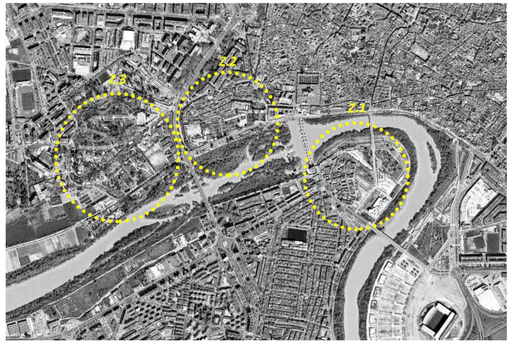
UNIVERSIDAD
DE GRANADA

GREEN-ACTION

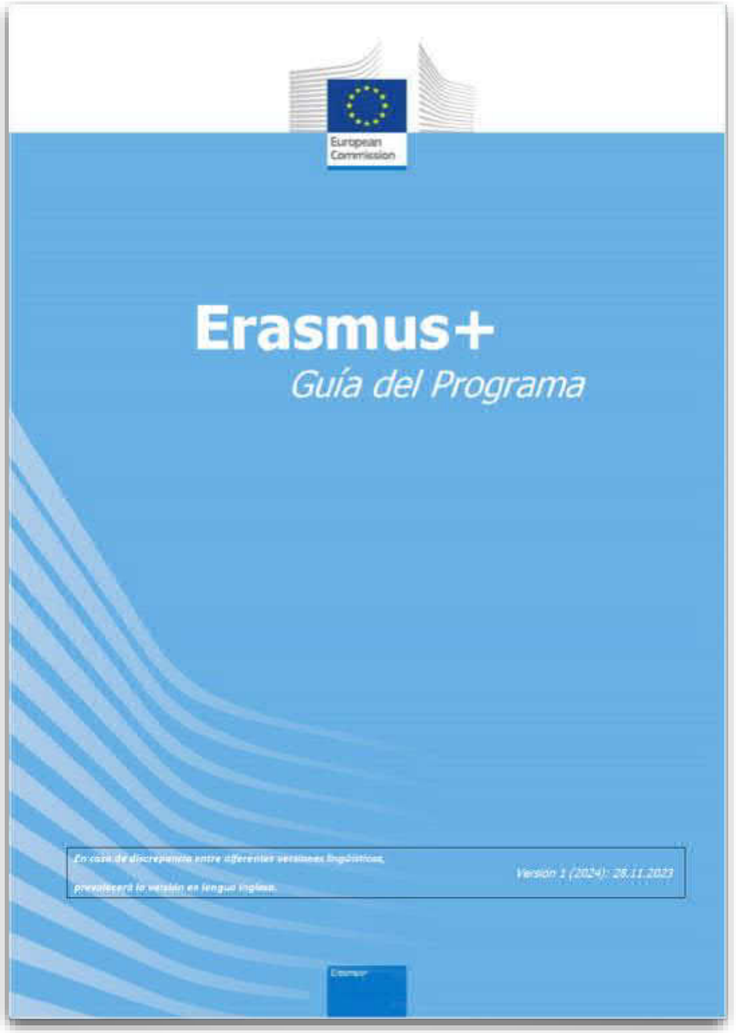
Espacios públicos ecológicos y sostenibles en ciudades históricas

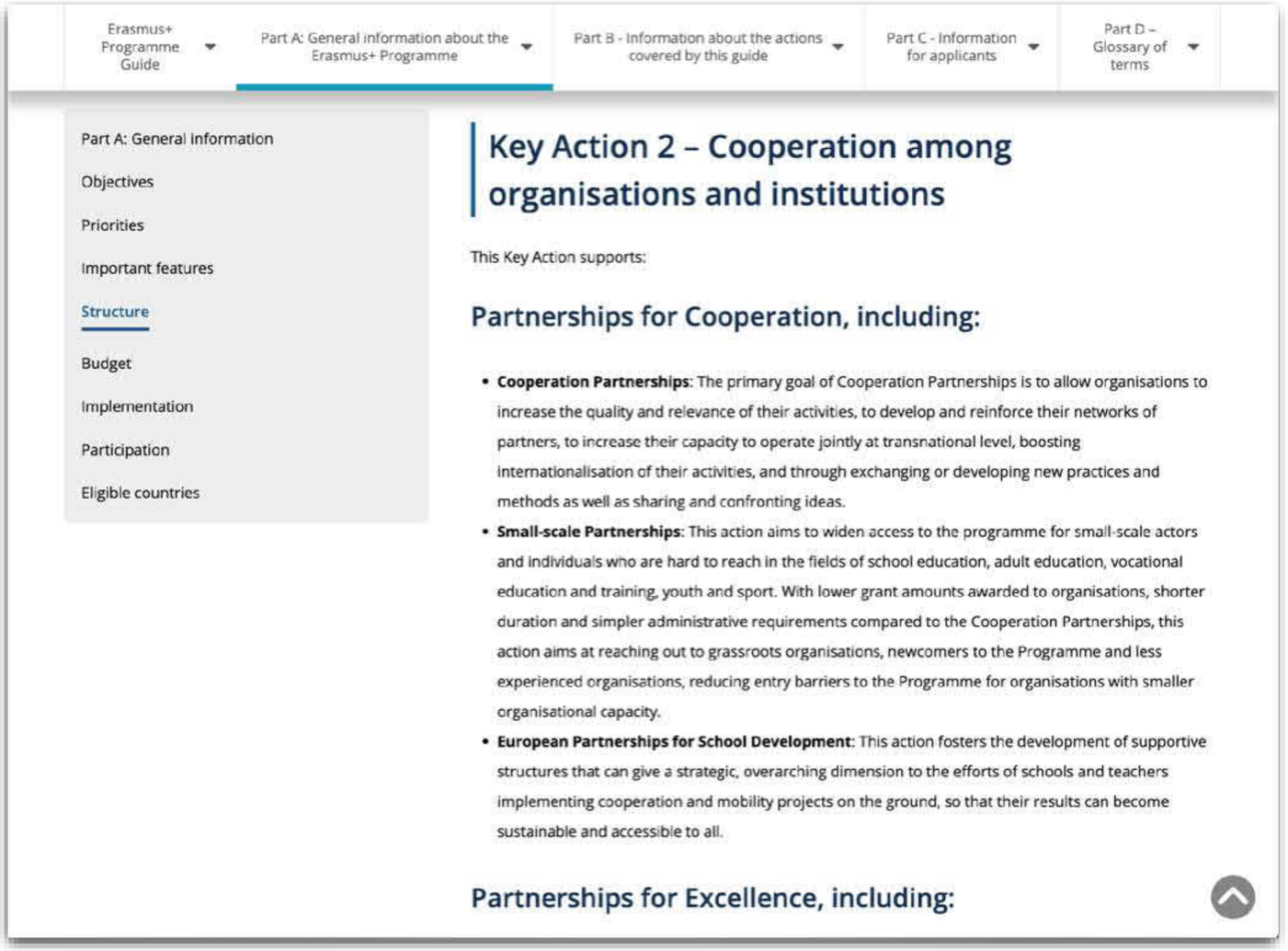
Programa educativo innovador

Ayuntamiento de Córdoba, 23-6-2024



Guía del Programa Erasmus+ https://erasmus-plus.ec.europa.eu/programme-guide/part-a



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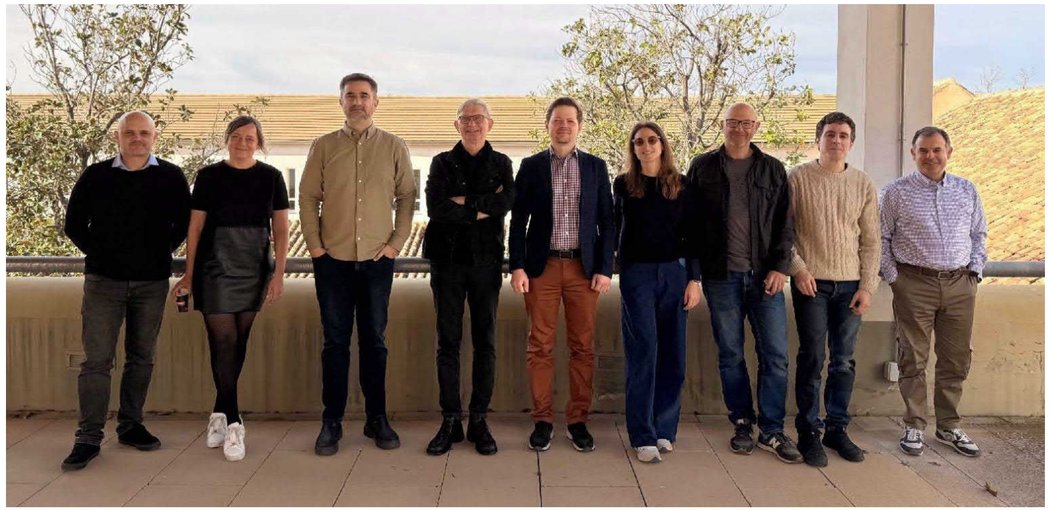

Granada (España)
Enero 2024

Granada (España)
Mayo 2025

Milán (Italia)
septiembre 2025

POLITECHNIKA LUBELSKA
LUBLIN UNIVERSITY OF TECHNOLOGY

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UNIVERSIDAD DE GRANADA

Roma (Italia)
Abril 2025

Florencia (Italia)
Octubre 2025

Granada (España)
Marzo 2026

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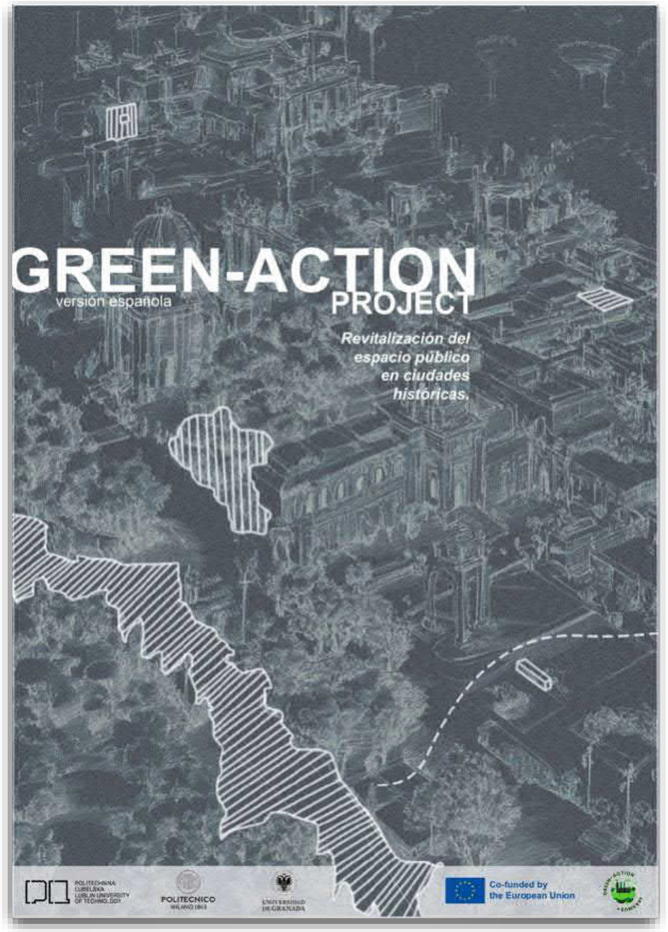

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Good Practice Manual

Sustainable & Green Public Spaces in Historic Cities

Bogusław Szmygin

Kamila Boguszewska

PART I

Protection of permanent elements of the arrangement of historical public spaces

Erasmus+ Programme
Action 2: KA220-HED - Cooperation partnerships in higher education
Project: **GREEN & SUSTAINABLE PUBLIC SPACES IN HISTORIC CITIES - INNOVATIVE TEACHING PROGRAMME**
Contract No. 2023-1-PL01-KA220-HED-00015321

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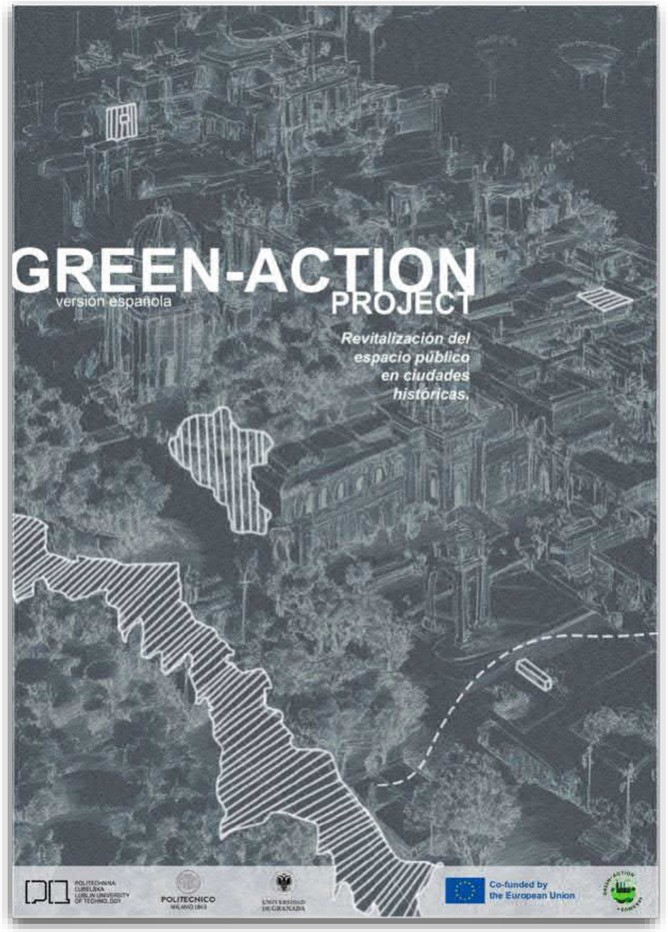

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Good Practice Manual

Sustainable & Green Public Spaces in Historic Cities

Nora Lombardini

Sofia Velichanskaia

PART III

Small architecture in historical public spaces

Erasmus+ Programme
Action 2: KA220-HED - Cooperation partnerships in higher education
Project: **GREEN & SUSTAINABLE PUBLIC SPACES IN HISTORIC CITIES - INNOVATIVE TEACHING PROGRAMME**
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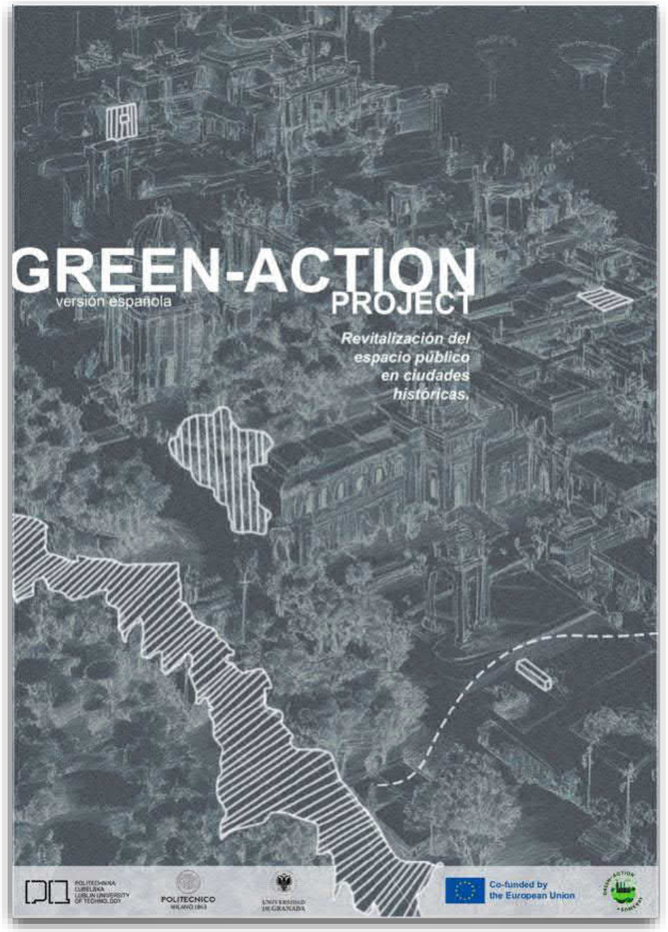

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Good Practice Manual

Sustainable & Green Public Spaces in Historic Cities

Francisco Javier Abarca Álvarez

David Arredondo Garrido

David Cabrera Manzano

Fernando Osuna Pérez

PART II

Green areas in historic public spaces

Erasmus+ Programme

Action 2: KA220-HED - Cooperation partnerships in higher education

Project: **GREEN & SUSTAINABLE PUBLIC SPACES IN HISTORIC CITIES - INNOVATIVE TEACHING PROGRAMME**

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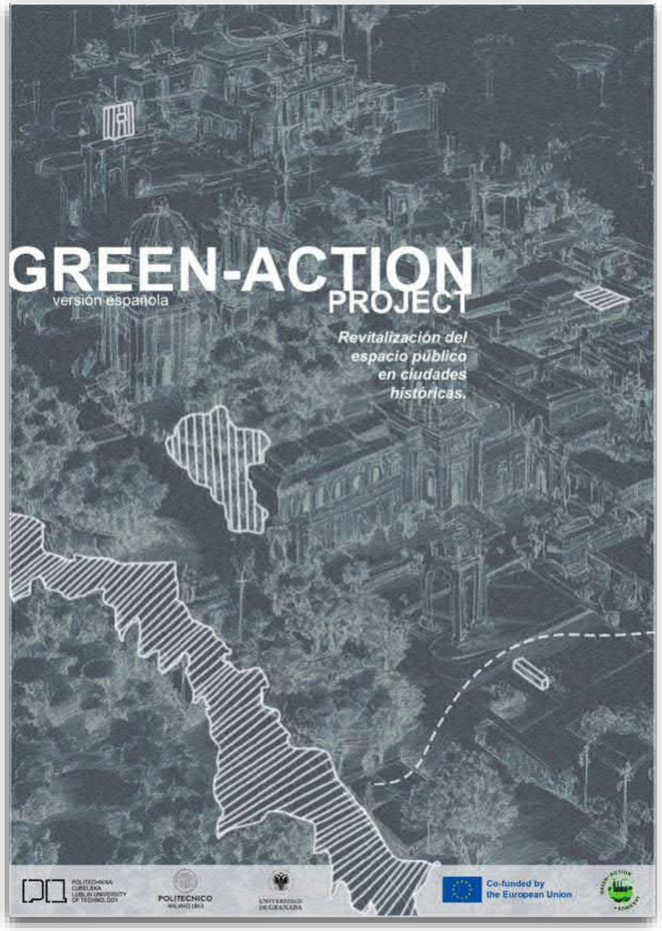

GT

II FOCUS 1. GT_GREENERY TYPOLOGIES IN PS

Greenery classification refers to the systematic categorization of plant species and types based on characteristics such as taxonomy, habitat, and ecological function. This classification helps in understanding plant diversity and its role in ecosystems.

GT1. Vegetation Type: tree, bushes or subarboreal, surface vegetation (meadow or lawn).

GT2. Aggregation Scale: Isolated or monumental tree, group or line of trees, tree pit or little green fragment, planter or medium green fragment, park or large green fragment.

GT3. Position: main or ground level, elevated or roof level, vegetation on balcony, patios or block interiors, party walls and other thresholds, vertical, temporary or movable.

GT4. Function: ornamental, usable, ecosystemic, green infrastructure network part, NBS implementation, ecosystemic services provision.

Figure 1 Mosaic of images taken during fieldwork in Córdoba and Málaga (Spain).

2.1 GT1. VEGETATION TYPE

A vegetation type refers to the classification of plant communities that share similar ecological and physical characteristics, allowing urban planners to effectively design and manage green spaces within historic cities.

Vegetation types are defined by their composition (e.g., trees, bushes, surface vegetation), structure (height and density), and dominant species, which vary based on local climate, soil conditions, and historical land use.

In historic city contexts, each type interacts differently with urban fabrics by enhancing cultural heritage, improving biodiversity, providing shade and microclimates, and contributing to social cohesion and community well-being.

Main topics: Tree, Bushes or subarboreal, Surface vegetation (meadow or lawn).

These topics ensure:

- **Habitat Provision,** by offering critical habitats that provide food, shelter and support biodiversity by creating spaces for pollinators and other wildlife.
- **Photosynthesis and Oxygen Production**, by converting carbon dioxide into oxygen.
- **Air Pollution Filtration,** by filtering air pollutants, enhancing urban air quality.
- **Climate Regulation,** by influencing local climate conditions through humidity and temperature.
- **Soil Protection**, by stabilizing soil and preventing erosion through their root systems.
- **Shade**, by creating cooler spaces, making outdoor areas more comfortable for humans and other species.
- **Aesthetic Appeal,** by enhancing visual interest and beauty in gardens and landscapes.
- **Privacy and Windbreaks**, by creating natural barriers that shield spaces from view and reduce wind speed.
- **Noise Barrier,** by introducing dense natural elements to reduce noise.
- **Soil Fertility,** by contributing to organic matter and nutrients.
- **Ecological Functions and Biodiversity,** by contributing to urban cooling and recreational spaces.
- **Environmental Protection,** by filtering pollutants and managing stormwater runoff, reducing water pollution and soil erosion.
- **Environmental Functionality,** by aiding in soil erosion control and water management through their root systems.
- **Maintenance,** by ongoing care to maintain appearance and health.

GREEN ACTION BOOK

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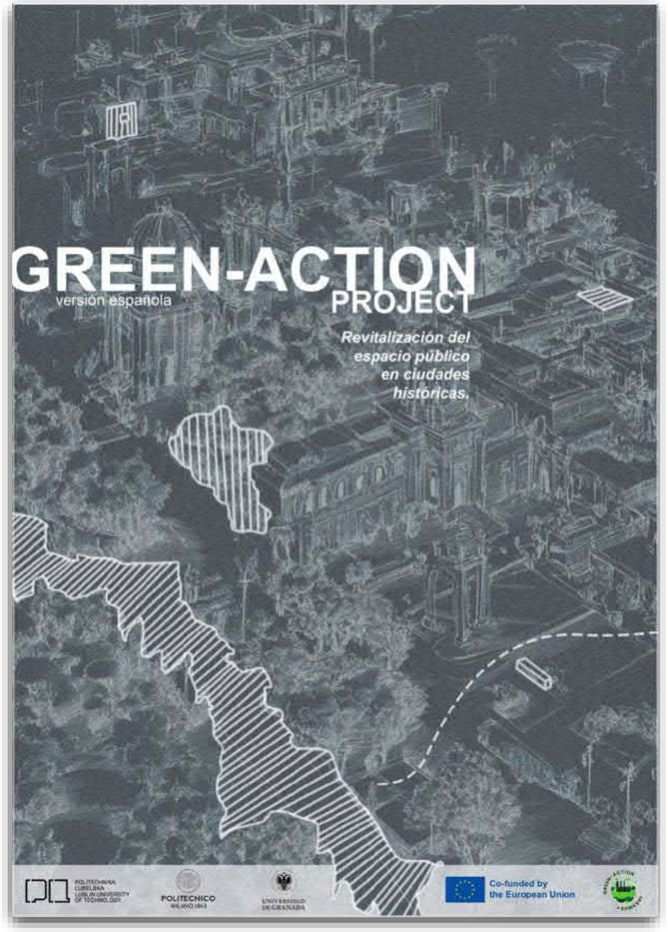

NBS

III FOCUS 2. NBS_NATURE BASED SOLUTIONS

Nature-based Solutions (NbS) refer to strategies that leverage natural processes to address societal challenges such as climate change, disaster risk reduction, food security, and water management.

These approaches focus on protecting, restoring, and managing ecosystems in ways that benefit both biodiversity and human well-being.[77]

NBS1. Climate change response and risk management: River Floodplains, Rain gardens, Permeable pavements, Bioswales, Other ecosystem drainage systems (tree pits, planters, roundabouts, etc.),

NBS2. Restoring degraded ecosystems and habitat improvement: Ecosystemic regeneration of forests, parks and meadows, Planting trees and native vegetation, Green roofs, Green walls, Bioretention Areas, Rivers and coasts restoration, Natural Inland Wetlands, naturalization of fountains and ponds, habitats for pollinator species, habitats for other species

NSB3. Enhancing sustainable urbanisation: Urban Farming, Community gardens, shade furniture (umbracle, awning, pergola etc.), other ecofriendly street furniture.

Figure 40 URBiNAT focuses on the regeneration and integration of deprived districts in urban development through innovative Nature-Based Solutions (NBS) – an Urban Inclusive Nature – ensuring sustainability and mobilizing driving forces for social cohesion. IAAC Department.Advanced Architecture Group. https://urbinat.eu/

[77] European Commission (n.d.), Nature-based solutions; IUCN (n.d.), Nature-based Solutions; World Bank (2008)

3.1 NBS1: CLIMATE CHANGE RESPONSE AND RISK MANAGEMENT

Climate change response and risk management involves using natural processes and ecosystems to mitigate the impacts of climate change, enhance resilience, and reduce risks. In terms of nature-based solutions (NBS), they play a vital role in managing climate risks, improving air quality, enhancing biodiversity, and preserving cultural heritage, thereby fostering community well-being and resilience.

These solutions typically involve features like river floodplains, rain gardens, and other ecosystems, which use native plant species and local metabolic processes to manage and respond to climate change.

In historic city centers, climate change response and risk management are integrated into public spaces through specific Nature-Based Solutions that help reduce heat, control stormwater, and provide cooling, all while preserving the cultural and architectural heritage of the area. [78]

Main topics: River Floodplains, Rain gardens, Permeable pavements, Bioswales, Other ecosystem drainage systems (tree pits, planters, roundabouts, etc.).

These topics ensure:

- **Flood Control**, by absorbing excess river water and capturing rainwater runoff. They can reduce flood severity, protect urban infrastructure, and prevent erosion in areas prone to heavy rainfall.
- **Biodiversity Protection**, by preserving ecosystems and providing habitats for diverse species. Natural habitats support aquatic and riparian wildlife while enhancing urban biodiversity by offering spaces for pollinators like bees and butterflies.
- **Water and Air Quality Improvement**, by filtering pollutants through soil and plants, water filtration improves water quality before it recharges groundwater and reduces pollution.
- **Climate Resilience**, by storing floodwaters and allowing groundwater recharge, they help cities adapt to changing rainfall patterns and manage water sustainably to build resilience against climate change.
- **Carbon Sequestration**, by absorbing atmospheric CO2.
- **Urban Cooling**, by increasing green spaces, reducing heat island effects and cooling down the city through evapotranspiration from plants.
- **Recreational and Aesthetic Values**, by offering green public spaces that enhance urban livability and beautify public areas with natural landscapes.

[78] Welden et al. (2021), p. 996-977; UNDRR, UNU (2024); Benedict (2005); European Commission (2020), Nature-Based Solutions

GREEN ACTION BOOK

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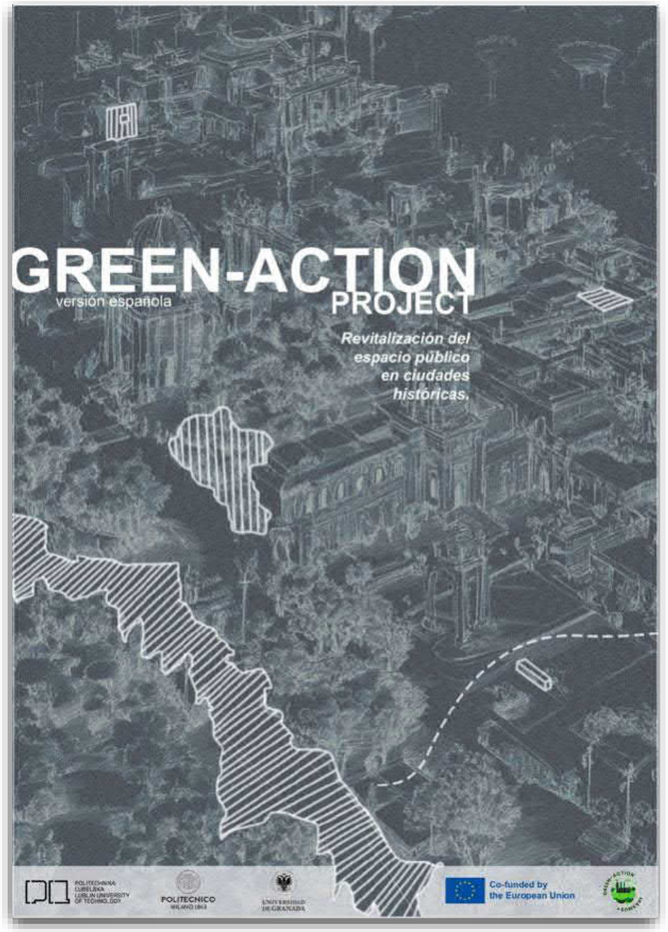

IV PART 3_IMPLEMENTATIONS AND EFFECTS OF PS MODERNISATION IN HISTORIC CITIES

4.1. DESCRIPTION OF CASE STUDIES AND FIELD VISITS

This section begins with a description of case studies focusing on 19 exemplary projects of public space renewal in historic cities. Each of these projects has been carefully chosen for its innovative approach and successful integration of nature-based solutions, green infrastructure, and ecosystem services.

By translating the concepts discussed earlier in Part 2, we aim to illustrate how these principles can be effectively implemented in real-world scenarios, showcasing the transformative potential of thoughtful urban design and sustainable practices in enhancing public spaces. Below, we present a list of the projects along with brief descriptions that highlight their unique contributions to urban revitalization:

TXC01 Texcoco Lake Ecological Park: Restores a desiccated lake in Mexico City, creating a vast ecological park that manages stormwater and enhances biodiversity.

TL01 Saint Sernin Square: Converts a historic area in Toulouse, previously organized as a chaotic urban area, into a pedestrian-friendly plaza, emphasizing green spaces and historical preservation.

TL02 Niel Garden: Reimagines a former military site in Toulouse, creating a dynamic landscape with varied topography and sustainable water management.

BCN04 Recovery of the Thermal Water Canals: Revives ancient irrigation systems in the outskirts of Barcelona, in a historic agricultural area, integrating modern water management techniques.

TI01 Renovation of Skanderbeg Square: Transforms a central square in Tirana, prioritizing pedestrian mobility and integrating native plant species.

BCN01 Mercat del Ninot Square: Converts a disused site in Barcelona into a vibrant public space, utilizing existing structures and diverse vegetation.

BCN02 Santa Creu i Sant Pau Hospital gardens: Restores a historic hospital garden in Barcelona, emphasizing ornamental and medicinal plant species.

CRU01 Caramoniña orchards: Revitalizes urban gardens in Santiago de Compostela, improving accessibility and reintroducing traditional agricultural practices.

CAS01 "Una pérgola abierta a la huerta": Creates a shaded structure in Sot de Ferrer (Castellón, Spain), enhancing microclimate and fostering community engagement around the orchard.

LOGE01 Kloster Lorsch: Preserves the historical footprint of a former monastery in Germany, creating a green space that highlights its past.

BCN03 Tres Turons Park: Restores a site with historical military significance in Barcelona, enhancing accessibility and preserving historical remnants.

ZA01 Petar Zoranic Square: Enhances a historic square in Zadar (Croatia), exposing archaeological finds and integrating green islands with seating areas.

OP01 Lisboa Square: Revitalizes Oporto's urban square with an elevated green roof, promoting biodiversity and blending modern design with historical context.

VIE01 Hundertwasser House: Blends vibrant colors and greenery in Vienna, creating a unique residential landmark that enhances urban biodiversity and ecological awareness.

MD01 CaixaForum Madrid Vertical garden: Transforms a Madrid power station wall into a vibrant 460m² garden, enhancing aesthetics, insulation, and air quality.

LJU01 Rearrangement of the Ljubljanica riverbanks: Revitalizes historic riverbanks in Ljubljanica, enhancing ecology and community interaction through native vegetation and floodable terraces.

BCN05 Bolivia green axis: Revitalizes a former industrial space in Barcelona, creating a green corridor with bioretention areas for stormwater management.

MD02 Project Madrid-Río: Transforms Manzanares Riverbanks in Madrid into vibrant green spaces, enhancing biodiversity and community access while preserving cultural heritage.

NYC01 Liz Christy Community garden: Transforms a derelict lot in Manhattan into New York's first community garden, promoting urban agriculture and community engagement.

The next part of this section highlights additional projects, featuring six main public spaces identified during field visits in three distinct cities in Spain: Cordoba, Vitoria, and Seville. Two specific projects or areas have been selected within each city.

SEV Sevilla

SEV02 *Alameda de Hércules: Revitalizes a historic promenade in Seville, enhancing public spaces with lush greenery, seating areas, and art, while celebrating its cultural heritage and community spirit.*

GREEN ACTION Catalogue

HUERTO DE ORIVE

CATALOGUE OF PS

The project arises from the observation of the place and its privileged perspectives, as well as the relationships between elements of interest: from a Jacaranda specimen to the perception of stone landmarks (towers of St. Andres and St. Pablo), ruins of interest, and colourful party walls. The territory is gradually colonised, and the need for its distribution arises: space for contemplation, representation, play, learning, and interaction. As a result, different zones are established to give content to the garden.

Zone 1. North Pond-Viewpoint (EMN). Elevated space where there is currently a pool. Its recovery is intended by creating a pond space, with a pergola and seating area for relaxed contemplation of the garden.

Zone 2. North Scenic Space (EEN). Area located next to the portico of the Palace facade. It is conceived as a place for outdoor performances, for cultural events related to the Palacio de Orive.

Zone 3. South Connection Space (ECS). In this space, the necessary elements are developed to connect the garden with the Claretianos courtyard, which is at a higher level.

Zone 4. South Horticultural Space (EHS-ESE). In this space, flowerbeds and containers of various heights made of corten steel will be recreated to facilitate access to horticultural tasks for children, the elderly, and people with disabilities.

Zone 5. North-South Orientation Zone. This zone runs from the facade of the Palace of Orive to the southern area of the space, fragmenting into different usage zones.

References

Ayuntamiento de Córdoba (2011) Presentación Jardín-huerto de Orive, un espacio abierto a la cultura

COR01 SPAIN **CÓRDOBA**

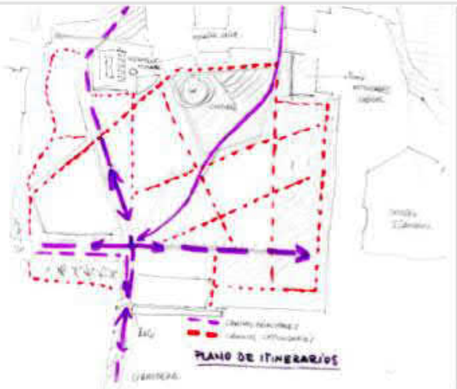

Fig.1 Circulation diagram

Fig.2 Aerial view of the Jardines del Huerto de Orive

Original date:	-
Date of renovation:	01/11/2010
Heritage protection:	National
Authority:	Municipality of Cordoba
Designer:	Rafael Garcia Castejón, Jóse Ignacio Montero Portabella
Programs/ budget:	Municipal investments 13.570.189,77€

Fig.3 Aerial plan location

1.01 Flooring

1 Permanent COR01 Córdoba (Spain)

DESCRIPTION

The Huerto de Orive in Córdoba is a public space known for its unique combination of traditional flooring materials. It features four distinct types of pavement: pebble mosaics, granite, cobblestone, and albero, a sandy yellow clay commonly used in Andalusian landscapes. These materials create a visually engaging and durable surface, blending historical and natural elements. The flooring layout guides visitors through different sections of the garden, enhancing the rustic character of the site.

1.03 Limits

1 Permanent COR01 Córdoba (Spain)

DESCRIPTION

Traditional stone walls separate the lower and upper areas, preserving the site's historical layout. This design respects the architectural alignments of pre-existing structures, highlighting the area's heritage. The walls not only provide structure but also serve as identity elements that connect modern visitors with the past. The Huerto de Orive merges greenery with historic architecture, creating a peaceful, layered environment that honors Córdoba's urban legacy.

1.04 Identity elements

1 Permanent COR01 Córdoba (Spain)

DESCRIPTION

Borders and facades of surrounding architecture define the public space at Huerto de Orive. It features traditional architecture elements like porticos, as well as green walls that frame the area, reminiscent of historic orchard gardens. These walls, blending built and natural materials, create a unique sense of place that reflects Córdoba's heritage.

GREEN ACTION Catalogue

2.01 Playground kits

2 Furniture
VIT09 Vitoria (Spain)

DESCRIPTION

The children's play area in Etxauri Square integrates playful furniture into a dynamic, active setting. The design encourages a variety of activities and allows kids to explore and interact with natural elements. Rocks, natural materials, and textured pavements enhance the space, inviting constant engagement with the environment. This setup fosters creativity and exploration, blending play with the surrounding landscape for a unique experience.

3.01 Permeable floor

3 Greenery
VIT09 Vitoria (Spain)

DESCRIPTION

The Etxanobe Garden features a permeable, porous granite pavement that seamlessly transitions between the garden area and less permeable spaces. This paving design supports easy bike access and encourages rainwater absorption, reducing runoff and maintaining the area's natural feel. The gaps between pavers add porosity, enhancing drainage and blending urban and green areas effectively. The use of bush-hammered granite adds texture and durability to the surface. This structure not only improves accessibility but also complements the square's ecological function by managing water flow sustainably.

2.02 Street art

2 Furniture
VIT09 Vitoria (Spain)

DESCRIPTION

A painted mural on a median wall in the Etxanobe Garden brings vibrant color and cultural depth to the space. This artwork, inspired by Giotto's 14th-century scene of Saint Anne kissing Saint Joachim at Jerusalem's Golden Gate, captures a story of love set under a sky full of stars. With this reimagining, the artist invites viewers to feel like part of the scene, adding a touch of romance and connection to the square. This piece celebrates Vitoria's rich history and artistic spirit, offering locals and visitors a unique visual experience beyond typical tourist sights.

3.02 Rain garden

3 Greenery
VIT09 Vitoria (Spain)

DESCRIPTION

The area between the theater and the wall in Etxauri Square has been transformed into a partially paved space with a central sunken garden, surrounded by ramps. This naturalized area acts like a rain garden, absorbing rainwater during storms. When it rains, the garden can flood, collecting water and helping manage runoff. Once the water dries, the space becomes a green area, offering flexibility for various uses. It transforms into a playground, with spiral log structures for balance games, making it a dynamic space that adapts to different weather conditions while maintaining its ecological function.

2.03 Benches

2 Furniture
VIT09 Vitoria (Spain)

DESCRIPTION

The wooden benches in Etxauri Square create a dynamic transition between the paved area and the green space behind. They offer a variety of seating options, from sitting to stretching, providing comfort for different needs. The design enhances the space by inviting people to relax and enjoy the surroundings. These benches add a natural touch to the square, blending with the landscape while offering a functional and pleasant resting spot for visitors.

3.03 Green spaces

3 Greenery
VIT09 Vitoria (Spain)

DESCRIPTION

Etxauri Square in Vitoria features green spaces with a surface made of pine bark. This material provides an impact-absorbing floor for the playground, ensuring safety for children. It is both permeable and biodegradable, allowing rainwater to filter through while maintaining an organic, natural feel. The use of pine bark enhances the environmental quality of the park, blending sustainability with functionality. This flooring choice not only supports ecological goals but also creates a comfortable, eco-friendly environment for visitors to enjoy.

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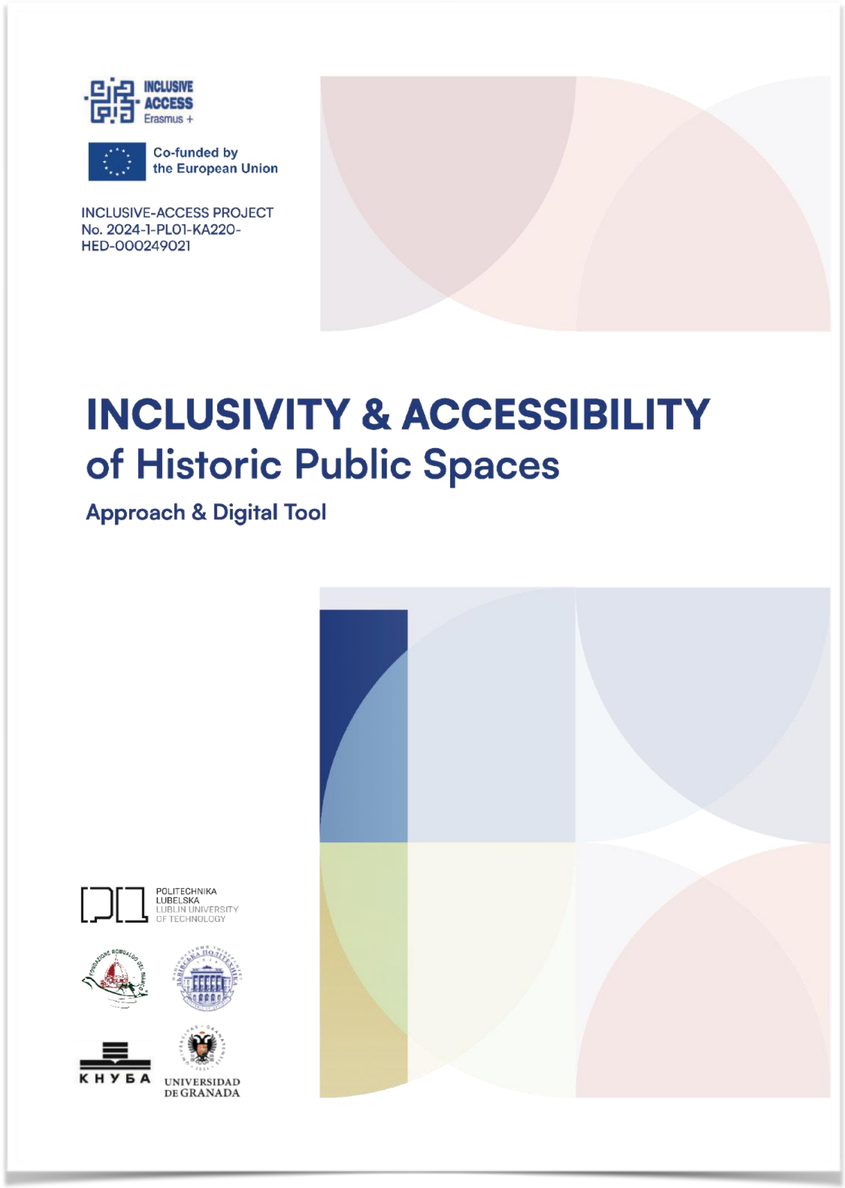

INCLUSIVE ACCESS Book

2.3. CATALOGUE OF INTERVENTIONS

2.3.1. LIGHTING

Lighting is a fundamental component of urban design, especially in historic spaces where visibility, wayfinding, and the perception of the surroundings can be affected by the building's materials, morphology, and conservation constraints. Beyond its technical function, lighting plays a cultural, symbolic, and sensory role, influencing how different groups of people interact with public space.

From an inclusive perspective, adequate lighting improves the perception of safety, facilitates wayfinding for people with visual or cognitive disabilities, and allows for the equitable use of space during nighttime hours. Designing lighting systems that provide uniform light levels, minimize glare, and incorporate clear visual cues contributes to creating more accessible and welcoming environments for everyone, regardless of age, gender, or ability.

HOMOGENEOUS LIGHTING

Master lighting plan for Albarracín, Teruel, Spain

It improves accessibility for people with low vision or reduced mobility.

It improves the perception of the environment for people with low vision and generates a greater sense of security.

Technical characteristics:

General Uniformity $U_0 \geq 0.6$

Average illuminance: 10–20 lux
Color temperature: 2700–3000 K

CRI ≥ 80

GLARE-FREE LIGHTING

Remodeling of the Plaza Mayor in Almazán, Spain

Technical characteristics:

Control of the unified glare rating (UGR) below 19.

Use of luminaires with directional optics or opaque diffusers that minimize direct light in the visual field.

Warm color temperature (2700–3000 K) for greater visual comfort.

TOUCH AND INTERACTIVE FURNITURE

Ecosistema Urbano Malaga.

Technical characteristics:

Recommended height: between 70–100cm.

Embossed elements, braille, textures.

Outdoor-resistant material (stainless steel, polycarbonate).

Contrasting colors and legible typography.

ELEMENTS FOR OVERCOMING LEVEL DIFFERENCES

Improving accessibility to the Historic Centre of Vitoria-Gasteiz, Tabuenca & Leache

Technical characteristics:

Ramps with a slope <8% and non-slip surface.

Lifting platforms with a minimum capacity of 300kg.

Elevators with a cabin of 1.10×1.40m and a braille button.

Escalators with safety sensors.

INCLUSIVE ACCESS Book

RECOGNITION AND VALUATION OF INTANGIBLE HERITAGE

Incorporate elements of intangible heritage, traditions and historical memory of racialized communities into the configuration of accessible public spaces, enriching the sense of belonging and collective identity.

Promote routes, events and signage that highlight the historical and cultural diversity of the city.

EQUITABLE ACCESS TO SERVICES AND FACILITIES

Key actions:

Ensure that racialized people and migrants have equal access to adapted public facilities (toilets, water points, transport, etc.).

Active presence of staff trained in anti-racism and cultural mediation at service points.

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INCLUSIVE ACCESS Erasmus +

INCLUSIVE-ACCESS PROJECT. No. 2024-1-PL01-KA220-HED-000249021.
Output WP3: Academic Manual (ENG). University of Granada

ACCESSIBLE TOURIST OFFICES

Features:

Counters adapted (at different heights and with free front space).

Staff trained in caring for people with disabilities

Printed brochures in accessible and digitized formats.

Additional feature: Possibility of loaning support equipment such as wheelchairs, hearing loops or NFC devices.

ACCESSIBLE DIGITAL INFORMATION

Implementation of digital technologies (augmented reality, virtual reality, mobile applications) that allow people with physical or sensory limitations to virtually access or complement the in-person visit

Includes:

Mobile apps compatible with screen readers

QR codes and NaviLens on monuments.

Augmented reality adapted for people with hearing or visual impairments.

PARTICIPATION AND CO-CREATION

Involving people with disabilities and diverse groups in the planning and evaluation of accessible tourism products, ensuring that their experiences and needs are considered in decision-making.

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INCLUSIVE ACCESS Erasmus +

Course Syllabus

Inclusivity and Accessibility of Historic Public Spaces

1. Course Information

- **Title**: Inclusivity and Accessibility of Historic Public Spaces
- **Code**: INCLUSIVE-ACCESS
- **Academic Year**: 2026/2027
- **Degree**: Micro-credential, Training Course for Bachelor's in Architecture Students and Graduates
- **Branch**: Engineering and Architecture
- **Module**: MOOC on Revitalization of Public Spaces in Historic Cities based on Inclusion and Accessibility Principles
- **Subject**: Inclusivity and Accessibility of Historic Public Spaces
- **Year**: 2nd, 3rd & 4th year
- **Semester**: 1st or 2nd
- **Type**: Elective
- **ECTS Credits**: 4
- **Language**: English
- **Mode**: Blended learning
  - Theoretical component: Online (MOOC) + autonomous work
  - Practical component: Face-to-face sessions and applied workshops

2. Faculty

- **Lead Professors**: Professor Bogusław Szmygin & Francisco J Abarca-Alvarez
  - **Email**: xx
  - **Office Hours**: TBC
- **Teaching staff**: Academic staff and researchers involved in the INCLUSIVE-ACCESS project

3. Prerequisites and/or Recommendations

Studies on Architecture, Urban planning and design, Heritage conservation, and Engineering or related disciplines

4. Brief Description of Contents

This course provides a comprehensive introduction to accessibility and inclusion in public spaces of historic cities, framed within a human-rights-based, multidisciplinary, and European policy-oriented perspective.

Co-funded by the European Union

INCLUSIVE ACCESS Erasmus +

The course examines historic public spaces as complex urban systems, where the reconciliation of heritage preservation, social equity, and universal accessibility is necessary. Accessibility is analysed as a multidimensional concept, encompassing physical, functional, social, cultural, linguistic, digital, environmental, and participatory dimensions.

Theoretical content is mainly delivered through a MOOC, while face-to-face activities focus on applied analysis, case studies, and critical discussion.

5. Competencies

General Competencies

- **GC01**: Ability to analyse and synthesise.
- **GC02**: Organization and planning skills.
- **GC03**: Oral and written communication in the native language.
- **GC04**: Knowledge of a foreign language.
- **GC05**: Computer skills related to the field of study.
- **GC06**: Information management skills.
- **GC07**: Problem-solving skills.
- **GC08**: Decision-making skills.
- **GC09**: Teamwork skills.
- **GC10**: Interdisciplinary teamwork.
- **GC11**: Work in an international context.
- **GC12**: Interpersonal skills.
- **GC13**: Recognition of diversity and multiculturalism.
- **GC14**: Critical thinking.
- **GC15**: Ethical commitment.
- **GC16**: Autonomous learning.
- **GC17**: Adaptation to new situations.
- **GC18**: Creativity.
- **GC19**: Leadership.
- **GC20**: Knowledge of other cultures and customs.

Specific Competencies

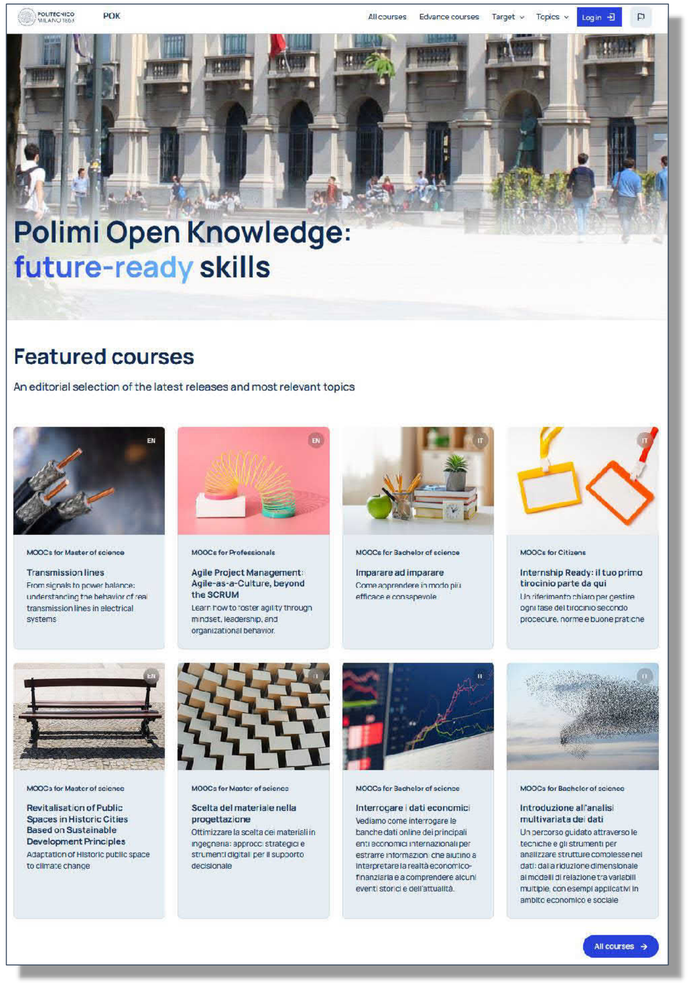
- **SC01:** Ability to analyse accessibility conditions in historic public spaces
- **SC02:** Understanding of inclusive design principles applied to heritage contexts
- **SC03:** Knowledge of European accessibility legislation
- **SC04:** Capacity to identify physical, sensory, cognitive, and social barriers
- **SC05:** Ability to evaluate inclusive urban interventions and best practices

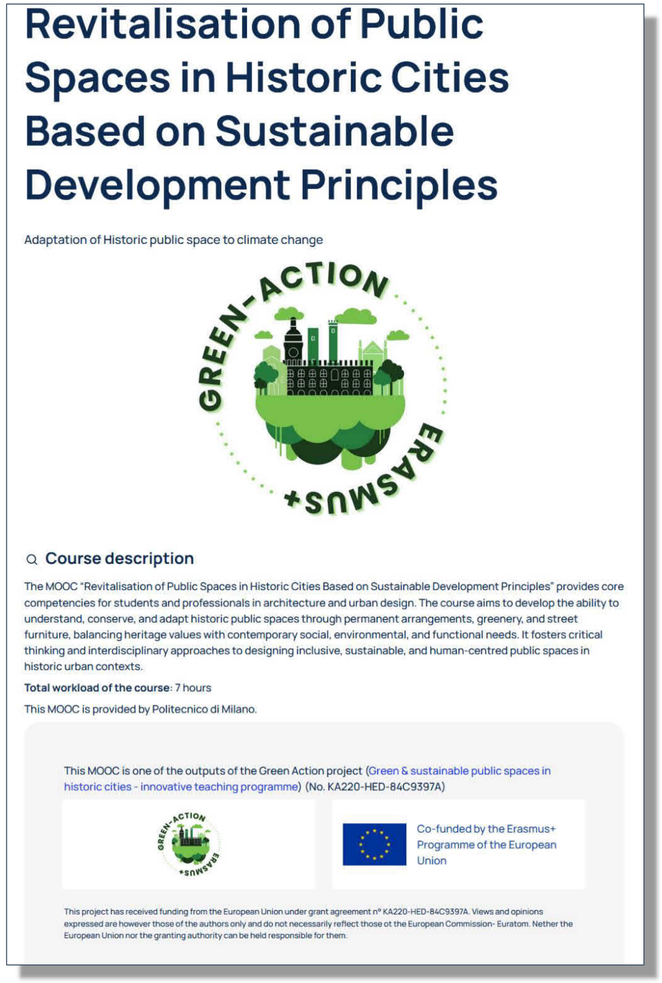
6. **Learning Outcomes (Objectives)**

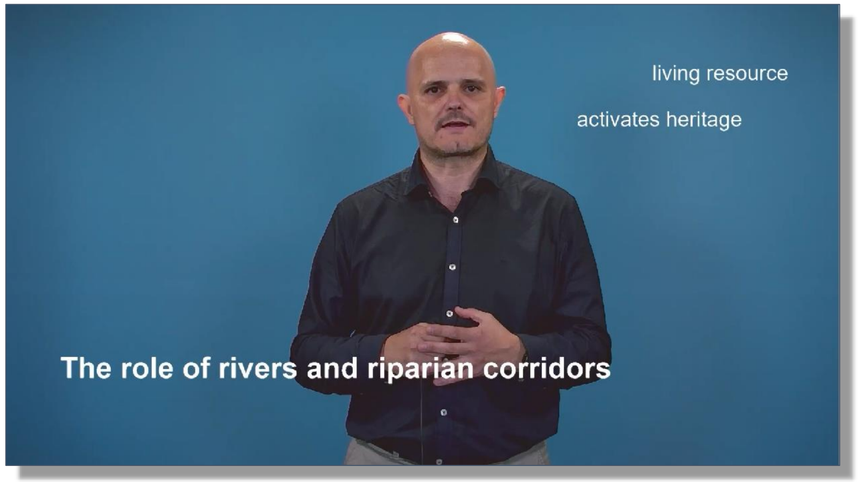
Students who complete the course will be able to:

- Understand accessibility as a fundamental right linked to social inclusion

GREEN ACTION MOOC https://www.pok.polimi.it/course/view.php?id=271







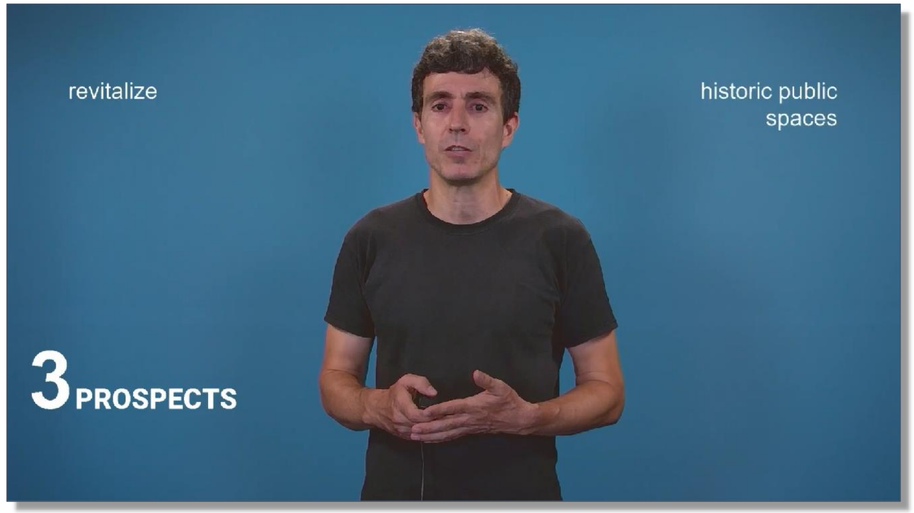
UNIVERSIDAD DE GRANADA

INCLUSIVE-ACCESS MOOC (work in progress)

1.5. Script del vídeo

Este módulo, para una duración aproximada de 5-7 min. y con una velocidad fluida de presentación de 140 palabras/min., se ha estimado con un guión de 700-1.000 palabras.

VOICEOVER	VISUAL (PICTURES AND TEXT IN DISPLAY)
DIAPOSITIVA 1: **PORTADA MÓDULO INCLUSIVE ACCESS** *Module 1: Dimensions of inclusivity-accessibility of public spaces in historic cities. TRADITIONAL APPROACHES <<CLIC>>*	**Portada con información oficial del proyecto, código, universidades participantes e investigadores españoles, así como la información del módulo** 
DIAPOSITIVA 2: **INTRODUCCIÓN AL MÓDULO** *El espacio público histórico es un palimpsesto social y físico, un texto escrito sobre otro donde conviven generaciones. La teoría urbana nos advierte sobre el continuo debate entre conservación del patrimonio y los derechos urbanos. El objetivo de este módulo es explorar cómo las intervenciones físicas tradicionales pueden lograr un equilibrio, permitiendo que la ciudad histórica sea legible y disfrutada por todos. <<CLIC>>*	**Introducción: El espacio como palimpsesto y la dialéctica de la accesibilidad.**  Imágenes: Primer plano presentador (Quizá combinar con Planos históricos superpuestos a la trama urbana actual.



GREEN ACTION MOOC https://www.pok.polimi.it/course/view.php?id=271

GREEN ACTION MOOC Video 2

https://www.youtube.com/watch?v=tCNsL5CmPco&list=PLmKUwJ0KJQnUkngKnQ2PwSfuTJ0c71vKK&index=3

GREEN ACTION MOOC Video 3

https://www.youtube.com/watch?v=7tz3ZhB6OUg&list=PLmKUwJ0KJQnUkngKnQ2PwSfuTJ0c71vKK&index=5

GREEN ACTION MOOC https://www.pok.polimi.it/course/view.php?id=271

Course description

Intended Learning Outcomes

Revitalisation of Public Spaces in Historic Cities Based on Sustainable Development Principles

Adaptation of Historic public space to climate change

Course description

The MOOC "Revitalisation of Public Spaces in Historic Cities Based on Sustainable Development Principles" provides core competencies for students and professionals in architecture and urban design. The course aims to develop the ability to understand, conserve, and adapt historic public spaces through permanent arrangements, greenery, and street furniture, balancing heritage values with contemporary social, environmental, and functional needs. It fosters critical thinking and interdisciplinary approaches to designing inclusive, sustainable, and human-centred public spaces in historic urban contexts.

Total workload of the course: 7 hours

This MOOC is provided by Politecnico di Milano.

This MOOC is one of the outputs of the Green Action project (Green & sustainable public spaces in historic cities - innovative teaching programme) (No. KA220-HED-84C9397A)

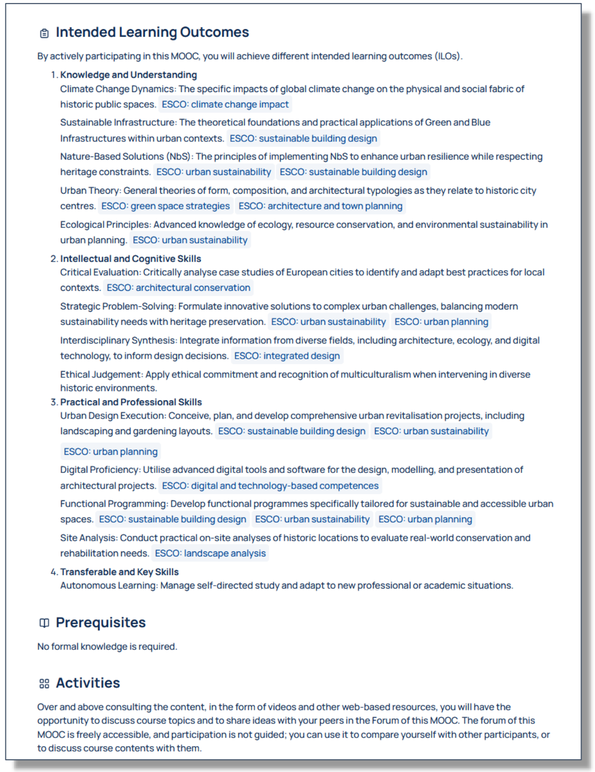
Co-funded by the Erasmus+ Programme of the European Union

This project has received funding from the European Union under grant agreement nº KA220-HED-84C9397A. Views and opinions expressed are however those of the authors only and do not necessarily reflect those ot the European Commission- Euratom. Nether the European Union nor the granting authority can be held responsible for them.

Intended Learning Outcomes

By actively participating in this MOOC, you will achieve different intended learning outcomes (ILOs).

1. **Knowledge and Understanding**
   Climate Change Dynamics: The specific impacts of global climate change on the physical and social fabric of historic public spaces. ESCO: climate change impact
   Sustainable Infrastructure: The theoretical foundations and practical applications of Green and Blue Infrastructures within urban contexts. ESCO: sustainable building design
   Nature-Based Solutions (NbS): The principles of implementing NbS to enhance urban resilience while respecting heritage constraints. ESCO: urban sustainability ESCO: sustainable building design
   Urban Theory: General theories of form, composition, and architectural typologies as they relate to historic city



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   Urban Theory: General theories of form, composition, and architectural typologies as they relate to historic city centres. ESCO: green space strategies ESCO: architecture and town planning
   Ecological Principles: Advanced knowledge of ecology, resource conservation, and environmental sustainability in urban planning. ESCO: urban sustainability
2. **Intellectual and Cognitive Skills**
   Critical Evaluation: Critically analyse case studies of European cities to identify and adapt best practices for local contexts. ESCO: architectural conservation
   Strategic Problem-Solving: Formulate innovative solutions to complex urban challenges, balancing modern sustainability needs with heritage preservation. ESCO: urban sustainability ESCO: urban planning
   Interdisciplinary Synthesis: Integrate information from diverse fields, including architecture, ecology, and digital technology, to inform design decisions. ESCO: integrated design
   Ethical Judgement: Apply ethical commitment and recognition of multiculturalism when intervening in diverse historic environments.
3. **Practical and Professional Skills**
   Urban Design Execution: Conceive, plan, and develop comprehensive urban revitalisation projects, including landscaping and gardening layouts. ESCO: sustainable building design ESCO: urban sustainability ESCO: urban planning
   Digital Proficiency: Utilise advanced digital tools and software for the design, modelling, and presentation of architectural projects. ESCO: digital and technology-based competences
   Functional Programming: Develop functional programmes specifically tailored for sustainable and accessible urban spaces. ESCO: sustainable building design ESCO: urban sustainability ESCO: urban planning
   Site Analysis: Conduct practical on-site analyses of historic locations to evaluate real-world conservation and rehabilitation needs. ESCO: landscape analysis
4. **Transferable and Key Skills**
   Autonomous Learning: Manage self-directed study and adapt to new professional or academic situations.

Prerequisites

No formal knowledge is required.

Activities

Over and above consulting the content, in the form of videos and other web-based resources, you will have the opportunity to discuss course topics and to share ideas with your peers in the Forum of this MOOC. The forum of this MOOC is freely accessible, and participation is not guided; you can use it to compare yourself with other participants, or to discuss course contents with them.

Prerequisites

Activities

GREEN ACTION MOOC https://www.pok.polimi.it/course/view.php?id=271

3. QUIZ Y JUSTIFICACIONES

1. ¿Cuál es la problemática principal al que se enfrenta la accesibilidad de espacios históricos? a) Presupuesto municipal vs. inversión privada. b) Preservación de la integridad patrimonial vs. el derecho al disfrute de la ciudad y accesibilidad universal. *(Correcta)* c) Uso de asfalto vs. uso de hormigón.

- *Justificación:*
  - **a) Incorrecta:** Aunque el presupuesto es un factor de gestión, no es el debate ético y disciplinar central en la teoría urbana patrimonial.
  - **b) Correcta:** La literatura académica señala la tensión fundamental entre mantener intacto el patrimonio (protegido por cartas como la de Venecia) y la obligación ética/legal de permitir el uso del espacio a todos los ciudadanos.
  - **c) Incorrecta:** Es una decisión técnica menor y, de hecho, el asfalto suele evitarse en cascos históricos por su bajo valor estético.

2. El concepto de "plataforma única" en un centro histórico sirve principalmente para: a) Facilitar el aparcamiento de vehículos turísticos. b) Eliminar la segregación vertical entre acera y calzada, mejorando la usabilidad y maniobrabilidad. *(Correcta)* c) Evitar la escorrentía del agua de lluvia.

- *Justificación:*
  - **a) Incorrecta:** Al contrario, la plataforma única suele ir acompañada de pacificación del tráfico o peatonalización.
  - **b) Correcta:** Al igualar la cota, se eliminan los bordillos (barreras físicas), creando un espacio compartido que facilita el tránsito de sillas de ruedas, carritos y en definitiva para personal con movilidad reducita.
  - **c) Incorrecta:** La escorrentía sigue necesitando diseño de pendientes y sumideros, la plataforma única de hecho requiere mayor cuidado en el drenaje.

3. Para conseguir una accesibilidad sensorial, los pavimentos táctiles direccionales y de advertencia deben instalarse: a) Utilizando colores potente, priorizando la comunicación sobre el entorno patrimonial. b) Empleando materiales que ofrezcan un contraste sutil de color y textura para respetar la estética sin perder funcionalidad. *(Correcta)* c) Únicamente en el interior de los museos, nunca en espacios exteriores.

- *Justificación:*
  - **a) Incorrecta:** Los colores flúor o plásticos amarillos generan un grave impacto visual en entornos protegidos.
  - **b) Correcta:** La normativa moderna permite utilizar variaciones de piedras locales (ej. granito gris vs. basalto negro) debidamente texturizadas (botones o estrías), garantizando el contraste háptico y visual de forma respetuosa.
  - **c) Incorrecta:** Son vitales en el espacio público exterior (pasos de cebra, escaleras, andenes).

4. Una iluminación urbana accesible y segura en cascos históricos debe evitar a toda costa: a) El uso de tecnología LED. b) El deslumbramiento y la creación de sombras acusadas en escalones y desniveles. *(Correcta)* c) La iluminación cálida (2700K).

- *Justificación:*

QUIZZES

GREEN ACTION BIP

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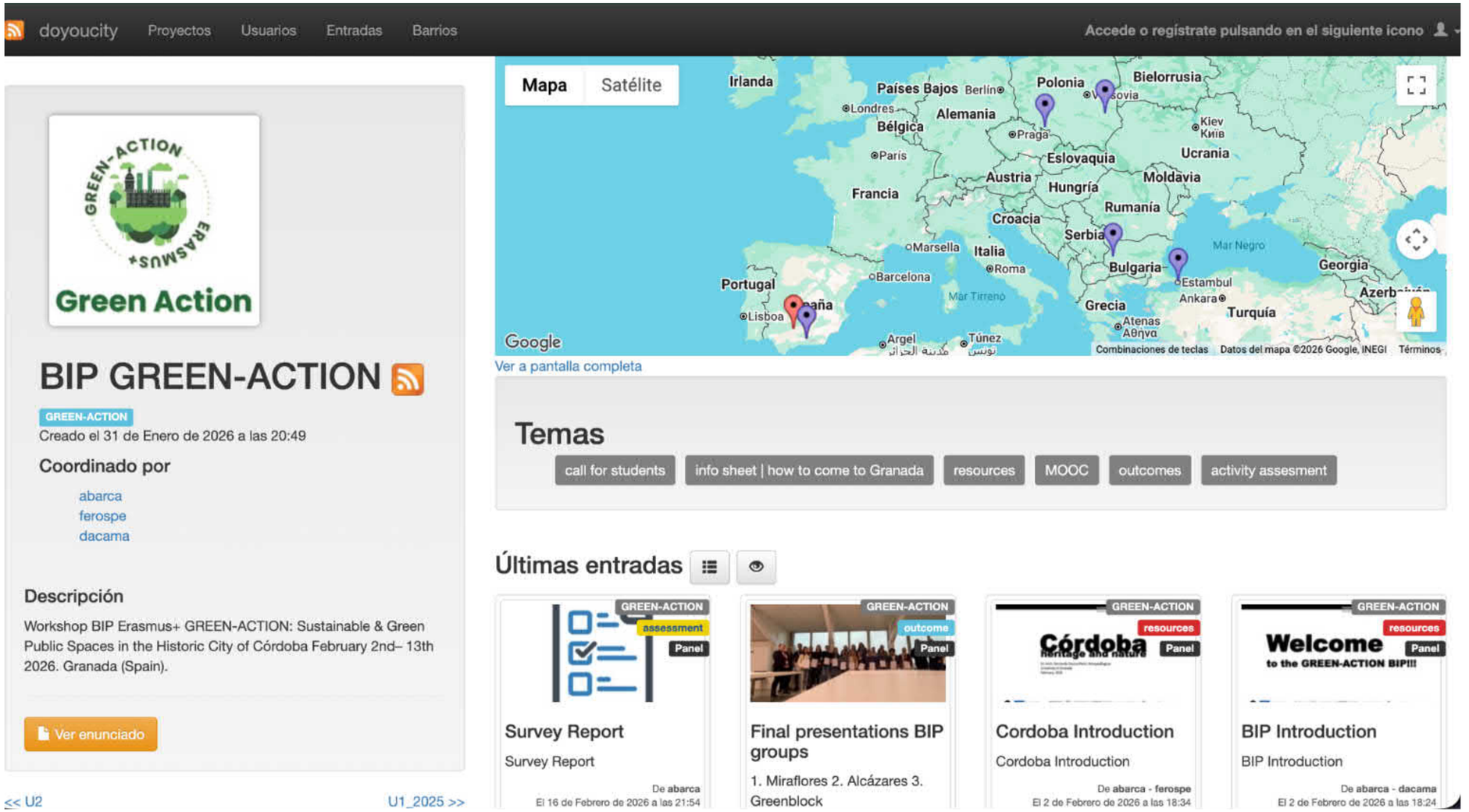

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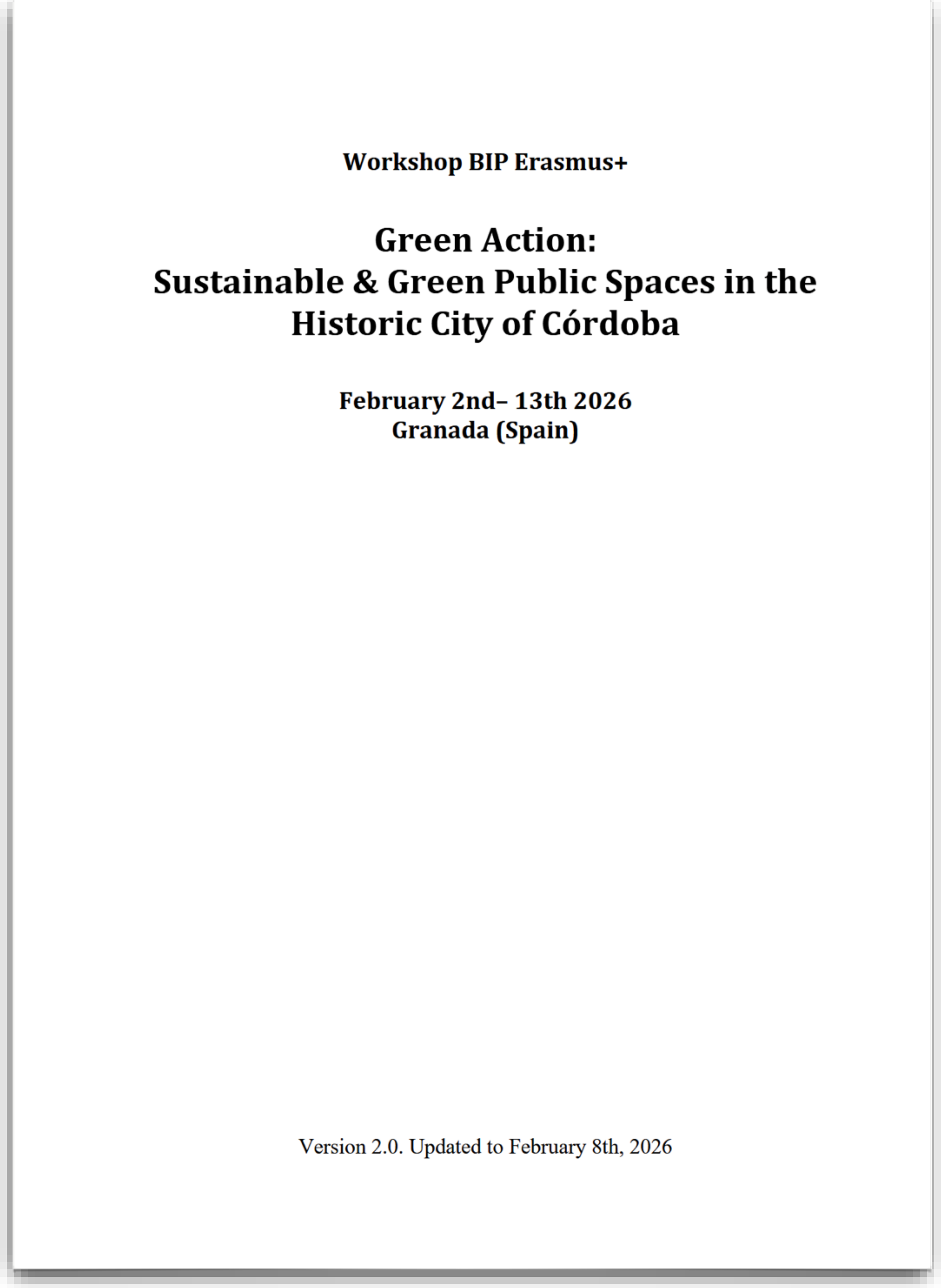
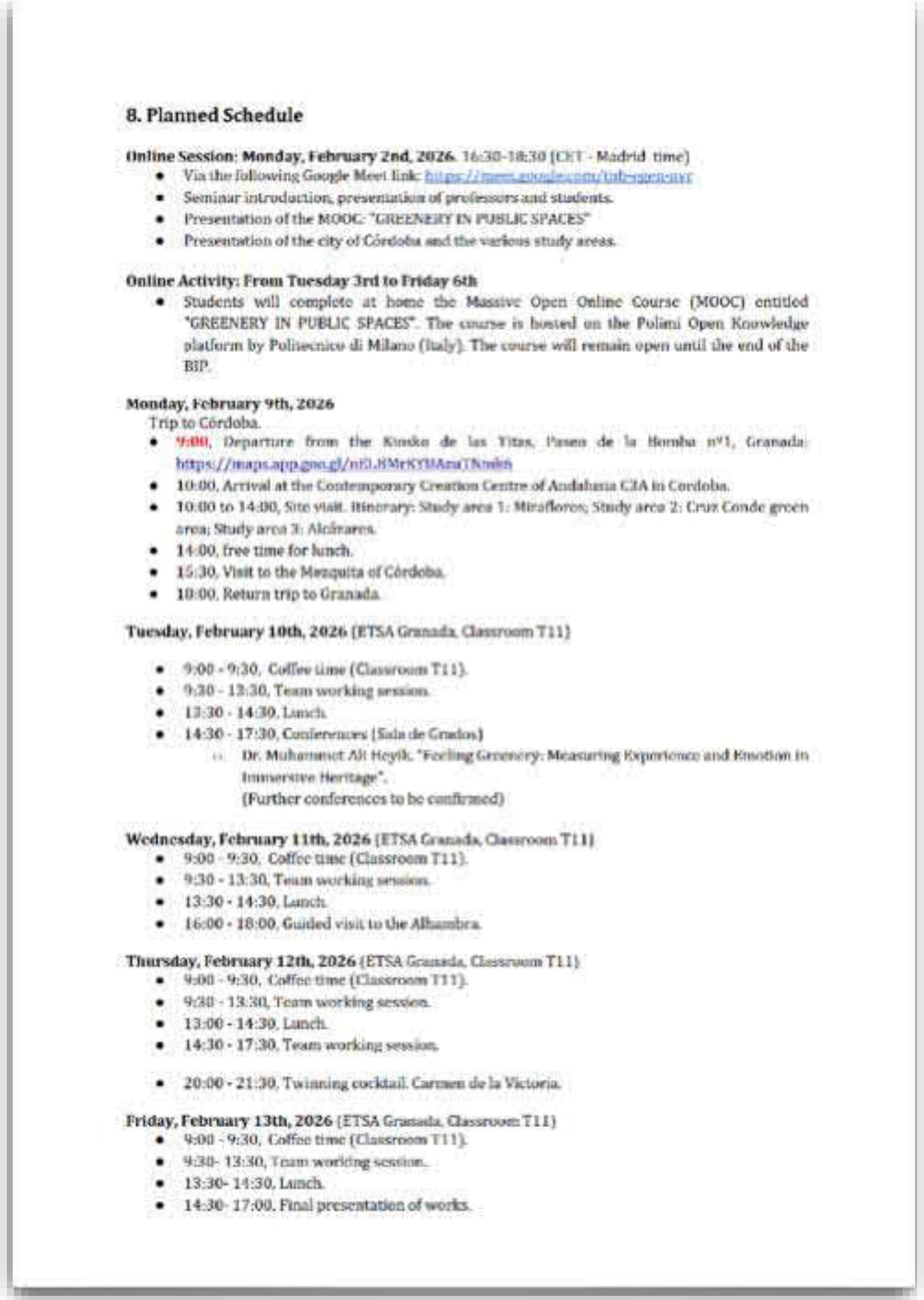


Workshop BIP Erasmus+

Green Action:
Sustainable & Green Public Spaces in the Historic City of Córdoba

February 2nd– 13th 2026
Granada (Spain)

Version 2.0. Updated to February 8th, 2026



8. Planned Schedule

Online Session: Monday, February 2nd, 2026. 16:30-18:30 (CET - Madrid time)
- Via the following Google Meet link:
- Seminar introduction, presentation of professors and students.
- Presentation of the MOOC: "GREENERY IN PUBLIC SPACES"
- Presentation of the city of Córdoba and the various study areas.

Online Activity: From Tuesday 3rd to Friday 6th
- Students will complete at home the Massive Open Online Course (MOOC) entitled "GREENERY IN PUBLIC SPACES". The course is hosted on the Polimi Open Knowledge platform by Politecnico di Milano (Italy). The course will remain open until the end of the BIP.

Monday, February 9th, 2026
Trip to Córdoba.
- 9:00, Departure from the Kiosko de las Titas, Paseo de la Bomba nº1, Granada:
- 10:00, Arrival at the Contemporary Creation Centre of Andalusia C3A in Cordoba.
- 10:00 to 14:00, Site visit. Itinerary: Study area 1: Miraflores; Study area 2: Cruz Conde green area; Study area 3: Alcázares.
- 14:00, free time for lunch.
- 15:30, Visit to the Mezquita of Córdoba.
- 18:00, Return trip to Granada.

Tuesday, February 10th, 2026 (ETSA Granada, Classroom T11)
- 9:00 - 9:30, Coffee time (Classroom T11).
- 9:30 - 13:30, Team working session.
- 13:30 - 14:30, Lunch.
- 14:30 - 17:30, Conferences (Sala de Grados)
  - Dr. Muhammet Ali Heyik. "Feeling Greenery: Measuring Experience and Emotion in Immersive Heritage".
  (Further conferences to be confirmed)

Wednesday, February 11th, 2026 (ETSA Granada, Classroom T11)
- 9:00 - 9:30, Coffee time (Classroom T11).
- 9:30 - 13:30, Team working session.
- 13:30 - 14:30, Lunch.
- 16:00 - 18:00, Guided visit to the Alhambra.

Thursday, February 12th, 2026 (ETSA Granada, Classroom T11)
- 9:00 - 9:30, Coffee time (Classroom T11).
- 9:30 - 13:30, Team working session.
- 13:00 - 14:30, Lunch.
- 14:30 - 17:30, Team working session.
- 20:00 - 21:30, Twinning cocktail. Carmen de la Victoria.

Friday, February 13th, 2026 (ETSA Granada, Classroom T11)
- 9:00 - 9:30, Coffee time (Classroom T11).
- 9:30- 13:30, Team working session.
- 13:30- 14:30, Lunch.
- 14:30- 17:00. Final presentation of works.

Zone 1: Miraflores, Campo de la Verdad, and the Sacunda Suburb
Located on the left bank, this sector represents the first southward urban expansion. The Sacunda suburb was a vibrant hub during the Emiral period until the 818 AD uprising led to its destruction and a subsequent ban on building, relegating it to historical marginality or agricultural use. The regeneration project must address the transition between the archaeological void, the traditional Campo de la Verdad neighbourhood, and the new Miraflores Park. It should also consider urban and heritage vistas and the incorporation of planned facilities, seeking an ecosystemic 'stitching' that respects the site's memory.

Zone 2: The Alcázares Front and the Sotos de la Albolafia
This area constitutes the heart of the city's civil and religious power. However, the historic permeability between the Alcázar de los Reyes Cristianos and the river was fractured in the 20th century by the San Rafael Bridge project and the opening of Avenida del Alcázar, which acts as a physical and visual barrier. The objective is to propose solutions that restore this link by integrating the Sotos de la Albolafia— a Natural Monument serving as a biodiversity refuge in the urban core— where riparian vegetation and birdlife coexist with the ancient mill structures of the Culeb weir.

Zone 3: Pre-Roman Córdoba: Colina de los Quemados and the "Green Block"
The city's origins lie at the western end within the Iberian oppidum of the Colina de los Quemados. This geographical landmark visually dominates the Guadalquivir and is associated with historic military sites, such as Hannibal's -or Julius Caesar- campaigns. Nearby lies the "Green Block" (Manzana Verde), an area of high environmental potential encompassing Cruz Conde Park, the "Children's City", the Zoo, and the Botanical Garden, alongside the mills of the Alhadra weir. This sector requires a strategy for ecosystemic and physical continuity, linking the most ancient archaeological substrate with contemporary green infrastructure.

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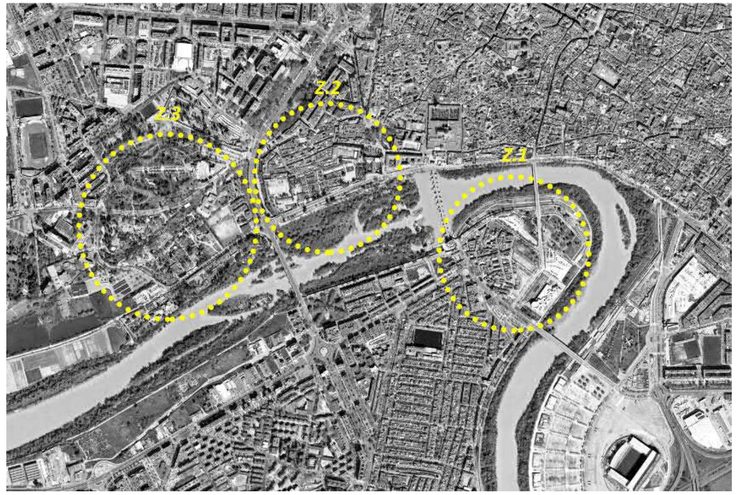
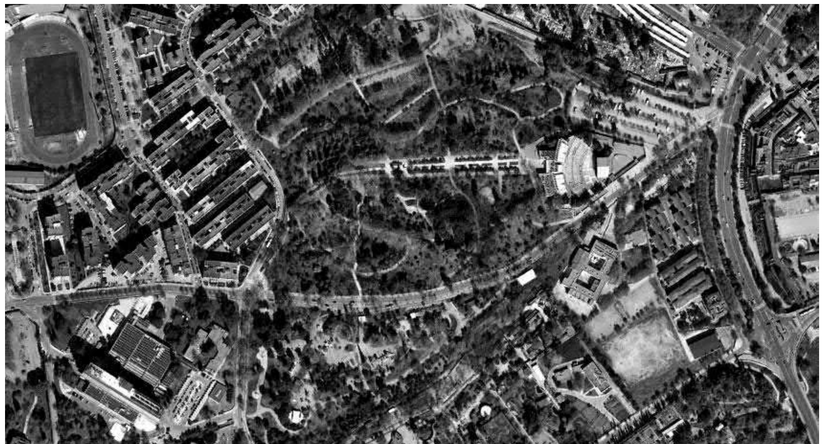


Zona 2

Zona 3



Zona 1

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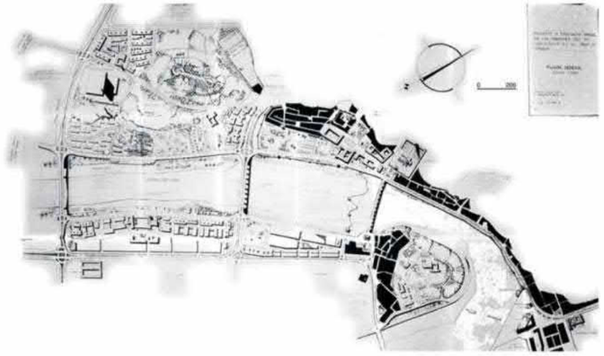
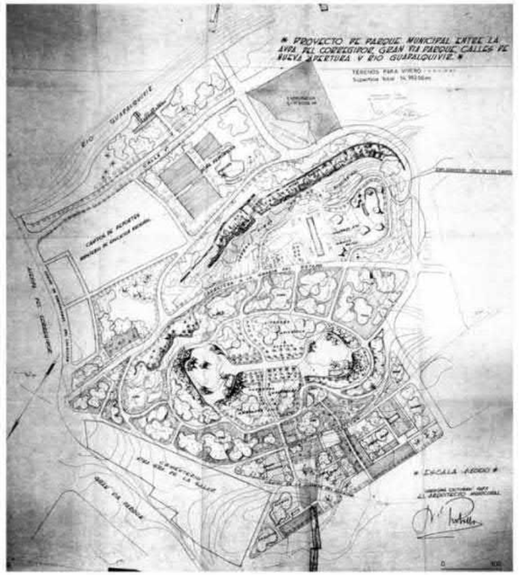
http://www.doyoucity.com/proyectos/52

HISTORY

ROMAN ERA



1966 RIVER MARGINS MASTERPLAN



1957 MASTERPLAN

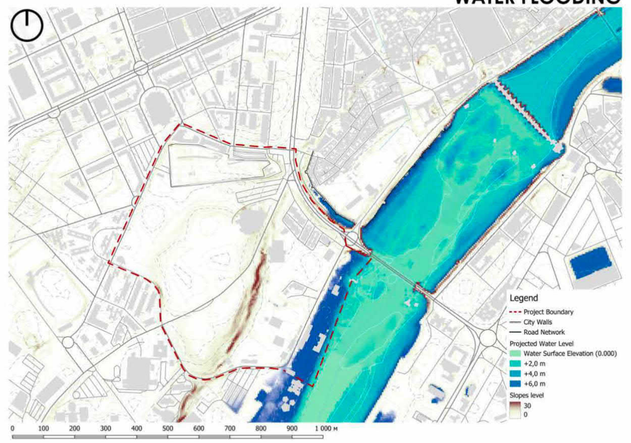
GREEN · ACTION
Green & sustainable public spaces in historic cities - innovative teaching programme

Title: PROPOSE

Names: Adrian Martin Zufri, Daniel Yovcheb, Sana Al Saad, Karolina Uziel, Bilal Savci, Ksenia Shcherytsia, Sofiia Vinichuk

Funded by the European Union

WATER FLOODING



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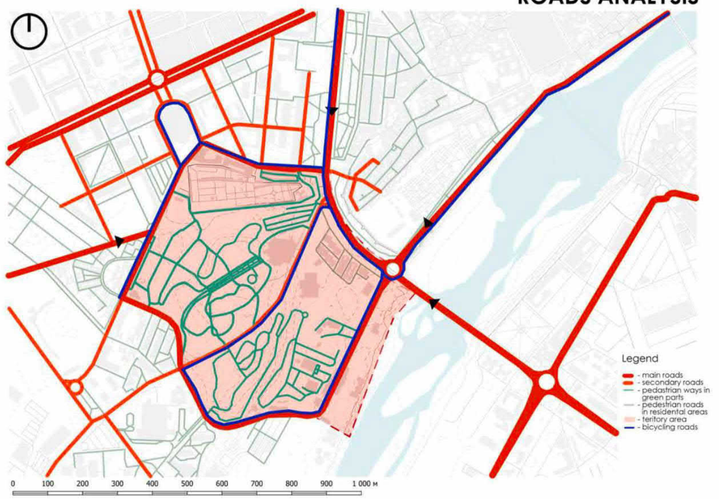
ROADS ANALYSIS



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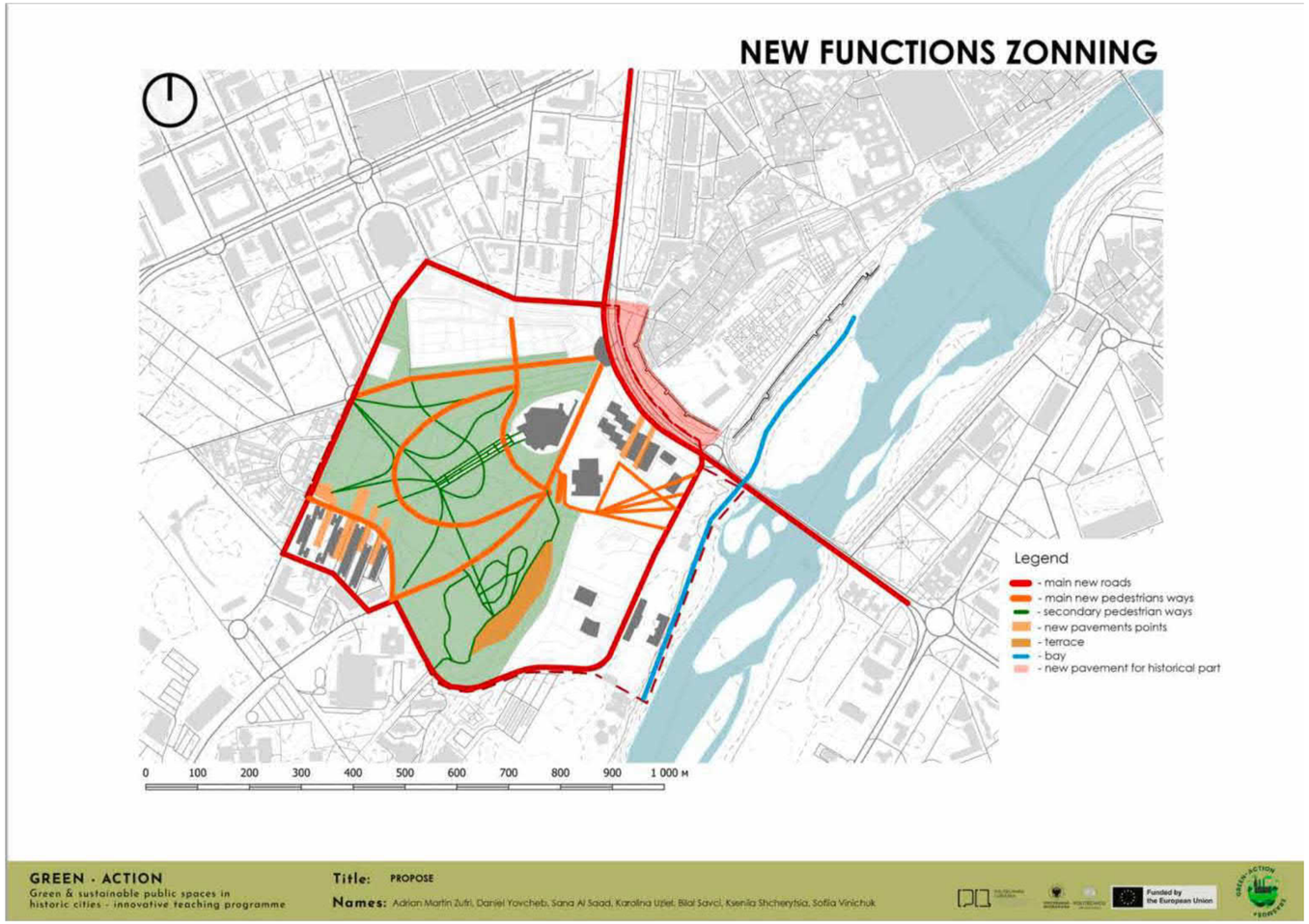

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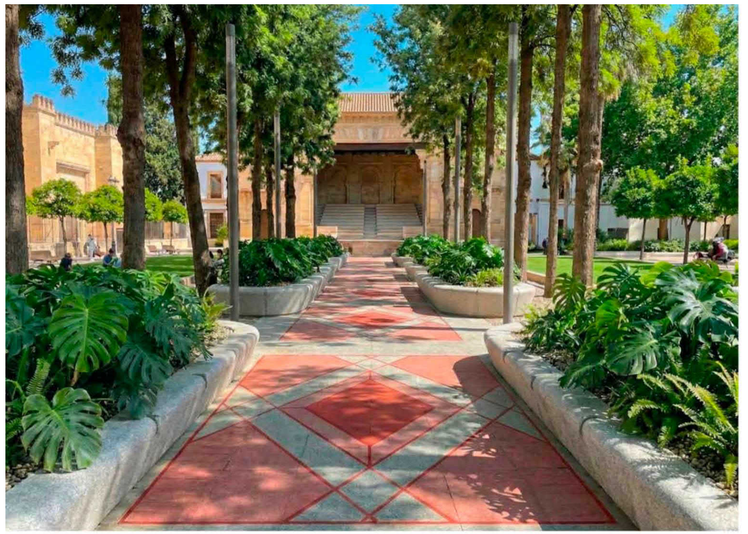

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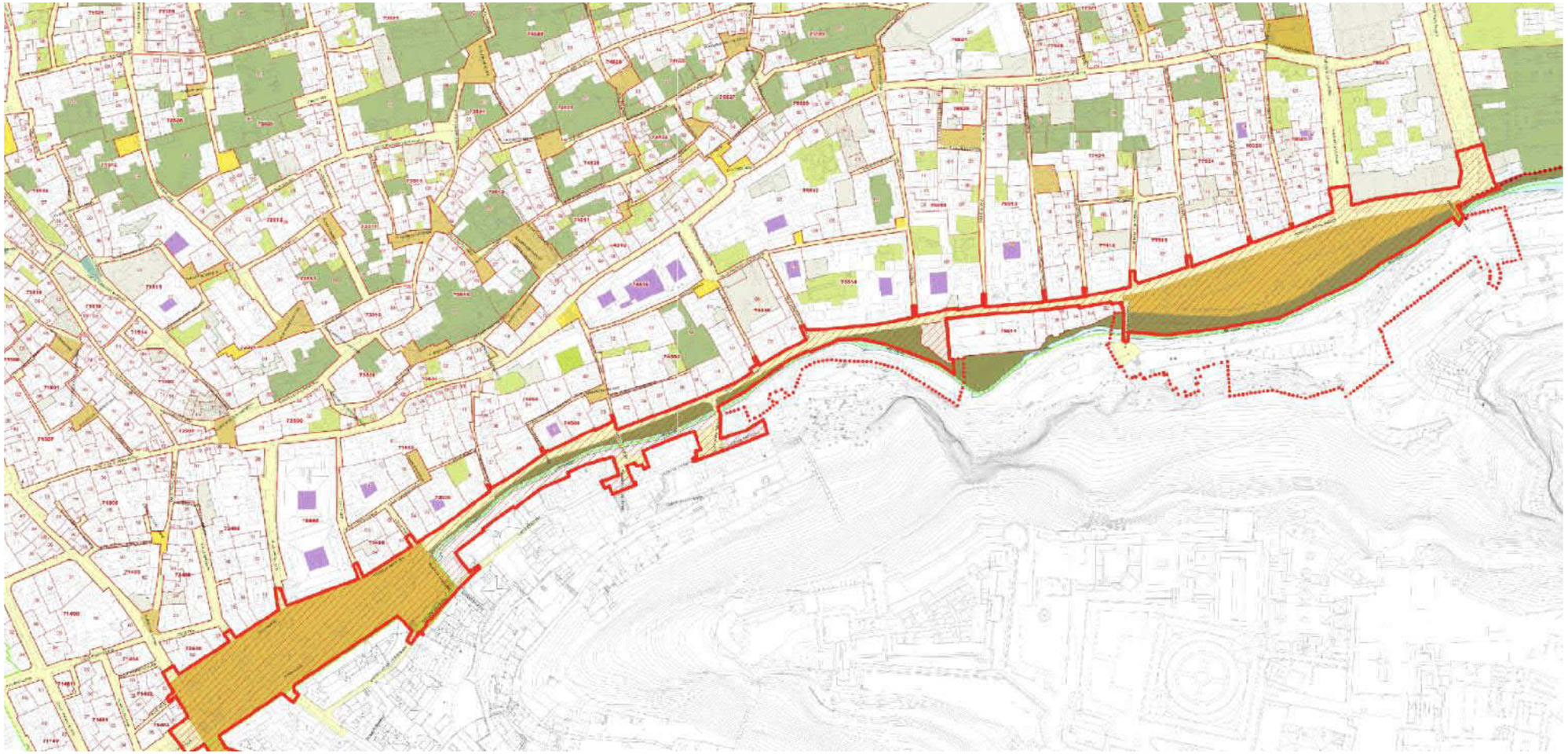
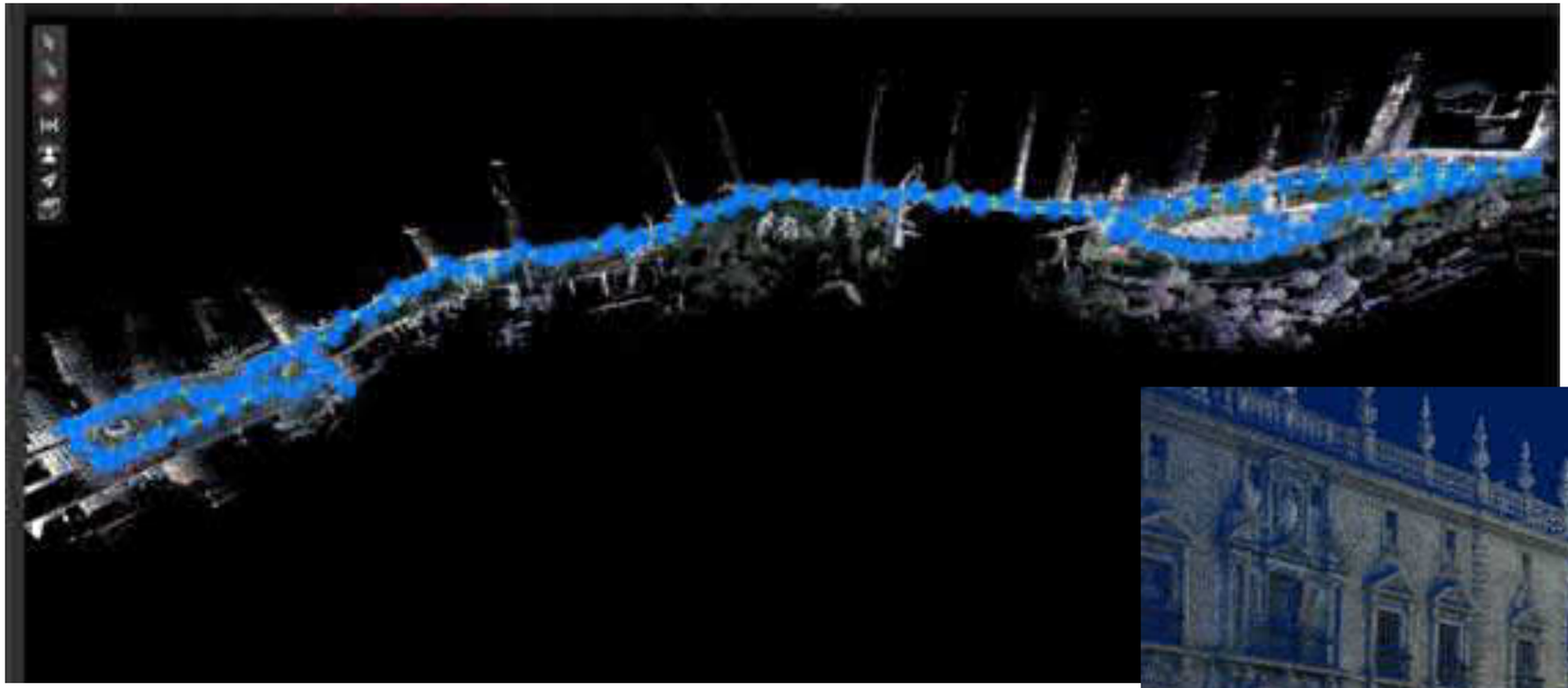


Inclusive Access Platform. Granada (work in progress)



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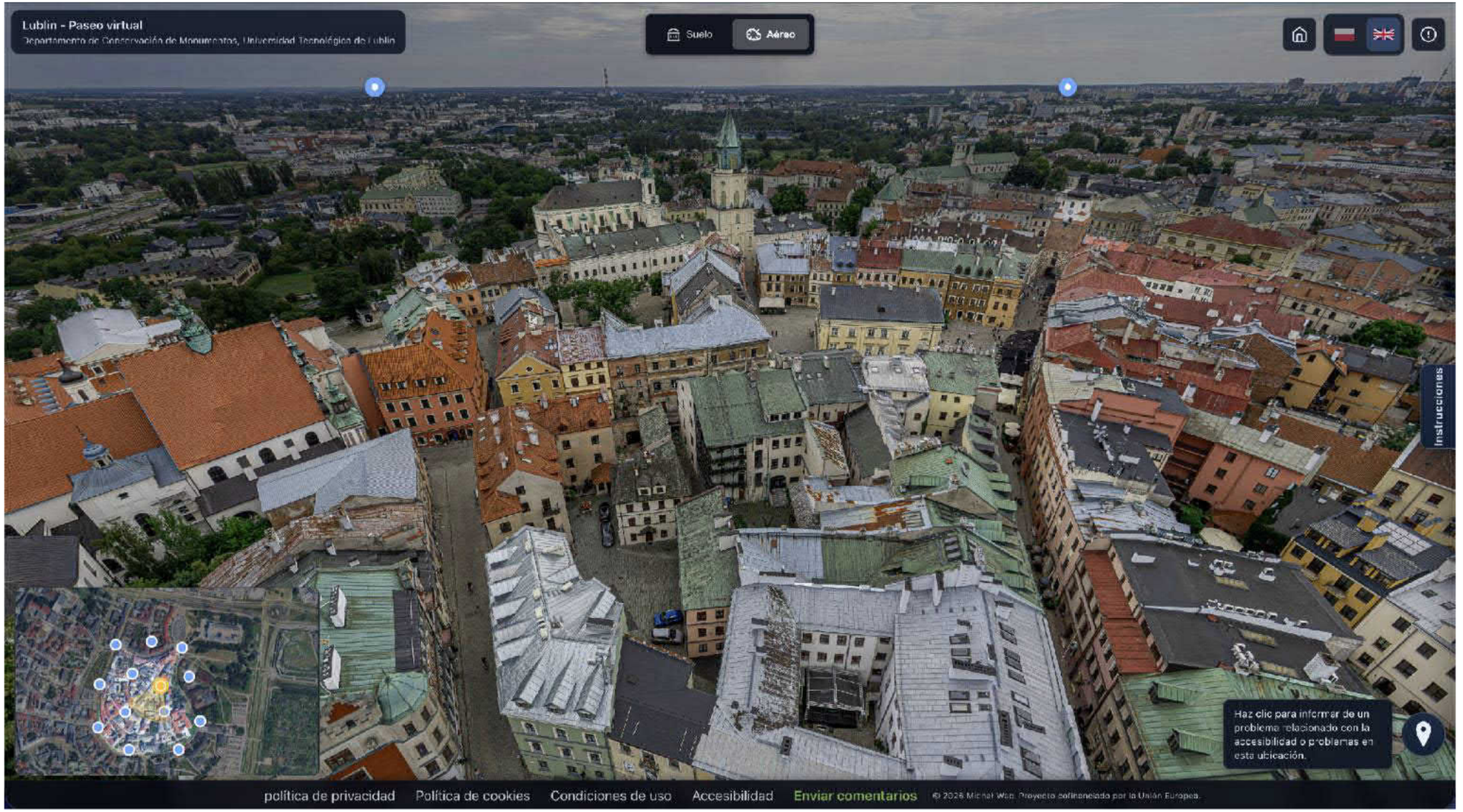
Inclusive Access Platform. Granada (work in progress)

Inclusive Access Platform. Lublin (Poland) as a case study). https://inclusive-access.eu/spacer/lublin



GREEN ACTION. Info Days

[tutorial MOOC POLIMI]