



UBITEACH

Rewilding University Campuses in Milan





Student-Led Nature-Based Solutions for Biodiversity, Climate Resilience and Sustainable Campus Regeneration

As part of the Italian U.BI.TEACH e-LAB activities hosted by the Urban Biodiversity Observatory, Higher Education students developed the project idea “Rewilding University Campuses in Milan”, aimed at transforming university spaces into biodiversity-rich and climate-resilient environments through nature-based solutions and ecological urban design.

The proposal was developed after students analysed environmental challenges affecting Milan’s campuses and surrounding urban areas, including soil sealing, limited biodiversity, urban heat island effects and fragmented green infrastructure.

Through interdisciplinary collaboration and participatory workshops, students designed a proposal focused on integrating biodiversity, green infrastructure and sustainable outdoor spaces into university environments, strengthening the role of campuses as living laboratories for urban sustainability and climate adaptation.



Main objectives

The proposal focuses on the ecological regeneration of university campuses and educational outdoor spaces through interventions capable of improving biodiversity, climate resilience and environmental awareness.

Students proposed transforming underutilised or highly paved campus areas into multifunctional green spaces supporting both biodiversity and student wellbeing.

The proposal promotes the idea of university campuses as interconnected biodiversity hubs integrated into Milan's wider ecological network.

Particular attention was given to:

- increasing vegetated and permeable surfaces
- improving biodiversity within campus environments
- reducing urban heat accumulation
- enhancing outdoor learning and social spaces
- supporting pollinator species and native vegetation
- promoting sustainable campus management practices

Proposed interventions

The students designed several biodiversity-oriented and climate adaptation interventions.

Campus depaving and permeable surfaces

Students proposed reducing impermeable surfaces within university courtyards and open spaces through depaving and ecological redesign interventions.

Suggested actions include:

- permeable pavements
- vegetated courtyards
- rainwater infiltration areas
- shaded green zones
- sustainable drainage systems

The aim is to improve stormwater management while reducing urban heat and increasing ecological functionality.





Proposed interventions

Biodiversity gardens and native vegetation

The proposal includes the creation of biodiversity gardens using native and pollinator-friendly plant species selected according to local ecological conditions and climate resilience criteria.

Suggested vegetation includes:

- native flowering plants
- aromatic Mediterranean species
- pollinator-supporting vegetation
- drought-resistant shrubs
- urban tree species adapted to climate change

These green areas are intended to function as biodiversity habitats, recreational spaces and educational tools for sustainability-related activities.

Pollinator-friendly university spaces

Students proposed integrating pollinator-supporting habitats throughout university campuses through:

- pollinator gardens
- flowering ecological corridors
- insect hotels
- biodiversity observation stations
- green roofs and terraces

These interventions aim to support urban biodiversity while increasing student awareness of ecological challenges.

Proposed interventions

Outdoor learning and wellbeing spaces

The proposal promotes the creation of outdoor university environments supporting both environmental education and student wellbeing.

Students proposed:

- shaded outdoor study and meeting areas
- biodiversity observation spaces
- ecological interpretation panels
- green social spaces
- outdoor classrooms integrated into campus green infrastructure

These interventions contribute to improving the environmental quality and liveability of university environments.





Proposed interventions

Citizen science and environmental monitoring

The project integrates participatory biodiversity monitoring activities involving university students and researchers.

Students proposed:

- biodiversity observation campaigns
- pollinator monitoring activities
- environmental mapping initiatives
- integration with citizen science platforms such as iNaturalist
- biodiversity data collection linked to university research activities

The campuses would therefore function as living laboratories for urban biodiversity monitoring and sustainability experimentation.



Expected impacts



The students identified several expected benefits associated with the proposal, including:

- increased biodiversity within university campuses
- reduction of urban heat island effects
- improved environmental quality and campus liveability
- enhanced ecological connectivity within urban districts
- increased student awareness of sustainability and biodiversity challenges
- stronger integration of biodiversity into campus management strategies
- promotion of universities as living laboratories for climate adaptation and urban ecology

The project demonstrates how Higher Education students can actively contribute to the development of innovative and locally adapted urban biodiversity solutions while connecting academic learning with real sustainability challenges within the urban environment of Milan.



Co-funded by
the European Union

