



# LIFE 4 POLLINATORS

INVOLVING PEOPLE TO PROTECT WILD BEES  
AND OTHER POLLINATORS IN THE MEDITERRANEAN



LIFE18 GIE/IT/000755



**Project's Web Site:** [www.life4pollinators.eu](http://www.life4pollinators.eu)

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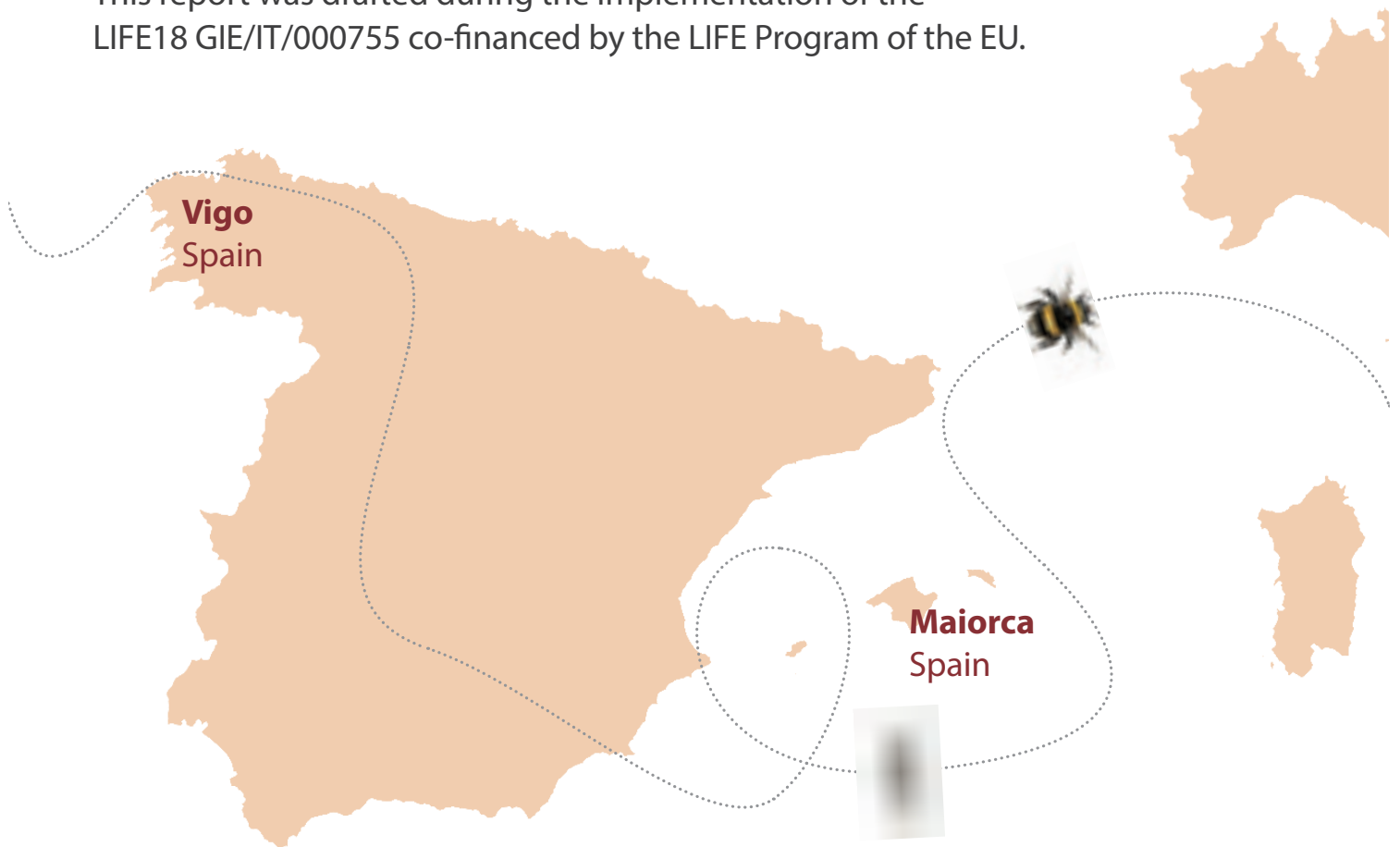
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[www.life4pollinators.eu](http://www.life4pollinators.eu)

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Authors: This document is the result of the collaborative work of the entire project team.



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## 1. THE ENVIRONMENTAL PROBLEM

What is pollination and why does it matter? Pollination is the transfer of pollen between conspecific flowers that leads to fertilization, seed development and fruit production. Many plants are pollinated by animals, mostly insects, that visit flowers attracted by specific traits such as colour, perfume and tasty nectar. All these adaptations are the result of the long coevolutionary history of plants and animal pollinators. Plants and insects gain mutual benefits from this relationship: as they move from flower to flower, insects are generally rewarded with food (nectar and pollen) and inadvertently spread pollen to other flowers, becoming true “pollinators”.

### WHO ARE THE INSECT POLLINATORS?

NOT JUST HONEYBEES...

also WILD BEES,

HOVERFLIES,

WASPS,

BEETLES,

BUTTERFLIES AND MOTHS

Wild pollinators form the core of our ecosystems. Their populations have declined sharply in recent decades: major causes include land-use changes, destruction of habitat, intensive agriculture, pesticides, environmental pollution, invasive alien species, pathogens, climate change (IPBES, 2016) and unsustainable beekeeping. Their decline is a major component of modern biodiversity loss, and threatens the health of the environment and agriculture.

It is estimated that 84% of EU crop species and 78% of wild flowering species rely on insect pollination. The ecosystem services provided to the EU by pollinators are valued at €15 billion/year.





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## 2. THE PROJECT

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LIFE 4 POLLINATORS aims to improve the conservation status of pollinators by addressing a main driver of all causes of their decline: the level of awareness of key stakeholders and the general public. The activities are designed to change the behaviour of farmers, town planners and managers, conservation practitioners and local authorities. To achieve this ambitious goal, the project developed trainings, talks, workshops, communication and educational activities using a citizen-science approach.



### LIFE 4 Pollinators Objectives

- to promote adoption of best practices for the conservation of wild pollinators
- to stimulate a change of behaviour in key stakeholders
- to improve wild pollinator populations.

### THE PROJECT SUPPORTS:

- the Habitat Directive 92/43/CE
- EU biodiversity strategy for 2030
- the Nature Restoration Law 24/6/24
- the revised EU Pollinators' Initiative COM/2023/35 final
- Directive 2009/128/EC for Sustainable Use of Pesticides
- the Invasive Alien Species Regulation UE 1143/2014
- the Farm to Fork Strategy





### 3. GENERAL PUBLIC INVOLVEMENT

#### Field guides

The first step in learning about pollinators is to be able to recognize them: six beautifully illustrated FIELD GUIDES about bees, wasps, flies, butterflies, beetles and plants have been produced in English, Italian, Greek, Spanish, Catalan and Slovenian.



#### Mobile Exhibition



LIFE 4 Pollinators has created a mobile exhibition to foster awareness and educate the public, especially young visitors, about the crucial role of pollinators and the importance of preserving healthy habitats, rich in nesting sites and food resources, for their protection. The Mobile Pollination Exhibition has been shown in Greece, Spain and Italy, reaching thousands of people. It will be permanently on show at the University of Bologna Botanic Garden. Contact SMAUnibo if interested in showing it: [sma.segreteria@unibo.it](mailto:sma.segreteria@unibo.it)





## Project Videos

Three animations have been created to engage the public with the project. They explain the importance of the project and pollinators and the measures needed to protect them. The first video presents the project; the second showcases pollinator diversity, illustrating their essential role in ecosystems and agriculture. The third focuses on threats to pollinators, such as habitat loss, pesticide use, climate change and alien species. The videos aim to educate viewers



about the importance of pollinators and inspire actions to ensure their conservation.



## Pollinator Gardens

Pollinator gardens are specially designed green areas hosting plants that attract and support pollinators throughout the year. They provide nesting sites and essential nectar and pollen sources. A new section dedicated to pollinators has been created in the Botanic Garden of Bologna (IT) and four others in urban contexts in the Balearic Islands (ES).



We developed specific **ONLINE TRAINING** in the form of an online tool available in English on the project website. The tool is designed to enhance understanding of pollinators through videos and interactive quizzes. There is a version for farmers and one for managers of protected areas.



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## 4. GENERAL PUBLIC INVOLVEMENT

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### Platform

A web platform where anyone can upload photos of insects visiting flowers has been launched to broaden the possibility of public engagement.

Pictures double-checked by expert taxonomists then appear on the map with correct plant and pollinator names.



### What is Citizen Science?

It is the involvement of citizens in scientific monitoring. Through active collection, analysis or interpretation of data and with the support or under the supervision of researchers, citizens help scientists and gain awareness of important conservation issues.



### Bioblitz

Bioblitzes are collective expert-assisted surveys. Polli-Blitzes concern pollinators and entomophilous plants and last one day. Such events have been organised in Nature 2000 sites in Italy, Spain, Greece and Slovenia. Participants were invited to take pictures of insects visiting flowers and upload them to the web platform. With the help of project staff and volunteer taxonomists, they also recorded plant-pollinator interactions using standardized protocols.



## BIOBLITZ OUTCOMES

27 events in IT, ES, GR, SL

770 participants

65% improved awareness

41% changes in behaviour

+ 2000 pictures uploaded



### Project social network

The social networking has been highly successful, reaching a wide audience and producing 3-4 items of content per week, including stories and educational material. It effectively promoted events, shared partner activities over the years, and engaged users with the project.



Followers = 1625  
Coverage = 52100



Followers = 1249  
Coverage = 9982



Followers = 406  
(update: July 2024)





## 4. STUDENTS 4 POLLINATORS



A specific educational project was implemented throughout the project. It foresees a preliminary education session at school, followed by field activity to observe and record plant-pollinator interactions, and a final “restitution” session in which the results of field activity are presented and discussed. The educational program is detailed in the Citizen Science Handbook. Training of teachers and educators was conducted in Italy and Greece to increase the number of students involved and enable replication. Four different games were invented and are available on the project website.

A special activity was carried out in Bologna (Italy) with 3 classes of the artistic high school Liceo Arcangeli. Ceramic sculptures of 8 floral shapes were created for the Pollinator Garden. A competition to design bee hotels for the garden was organized: two projects were selected for the garden and built by the students.



### SCHOOL OUTCOMES

1500 students in GR, IT, ES

27% improved awareness

313 teachers in GR, IT, ES

86% willingness to implement project



## 5. URBAN GREEN AREAS

Urban green areas are important ecological corridors and stepping stones for pollinators. The project held workshops and training sessions for managers of urban green areas, gardeners, town planners and environmental biologists. These events were held physically or online in Italy, Spain and Slovenia on the basis of the Handbook for Urban Areas developed by the project. The main topics were pollinators, their needs and best pollinator-friendly practices for urban green areas.

### URBAN GREEN AREA OUTCOMES

7 trainings in IT, ES, SL

186 urban planners/managers/gardeners

84% improved awareness

63% increase in pollinator-friendly behaviour

Municipalities were invited to reduce use of pesticides, limit mowing to after the main blooms, alternate mowed areas, plant entomophilous species and educate citizens. These actions were listed in the pollinator-friendly declaration that we developed by a participative process between UNIBO and the municipalities of San Lazzaro di Savena and Casalecchio di Reno (Italy).





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## 6. AGROECOSYSTEMS

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### FARMERS

Since intensive agriculture is the main threat for wild pollinators, farmer education and training were of the utmost importance for LIFE 4 Pollinators. Specific events were organized in Italy, Greece and Spain to improve farmer awareness of the basic role of wild pollinators and to explain and suggest management practices to reduce their decline.



The Handbook for farmers contains information on how to improve farm management in order to be more sustainable. Researchers from CREA and UNIBO-DISTAL developed a code of conduct for pollinator-friendly farms in collaboration with the farmers' confederation Confagricoltura Emilia Romagna. It consists of a set of rules for becoming more pollinator-friendly.

#### AGROECOSYSTEM

#### OUTCOMES

25 training events in IT, GR, ES

700 farmers

54% improved awareness

51% increase in pollinator-friendly behaviour

Bee hotels, flower strips, uncultivated meadows, artificial habitats and maintenance of natural habitats, such as hedges, groves and ponds, are fundamental for maintaining environments suitable for nesting and foraging insects. Sustainable agricultural practices such as reduced mowing, limited use of pesticides, and selection of bee-friendly plant-protection products are crucial for protecting pollinators.







## AGROINDUSTRY OUTCOMES

1 training at Barilla  
13 technicians  
70% improved awareness

## YOUNG AGRONOMISTS

A specific workshop was held for agriculture students at Vigo and Bologna University. The importance and vulnerability of wild pollinators and the impact of pesticides on different taxa were described, and alternative strategies to defeat pathogens were illustrated.



## YOUNG AGRONOMIST OUTCOMES

9 lessons in IT, ES  
170 participants  
52% improved awareness



## 7. NATURAL AREAS



Protected Areas offer refuge for wild pollinators, though incorrectly regulated human activities in those areas may threaten pollinator populations. Technicians, conservation practitioners and authorities of Protected Areas and Nature 2000 sites were involved in workshops, training sessions and meetings in Italy, Spain and Greece. The handbook for Protected Areas, which focuses on management to improve the diversity of insect pollinators and the conservation status of wild species, was the basis of these events.

The Code of Conduct for farmers and the Declaration of Intents for Municipalities were presented as starting actions to reduce the impact of farms and towns/cities within the perimeters of PAs.



### NATURAL AREA OUTCOMES

15 workshops in IT, GR, ES

420 park managers/operators, conservationists

59% improved awareness







## 8. PILOT PROJECT



Sustainable farming always starts with consideration for bees, hoverflies and butterflies, which must be monitored and studied.

In the Pilot project in Emilia Romagna, CREA researchers monitored wild pollinators at five farms in the province of Bologna over three years. Each month, from March to October, wild bees, hoverflies and butterflies were sampled on conventional and organic farms.

Data collected in Emilia Romagna was supplemented with that from mini-pilots replicated in Veneto, Puglia, Slovenia and the Balearic Islands: simplified sampling focused on wild bees, repeated once a month from spring to summer. The results of the study highlight the importance of sustainable agricultural practices and of nearby natural areas.



The data collected gave researchers insights into wild bee fauna in agricultural contexts and enabled them to develop a bioindicator for sustainable agriculture (BEE Indicator). Based on local wild bees diversity, BEE indicates agroecosystem quality, considering the surrounding environment and the agricultural methods used. The Pilot project proposed indications to the regional government of Emilia-Romagna for implementing integrated-production regulations that enable farmers to select the active substances least toxic for bees for specific crops and pests.



## 9. POLICY AND GOVERNANCE

### ITALY

- A workshop in Rome, with the competent authorities of the National and Regional Protected
- Areas and Ministries of the Environment and Agriculture (in collaboration with LIFE Bee-Adapt and LIFE PollinAction)
- Public meetings to promote the Declaration of Intents for pollinator-friendly municipalities
- Substantial contribution to drafting the MASAF Guidelines for CAP-EcoScheme 5

### GREECE

- Several workshops with the local and regional authorities for Protected Areas; a Final Conference with representatives of the Ministry of the Environment in Athens
- Meetings with municipal authorities to promote the Declaration of Intents for pollinator-friendly municipalities
- UAegean welcomed the invitation by the Ministry of the Environment to draft the Pollinator Action Plan for Greece. Assignment to be shortly undertaken by UAegean.

### SPAIN

- A workshop in Madrid (in Dehesa de la Villa) for training and exchange of knowledge with environmental managers from local, regional and national governments, protected areas and environmental organizations.



### POLLINATOR-FRIENDLY OUTCOMES

- 6 municipalities
- 29 farms
- 32 schools
- 3 associations
- 1 protected area

## 10. PROJECT REPLICATION

Six workshops for researchers and policymakers were organized at local and national level to export and promote the experience of the Pilot project to other Italian regions and other countries. These events were held in the Veneto, Lombardy and Friuli-Venezia Giulia regions of Italy, Madrid (Spain), Rome (Italy) and Athens (Greece).

### I DO MY PART FRIENDS OF POLLINATORS

**IF YOU ARE AN ASSOCIATION, A COMPANY OR AN ORGANIZATION** that deals with greenery, education and green area management, you can become Pollinator Friendly.

**IF YOU ARE A FARMER,** sign the Life 4 Pollinators code of conduct and apply it to obtain the Pollinator Friendly label.

**IF YOU ARE A SCHOOL,** you can implement our Citizen Science project. If you want to do more and become Pollinator Friendly, contact us.

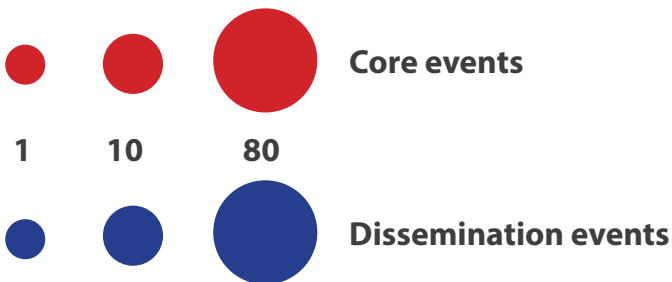
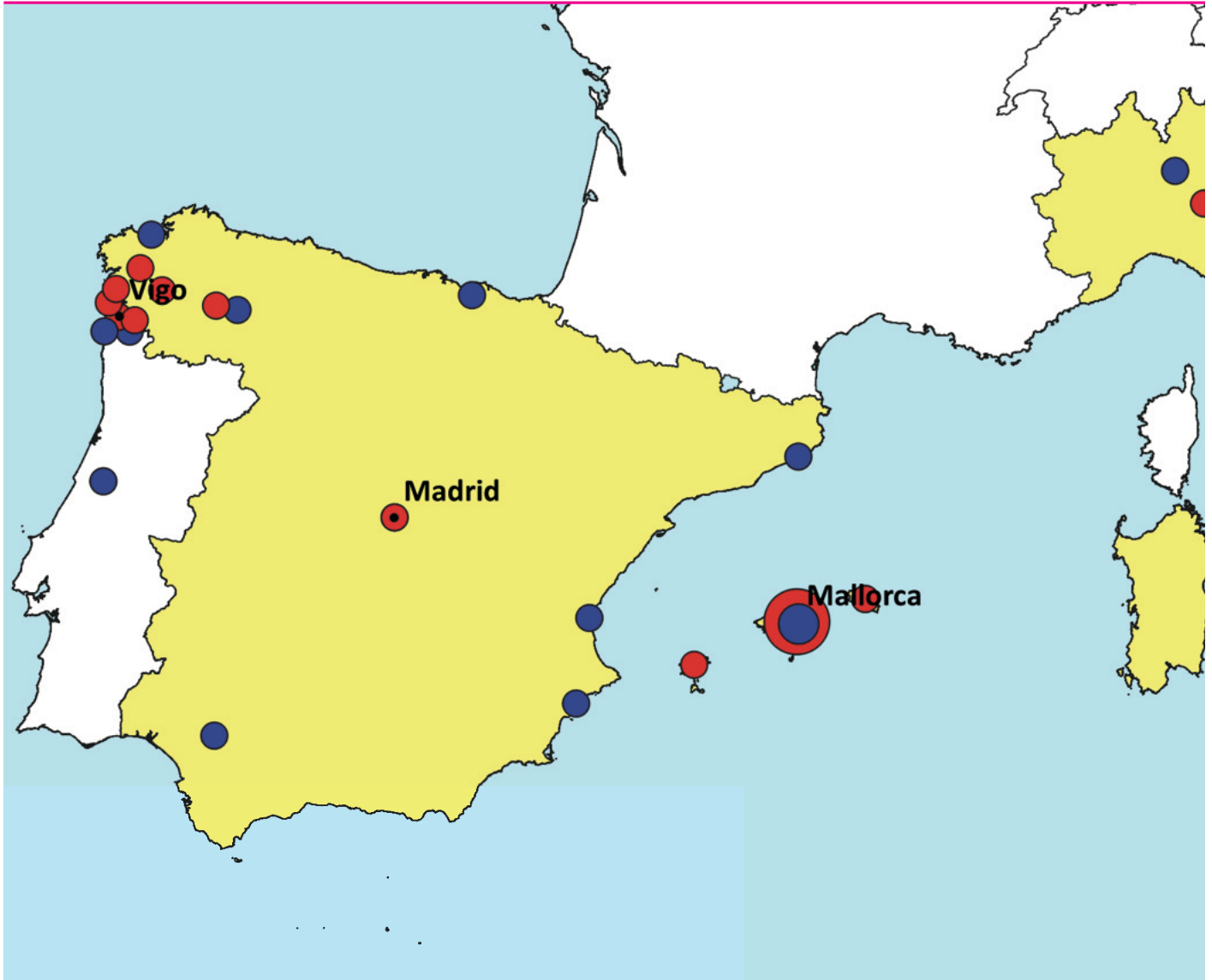
Each of us can contribute to promoting and protecting pollinating insects. We can all make a commitment to fill our balconies with flowers. Municipalities, farmers and those who manage green areas can play a fundamental role in the conservation of bees, butterflies, hoverflies, wasps and beetles.

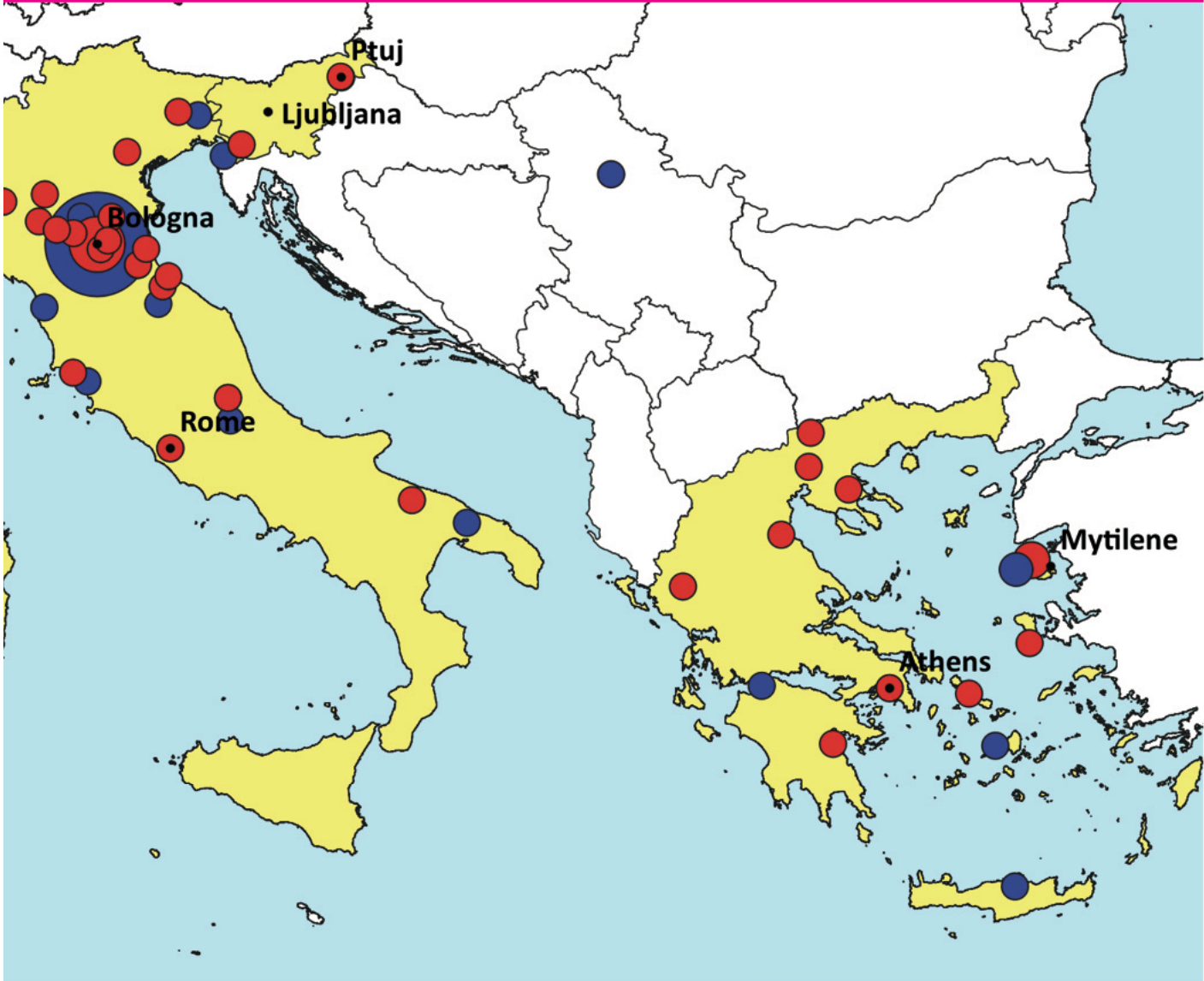
Become a "Friend of Pollinators"! The Life 4 Pollinators project has developed guidelines for good practice in managing green spaces and agro-ecosystems. Qualification as "Friend of Pollinators" aims to enhance and recognize the commitment of municipalities, farms, schools and virtuous associations in order to create a biodiversity protection network.

### DO YOU WANT TO BECOME POLLINATOR FRIENDLY?



### 11. EVENT





@life4pollinators 

@life4pollinators 

<https://twitter.com/4pollinators> 





# LIFE 4 POLLINATORS



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## Foreword

Action B5: to replicate the main measures and tools, successfully implemented in the project and suitable for other contexts or the same contexts in other countries. These governance measures and tools should become regulations or laws at local and national level in order to support wild pollinator populations.

Tools used for replication include handbooks drafted by the project, the action B4 Guidelines, training programs implemented, the Code of Conduct and the Declaration of Intents for pollinator-friendly municipalities.

In this document we illustrate the replication tools implemented in the project for the various actions; they target citizens, farmers, teachers, students, managers of urban green areas, managers of protected areas, urban planners, gardeners and conservationists.

The document highlights the importance of an integrated approach and of working simultaneously in many directions to ensure effectiveness and the participation of all key stakeholders.

# 1. Material

LIFE4Pollinators contributed to capacity building with [six downloadable field guides](#) that teach non-specialists to understand and recognise pollinators, and [four targeted handbooks](#) for people involved in the protection and enhancement of pollinators (farmers, managers of natural parks and urban green areas). The field guides and handbooks are available in six languages (English, Italian, Spanish, Greek, Catalan and Slovenian) and can be freely downloaded at the following links:

field guides: <https://www.life4pollinators.eu/en/downloads/fieldguides>

handbooks: <https://www.life4pollinators.eu/en/downloads/handbooks>

These outputs are fruit of the concerted effort of all partners of the project. They have been tested in different situations and language groups, and effectively enhanced the capacity of individual participants.

Creating tools in the original languages of participating countries enables a larger audience and different age groups to be reached.

## 2. Replicability of the Pilot Project

LIFE 4 Pollinators contributes to the conservation of pollinator insects and entomophilous plants by working to change the human practices that are threatening wild pollinators across the Mediterranean region. Since there is much concern about agricultural methods, in Action B.4 (Pilot Project) the project team concentrated on stakeholders who could actively promote and create change: farmers, farmers' associations, local and national policymakers and the agroindustry.

The Pilot Project was specifically conducted in an Italian region, Emilia-Romagna, that acted as pioneer administration for implementing some of the measures proposed by LIFE 4 Pollinators. Some sub-actions of the Pilot Project have already been replicated or proposed for replication in other Italian regions and other countries.

The main items of the Pilot Project that can be replicated are:

- Training farmers on pollinator-friendly farming
- Implementing LIFE4Pollinators Code of Conduct and Pollinator-friendly certification
- Proposing pollinator protection measures for integrated agriculture
- Developing and adopting a new BEE Indicator based on wild bees
- Organising workshops for technicians and policymakers of agricultural institutions at local and national level.

## 2.1 Training farmers in pollinator-friendly farming methods

Researchers from CREA and technicians from agricultural organizations developed a training course targeting farmers that illustrates the importance of pollinators in agriculture and possible measures to protect them in agroecosystems, also in relation to current CAP agri-environmental measures and eco-schemes.

In Italy, the [training courses](#) were first organized in the nine provinces of Emilia-Romagna where the Pilot Project took place, then in two more Italian regions (Veneto and Apulia) and finally one at national level. Eight training courses were held in Spain and five in Greece. Courses were held in the local language to enable farmers who do not speak English to participate.

To enhance access to LIFE4Pollinators materials and knowledge, an [online tool](#) was developed from the contents of the training course, in the form of illustrative videos accompanied by questions, divided into different modules. The online tools (now only in English) are freely accessible from <https://life4pollinators.eu/en/online-tool> and can be used to further disseminate the training in a very large number of countries.

## 2.2 Implementation of a Code of Conduct and Pollinator-friendly Farm certification

Under the Pilot Project, the project team developed a [Code of Conduct \(CoC\)](#) which includes agricultural practices and measures that benefit pollinators. The CoC was illustrated and proposed to farmers attending the trainings (2.1), and disseminated via the project's social channels. It was translated into the languages of the project partners for use in the different countries.

The measures of the CoC regard three main issues: i) reducing pesticide exposure, ii) providing and enhancing foraging habitats, and iii) providing nesting sites for pollinators. Farmers wishing to adopt the CoC fill in the form at the end of this document, indicating the measures they wish to implement on their farms, signing and scanning the form and sending it by email to:

[amicidegliimpollinatori@gmail.com](mailto:amicidegliimpollinatori@gmail.com)

Verification that the measures have effectively been carried out is done by documentary checks, requests for photos and/or possibly on-site visits by LIFE 4 Pollinators personnel. Once compliance has been verified, farms obtain the **Pollinator-friendly Farm certification** for the current year.

The certification is easily replicated in other countries, possibly adapting the rules of the CoC to current national regulations regarding the use of plant protection products and farm green management. Since many measures of the CoC are in line with CAP 2023-2027 measures, most European countries could apply them without modifications.

The CoC and the Pollinator-friendly Farm certification are two documents developed by LIFE 4 Pollinators that could also be replicated in other contexts and for other critically threatened insects or animals in need of support. The CoC can be downloaded from the project website:

[https://www.life4pollinators.eu/sites/default/files/2023-05/L4P-Code-of-conduct-Farmers\\_1.pdf](https://www.life4pollinators.eu/sites/default/files/2023-05/L4P-Code-of-conduct-Farmers_1.pdf)

### 2.3 Proposal of pollinator protection measures for integrated agriculture

The rules of integrated agriculture indicate measures that benefit pollinators, including reduced use of chemical products with respect to conventional agriculture. However, additional steps could be taken to implement the regulations with further indications that promote the protection of pollinators and crop safety.

The Pilot Project drew up indications for the protection of pollinating insects. These are described in the Handbook for Farmers and the CoC. In line with these indications, measures for implementing the integrated production regulations were proposed in the General Guidance and Technical Cultivation Standards of the Emilia-Romagna region.

The general indication regards management of the agricultural landscape to benefit pollinators. This may include installing ecological infrastructure, increasing habitats for



foraging and nesting pollinators, mitigating exposure to plant protection products and collaborating with beekeepers who offer crop pollination services.

In the Technical Cultivation Standards, it was proposed to modify the table of active ingredients allowed for different crops, by adding an indication of their **toxicity for bees**: "slightly toxic", "moderately toxic" and "highly toxic" according to the literature. This would allow farmers to choose the active substances least toxic to bees from among those available for a specific crop and a specific pest.



Slightly toxic



Moderately toxic



Highly toxic

This proposal is easily extended to other countries by adjusting the toxicity classification of the active ingredients allowed. It can also be an example for drafting measures that reduce the risk for other organisms that suffer side-effects from plant protection products.

## 2.4 Development and adoption of a new BEE indicator based on wild bees

The term bioindicator refers to living organisms used to evaluate the state of the environment and its changes over time, whether natural or due to human intervention. The use of certain organisms as indicators makes it possible to evaluate the effect of human activities on an ecosystem: these evaluations can be carried out independently or linked to physical-chemical analyses of environmental elements. Wild bees can be a useful bioindicator, because they are directly and strongly influenced by agricultural practices such as the use of pesticides, cultivation of the soil and monoculture. The diversity of wild bees is largely influenced by the availability of food resources and nesting sites. The greatest diversity of bees in Europe is found in the Mediterranean, so monitoring the impact of agriculture through pollinators in this biogeographical region is of primary importance.

The **BEE Indicator** was designed to monitor bees on farms by balanced sampling that also evaluates natural features at farm boundaries, and the effects of farming choices and practices. The indicator is designed for use by persons with basic taxonomic skills and the results are obtained by a simple automatic calculation.

The present BEE Indicator is designed for a context of plain or hill agroecosystems in warm temperate and Mediterranean Europe. Suitable farms must be:

- a) in southern Europe,
- b) below an altitude of 500 m.

However, the steps to design it and create the data collection protocol can be replicated by anyone interested in different environments (e.g. alpine, urban) or even other pollinator groups (e.g. butterflies, beetles).

## 2.5 Organisation of workshops for technicians and policymakers of agricultural institutions at local and national level

Several **workshops** were organised at local and national level to export and promote the experience of the Pilot Project in other regions of Italy or countries: Veneto, Lombardy and Friuli-Venezia Giulia, Spain, Greece and Slovenia. Institutions can choose to adopt any of the measures developed by the Pilot Project in relation to their regulations and needs.

The Pilot Project raised awareness by interacting directly with farmers and their associations, who were involved from the beginning in decision-making and at the end learned the status of pollinators on the farms involved. The creation of an ad-hoc document for each farm, as in the case of those participating in the BEE Indicator testing, offers immediate feedback and possibly something they can share with neighbours, encouraging adoption of farming best practice to support pollinators.

In the case of integrated agriculture, awareness of policymakers was raised by providing practical help in identifying protection measures that are less harmful to pollinators. Constant participation at meetings and events made it possible to overcome uninformed opinions and resistance, and to elicit shared conclusions and efforts towards more sustainable behaviour.

## 3. Replicability of Core Actions

LIFE 4 Pollinators also contributed to the conservation of pollinators and entomophilous plants by improving awareness and promoting progressive change of behaviour in key stakeholders that are currently threatening wild pollinators across the Mediterranean region: gardeners, urban planner, managers and maintenance technicians of urban green spaces and natural/protected areas and citizen. These actions were conducted in Italy, Spain, Greece and partly in Slovenia.

The **core actions** of the project that can be replicated are:

- The activities to involve general public
- Training urban green area managers, planners and maintenance technicians
- Signing and implementation of the Declaration of Intents for pollinator-friendly municipalities
- Workshops with managers and technicians of protected and natural areas.

### 3.1 The activities to involve general public

The general public was involved using the Citizen Science approach in Mini BioBlitzes designed to improve citizen awareness and monitor target species in given areas. Mini Bioblitzes helped participants to observe in a creative manner. In the end, the events were called “**Polliblitzes**” because the targets were pollinating insects and the plants they visit. During these Polliblitzes, the **Field Guides** were used as a basis for identifying pollinators and plants. Participants were also helped to determine the species or genus by expert taxonomists. They were guided in photographing insects on flowers and uploading the images to the LIFE 4 Pollinators **web platform**. Each photo-record was validated by a team of experts before appearing on the online map (<https://www.life4pollinators.eu/en/map>).

The observation activities proposed during the PolliBlitzes and all the environmental education projects proposed and implemented by the schools and teachers (Students4Pollinators) can be found in the **Citizen Science Handbook** that can be downloaded at the following link

[https://www.life4pollinators.eu/sites/default/files/2023-02/L4P-Handbook-CitizenScience\\_0.pdf](https://www.life4pollinators.eu/sites/default/files/2023-02/L4P-Handbook-CitizenScience_0.pdf)

These activities may be replicated or used as a basis for activities targeting other species.

### 3.2 Training urban green area managers, planners and maintenance technicians

The project team developed a [Handbook for the Management of Urban Green Areas](#), which indicates best practices for sustaining pollinators in urban green areas, starting with the assumption that any green area, even small, can provide food and shelter for pollinators. Training courses at national and local level were organized for urban managers, planners and gardeners. They can easily be replicated using the handbook. People responsible for urban areas can be invited to reduce pesticides use, allow plants to bloom, choose native species for public gardens and build bee hotels to elicit the attention of citizens towards pollinators. Virtuous municipalities can sign a commitment to support pollinators as explained below.

### 3.3 Signing and implementation of the Declaration of Intents for Pollinator-friendly Municipalities

Urban areas can become ecological corridors for pollinators. In the project we worked closely with two municipalities (Casalecchio di Reno and San Lazzaro di Savena) that accepted the proposal from the outset. Together we formulated a text to be signed by local government bodies that want to become more sustainable and pollinator-friendly. Inspired by BUGLIFE UK's "Helping pollinators locally - developing a local pollinator action plan or strategy", a [Declaration of Intents \(DoI\)](#) was drawn up to help local authorities build local pollinator strategies. The DoI can be disseminated in Europe and elsewhere, to city councils, municipalities and district councils willing to commit to reducing pesticides, regulating mowing so that plants can bloom and educating citizens on pollinator-friendly practices. The declaration can be downloaded in various languages from the LIFE 4 Pollinators website:


<https://www.life4pollinators.eu/sites/default/files/2023-02/L4P-Urban-Declaration.pdf>

### 3.4 Workshops with managers and technicians of Protected and Natural Areas

The project team organized various workshops to train Protected and Natural Areas managers/technicians and conservationists and improve their awareness of pollinators; the basis of the workshops was the [Handbook for managers of Natural Parks and Protected Areas](https://life4pollinators.eu/sites/default/files/2023-02/L4P-Handbook-Natural-Parks.pdf) (downloadable <https://life4pollinators.eu/sites/default/files/2023-02/L4P-Handbook-Natural-Parks.pdf>). The events were organized in Italy, Spain and Greece and mainly involved technicians, conservationists, environmental educators and policymakers at local/national level. To facilitate participation, the workshops were conducted in the language of the country, and when possible a practical session was organised to show pollinators and highlight their morphological differences. The project team proposed that managers of protected areas support pollinators by regulation of human activities. Managers can propose that municipalities and farmers become pollinator-friendly by signing the DoI or adopting the CoC. In Greece and Italy, the first steps to draft a national Pollinator Action Plan were done.

To enhance access to LIFE4Pollinators materials for Protected and Natural Areas, an [online tool](https://life4pollinators.eu/en/online-tool) was developed from the contents of the Handbook, in the form of illustrative videos accompanied by questions, divided into different modules. The online tools (only in English) are freely accessible from <https://life4pollinators.eu/en/online-tool> and can be used to further disseminate the training in a very large number of countries.

TO FACILITATE the use of LIFE4POLLINATORS MATERIALS for FUTURE REPLICATION USE THIS

 <b>WHAT YOU NEED TO REPLICATE LIFE4POLLINATORS ACTIONS</b>								
MATERIAL	Field guides	Handbook	Code of conduct	Declaration of Intents	Online tools	Web platform	Fieldsheets	Entomophilous plant list
<b>TARGET</b>								
FARMERS	X	X	X		X			
URBAN GREEN AREAS	X	X		X				X
PROTECTED AREAS	X	X	X	X	X	X		
CITIZEN	X	X				X	X	
STUDENTS	X	X				X	X	

All materials are freely downloadable in Italian, English, Spanish, Catalan and Greece (some also in Slovenian) from [www.life4pollinators.eu](http://www.life4pollinators.eu).  
For additional information contact [life4pollinators@unibo.it](mailto:life4pollinators@unibo.it) and [amicideglimpollinatori@gmail.com](mailto:amicideglimpollinatori@gmail.com)



## LIFE 4 POLLINATORS

