



Active RoofTops
South Europe

CASE STUDIES FACTSHEETS **Portugal**



This project has been funded by various national research and development agencies under the Driving Urban Transitions Partnership, which is co-funded by the European Commission.



ORIENTE GREEN CAMPUS

Lisbon, Portugal
Area: 19000 m²



Building Typology

Unfinished commercial structure reused as a corporate and educational campus

Roof Type

Accessible landscaped roofs and terraces - approximately 19,000 m²

Rooftop Intervention

Green terraces, PV, sustainable drainage and social learning spaces

Intervention Overview

Oriente Green Campus reuses an unfinished commercial structure in Moscavide as a mixed office, higher-education and public-space complex. Retaining most of the existing frame reduced demolition and embodied emissions. Across four levels, landscaped terraces, courtyards and a panoramic skywalk form continuous pedestrian routes with seating, outdoor co-working and event space. Bioclimatic measures include permeable paving, sustainable drainage, climate-adapted planting, shaded areas and photovoltaic integration. Natural ventilation can support comfort for a substantial part of the year, complementing efficient mechanical systems. Optimised irrigation and adapted species reduce water demand, while flexible furniture supports work, study, social interaction and public events

Why this Case matters

The campus shows how retained roof slabs can become accessible new ground that combines adaptive reuse, climate resilience, wellbeing and high-performance workplace design.

Key Features

- Around 19,000 m² of accessible roof and terrace landscape.
- Existing structure retained as the basis of the new campus.
- Planting, shade, infiltration and optimised irrigation support climate resilience.
- Flexible outdoor spaces accommodate work, study, social interaction and events.

FÓRUM DA MAIA

Maia, Portugal
Area: 480 m²



Building Typology

Existing municipal cultural centre

Roof Type

Flat, accessible semi-intensive green roof

Rooftop Intervention

Public green infrastructure, education and monitored living laboratory

Intervention Overview

The Fórum da Maia roof was converted into a public green platform under the BaZe - Maia Net Zero Carbon City/Living Lab programme. The semi-intensive system uses Green Urban Living technology, including a lightweight substrate based on recycled expanded cork. Native Atlantic planting, permeable pedestrian paths and a naturalistic design prioritise continuous vegetation while limiting hard surfaces. Embedded thermal and humidity sensors, together with an on-site weather station, allow year-round monitoring of thermal, hydrological and plant performance. The accessible roof also supports public visits and environmental education, turning technical monitoring into a visible municipal learning resource for residents, practitioners and decision-makers.

Why this Case matters

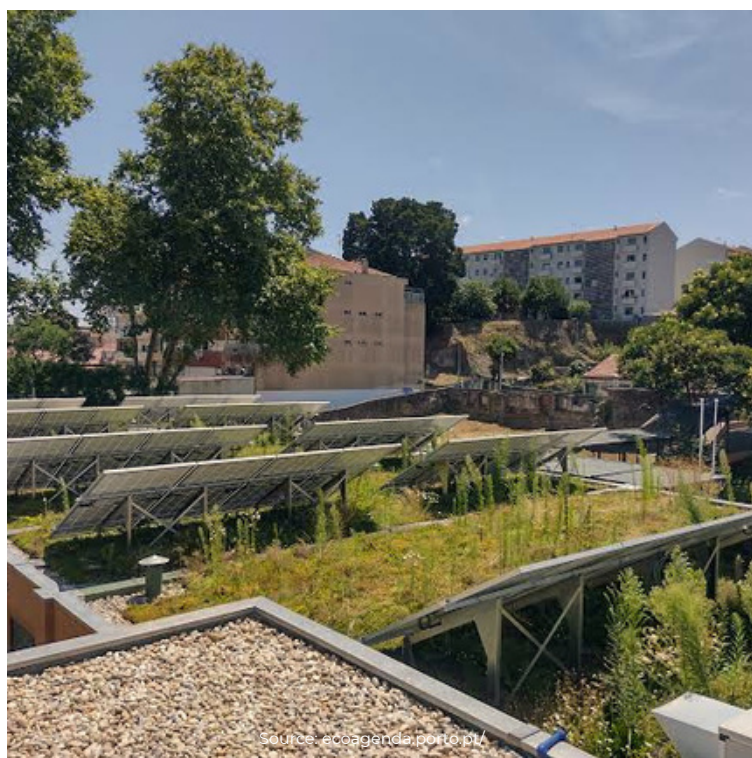
A municipal living laboratory combining recycled materials, biodiversity, water management, public access and continuous monitoring to evaluate nature-based rooftop solutions.

Key Features

- Lightweight recycled-cork substrate developed through an EU-supported partnership.
- Native stratified planting supports evapotranspiration and urban biodiversity.
- Permeable paths and water-retentive layers reduce runoff.
- Public visits and environmental-education activities are offered by appointment.

ESCOLA BÁSICA DO FALCÃO

Porto, Portugal
Area: 700 m²



Source: ecoagenda.porto.pt/

Building Typology

Existing primary school

Roof Type

Three flat, non-accessible green roofs - part of c. 700 m² new vegetation

Rooftop Intervention

Green roofs, green wall, pond, photovoltaics and water management

Intervention Overview

The Falcão Primary School was transformed through the My Building Is Green programme into a demonstrator for climate resilience and wellbeing. Three green roofs, a green wall and a pedagogical pond create around 700 m² of new vegetation, while photovoltaic panels generate electricity for on-site use. The roofs reduce exposed surface temperatures, add insulation and retain rainfall. At facade level, the green wall shades classrooms and works with natural and mechanical ventilation, while the pond and planted substrates create habitat for urban fauna and macroinvertebrates. Students and local residents use the new landscapes for guided activities and workshops, linking building performance with practical environmental education.

Why this Case matters

A school retrofit integrating vegetation, water management, renewable energy, biodiversity and education, supported by monitoring of thermal, hydrological and ecological performance.

Key Features

- Green roofs and wall improve summer comfort and reduce cooling demand.
- Rainwater capture and infiltration delay runoff and support urban drainage.
- PV generation reduces operational emissions and energy costs.
- Students and local residents participate in guided activities and workshops



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WP1: Setting the Scene, Co-Design and Consultancy Package.

D1.1A: Regulatory and Technical Landscape on Rooftop Design and Installation. Executive Summary.

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CONSORTIUM



COOPERATION PARTNERS



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