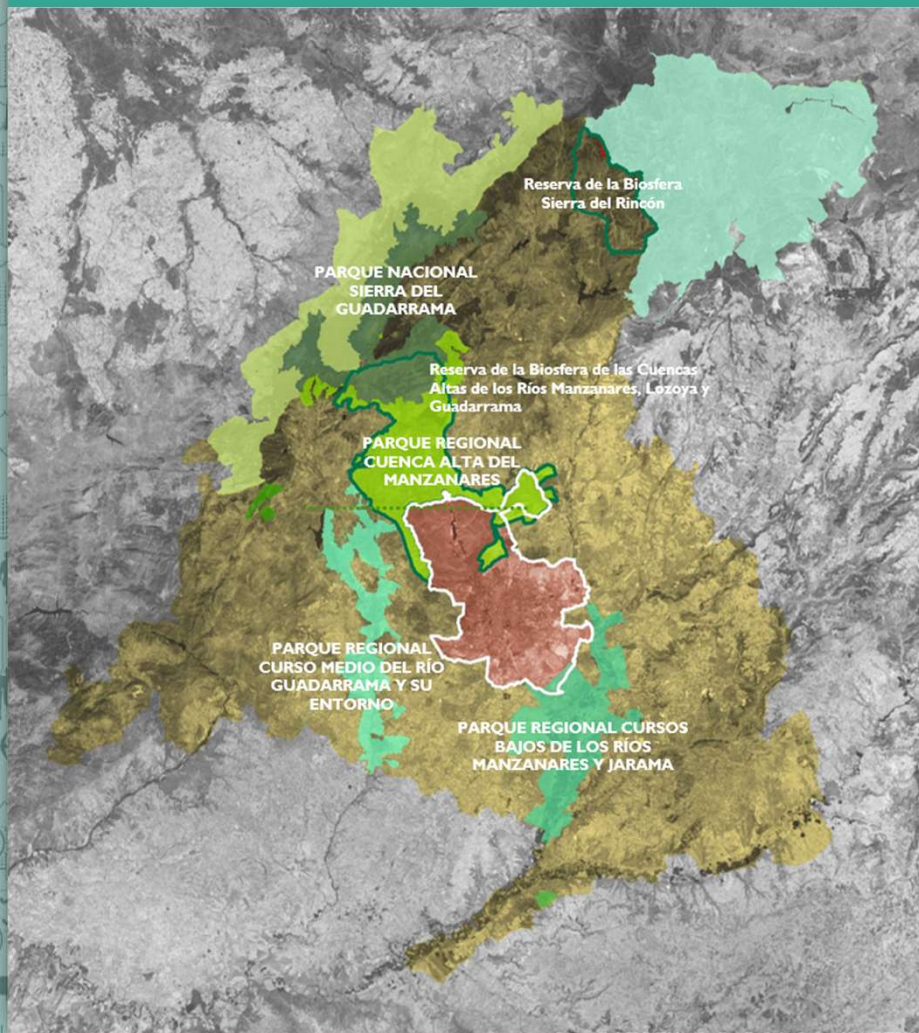
190,000 tn CO₂ absorbed.

- Ecological restoration of degraded areas planting native forest species.
- Protection of areas with environmental values.

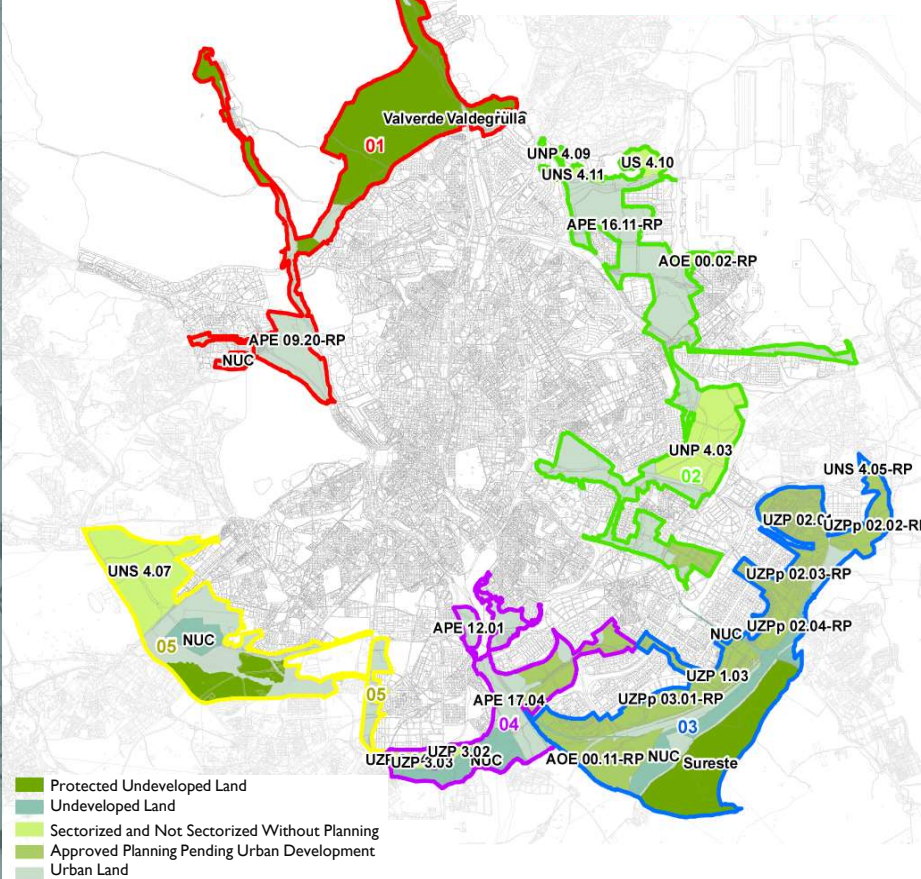


Urban heat Island

- The average temperature in Madrid has increased 2°C in 30 years.
- Maximum Temperature in summer higher than 38°C.
- Longer and more frequents heat waves.
- Low rainfall in summer.



APPENDIX 1.2
CLASSIFICATION AND CATEGORIZATION
BIDDING BATCHES

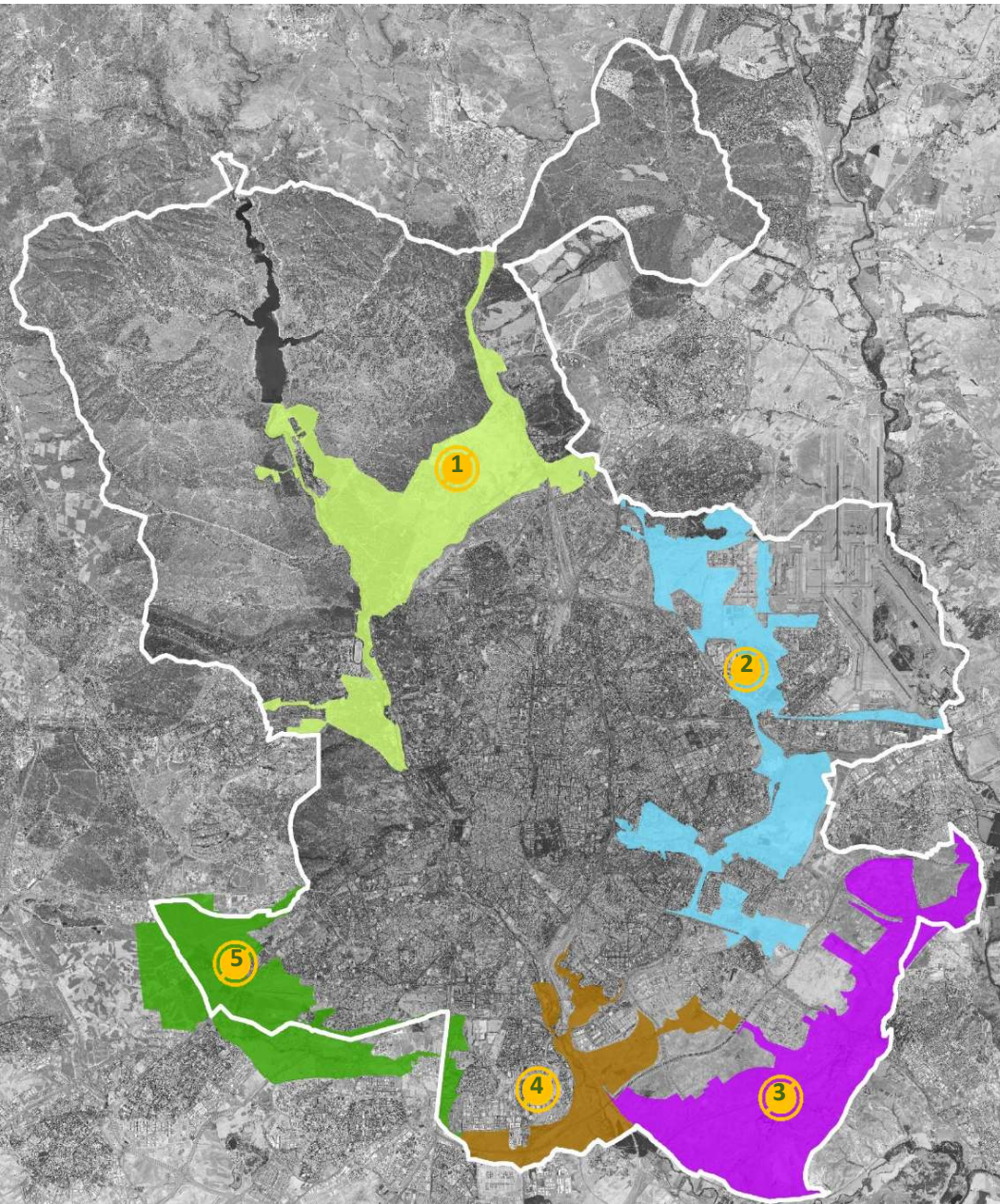


TOTAL AREA METROPOLITAN FOREST

40% protected undeveloped land
25% approved planning developments
20% future urban growth areas without planning
15% urban land

Forest area	4,000 ha
Agriculture areas	900 ha

Land Purchase	154 M €
Forest areas	735 M€
Agriculture areas	145 M€
Facilities	87 M€
Green bridges	260M€
TOTAL BUDGET	1,400 M€



International Contest

International Contest 5 areas of action

LOT 1: BETWEEN NATURAL MOUNTAINS

Connections of the El Pardo mountain with the Valdelatas and Casa de Campo. Continuity of the fluvial axis of the Manzanares River.

LOT 2: LINKING URBAN PARKS

Connections of the system of metropolitan open spaces, Valdebebas, Recintos FERIALES, O'Donnell Wedge, Vicalvarada, Valdebernardo and Cerro Almodóvar with Nueva Centralidad del Este.

LOT 3: THE SOUTH-EAST GREEN RING

Enhancement of the open space systems of the south-eastern growth areas, from Cerro de la Herradura to the Cantiles del Manzanares.

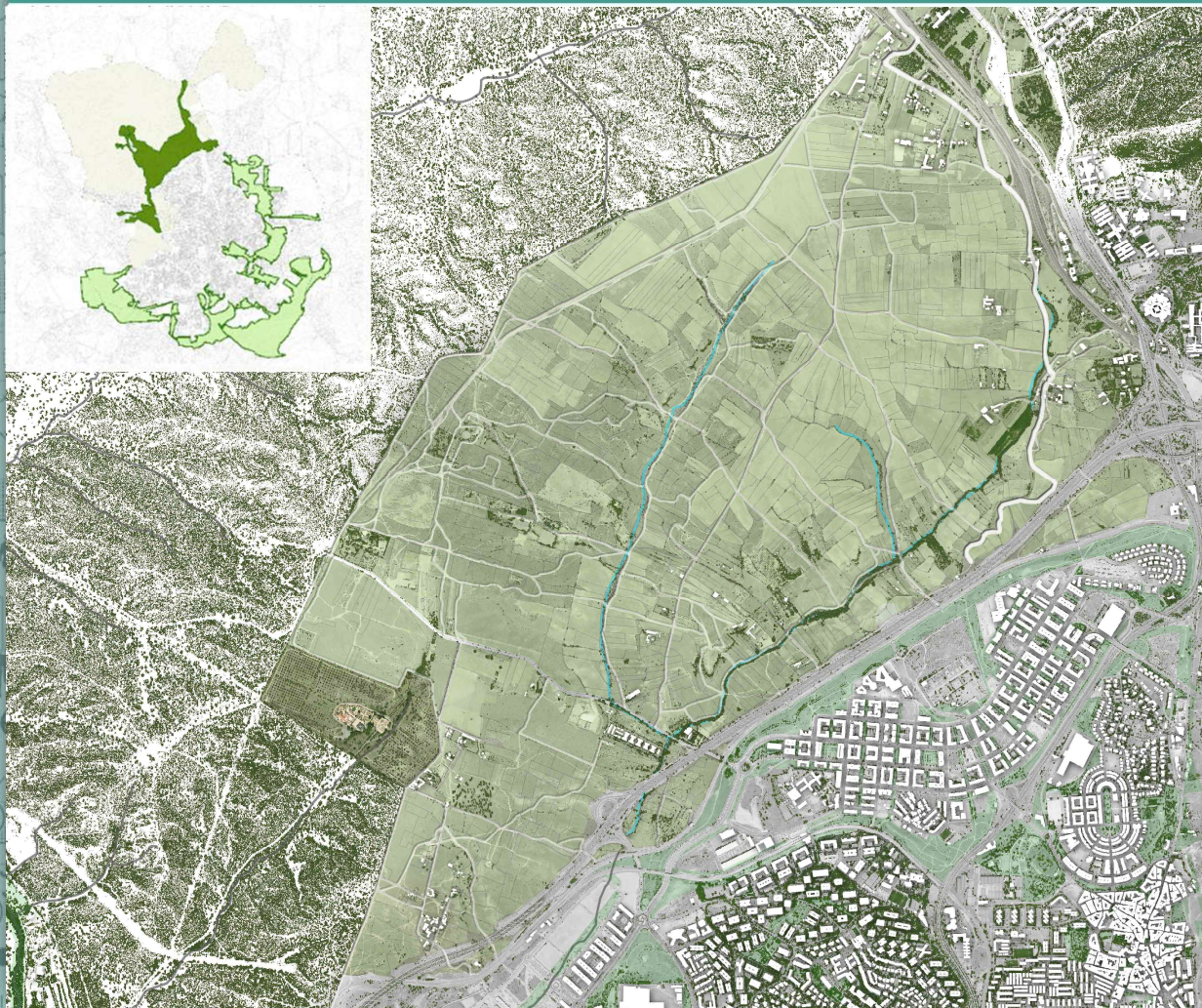
LOT 4: THE SOUTHERN RIVER PARKS

Connections of the fluvial systems of the Manzanares River and La Gavia stream with the integration of large peripheral pieces of free spaces in Entrevías, La Atalayuela, Mercamadrid and Butarque.

LOT 5: ON THE METROPOLITAN RING ROAD

Integration of the southwest metropolitan system (Getafe, Leganés, Alcorcón) with Casa de Campo. Enhancement of the Meaques stream fluvial environment.

Aguila: Periurban Park that combines the protection to environmental values, with promotion of urban agriculture and social leisure



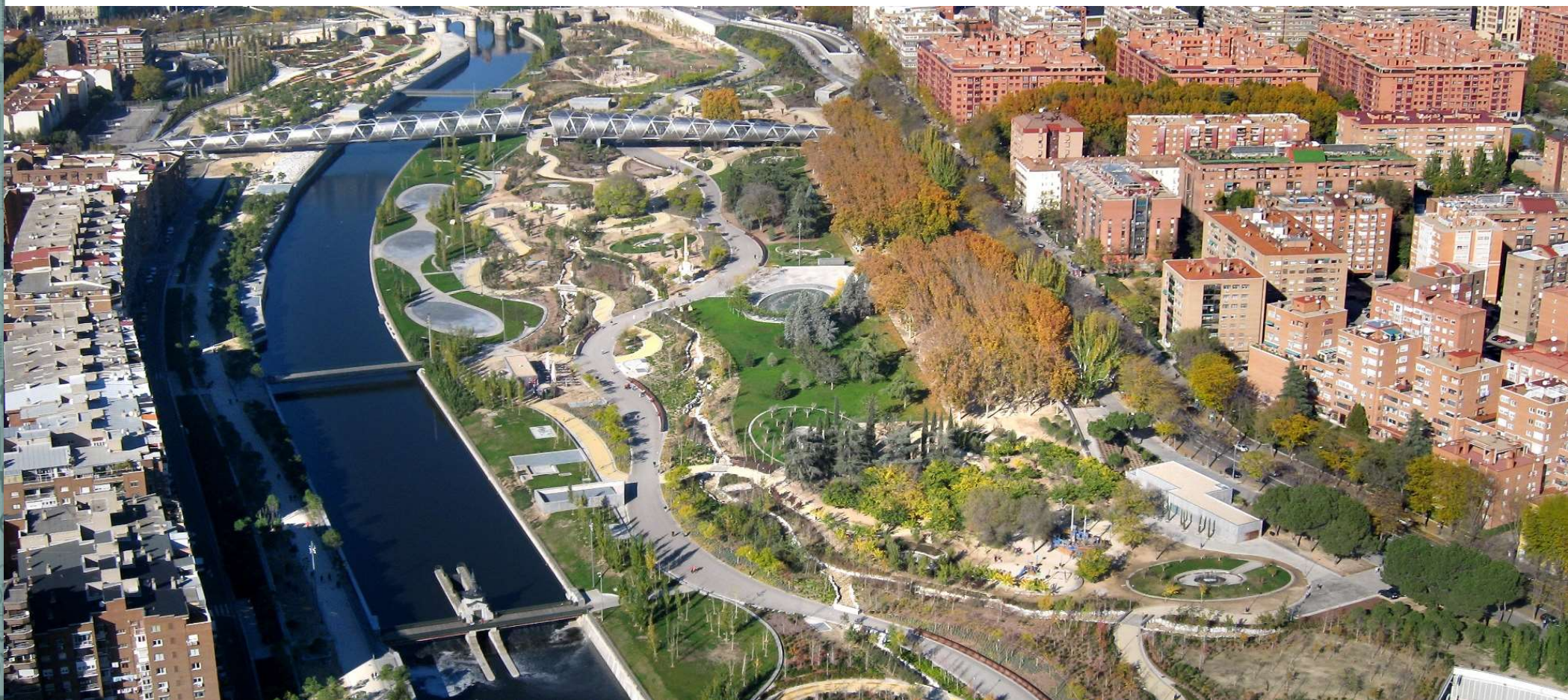
Efecto Mariposa: Conectando Urban Parks by means a new Forest Avenue of 23 km for cyclists and pedestrians will give access to schools, offices and also Madrid Airport



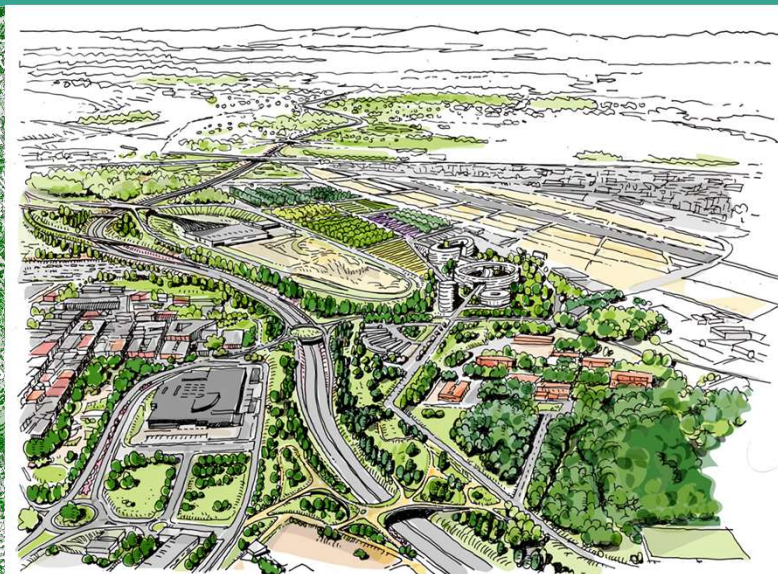
A Flor de yeso: 1 000 Has of Green infrastructure in new residential neighbourhoods. Yesiferous arid soils produces a specific geology of Hills and cantiles and a very unique vegetation







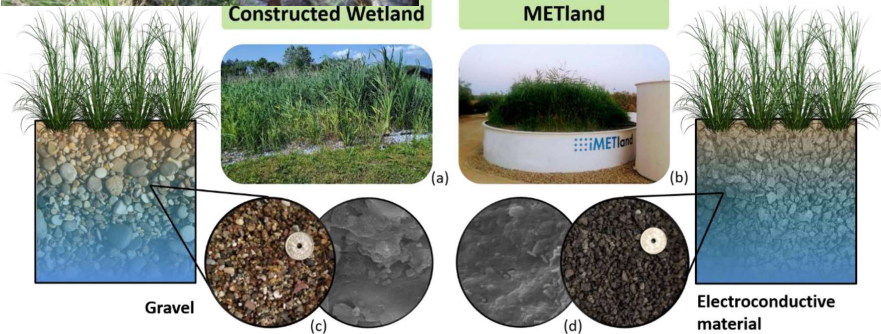
*Del Manzanares al Guadarrama: Regional connection with other municipalities through
riverbanks, streams and livestock routes. Future Transformation of military airport facilities*





Constructed Wetland

METland



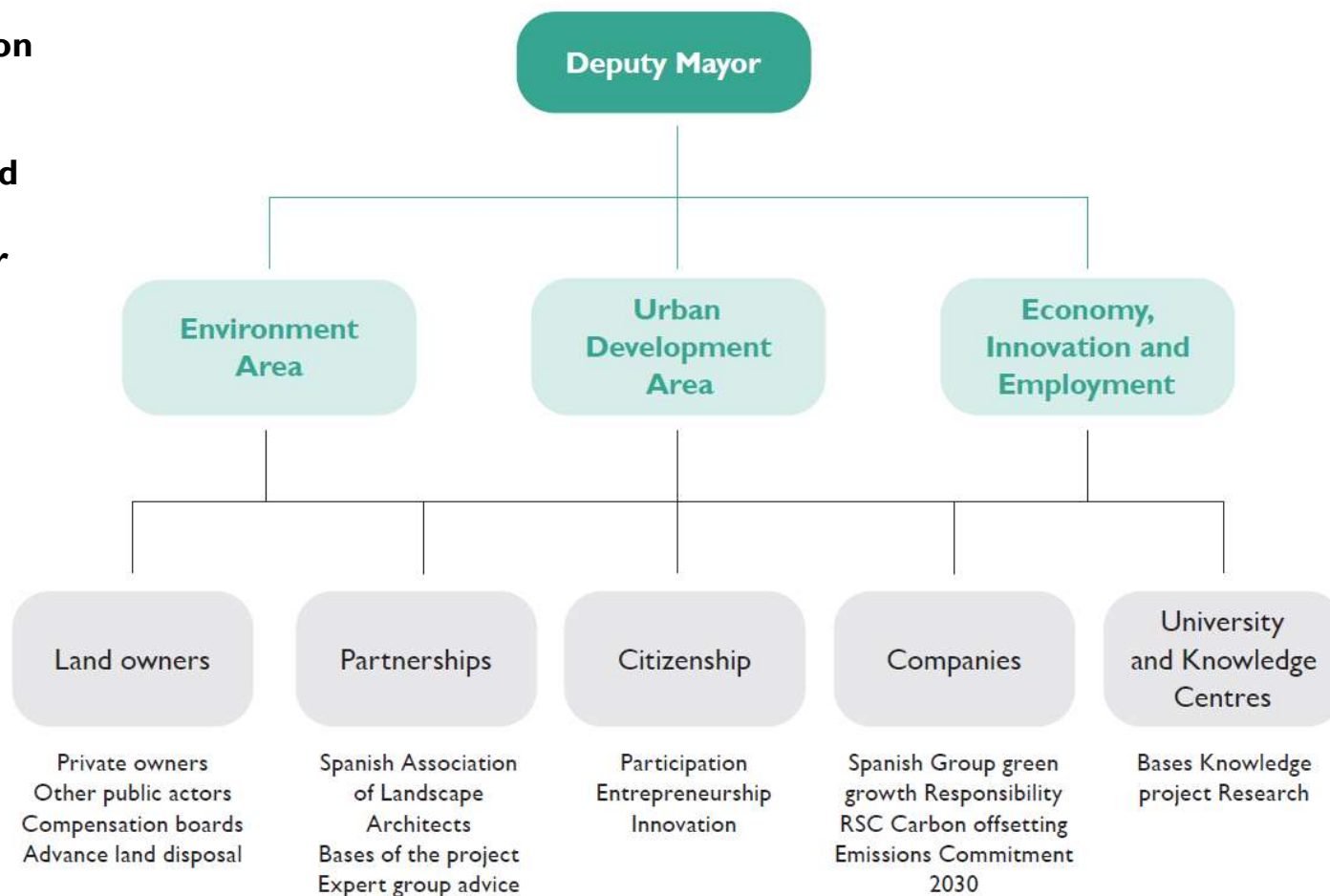
Gravel

Electroconductive
material





- **Multi-stakeholders collaboration**
- **Private Sponsorship**
- **Land stewardship**
- **Generation of employment and innovation**
- **Municipal Budget 22 Mill€/year**
- **European Funding**



Urban Agroecology, Educational and Training, Green Economy, Socio-recreative

05 | A Flor de Yeso: Herding School



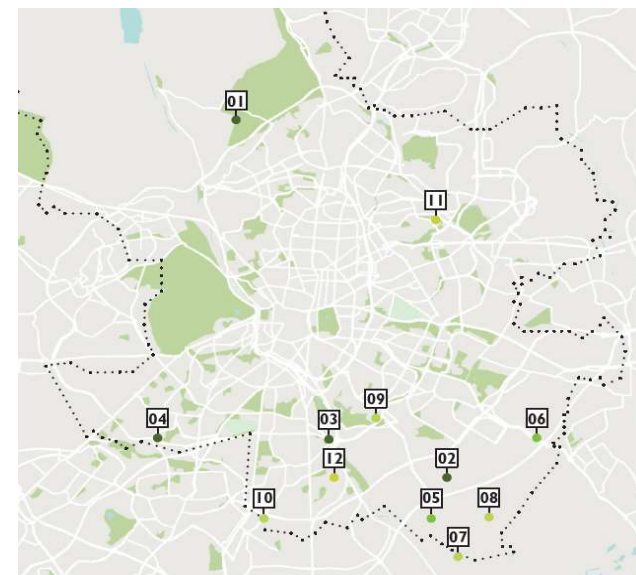
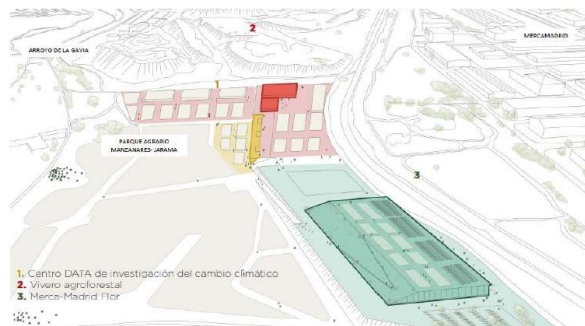
06 | A Flor de Yeso: Plaster Laboratory and Crafts School



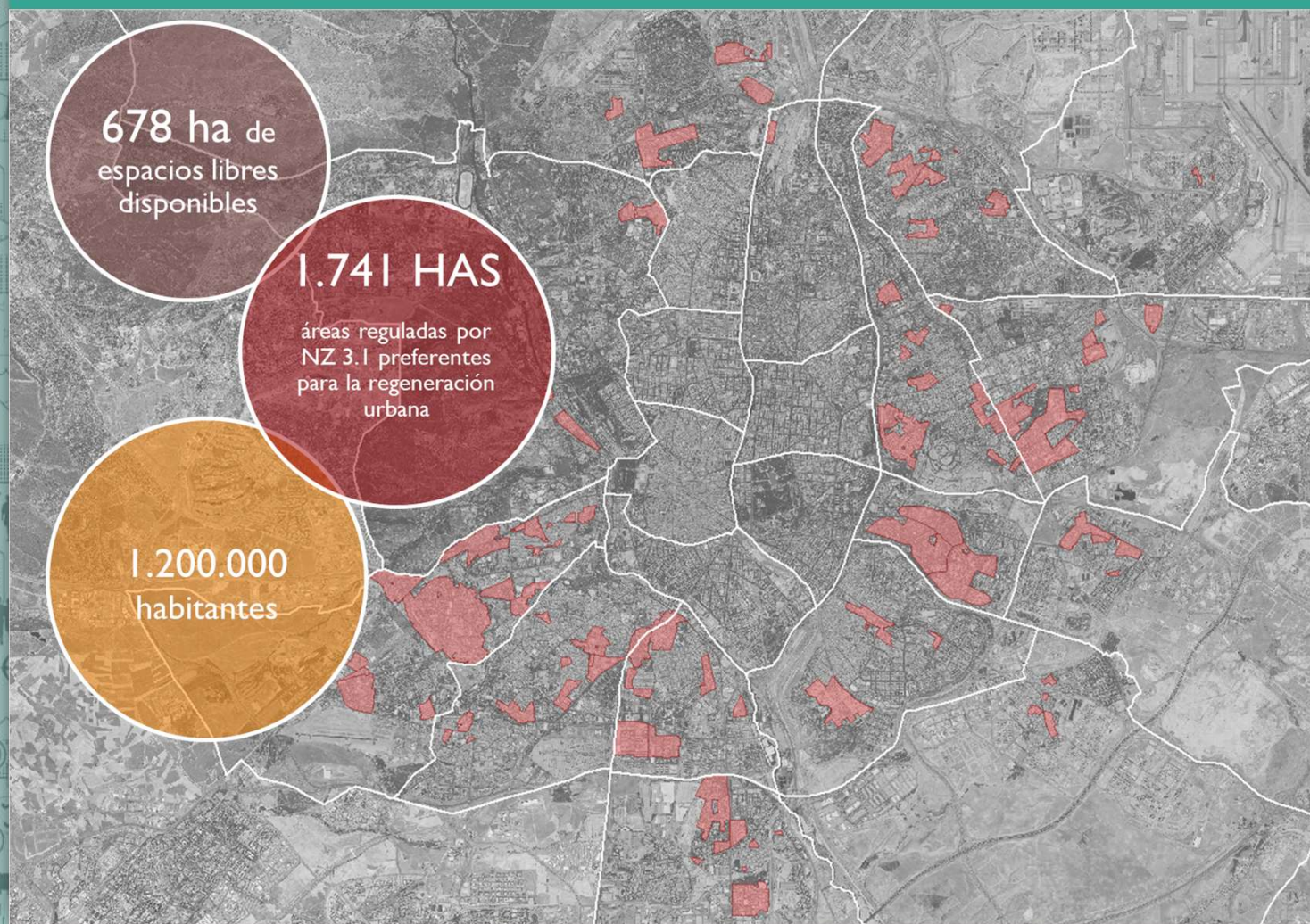
07 | A Flor de Yeso: Technological Centre Viveros del Sureste



09 | Manantial Sur: La Gavia MercaFlor



1. Aguila Agroecological, Educational and Leisure Centre
2. Valdecarros Agroecological and Social Centre
3. Manzanares Farmer's House
4. Cuatro Vientos Agro-innovation centre
5. Herding School
6. Gypsum laboratory and School of arts
7. Forestry Production Centre
8. Centre for Circular Economy
9. La Gavia Flowermarket
10. Villaverde Ecological Hub for startups
11. Crisolid Centres (bike rental)
12. Manzanares Sport and Social HUB



Renaturing of neighbourhoods

Strategy for local green employment

Enhancing quality of life in peripheral districts

New opportunities for underused public spaces



La Concepción

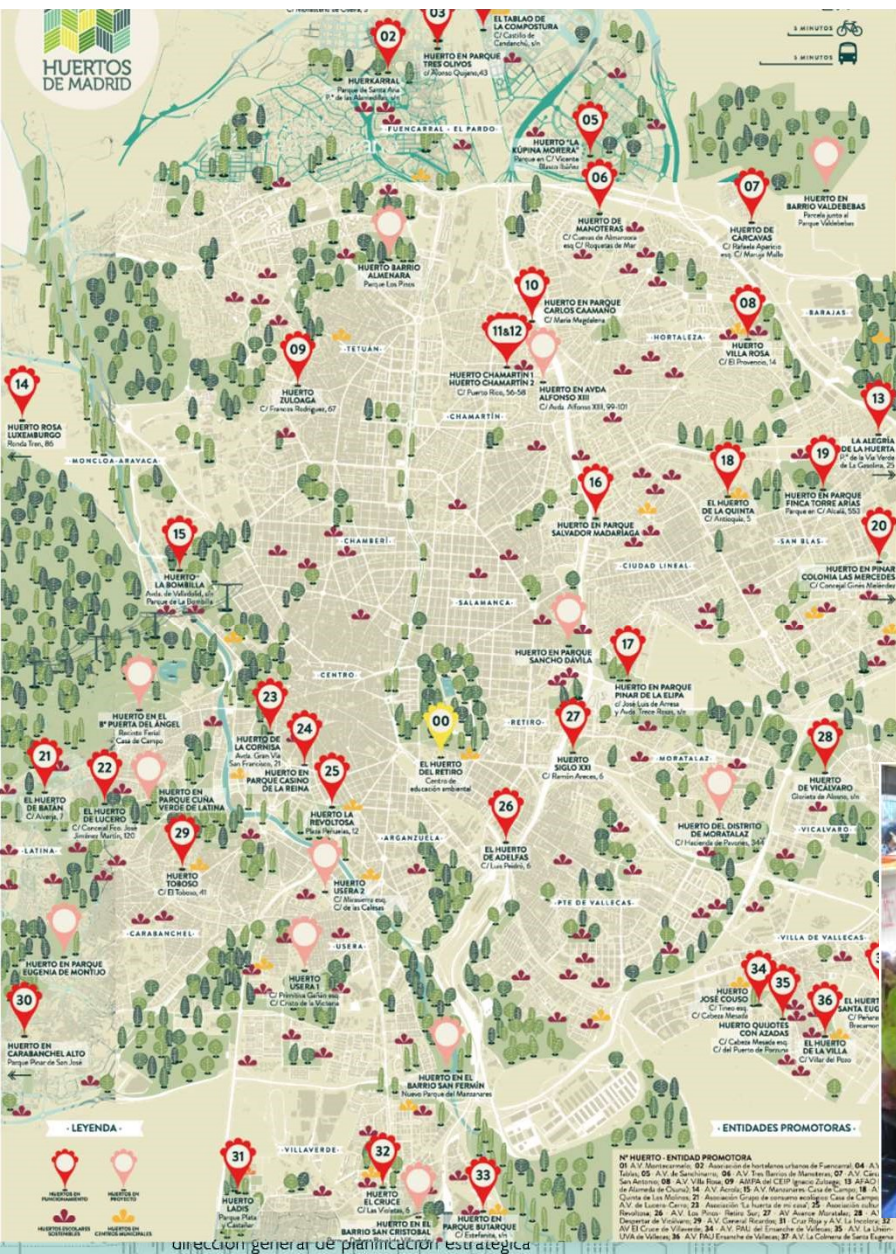
San Cristóbal



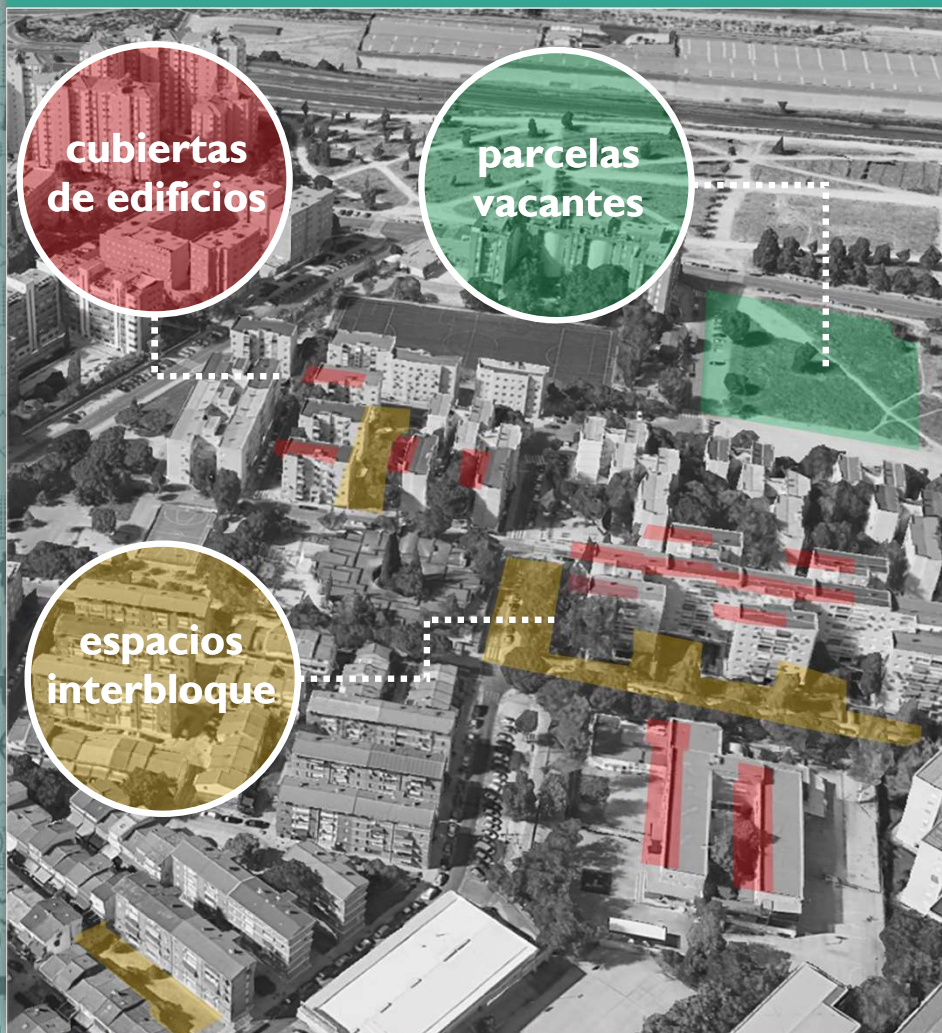
Moratalaz



Valdezarza



dirección general de planificación estratégica



Creation of a Technical Office for the coordination of the project, municipal advice and technical assistant for people involved.

Training Schools el Pozo y Manoteras

Experts advice Politecnical University, Economías Biorregionales,

Food Policy Milano. Meetings on consumer cooperatives, regional and urban farmers. Ciudades por agroecología Network

Local participation: Neighbourhood associations, website

Banco de Tierras, local administrative procedure to give a concession of public plots to entrepreneurs. First contest 30 plots 26 has.

Cleaning and preparation of plots. 3 Mill € Budget 2021

Productive Neighbourhood Expected Impact



IMPACTO SOCIO-ECONÓMICO



IMPACTO AMBIENTAL



TIPOLOGÍA	OCUPACIÓN SOBRE RASANTE DE LA EDIFICACIÓN	FACTOR VERDE
MANZANA CERRADA	≥60%	0.1
	<60%	0.2
EDIFICACIÓN ABIERTA	≥30%	0.3
	<30%	0.1
BAJA DENSIDAD	≥20%	0.4
	<20%	0.1
EDIFICACIÓN UNIFAMILIAR		0.3
ACTIVIDADES ECONÓMICAS	≥30%	0.2
	<30%	0.1



TIPO DE SUPERFICIE (Si)		COEFICIENTE DE PONDERACIÓN (Ci)
ESPACIO LIBRE DE PARCELA	Sin edificación bajo rasante y ajardinada	1
	Sin edificación bajo rasante con pavimento permeable	0.3
	Con edificación bajo rasante y ajardinada	0.7
ENVOLVENTE DE LA EDIFICACIÓN	Cubiertas y fachadas ajardinadas	0.5
	Cubiertas y fachadas con materiales de baja absorción de calor por alta reflectividad de los materiales y colores claros	0.2





Thank you for your attention !