

LIFE myBUILDINGisGREEN

- **Project location:** Alentejo Central, Porto (Portugal) and Badajoz (Spain)
- **Project coordinator:** CSIC: RJB y IETcc
- **Beneficiaries:** CARTIF, DIPBA, CIMAC y MP
- **Budget:** 2.854.102 €; **EU funding:** 60%
- **Duration:** 4 years. 01/09/2018 to 31/08/2022
- **Demonstration:** 3 pilot schools y 1 follower social building





LIFE myBUILDINGisGREEN

- Schools and Social Centres located in cities and towns.
- 70% of the schools in Spain and Portugal have been built before the NBE-CT-79.
- Buildings with insufficient thermal insulation, without mechanical ventilation, with poor waterproofing on roofs and the surface in window openings occupies 70% of the E, S, W façade.
- Energy rating of buildings F or G.
- Occupied for 10 hours a day by teachers, schoolchildren, janitors, maintenance services in 10 months. Ratios of 25-30 students / classroom.
- Buildings without sun protection in window openings. Temperatures inside the classrooms above 32°C. Heat waves. Outside temperatures above 27 degrees from April to October.
- CO₂ concentrations above 1200 ppm. High concentrations of formaldehydes and benzenes.
- Public buildings with little investment for maintenance and rehabilitation.
- Indoor Well-being conditions highly improvable.

Photo by Carissa Weiser on Unsplash

LIFE myBUILDINGisGREEN



OBJECTIVES

The overall objective of the project is to contribute to increasing the resilience of these buildings by implementing in them Nature Based Solutions (as prototypes of climate adaptation and improved well being).





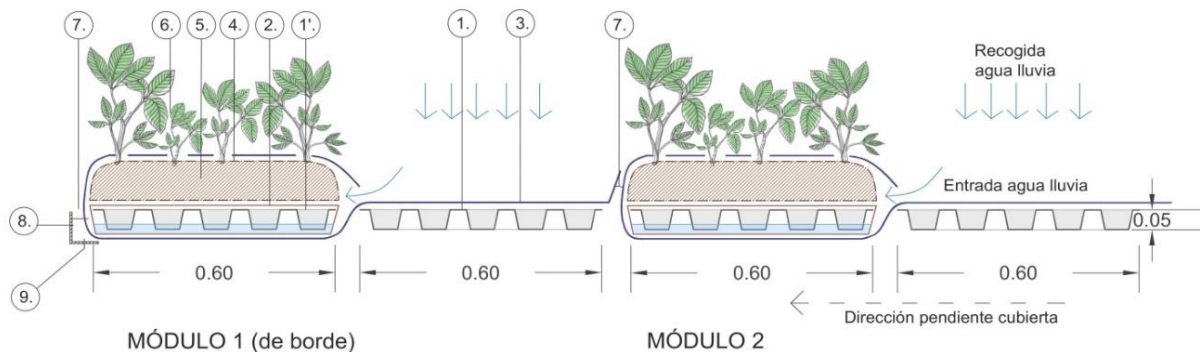
HOW

Using Nature-based Solutions for existing buildings adaptation:

- Bioclimatic roofs
- Green shadow structures for walls
- Outdoor – Playground
 - Green pavements
 - Natural solutions for playgrounds
- Adapted vegetation criteria
- Creation of natural ventilation measures

BIOCLIMATIC ROOFS

mBiG WTray

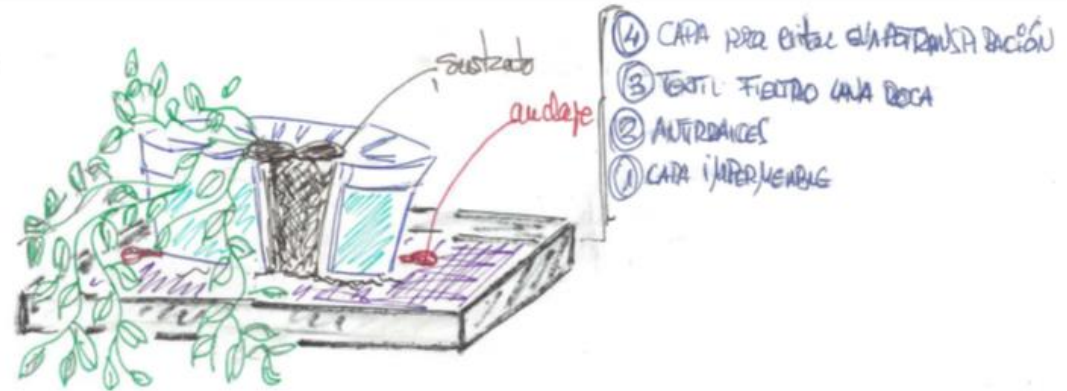


Prototype. Evora.



BIOCLIMATIC ROOFS

mBiG WBox

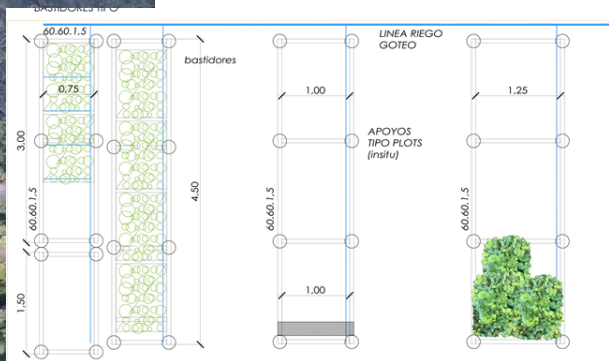


Prototipo. CARTIF.

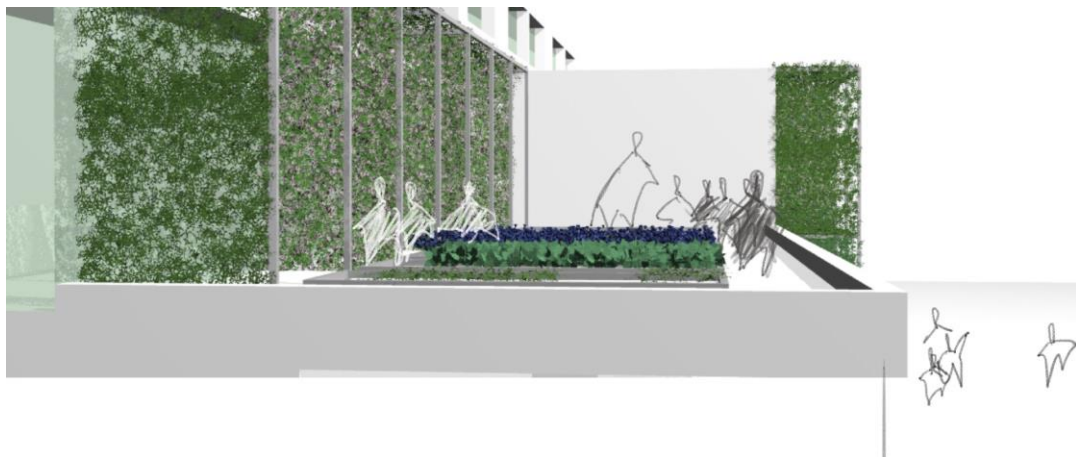
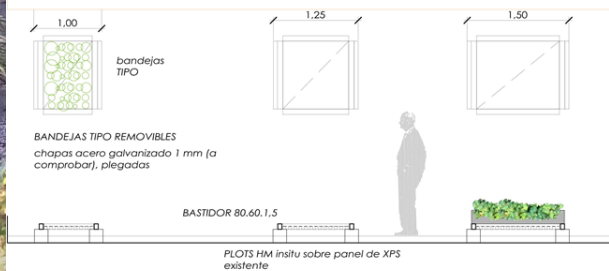


BIOCLIMATIC ROOFS

mBiG CUVE



PASILLO REGISTRO



PROTOTIPO NBS "CUVE"

E. 1/50 FECHA: JUNIO 2019 REV. MA 29-5-19
 PLANO: PLANTA. ALZADOS. SECCIONES



ANEXO ORDENANZA MUNICIPAL LEON, 2008/2010

XX/00



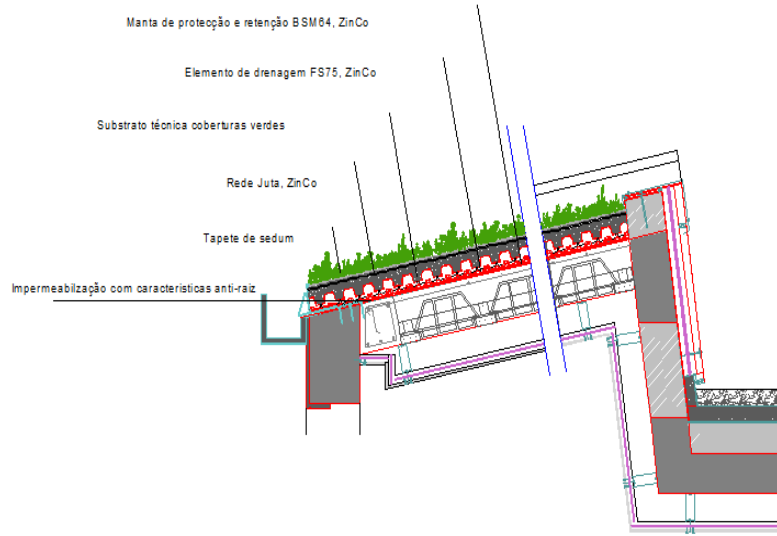
BIOCLIMATIC ROOFS

mBiG GUL



BIOCLIMATIC ROOFS

mBiG SECAR

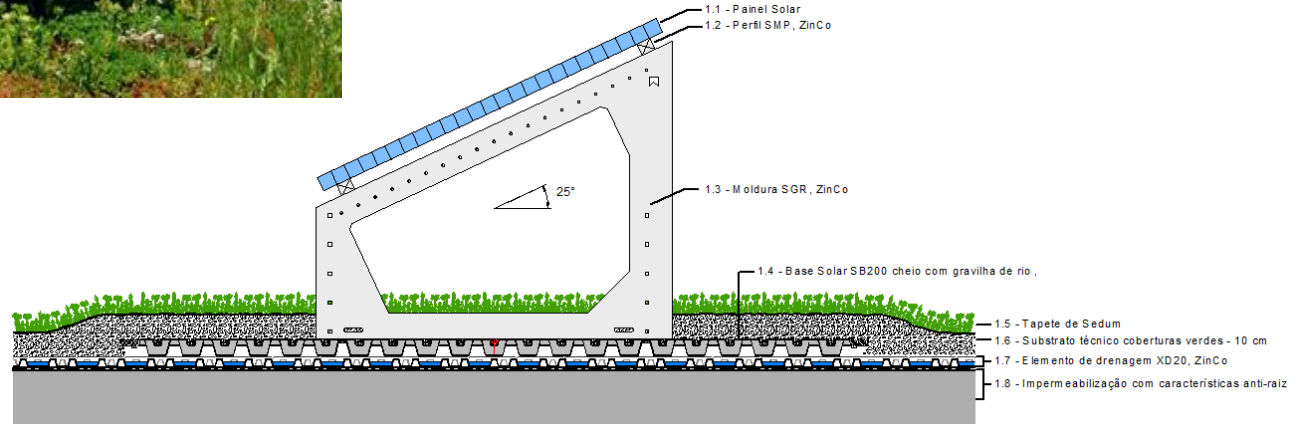


Prototype. Landlab, PORTO.



BIOCLIMATIC ROOFS

mBiG BioSol



GREEN SHADOW STRUCTURES FOR WALLS

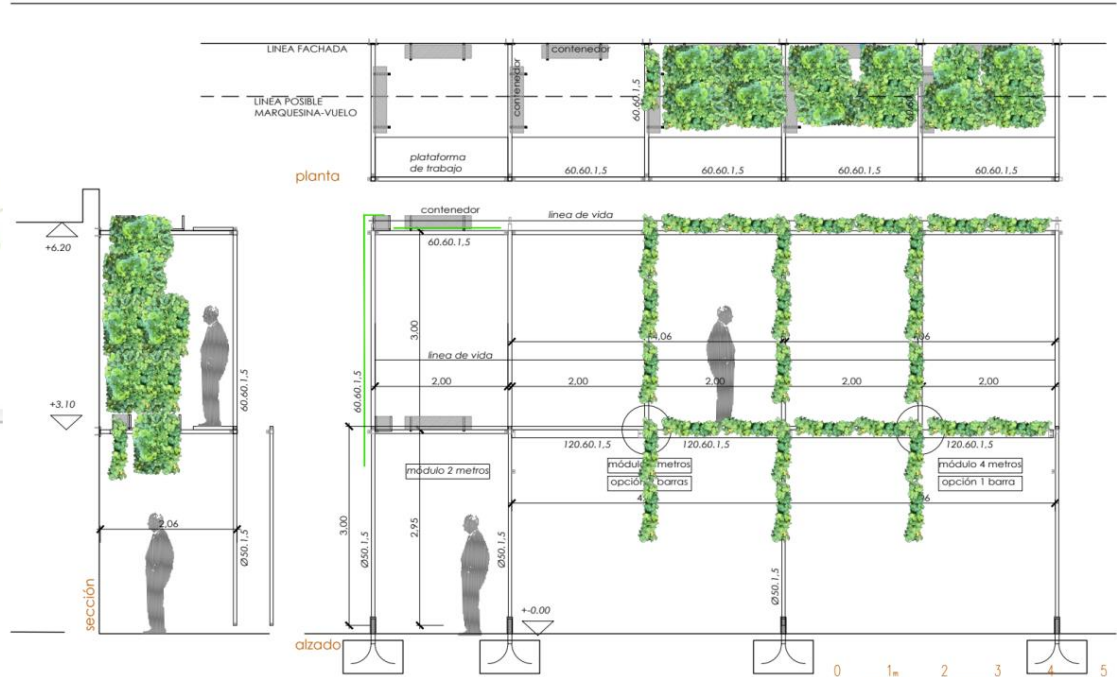
mBiG Toldo



Prototype. CARTIF.

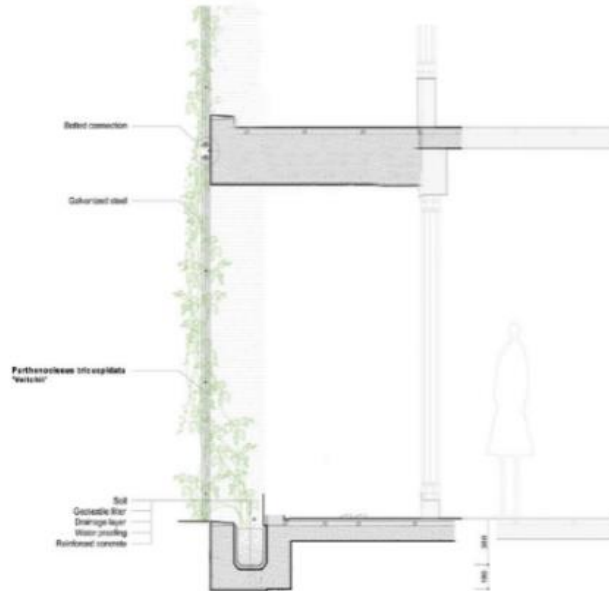
GREEN SHADOW STRUCTURES FOR WALLS

mBiG FAVE



GREEN SHADOW STRUCTURES FOR WALLS

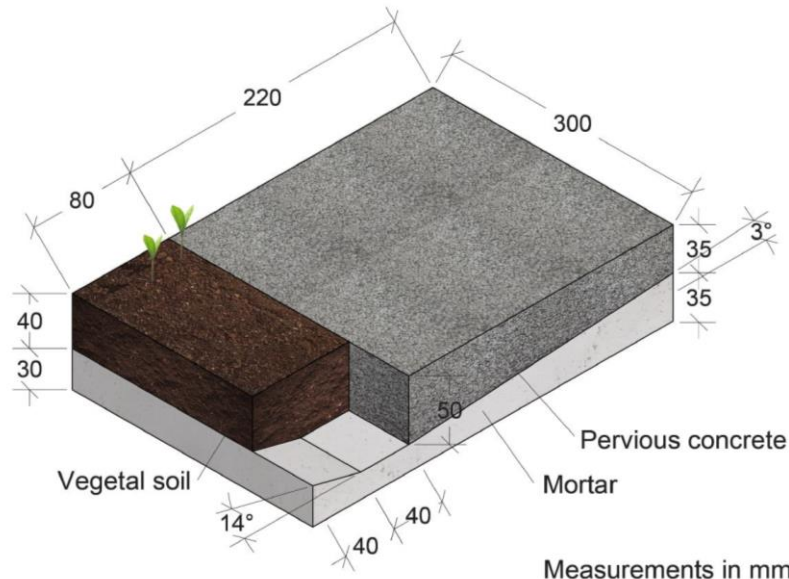
mBiG FAC



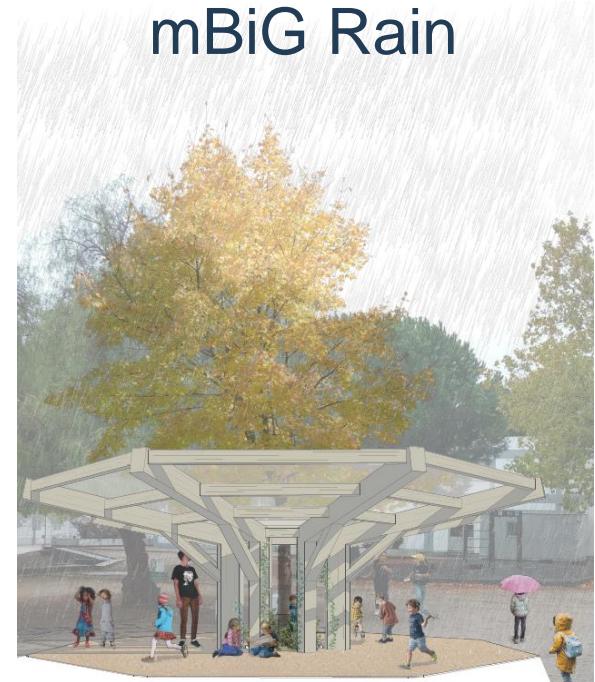
OUTDOOR - PLAYGROUND



mBiG DrainPav



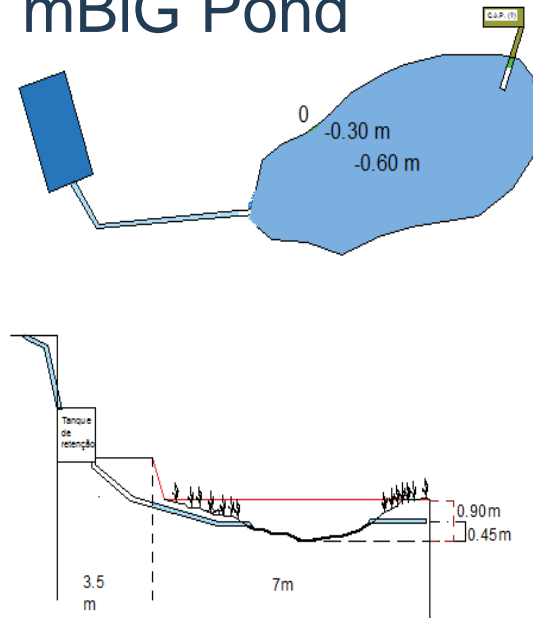
mBiG Rain



OUTDOOR - PLAYGROUND



mBiG Pond



Vegetables garden



ADAPTED VEGETATION

1. Natural habitats creation in urban buildings
2. Selection of native plant species by type of climate
3. Selection Criteria Carpoteca of fruits, seeds and plants. Species sheets .
4. Plant species database. Selection criteria.
5. Germplasm Bank and preservation of plant species
6. Selection and mixture of seeds according location climate.
7. Herbarium and Collections of the RJB-CSIC.
8. Iberian flora, GBIF.

EXPECTED RESULTS

- Climatic adaptation of 3 pilot buildings.
- Well-being improvement for 2.000 people.
- 4°C reduction inside the building in summer time.
- Improvement of the energy rating.
- Reduction of 27t of CO₂ / year and 144kg of NO_x / year.
- Collection of 2700m³ of rain water from each building.
- 50% reduction in water consumption for irrigation (4.5m³ / year / building).
- 50% reduction in energy costs for refrigeration.
- 15 agreements with local and regional authorities.
- Project replication (15 actions).





mBiG Project Team would like to acknowledge the confidence and economic support of the EU LIFE Financial Instrument by financing LIFE myBUILDINGisGREEN Project.



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Instituto de Ciencias de la Construcción
EDUARDO TORROJA





My school is green! ¡Mi cole es verde! Minha escola é verde!



my building is green
A LIFE PROJECT

LIFE17 CCAVES/00088

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- #lifemybuildingisgreen

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<https://platform.think-nature.eu/nbs-manifesto>



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