

Promoting collaborative strategies for management, maintenance, impact monitoring, and evaluation of Building Integrated Greenery (BIG) systems Towards the New European Bauhaus by advancing the lifespan of BIG Systems



/ Welcome to the BIG4LIFE newsletter!

Building Integrated greenery (BIG) systems, i.e., green roofs and facades, can help achieve health benefits for people living in urban environments. With this idea at its core, the BIG4LIFE project, which held its kick-off meeting at the University of Lleida in October 2023, aims to promote the renaturalization of the urban environment through BIG systems.

With a budget of 1.8 million euros, this LIFE project has three years to achieve the co-design of framework plans for maintenance, monitoring, and impact assessment of building integrated greening (BIG) systems. The project will ensure the implementation so that this can be verified in the demanding conditions of the Mediterranean climate.

The BIG4LIFE project will work on eight green roofs and facades of buildings in Lleida and Barcelona applying the xeriscaping concept, which optimizes the use of water in these spaces.

The project, coordinated by the University of Lleida, brings together eight European partners (Spain, Italy, the Netherlands, and Greece) from academia and business: the Forest Science and Technology Centre of Catalonia (CTFC), the University of Studies of Genoa (UNIGE), the Hellenic Open University (HOU), TEB Verd SCCL, Verdtical Ecosistema, Sempergreeen BV. and Eixverd Solutions.



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/ Big4life 2024 annual meeting

BIG4LIFE held its annual meeting on November 13th, 2024, in Barcelona, where the project's progress in promoting integrated green systems—such as green roofs and façades—was presented.

This first year of the project has focused on characterising the 8 pilot sites and installing autonomous monitoring systems for air quality, biodiversity, and energy savings.

Additionally, several sites have been rehabilitated, including:

BIG1 Parc Agrobiotech (Lleida)

BIG2 Ronda Mercè (Lleida)

BIG7 L'Artesà Auditorium (El Prat de Llobregat)

During the meeting's roundtable, the importance of communicating the social and environmental benefits of BIG systems and fostering economic incentives to scale them up was emphasised.

On Thursday, November 14th, two pilot projects were visited: the green façade in Tibidabo Park and the green roof of Pérez-Iborra School in Barcelona.



/ Rehabilitation of the green roof of L'Artesà Auditorium in El Prat de Llobregat!

The construction work, which started in late October and is expected to last until the third week of December, has posed a real challenge. The work was carried out on alternating days to accommodate the theatre's schedule, maintaining quality standards and minimising disruptions.

Improvements made so far include the removal of weeds and substrate aeration, maintenance of the irrigation system, and replanting with sedum to strengthen biodiversity and resilience to disturbances.



/ Green roof monitoring

As part of the monitoring activities for the pilot projects, surveys have begun to assess the impact of green roofs and façades on people's well-being.

A 22-question survey was developed to measure psychological benefits, physical comfort, social cohesion, public perception, satisfaction and sense of identity, and willingness to pay to have an integrated green system in a building.

Using QR codes, the survey has been distributed to users at Pérez Iborra School and Tibidabo Park.





/ Training activities

Green Architecture Workshops with Secondary School Students

As part of BIG4LIFE, the University of Lleida organised a series of workshops during the first half of 2025 for secondary school students to explore nature-based architectural solutions.

Participating schools included Maria Rúbies, Castell dels Templers, Escola Episcopal and Gili i Gaia (Lleida). Students worked with green roof models, fostering interest in sustainability and green architecture.



International Cooperation with UNIGE and ETSAV Students

In January 2025, a dozen students from ETSAV (UPC) visited two green roofs in Barcelona—the biodiverse one at Urbaser and the one at Pérez Iborra School—where they learned about environmental monitoring systems and took part in an intensive green infrastructure redesign workshop.



Meanwhile, students from the University of Genoa designed a green roof for the Cavallers building in Lleida. During their stay in Catalonia in April, they presented their projects to UdL students and visited exemplary roofs in Barcelona and emblematic spaces in Lleida.



Technical Workshop for Landscaping Professionals

In February 2025, BIG4LIFE hosted a technical workshop for landscaping companies, led by specialists from the University of Lleida. Participants learned about green roof construction systems and key components, with practical sessions at the CREA lab and a field visit to an installed roof.





Interdisciplinary Green Roof Course at UdL

During the first semester of 2025, BIG4LIFE was closely involved in an interdisciplinary course on Green Roofs, bringing together students from Agricultural Engineering and Technical Architecture at the University of Lleida.

Over three months, students worked on real roofs, visited outstanding projects in Barcelona, and collaborated with companies in the sector. The course concluded with the design of a green roof for a specific building, putting theory into practice.

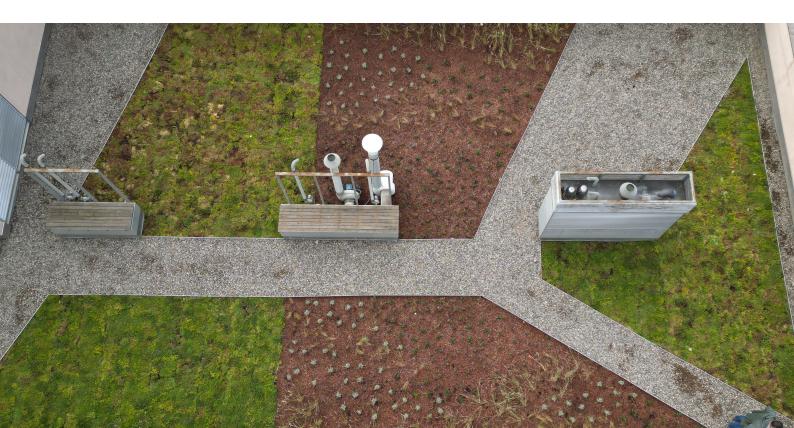




/ Community service-Learning

BIG4LIFE has signed a service-learning agreement with the Castell dels Templers Institute in Lleida, enabling students to learn while contributing to the maintenance and monitoring of green roofs. As part of the vocational training programme in "Nursery and Garden Assistant", students visited the biodiverse Urbaser green roof and the extensive roof of TEBVERD in Barcelona.





/ Event participation

APTE Open Days

On November 6–7, 2024, BIG4LIFE took part in the Open Days organised by the Spanish Association of Science and Technology Parks (APTE). The event highlighted the importance of collaboration between companies and research centres in technology environments aligned with living-lab models.



BIG4LIFE brings sustainability to the university community

As part of the XIII Environmental Activities Series of the Sustainability and Climate Emergency Committee at the University of Lleida, BIG4LIFE hosted visits to its green roofs at the Agrobiotech Park.

This initiative formed part of a broader awareness campaign on sustainability and climate action targeting both the university community and the general public.



BIG4LIFE featured at Breakfast4Inno

BIG4LIFE was presented at Breakfast 4Inno, a knowledge-sharing event hosted by Agrotecnio and Agrobiotech Park in Lleida. The team shared the project's aims and progress, highlighting the environmental benefits of green roofs and façades.



BIG4LIFE at ARQ&VERD

The project joined ARQ&VERD, an event organised by ecohubcn, bringing together researchers, companies and public administrations. Julià Coma represented BIG4LIFE in this forum focused on promoting a sustainable future through green innovation.



BIG4LIFE at RebuildExpo 2025

BIG4LIFE participated in RebuildExpo 2025, Spain's leading event in architecture and construction. Project coordinator Dr. Gabriel Pérez joined a roundtable on urban sustainability, sharing key developments and the importance of green façades and roofs.



/ Event participation

BIG4LIFE connects with the sector at EcoConstruir 2025

With its own stand, BIG4LIFE participated in the third edition of EcoConstruir, a sustainable construction event organised by ecohubcn. The project team shared its initiatives and built new connections with professionals and companies committed to more responsible building practices.





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/ Final announcement

Great news!

The next International Green Infrastructure Congress will take place in Barcelona and Lleida from 27 to 29 October 2026, hosted by the international association World Green Infrastructure Network and led by the University of Lleida under the framework of the BIG4LIFE project.





























