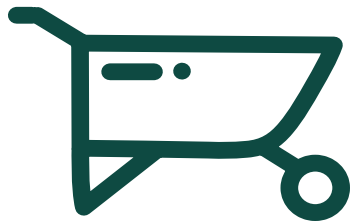




Living Lab Turin, Italy



NBS 3



Community-based urban farming and gardening on post-industrial sites



Istituzione Torinese
per una Educazione Responsabile

„OrtoMobile“ - micro gardens in boxes



NBS OrtoMobile

The urban laboratory “OrtoMobile”- micro gardens in box, promoted and implemented by ITER - City of Turin is part of an educational strategy „Educational co-designing board“ set up for proGReg. It brings together stakeholders while actively involving the educational system of the city: starting from school communities to extending to groups of citizens (organized or not) engaged in information, training and co-designing approach for lifelong learning and peer education.

The OrtoMobile gardens are easy to implement for all ages, and have been installed in six schools of the Mirafiori Sud district, promoting social interaction both in classrooms and at home. Strong collaborative attitudes enable the co-implementation of simple and effective installations of indoor and outdoor areas in schools.

The strategy identified to plan educational activities in proGReg is based on „Learning Cities“ a global and policy-oriented network promoted by UNESCO aimed at provide inspiration, know-how and best practice for building learning societies for all. The City of Turin (ITER) is member of this network since 2016.

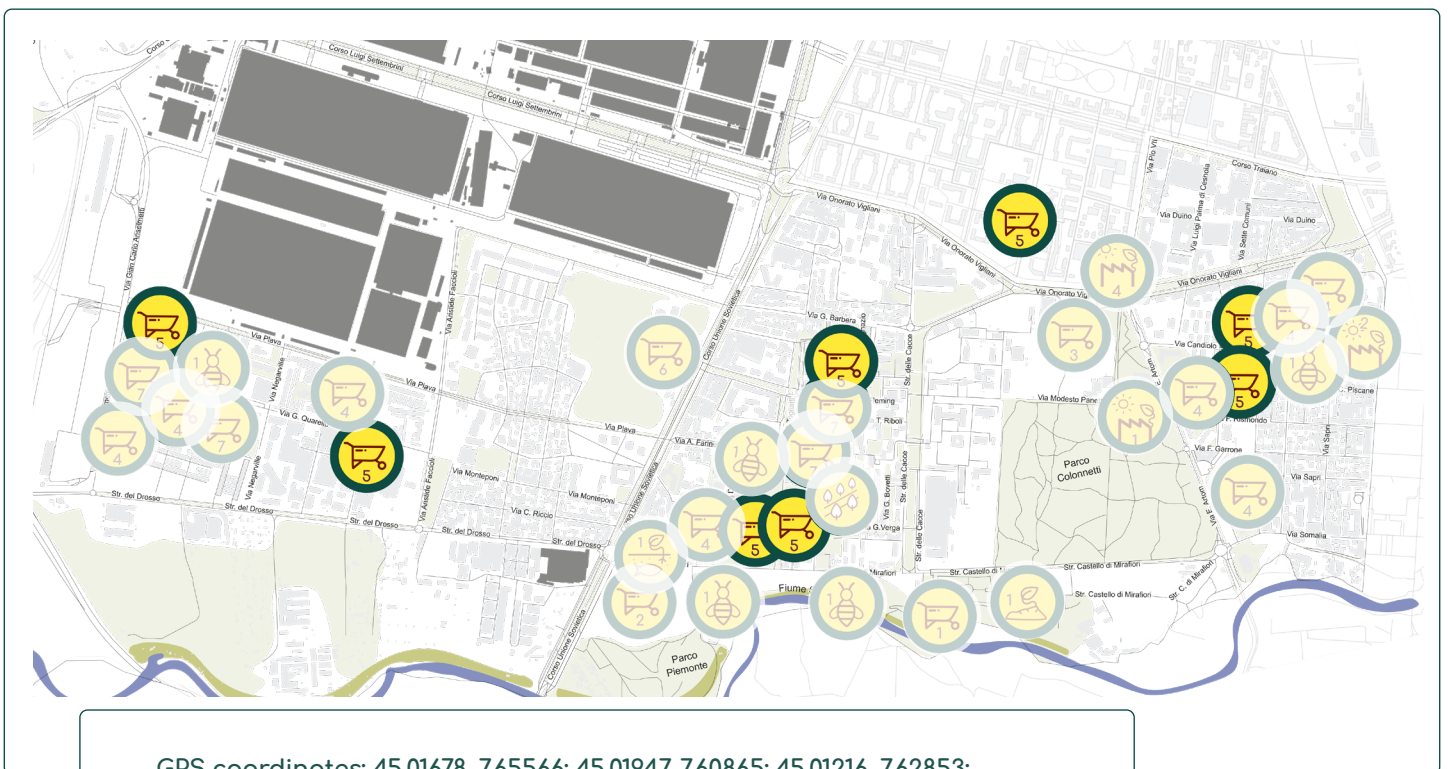
Aim & goals

The objectives and goals of the educational activities can be summarized as follows:

- promote the active role of the local educational system during the proGReg project by consolidating active co-planning processes of school communities to provide continuity of the learning experience
- schools serving as a point of reference on environmental, cultural and socio-economic issues related to the concept of Green Cities.
- support the development of co-design processes
- define management models of NBS foreseen in the project by evaluating the possible activation of Collaboration Pacts stipulated by the Regulation of Common Goods adopted by the City of Turin.
- enhance educational projects already active in the area and support the creation of initiatives, which care for the local territory and seek improvements to its green infrastructure system.
- identify and establish links and collaboration opportunities with local partners.
- create continuous relationships over the duration of the project with the local committee of school activity in Mirafiori Sud.

Area of implementation

Six schools spread over the Mirafiori Sud district (see map below)



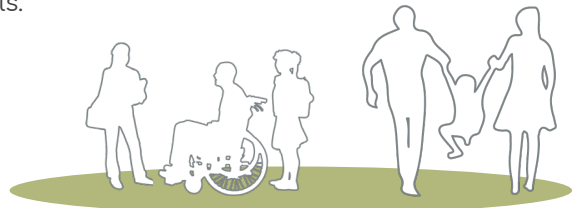
GPS coordinates: 45.01678, 7.65566; 45.01947, 7.60865; 45.01216, 7.62853; 45.02074, 7.64449; 45.01719, 7.6561; 45.019397, 7.629588

Target groups (beneficiaries)

- Teachers and students of primary and secondary schools.
- Students with disabilities from a vocational school.

Indirect beneficiaries include:

- Households of students involved in activities both in schools and at home.
- Residents attending outdoor public markets set up by schools.
- Culture and educative stakeholders of the local community.



Stakeholder constellations

Main responsible partner

ITER - Institution for a Reliable Education (City of Turin):
Coordination activities

ProGReg partners involved

- Fondazione Mirafiori has been involved in the educational system of the neighborhood, responsible for managing educational and co-design activities
- Politecnico di Torino: organized social and environmental monitoring activities with the beneficiaries

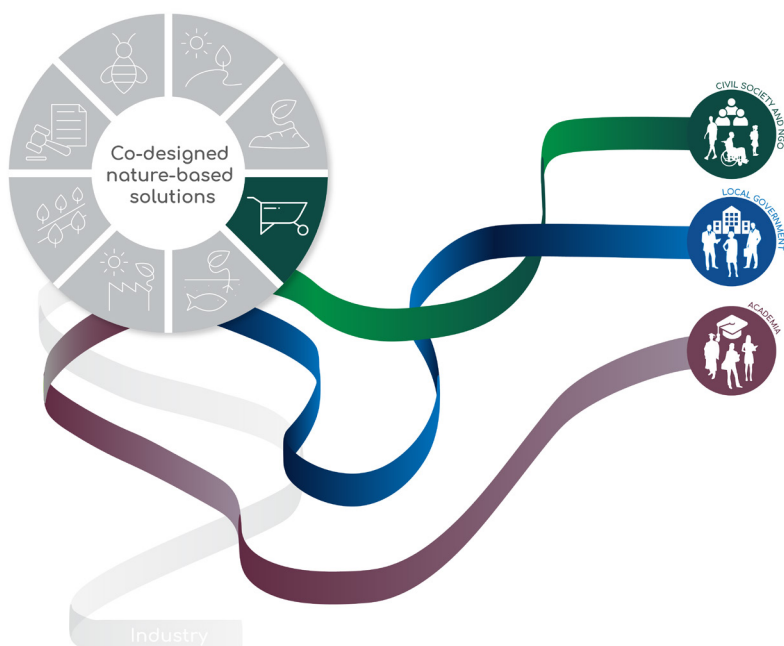
Other stakeholders involved

Osservatorio d'Area di Mirafiori Sud:

- approach and methodology for the NBS implementation based on in-depth knowledge of the school context.
- monthly meetings organized by "Osservatorio d'Area" to discuss potential development options and other issues that need addressing with neighbourhood school staff, the district administration and non-for-profit organizations cooperating with the schools, e.g. Fondazione Mirafiori



Co-design activities, stakeholder engagement, and pre-implementation activities



Planning and preparatory activities (administrative and technical procedures)

The „Community school gardens“ activity is the result of ITER’s experience gained over the years with schools in Turin and developed over three years with the „Slow Food“ association, allowing for a consolidation of intervention methodologies and techniques. The methodology of involving school communities on green issues has been redesigned by proGIreg and shared with the schools involved.

Co-design and engagement activities

ITER proposes a training course dedicated to high school students aimed at creating and caring for a community school garden in the schoolyard. The co-design phase entails the defining activities with the school representatives followed by a workshop with involved students.

The second phase of student involvement included a series of workshops focused on issues addressed in proGIreg: environmental monitoring, „new soil“, green solutions (NBS).

The third phase foresees a practical training of the student groups on two different actions:

- learning laboratory aimed at realizing and

- monitoring a community school garden
- laboratory focused on the management of sensors of environmental data collection provided by proGIreg.

The monitoring phase has been carried out by involving the entire community: teachers, students, experts, stakeholders, through direct observation, questionnaires and interviews.

To manage the co-implementation phase, the school community signed a „pact of collaboration“ that defined the management and development of the experience, guaranteeing the children’s engagement.

Implementation budget

Total implementation budget:
324.100 €



ProGIreg Partners funds:
61.500 €

- ther funds:
- 45.000 € MIUR
 - 155.000 € Compagnia di San Paolo
 - 18.000 € IREN AmbientAzioni
 - 11.600 € Comitato Territoriale Iren
 - 8.000 € PON Metro (City of Turin)
 - 10.000 € Fondazione CRT
 - 15.000 € Segnali d’Italia



Key achievements and implementation results

This NBS has successfully modeled schools acting as a Civic Centre in the Mirafiori district: a public structure open to the neighborhood, recognized as a territorial hub to develop dissemination/training activities on Green City issues. Key achievements are balanced between practical and educational results as follows:

- Creating environmental awareness in a community of young people active in proGReg
- Active involvement of 30 pre-school and primary school teachers and 8 high school teachers
- Active involvement of 556 students: 462 from nursery schools, 94 from primary school,
- More than 100 students from the three years of high school

Synergies with other proGReg activities

There are links to NBS implementations of installing wooden box gardens in schools throughout the Mirafiori district by NGO Fondazione Mirafiori.



NBS 3 – Didactic gardens in boxes at schools

Links with other external projects

- Project “School-Job Internship” with the „Primo Levi” Institute
- Research grant with Politecnico of Turin - DENERG for environmental monitoring
- Progetto Too(!)Smart: environmental monitoring with sensors in Mirafiori Sud to enhance the ongoing sensor network placed at schools in Mirafiori Sud proGReg monitoring activities.

Critical implementation issues and barriers encountered

- Designing effective strategies aimed at involving an adolescent community (15/18 years old) consistent with the school organization and timing proved challenging.
- Establishing effective forms of communication
- Articulating the “Cooperation pact” for the co-management phase was time-consuming
- Personnel changes over time within the school community, especially in the co-management phase
- Complex public procurement procedures

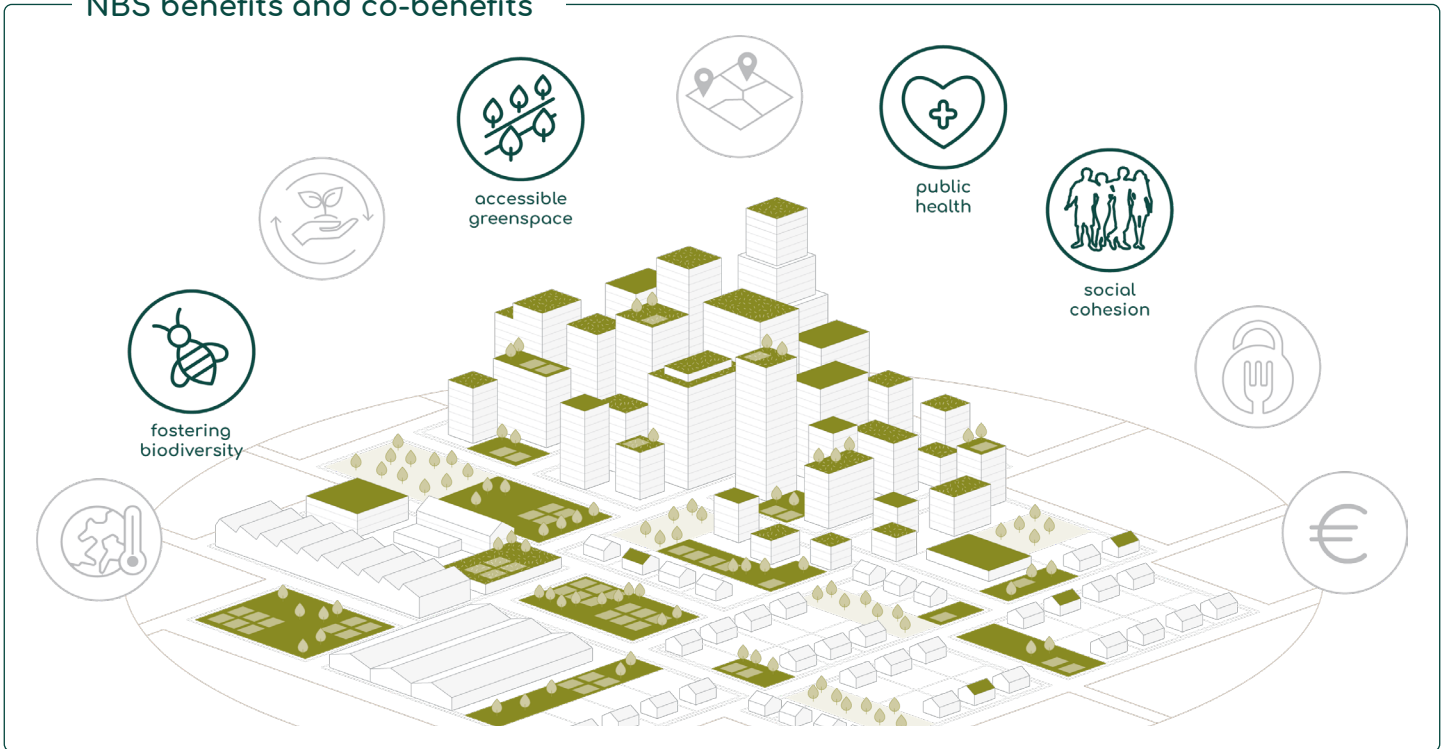
Communication activities



- focus on internal communication with schools involved in implementing the NBS
- informal exchange during school lessons
- organising training meetings and workshops thanks to the active collaboration of all partners involved



NBS benefits and co-benefits



Maintenance & Sustainability beyond proGReg

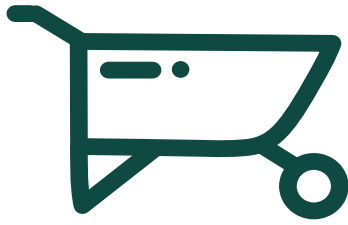
The “Ortomobile” gardens are easy to maintain. The micro modules can be reused several times by recovering containers and culture soil. Moreover, the “collaboration deal” signed with the school community and other stakeholders to define the conditions of use avoids potential threats in the long term. It also benefits from system adaptability beyond the project, guaranteeing economic, social and environmental sustainability.

NBS benefits and co-benefits for the Living Lab Turin

The NBS „Micro gardens in schools“ support the creation of collective urban gardens with social and ethical motives by engaging children, adolescents and other citizens to appropriate public spaces. Hence, contributing to social cohesion while creating accessible green spaces and providing plant food for pollinating insects.



Fact Sheet



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„OrtoMobile“
Micro gardens in boxes

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Partners



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This project has received funding from the European Union's Horizon 2020 innovation action programme under grant agreement no. 776528.