LIFE SAM4CP
SOIL ADMINISTRATION MODEL FOR COMMUNITY PROFIT

Project N° LIFE13/ENV/IT/001218
LIFE+ SAM4CP is a project co-funded by the LIFE+ Programme
Environmental Policy and Governance

After Life Communication Plan 2018-2023

JUNE 2018

Ecosystem services for a better future

TORINO METROPOLI
Città metropolitana di Torino
POLITECNICO DI TORINO
ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale
crea
Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria
csi piemonte

LIFE SAM4CP

PROJECT DATA

Project location	ITALY – All regions
Project start date	03/06/2014
Project end date	30/06/2018
Total budget	€ 1,425,350
Eligible budget	€ 1,400,950
EC contribution	€ 700,474

BENEFICIARY DATA

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PARTNERS DATA

CITTÀ METROPOLITANA DI TORINO
Area Territorio Trasporti e Protezione Civile (Project leader)

ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale

POLITECNICO DI TORINO
DIST - Dipartimento di Scienze, Progetti e Politiche per il Territorio

CREA
Consiglio per la Ricerca in Agricoltura e l'analisi dell'Economia Agraria

CSI PIEMONTE
Consorzio per il Sistema Informativo Piemontese

LIFE SAM4CP

SOIL ADMINISTRATION MODEL FOR COMMUNITY PROFIT

SOIL IS LIFE: DO NOT DAMAGE IT!

The LIFE SAM4CP project has set up a computer tool, defined simulator, following the *Guidelines on best practices to limit, mitigate or compensate soil sealing* engaged by a working group of European Commission (SWD (2012)101final), where they highlight the variety of functions and services that soil supplies, most of which have direct and indirect benefits to man and also to economy. The simulator evaluates repercussions, not only at environmental levels but also at economic levels, of urban development planning.
This tool, in order to be tested and improved, has been experimented showing satisfactory outcomes in the arrangement of urban modifications provided by four Municipalities of the Metropolitan City of Turin.

These Municipalities were selected by a public request of interest in addition to their diverse characteristics from a morphological, demographic and socioeconomic point of view.

Land take and ecosystem services

Land is a finite, brittle and non-renewable resource 'consumed' by man: housing, streets, railways, harbours, factories are increasingly located on considerable portions of sealed soil, in addition to that, they alter its characteristics irreversibly. However, there is a lacking awareness of the possible consequences that the increasing sealing and urbanization might, as a matter of fact, implicate.

On the other hand, we should always bear in mind that a soil at natural conditions, besides its intrinsic value, provides humanity with numerous "services" that are indispensable not only to life preservation, but also to a working economy: crop pollination, availability of freshwater, lands fertility, protection from floods, carbon capture and storage, biodiversity preservation, supply of raw material are just some of the numerous services provided by "Natural Capital".

Land take dangerously prevents free areas from performing such precious functions.

A positive urban development planning should be able to limit further land take and forecast transformations of new free land portions, taking into account the importance of preserving land ecosystem functions.

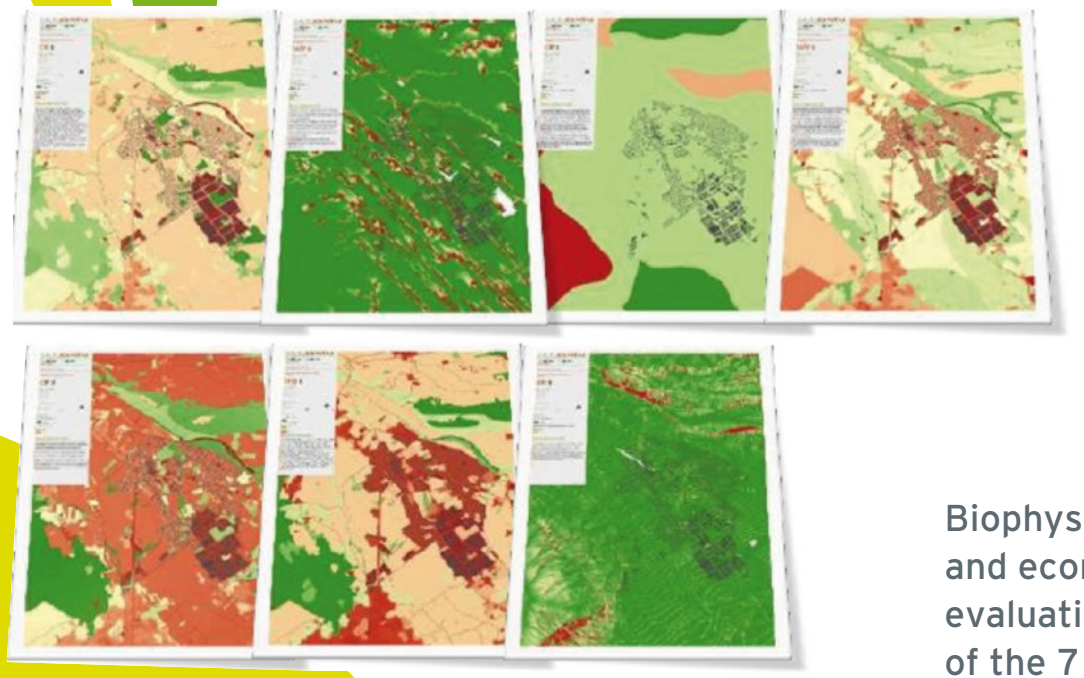
This might not only grant community the preservation of a finite and non-renewable resource, but also the saving of public finance.

Objectives

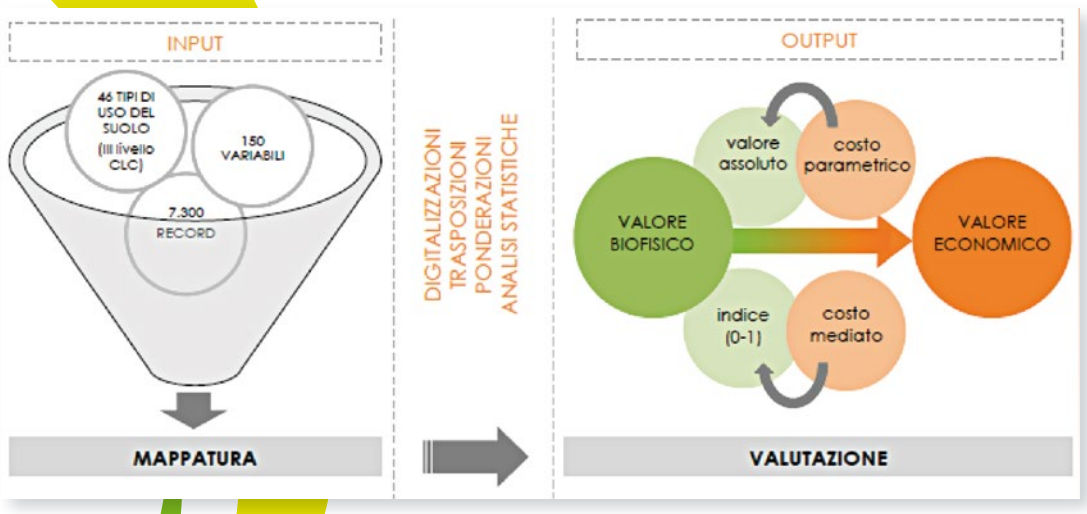
The project, developed between June 2014 and June 2018, focused on the following goals:

- showing to what extent land planning, that integrates in decision-making processes an evaluation of environmental benefits granted by free soil, provides a considerable reduction in land take and an overall saving for the community, thanks to the preservation of natural and public financial resources;
- enhancing and complementing in local government tools 7 E.C. (carbon capture, biodiversities, purification of water – characterized by nutrient retention and water availability –, erosion of soil, timber production, pollination, crop production);
- protecting and providing a sustainable use of soil resource, highlighting the negative effects of land take for the environmental evaluation of a land;
- preserving and enhancing the overall ecosystem functions freely offered by soil to the community;
- avoiding public costs from the restoration of ecosystem functions provided by soil as well as land maintenance;
- protecting agricultural functions of soil by keeping the other functions unaltered.

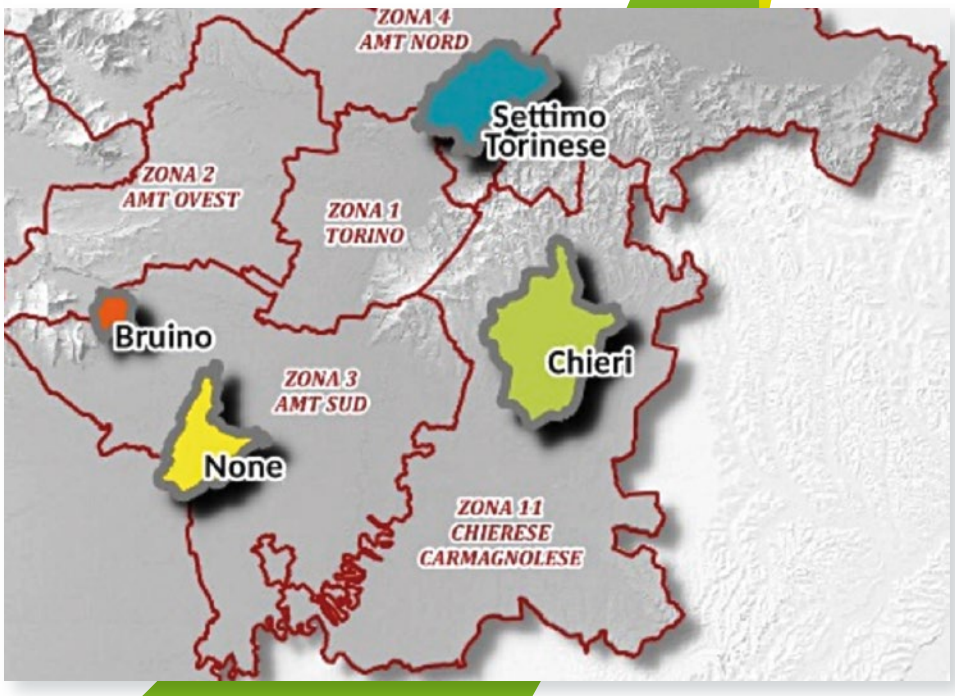
Actions



Biophysical mapping
and economic
evaluation
of the 7 ecosystem
services
on national
and local scale



Analysis
of the effects arisen
by the realization
of the existing plan
forecasts
of 316
Municipalities
of the Metropolitan
City of Turin



Four case
histories
of local planning
revision:
Bruino, Chieri,
None,
Settimo Torinese

Results

PLAYSOIL

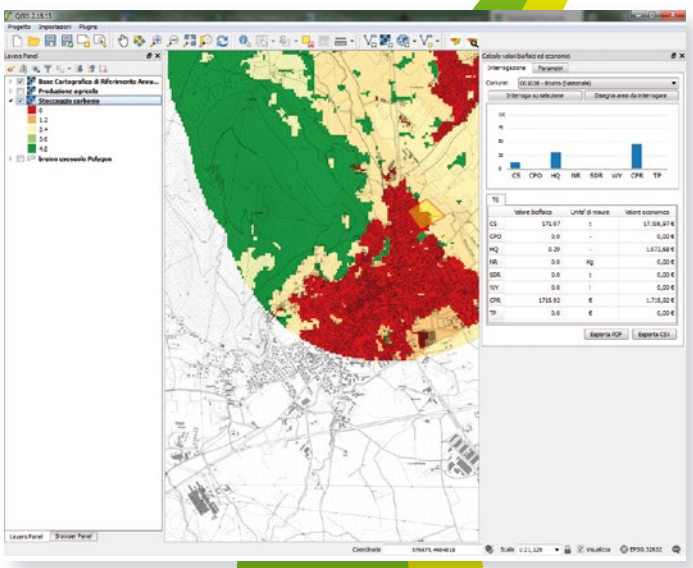
A web tool to evaluate the effects
of different types
of land transformations
on ecosystem services

www.sam4cp.eu/playsoil

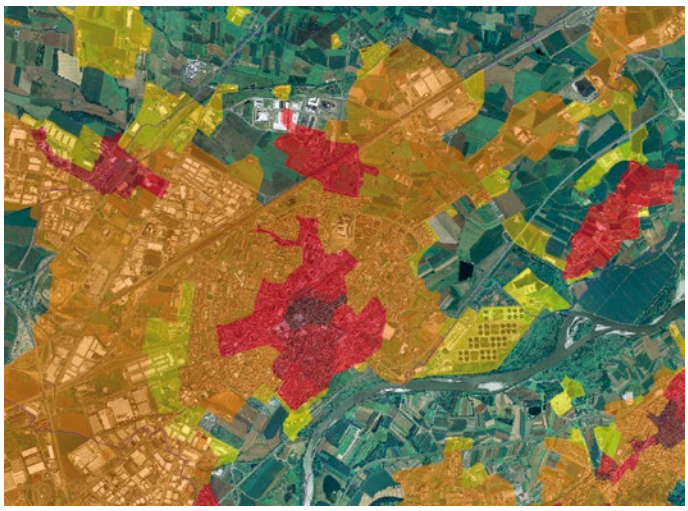
SIMULSOIL

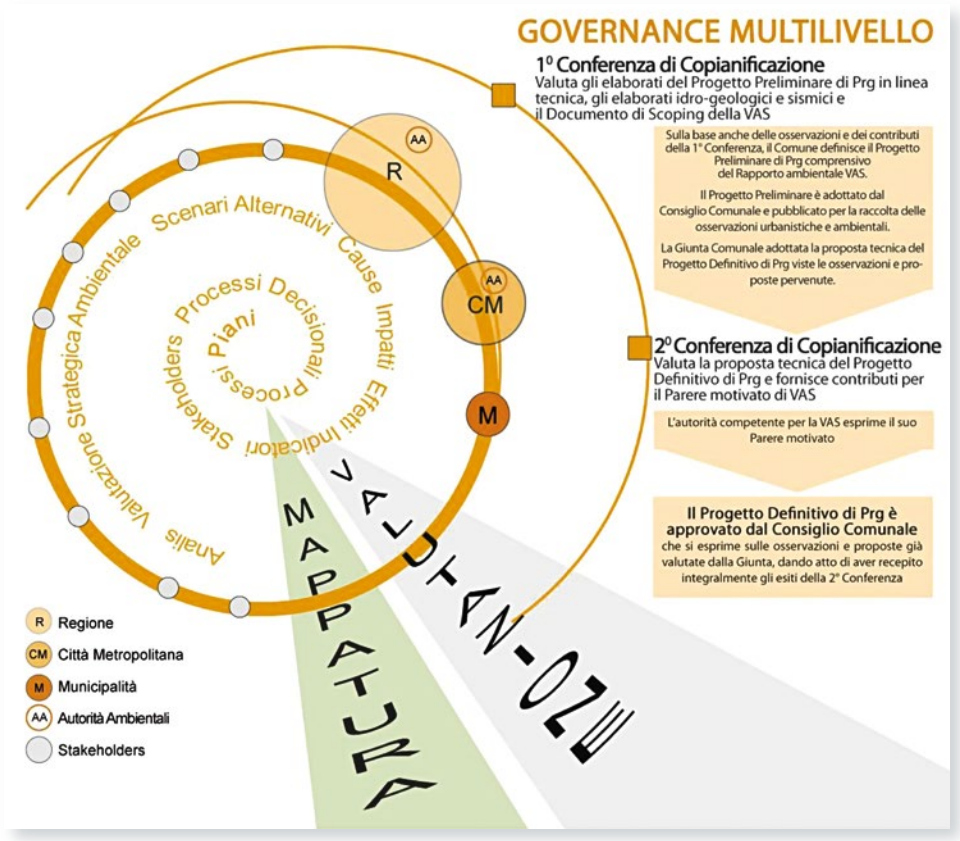
A helping tool
to public decision-makers
to make sensible
and sustainable choices
about the use of a finite
and non-renewable resource

www.sam4cp.eu/simulsoil



Four new revisions
of urban plans
of the Municipalities
of Chieri, None, Bruino
and Settimo Torinese
which include the evaluation
of ecosystem services





New urban
models
to plan
in order
to limit
the loss
of ecosystem
services

After Life
Communication strategy

In the short term, the environmental impact resulting from the implementation of the project is closely linked to the "demonstrative" experimentation of the output produced by the 4 pilot Municipalities. In the long term, it is linked to the adoption of land management and urban growth policies more attentive to the soil heritage and its functions by local administrations that decide to use the simulator in the preparation of their future revisions of the urban plan.
The project, in fact, had the goal of convincing public administrators to adopt more sustainable planning policies and criteria. So it has provided an IT tool that, highlighting the economic aspects (costs vs. benefits) of certain planning decisions and land use regulations, will help to intervene with minor impacts on the productive capacity of the soil, on the availability of raw materials, on biodiversity, on the carbon cycle, on the hydrogeological risk, on the landscape and environmental heritage, on the functions of the rural areas.
The generated impacts can, therefore, be better appreciated in the medium-long term, as they will emerge with the availment also by other stakeholders of the tools provided by the project.
The reduction in the consumption of free soils, associated with the preservation and improvement of the ecosystem services provided by them, will guarantee greater environmental quality and will avoid all costs related to the restoration and / or replacement of environmental assets.
Avoiding removal of areas for agricultural use, on the other hand, will make a contribution in terms of food supply and food security, reducing the resulting dependence on foreign markets and price fluctuations, while greater environmental health will have positive effects on human health.

Several studies have now highlighted how green and nature contribute to the psychological well-being, as well as the physical, of people: in fact, they are regularly evaluated among the factors useful for improving the quality of life. Finally, we must not forget the contribution that the protection of ecosystem services provides to the contrast and containment of climate change, thanks to the increase in the resilience of cities and territories. We must finally mention the contribution that the protection of ecosystem services provides to contrast and containment of climate change, due to increased resilience of cities and territories.

We therefore hope that the activities of involvement, dissemination, training and communication carried out throughout the project, can generate results in terms of "containment of land consumption", increasing awareness of the advantages associated with the protection of soil and its functions.

The target of those involved has been varied: from students of different ages, to citizens, professionals and issue experts, local policy, national and European.

Through the various awareness actions we have tried to show how we can all contribute to the containment of land consumption. In this direction, we have acted and will continue to act even after the end of the project. Indeed, for this reason some dissemination actions have been strengthened and others slightly modified in order to maximize their impact.

As already highlighted, the main effects generated by the project will be visible only in the medium to long term. However, we believe that the interest and satisfaction expressed by the local authorities involved, by the students and teachers of the schools and the high number of invitations to present the project results in the context of initiatives, conferences and seminars on similar issues, can be counted among the impacts produced.

Furthermore, in order to guarantee the survival and use of the tools developed by the project in the future, a specific after-life communication strategy has been developed whose objectives are:

- continue to spread the knowledge of the SEs;
- promote knowledge of the project and use of the simulator at the administrations;
- promote the choice of governance tools for a more sustainable use of the soil resource.

Budget and duration of the After Life Plan

Each partner will contribute with its own resources, consisting mainly of man-hours made available, to the implementation of the After-Life Plan that will develop for five years after the official end of the project, from 2018 to 2023.
The following table summarizes the actions to the support in the use of the simulator, the dissemination activities of the results achieved and the participations in networking events with other similar projects that the various partners will develop after the project closure, estimating the economic value and the period of scheduled development.

SHEET WITH ACTIONS / RESPONSIBLE / PERIOD	RESPONSIBLE PARTNER	PERIOD	COST IN EUROS
Communication and dissemination of publications and project results	All partners	2018-2023	
Use of Simulsoil as part of the evaluation activities of the revisions of urban plans in the context of co-planning conferences	CMTo	2018-2023	18.000,00[1]
Monitoring the number of Municipalities using the simulator to support the planning activity	CMTo	2018-2023	900,00[2]
Inclusion in university teaching of specific training interventions on project outputs	POLITO	2018-2023	3.328,90
Dissemination activities of the project results at the INU	POLITO	2018-2023	3.328,90
Dissemination activities of the project results at the RUS (network of universities for sustainable development)	POLITO	2018-2023	303,70
Maintenance and updating of the project website and Facebook page	CREA	2018-2023	1.350,00[3]
Monitoring of the Simulsoil simulator download from the project website	CREA	2018-2023	1.350,00[3]
Technical support for the Simulsoil simulator	CSI	2018-2023	15.000,00[4]
Training workshop on the use of the Simulsoil simulator aimed at officials of the CMTo	CSI	September/ October 2018	800,00[5]
Training workshop on the use of the Simulsoil simulator aimed at officials of the Piemonte Region	CSI	September/ October 2018	800,00[5]
Report on land consumption, territorial dynamics and ecosystem services	ISPRA	Annual	
Continuation of networking with other related projects, in particular with: • H2020 LANDSUPPORT PROJECT • Interreg Alpine Space – ALPES PROJECT • Interreg Alpine Space – Los_dama PROJECT • S.O.S.4LIFE PROJECT • MAGIC LANDSCAPES PROJECT • LUMAT PROJECT • ARTACLIM PROJECT	All partners	2018-2023	2.000,00[6]
Continuation of collaboration between the partners, including the continuation of project activities through the search for new financing	All partners	2018-2023	

1 Cost of man-hours for the use of the simulator to support about 150 urban variations over a period of 5 years.
2 An activity equivalent to one day / year is assumed for a total of 5 days of an average official.
3 An average official is assumed an hour per month for 5 years.
4 We assume two days per month for 10 months / year = 100 days in 5 years.
5 Cost of 8 hours of training by two trainers + equipped classroom cost.
6 An official day of work is hypothesized for each project.