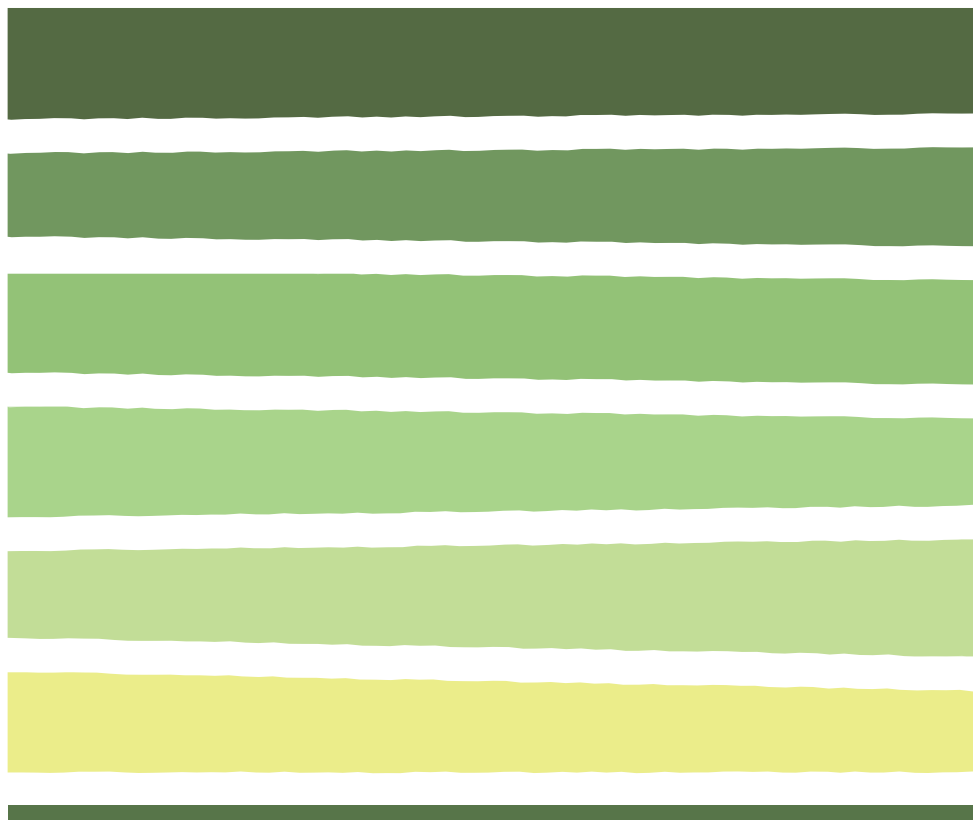


soil4life

What is essential is invisible to the eye



TOGETHER TO PROTECT THE SOIL

Project co-financed by



Coordinating beneficiary



Associated beneficiaries





THE PROJECT

Soil4Life is a European project that involves Italian, French and Croatian partners, which aims to promote sustainable use of the soil as a strategic, limited and non-renewable resource. A goal in line with the commitment signed by the European countries at the United Nations table, through adherence to the Sustainable Development Goals - SDGs.

Co-financed by the European Commission through the **Life** programme, Soil4Life involves associations and research institutions convinced that the soil must be preserved with concrete actions and policies, supported by analyses and data that allow monitoring of the ecological status. **Soil4Life** pursues the application of the **Voluntary Guidelines for Sustainable Soil Management** promoted by the FAO, adapting them to national, regional and local contexts, and provides information and support to territorial planning involving the agricultural sector and sector professionals (agronomists, geologists, urban planners and designers).

Soil4Life also aims to increase citizens' awareness of soil protection and to raise awareness among national and EU institutions of the need to adopt adequate regulations to stop soil consumption and prevent its degradation.



SOIL

Soils are extremely complex ecosystems and rich in biodiversity: **over a quarter of all living species on planet Earth live in the soil**, where all organisms, from bacteria to small mammals, work together to fulfil tasks that are essential to life. They regenerate the fertility of the soil by decomposing the organic substance and transforming it into humus, regulating the cycles of nutrients and carbon and, with it, the climate; they hold and purify the water that filters into the soil and recharges the aquifers; they control the populations of pathogenic microorganisms. The value of ecosystem services provided by soil biodiversity is incalculable: no human activity can ever replace it.

Soil is an essential resource for human well-being, which must be protected and managed so that it can continue to support life on the land above sea level on our planet. Soil undergoes a series of degradation processes and is subjected to various threats such as erosion, reduction of organic substance, contamination, waterproofing, compaction, salinisation and desertification.

At the European level, the main causes of degradation are due to **contamination**, with over 3 million sites potentially poisoned by industrial activities, in addition to widespread pollution linked to the use of pesticides in agriculture; **the progressive loss of surface** area due to urban and infrastructural transformations, which mainly concerns the plains and coastal strips; the loss of organic carbon, with consequent reduction of fertility and release of CO² into the atmosphere. Approximately 45% of European soils, in fact, contain levels of organic matter lower than 2% with causes often linked to intensive agricultural activities.

**OVER A
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IN THE SOIL**

THE SITUATION IN ITALY

Italy is among the most cemented countries in Europe with 7.6% of territory having been urbanised. In the eastern Po Valley and in Lombardy the urbanisation figure rises to 14% of the regional territory, and every year new surfaces are covered by cement and asphalt. A worrying trend, if we consider that in the 1950s urbanised areas were limited to 2.7% of the national territory, while today these surfaces represent around 23 thousand square kilometres, equal to the surface area of a region like Tuscany.

Italian soil is among those most prone to **erosion**: for every hectare of surface 8.4 tonnes of soil are removed from the water every year, with peaks of 20 tonnes per year in the hilly areas in the Apennine regions.

The agricultural soils of the Padano-Veneta plain are particularly characterised by **the loss of biodiversity**, with consequent compromise of the biological functions of the soils. **Salinisation** also presents a risk, as Italy is the second country in Europe (after Spain) in terms of irrigated areas (2.4 million hectares). Moreover, also due to the climatic conditions the southern and insular regions are exposed to risks of **desertification**.

The degradation connected to soil **compaction** mainly concerns the Po Valley and is associated with the intensive use of heavy agricultural machinery. **Contamination** is another significant risk factor in our area, due to a very high number of polluted sites (caused by industrial activities or underground waste storage), as well as the use of pesticides in agriculture. Furthermore, intensive cultivation practices, in combination with climate drivers, constitute a severe pressure factor on the **organic carbon content**. In fact, an annual loss of 1.5% of the organic substance present in the soil is estimated.



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PROJECT ACTIVITIES

To achieve the objectives, **Soil4Life** provides a series of concrete activities to be carried out during the project period, starting from awareness campaigns aimed at the different targets:

- **the public administrations**, with the activation of a permanent consultation group of the institutional actors to improve the governance of decision-making processes in the field of soil, which will lead to the drafting of a White Book destined for the Government and relevant Ministries and the Charter of principles for sustainable use of land for local administrations;
- **farmers**, who will be involved in the implementation of voluntary guidelines on conservative agronomic practices, subsequently distributed through a series of seminars;
- **technicians/professionals** (architects, engineers, surveyors, agronomists and foresters, geologists, etc.), with the creation of voluntary guidelines for soil protection, to be disseminated through a series of training courses with the supply of Professional Training Credits;
- **citizens, schools and civil society organisations**, to raise awareness and promote the adoption by policy makers of measures to protect the soil.

In addition, at least **10 Regional Observatories** will be activated to monitor land consumption, while **Rome** will carry out a pilot demonstration on the issue of soil sealing, developing a Permeability plan and a New General Building Regulation that will be approved and adopted by Rome before the end of the project.

In Lombardy, on the other hand, a pilot will be developed on the maintenance/reconstitution of the organic matter of agricultural soils that will contribute to the improved arrangement of soils management plans on farms.

Finally, the project envisages a national and international information and advocacy campaign aimed at citizens and civil society organisations to promote the adoption by European policy makers of measures aimed at soil protection. The focus of the action is the involvement, at European level, of civil society and the scientific world to develop concrete proposals on soil protection that will be submitted to political decision makers. Alongside this, a campaign will be carried out aimed at young volunteers from different European countries who will receive specific training to become **Soil Ambassadors**, in order to carry out local campaigns aimed at citizenship. The global communication activity will culminate with the creation of the **Manifesto of Young Europeans for the Soil**, intended for the European Commission and presented during the **International Convention in Paris** in 2022.



**10 REGIONAL
OBSERVATORIES
MONITORING
LAND
CONSUMPTION**



A close-up photograph of a person's hand cupped together, holding a mound of dark, rich soil. The background is a blurred field of tilled earth under a warm, golden light, suggesting a sunset or sunrise. The overall mood is one of care and connection to the land.

**TOGETHER
TO PROTECT
THE SOIL**



PROJECT PARTNERS

Legambiente is the environmental association with the widest outreach in Italy. It carries out numerous awareness and information campaigns on environmental issues. It is active against environmental illegality, while promoting solidarity and peace. It promotes the preservation of biodiversity and sustainable development of the region. It acts at local, national and European level to promote sustainable development, the green economy and adaptation to climate change.



ISPRA - Italian National Institute for Environmental Protection and Research operates in the service of citizens and institutions as well as in support of the policies of the Ministry for Environment, Land and Sea Protection of Italy. It is competent in the technical-scientific field, for the prevention and protection of the environment, for all environmental matrices: from protection of soil to water, and to nature conservation. It coordinates the National System for the Protection of the Environment and acts at international level by collaborating with the European institutions. It carries out targeted research and provides scientific support to government action on sustainable development policies through monitoring, control, evaluation, inspection and information management activities



CREA - Council for Agricultural Research and Economics is the largest national research and experimentation body with specific scientific expertise in the agricultural sector. It deals with the spatial-temporal characterisation of agro-ecosystems through interdisciplinary approaches, with particular reference to the relationships between cultivation systems, soil conservation, climate change and environmental monitoring.



ERSAF - Regional Agency for Services to Agriculture and Forestry is an entity of the Lombardy Region that deals with the development of agriculture, forestry and rural areas, pursuing multifunctional and integrative approaches. It works in partnership with universities, research institutes and public authorities at European, national and local level, with farmers and environmental associations, SMEs and the private sector. ERSAF has developed specific experience and skills in monitoring and modelling the environmental fate of nutrients (nitrates and phosphorus) and pesticides in agriculture.



Roma Capitale is a local public body that represents about three million inhabitants and covers an area of about 1,300 km². It deals with local services, personal, culture and development, economy and finance services. Its participation in the 100 Resilient Cities network, a project initiated by the Rockefeller Foundation to help cities around the world become more resilient, led Rome to adopt the Resilience Strategy. Furthermore, Rome contributes to the Urban Agenda for the EU on the digital transition and is implementing several EU-funded projects under different programmes



Polytechnic University of Milan (Politecnico di Milano) - Department of Architecture and Urban Studies (DAStU) is a thematic and interdisciplinary research structure that operates in the field of architectural and urban projects, planning and regional governance. It carries out research, including in the field, on the transformation, care and governance of historical and contemporary settlements and landscapes. It is part of a consolidated international network of centres of excellence. The DAStU avails itself of the experience of the PPTE thematic laboratory (Plans, Landscapes,

Territory, Ecosystems) and of the Research Centre on Consumption of Soils (CRCS) that for years have been carrying out research on the issues of limiting the consumption of soil, the evaluation of ecosystem services and the landscape project with specific reference to the design of fruitive and ecological networks.



CIA – Italian Farmers is one of the largest agricultural organisations in Europe and in Italy and represents about 900 thousand members, of which 300 thousand farmers and agricultural technicians. The main objective of the CIA is to enhance the role of the farmer and modern agricultural enterprises. It collaborates with regional, national and European institutions to promote issues of interest to farmers and citizens, especially if they reside in rural areas.



CCIVS - Coordinating Committee for International Voluntary Service is an international non-governmental organisation engaged in the field of international voluntary service with 176 members in 84 countries and the participation of about 30,000 volunteers each year. It supports and develops different types of projects based on the idea that collaborating is the most effective way to overcome cultural differences. CCIVS works closely with the UN and UNESCO. Since 2015 it has been conducting the programme called IVS (International Voluntary Service) for Climate Justice.



Green Istria is a non-profit Croatian environmental association that is committed to protecting the environment and natural resources and works to build a society that supports the principles of social justice. It promotes participatory forms of governance of public goods and services and encourages public participation in decision-making processes. Green Istria is active nationally and internationally.





soil4life
L'essenziale è invisibile agli occhi

The LIFE Program is the funding instrument of the European Union for the environment and climate action. The general objective of the LIFE program is to contribute to the implementation, updating and development of EU environmental and climate policy and legislation through the co-financing of projects with a high European added value.

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