



Bee Landscape Road Map

Developing a Bee Landscape together

What can provinces, municipalities and Water Boards do?

Social network

Inspiration & Learning

Ecological network

Costa & Added value

This brochure offers public authorities and their staff more information on how they can support the habitat and populations of pollinating insects and why it is crucial to collaborate with other parties. The brochure is an integral part of the Bee Landscape Road Map and describes success factors for realising a bee landscape.

Alarming decrease in wild pollinators, many species endangered

Wild pollinating insects are becoming increasingly endangered. There are around 20,000 different species of wild bees worldwide, of which around 2000 species live in Europe! A global study by IPBES from 2016 showed that wild pollinators have declined in occurrence and diversity at local and regional scales in North West Europe and North America. In Europe for example, 9 per cent of the bee and butterfly species are endangered and 37 per cent of the bee populations and 31 per cent of the butterfly populations are declining. Today, many people take initiatives to support the conditions for pollinators. Small local measures are important, of course, but a real difference can be made when measures are taken across a larger area. More and diverse measures can eventually result in a landscape where wild pollinators find a sustainable habitat – a so-called Bee Landscape.

Collaborations are more effective

No organisation can change a landscape into a bee landscape single-handedly'. That is why it is hugely important that multiple parties involved in landscape management (businesses, public authorities, nature conservation organisations, and civilians) all take measures to improve the habitat conditions for pollinators. Collaborative networks offer all sorts of ways to inspire and help each other, share knowledge, and coordinate measures to significantly increase the effectiveness of their efforts.

A bee landscape overlaps and enhances the National Nature Network (NNN)

Nature conservation areas can still sustain the existence of many (species of) wild pollinators – including species that are typical for our region. However, only the most common species are mostly found in intensively used urban and rural areas. This means that nature areas are crucial key areas for pollinators (so-called bed & breakfast areas) within the bee landscape.

A bee landscape is an intricate nature network that stretches beyond the nature conservation areas. It increases the biodiversity in urban and rural areas. The 'Connected landscape' building block ensures that nature areas get better connected while the 'Bee fueling stations' building block ensures that pollinators can bridge the intensively used landscape.

'A Connected Landscape' is a ribbon of flower borders with, here and there, nesting places in e.g. stepping stones, and which connects different pollinator 'bed & breakfast' areas.

Small, flower-rich **'Bee Fuel Stations'** are spots where pollinators can quite literally refuel (forage: pollen and nectar) as they look for a new habitat.



A **'Bee landscape'** stimulates a dense and diverse pollinating insect population. It includes at least one bed & breakfast area. A bee landscape is also a collaborative partnership of multiple parties.

A **'Bed & Breakfast area'** is what we call a robust and more or less connected living environment where a broad range of pollinating insect species can live sustainably.

What can public authorities do?

Pollinators enhance the public space

(Local) public authorities determine how public green spaces are structured and managed. Such green spaces should be made a lot more bee-friendly by choosing indigenous plants and trees, adopting bee-friendly management measures, and adding nesting options for wild bees. Our total surface area of public green spaces is substantial so they can play a major role in making a difference and improving pollinator habitats. Communicate any transformational changes in the structure and management of these areas actively within the communities and make sure people can ask questions or raise issues.

Become a source of inspiration with a bee-friendly outdoor space at public authority buildings

The outdoor spaces that are part of public authority premises can also be made more bee-friendly. Doing this can inspire users and visitors to think of what they can do themselves.

Add bee-friendly conditions to leasehold contacts

Public authorities often own land that they lease to farmers. They can add additional bee-friendly conditions to such leasehold contracts, such as reducing the use of artificial fertilisers and/or pesticides or the creation of flower-rich borders. Municipalities can offer farmers a ground lease-reducing 'menu' with various bee-friendly options farmers can choose from. Cherish the landscape – seeking and implementing a quality-improving ambition. Municipalities can improve the protection of landscape elements like sandy lanes and woodlands by including them in a green structure vision or zoning plan. Spatial developments or the necessary CO2 compensation measures can

be a financial drive to improve the quality of the landscape as a whole. For example, by setting up a fund for spatial quality.

Become a partner in a bee landscape network

Civil servants can support the bee landscape by tapping into their professional network, by informing the network about subsidies they can get, or by allocating funds or grants. Taking measures doesn't have to come at additional costs as municipalities often already take part in certain subsidy schemes that provide the required funding.

Financial support for a bee landscape. Public authorities can also back a bee landscape financially by allocating budgets. This allows them to safeguard that the network of local and regional actors can (continue to) develop and that the energy, know-how, and budget invested by the participants are used efficiently to result in a positive impact on pollinators and the landscape quality.

The value of a bee landscape approached from multiple sectors

A bee landscape is not only important for nature in general but also offers an opportunity to realise goals set up by other sectors. Look at a bee landscape from different perspectives to see how it can contribute to a sectoral goal. Look for connections with other national, provincial, or municipal public authority goals. By using a bee landscape as an interconnecting concept, a more integral and elaborate vision can be formed.

Promote the vision and good examples

This makes it easier to explain why the realisation of a bee landscape is important and attractive. It increases people's familiarity with the concept and their support for the initiative, and possibly results in new parties joining in.

Concrete activities

The Bee Landscape Road Map describes various success factors for the development of a bee landscape. One of the key factors is ensuring balanced development of the four 'returns' a bee landscape offers. Public authorities can contribute to all of these returns:

Social network

- Starting or participating in a bee landscape;
- Ensuring balanced composition of the bee landscape's social network;
- Making a key actor available who can spend time on the bee landscape;
- Obtaining (more) internal knowledge on and support for measures and improving the conditions for pollinators;
- Embracing pollinator initiatives by residents and other organisations;
- Ensuring clear communication about measures plus anticipating possible nuisance or issues.

Inspiration & Learning

- Organising or stimulating field trips, lectures, and knowledge exchange;
- Promoting ambitions and initiatives via websites, newsletters, and social media;
- Stimulating and facilitating experiments and joint learning within the network;
- Evaluating activities and monitoring effectiveness, efficiency, and support.

Example

Leasing municipal land by adding bee-friendly conditions

The municipality of Bernheze in The Netherlands owns farmland that is leased to farmers on an annual basis. The municipality now also wishes to improve the living conditions for pollinators and increase their populations. And so the municipality started an experimental pilot in 2018 whereby land is leased to farmers under bee-friendly conditions: no more use of artificial fertilisers and crop protection agents or the creation of flower-rich borders.

The flower borders proved to be a great success; they enhanced the landscape and received high praise from visitors to the area. Monitoring the vegetation and pollinator species also showed that seeding perennial borders offered a greater yield and diversity in herbs and pollinators than borders with annual flowers and herbs. The perennial borders were also more affordable for the farmers. The municipality understood that the ground lease had to be reduced to ensure leasing land by farmers under these conditions would remain a viable option.



A flower-rich border along a crop field (photo: Wim Dijkers)

Ecological network

- Exploring the options for strong, sustainable habitats within your region;
- Exploring the opportunities to improve the habitat of pollinators at a landscape scale and making them explicit in an opportunities map;
- Enabling experiments or example projects and promoting positive results;
- Monitoring the pollinator populations and the different landscaping and public space management measures;
- Setting up an execution programme for bee-friendly landscaping and public space management. Focal points:
 - Even a transformation to bee-friendly public space management can provide great results;
 - Use an indigenous mix of seeds when areas are resown.

Costs & Added Value

- The internal coordination of a bee-friendly policy and landscape management with those of other departments (e.g., water management, recreation and infrastructure);
- Inter-organisational coordination of bee-friendly policies and landscape management;
- Safeguarding bee-friendly landscaping and management by including ambitions and funding in, e.g., the zoning plan, the green structure plan, the environmental vision, and the landscape management plan;
- Allocating/finding funding for the coordination of the bee landscape;
- Finding synergy between bee-friendly measures and other policy area goals;
- Evaluating the effectiveness of expenditure on measures for pollinators and the support thereof.

Example

Joint budget specifications for bee-friendly management of ditches and road verges in West-Brabant, The Netherlands

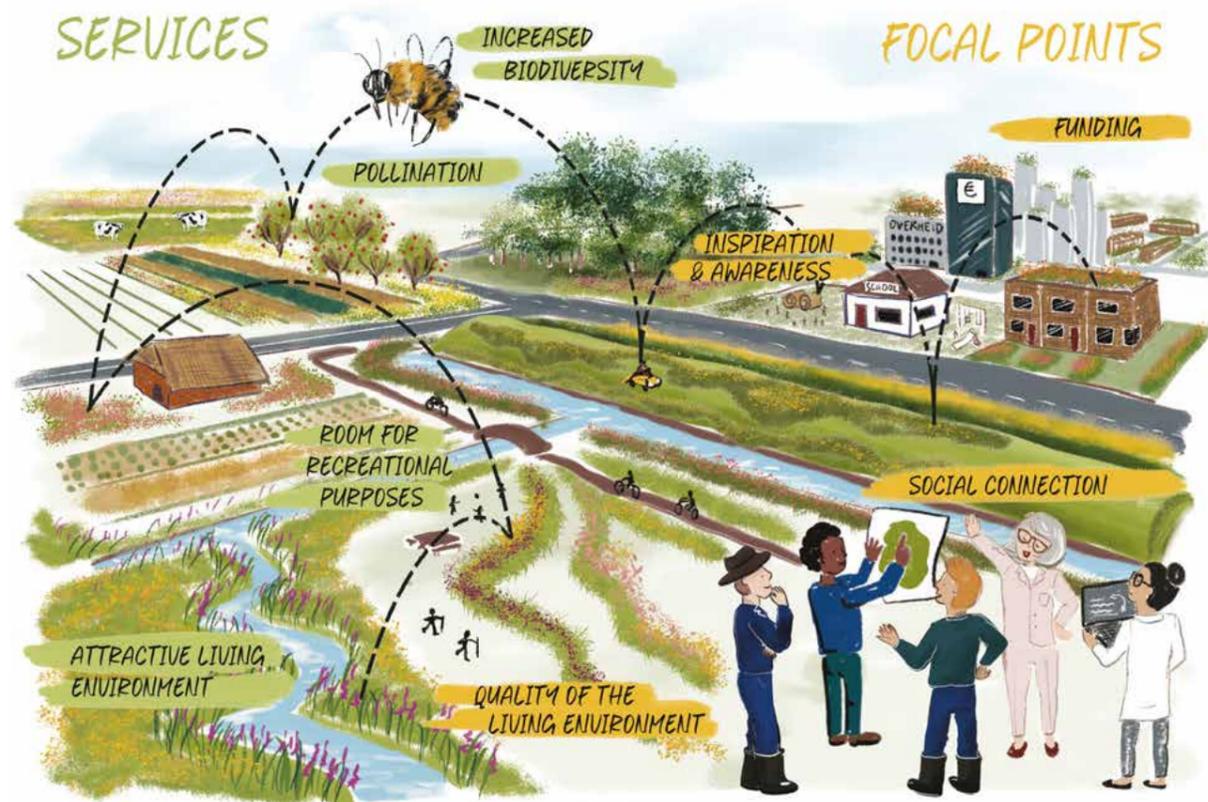
In West-Brabant, 12 municipalities, the provincial National Forestry Department, and the Water Board Brabantse Delta have been collaborating on a joint specifications list for the management of ditches and road verges since 2014. The reason to do so was the mutual wish to increase efficiency.

Before 2014, different public authorities were responsible for different management aspects – contractor X would come and cut the banks of the ditches while contractor Y would come at another moment to cut the road verges. This also caused unnecessary nuisance, traffic, and dust.

And so the authorities involved decided to come up with a plan to do better. This resulted in a joint specifications list that allowed them to carry out the grass-cutting activities in one go.

As most of the public authorities who were involved in this plan were also already collaborating in the bee landscape West-Brabant, they also decided to stipulate firm demands on bee-friendliness when a new joint specifications list had to be drawn up in 2020. Besides that, they made the Water Board West-Brabant – the most expert authority on ecological management – responsible for the supervision and overall maintenance work.

The result is the bee-friendly maintenance and landscape management of 6000 km of waterways, 2000 hectares of road verges, and 60 hectares of water features!



Example

Civil servant becomes the founder of the Green Circle bee landscape

In 2012, the year of the bee, Menko Wiersema – working for the Dutch Province of Zuid-Holland – came up with the idea to develop a bee landscape by getting public authorities, businesses, social organisations, and knowledge institutions to join in. This eventually led to the Green Circle bee landscape, established in 2015. Over the following years, the social network grew to 44 organisations, supported by a network coordinator and researchers and facilitated by the provincial government. On top of that, the province allocated subsidies for bee-friendly measures.

Today, the Green Circle has grown into a large learning network that effectively manages to increase the numbers and species of pollinators within its area. In 2018, the monitored locations showed that the number of species had increased by 30%.



Osmia caerulea, or blue mason bee (photo: Menno Reemer)

How to start?

A Bee Landscape Road Map and an accompanying manual have been developed for public authorities wishing to get started on developing a bee landscape.

These tools can help new bee landscapes in the process of building up an effective social network and developing a sustainable landscape where pollinators can thrive. For existing bee landscapes and bee initiatives, these tools can help to assess and improve the development progress.

Over the past years, a lot of knowledge on pollinators has also been collected and made available for people and organisations wishing to help improve the living conditions for bees and other pollinators:

<https://ipbes.net/assessment-reports/pollinators>

The assessment report of the intergovernmental science-policy platform on biodiversity and ecosystem services on pollinators, pollination and food production. S.G. Potts, V. L. Imperatriz-Fonseca, and Ngo H. T. (eds.).

<https://www.fao.org/pollination/en>

FAO's Global Action on Pollination Services for Sustainable Agriculture

<https://wikis.ec.europa.eu/display/EUPKH/EU+Pollinator+Information+Hive>
EU pollinator Information hive

Interesting subpages:

<https://wikis.ec.europa.eu/display/EUPKH/Actions+in+my+country>

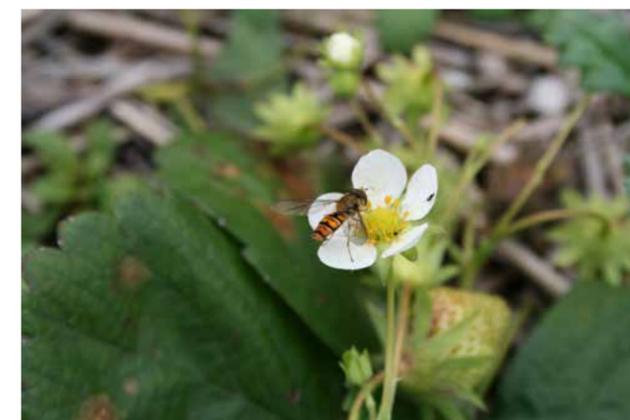
Member States' initiatives to support wild pollinator populations

<https://wikis.ec.europa.eu/display/EUPKH/Get+involved>

Get involved: a series of technical guidance with recommendations for action for citizens, invasive alien species managers, local authorities and cities, farmers, businesses and public authorities.



Dead hedge foraging wood in Glimmen (photo: Marlies Duran)



Marmalade hoverfly (photo: Chantal Bloemhard)



Bee Landscape Road Map

Colophon

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Accompanying knowledge products

- Bee Landscape Road Map
- Bee Landscape Road Map Manual
- 4 Brochures Developing a bee landscape together, directed at:
 - Farmers
 - Businesses
 - Citizen/civic initiatives
 - Regional authorities

Illustration page 2

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