

## BELGIUM

# Digital Futures

### Location

Wasseiges Municipality

### Programming period

2014 – 2020

### Priority

P6 – Social inclusion & local development

### Measure

M19 – LEADER / CLLD

### Funding (EUR)

Total budget 35 000  
EAFRD 12 500  
National/Regional 22 500

### Project duration

2019 – 2021

### Project promoter

Groupe d' Action Locale  
(GAL) Meuse@Campagnes

### Contact

[Agnes.demarneffe@wasseiges.be](mailto:Agnes.demarneffe@wasseiges.be)

### Website

[www.meusecampagnes.be/biommap](http://www.meusecampagnes.be/biommap)

The BiomMap project aims to significantly improve the ecological network within the Wasseiges territory in the Walloon Region. Rural stakeholders will be able to identify, monitor and quantify the existing ecological network's features, indicate its characteristics, gaps and potential for improvement.

## Summary

The Walloon Region is currently carrying out a study on its ecological network, which is all the interactions with an ecosystem. There are strong expectations from municipalities, associations and citizens to intervene on the ground to validate, conserve or even restore the ecological network locally. The project aims to leverage the regional study to meet local expectations and challenges through individual solutions.



With stakeholders expressing the need to have easily accessible methodological, scientific and technical resources, the project will offer a digital tool BiomMap to map the network, and aid decision making as to its public management. Rural stakeholders can identify, monitor and quantify the existing ecological network's features, indicate its characteristics, gaps and potential for improvement. The collaborative environmental mapping process will be managed by a territorial coordination mechanism.

## Results

The main expected improvement is the initiation of concrete actions to improve the quality of the ecological network across 5% of the territory.

At the end of the project, it is anticipated that the various stakeholders in the Wasseiges territory will have a tool to help their decision-making and to steer concrete actions. Biodiversity diagnosis will be more precise and constantly fed by contributions from the field.

The tool will be sufficiently simple and user-friendly to facilitate the widest possible citizen participation.

At the end of the project, the territory of Wasseiges will be able to count on the local community, representing different types of stakeholders all mobilised around biodiversity and using the BiomMap tool.

The tool will be open source (which grants all the rights to use, study, change, and share the software). The codes will be available on a software forge (i.e. a collaborative maintenance management system, accessible via the web). Any local authority will be able to access and use it and develop the adaptations specific to its needs. As the problem of biodiversity loss and concerns about it are present in the entire European territory, the approach and tool developed will be able to meet the needs in other regions or countries. Several Belgian LAGs, active in environmental actions, have shown interest in the project in order to adapt it to their territory.

## Context

Both locally and globally, citizens strongly feel today that biodiversity is a crucial issue of direct interest. Walloon Region citizens have expressed, during various consultations, their wish to take action to protect and restore biodiversity. At the local scale, a third of all species are threatened with extinction. The protective measures or restoration actions already taken will lead to some improvements. However, there is still a need to invest in improving the way biodiversity is taken into account in production processes or in land use. Ecosystems that function better, with natural processes restored and populations of auxiliary species in equilibrium, provide “ecosystem” services (pollination, depollution, soil enrichment, carbon storage, soil protection, etc.). Developing the interconnectivity of the mesh or ecological network plays a major role at different levels in the long-term survival of plant and animal species.

All stakeholders in the rural area (local authorities, farmers, hunters, naturalists, inhabitants, etc.) play a central role in building this ecological network and ultimately in improving the biodiversity of the territory. There was no pre-existing tool to support them in this mission. The data provided by scientists, although sometimes easily available on an open-data portal, remains little known and unusable for those without technical specialism. Local political authorities did not have a guidance tool to help them in their decision-making and actions related to biodiversity. A full understanding of the ecological needs and potential of the territory were also not known. The local actors already working in the area were not valued and there was no cooperation in the territory to bring relevant actors together.

## Objectives

The objective of the project was to create a positive territorial dynamic for biodiversity, with the stakeholders joining together for collective action.

The approach chosen to achieve this objective was the creation of a web portal and an application that will allow collaborative environmental mapping of the territory. A territorial participatory development approach will be utilised.

## Activities

Throughout the preparatory phase (January-November 2020), the project leader (Wasseiges Municipality) identified concerned actors, tools and data sources

already available, to map good practice already implemented and ongoing needs. The different stages are described below.

### 1. Identify useful data sources

A review of existing data showed that current data sources are numerous with diverse accessibility and potential usage. The challenge is therefore to offer access to data in a user-friendly and exploitable form, and to easily cross-reference data sources.

### 2. Collect good practices from various stakeholders

Interviews were held with many organisations such as associations and municipalities active in rural areas on the methodology, data sources and tools used to carry out their specific missions. The objective was to identify common and specific elements useful for the project and to identify possible complementarities.

### 3. Explore the possibilities of collaboration, support for the project and identify one or more potential partners to ensure the sustainability of the project.

Different actors were involved, to varying degrees, in the project.

- Several services within Public Service of Wallonia
- Several services at local authority level
- Researchers
- Rural development federations
- Associations working on biodiversity
- Representatives of local civil society

### 4. Detect the specific needs of user groups and the functionality expected for such a digital application.

Interviews with the user groups made it possible to draw up a precise inventory of users’ needs, the functionalities of the mapping tool to be constructed and to write a functional description. Based on these findings, the digital tool will allow actors to:

- Have cartographic and quantitative information on the state of the ecological network within any zone
- Manage the ecological network within the territory for which he or she has authority (the municipal land for the municipal official / the private plot for an individual, etc.).
- Manipulate or combine different geographic layers and associated data
- Encode ecological networking actions carried out in a territory
- Utilise drawing and measurement tools on a map and a form
- Receive general advice on biodiversity

### 5. Realisation of the application

- The specifications were drafted and a call for tenders to be submitted was launched in December 2020.
- The choice of service provider for IT development was made in January 2021.
- Tests and evaluations with a panel of users will be made by June 2021, and the tool will be promoted.
- Deployment will take place from June 2021, including information dissemination and awareness raising of stakeholders according to their role in preserving biodiversity. The project will train volunteers, mobilise professionals, highlight good practice, and build a community. Diagnosis will be made of the ecological network of the Wasseiges territory.
- In early 2023, on the basis of the diagnosis carried out, the constitution of an action plan for the implementation of concrete measures promoting ecological networking will be completed. The action plan will be promoted and disseminated among the driving forces of the Municipality and across the other Walloon municipalities.

### Main results

- The main improvement expected is the initiation of concrete actions to improve the quality of the ecological network across 5% of the territory, a minimum threshold from which it can be estimated that biodiversity is protected,
- At the end of the project, it is anticipated that the various stakeholders in the Wasseiges territory (local authorities, hunters, farmers, inhabitants, etc.) will have a tool to help their decision-making and to steer concrete actions. Biodiversity diagnosis will be precise and constantly fed by contributions from the field.
- From the launch of the project, various institutional, scientific and associative partners have been brought together in order to implement data exchange protocols (if non-existent in open data), to build a tool that meets their specific professional requirements. The tool will be sufficiently simple and user-friendly to facilitate the widest possible citizen participation.
- At the end of the project, the territory of Wasseiges will be able to count on a local community,

representing different types of stakeholders, all mobilised around biodiversity and using the BiomMap tool.

- The tool will be open source (which grants all the rights to use, study, change, and share the software). The codes will be available on a software forge (i.e. a collaborative maintenance management system, accessible via the web). Any local authority will be able to access and use it and develop the adaptations specific to its needs. As the problem of biodiversity loss and concerns about it are present in the entire European territory, the approach and tool developed will be able to meet the needs in other regions or countries.
- Several Belgian LAGs, active in environmental actions, have shown interest in the project in order to adapt it to their territory.



### Key lessons

*'The BiomMap project is largely based on the principle of crowdsourcing, the term "crowd", in this case, referring both to ordinary citizens, to farmers and hunters, to all these essential local actors of biodiversity, some being already engaged in concrete action - plantations, creation of grass strips and so on. Thanks to a user-friendly digital tool, the management of the ecological network becomes everyone's business' – Spokesperson, Wasseiges Municipality*

### Additional sources of information

[www.regional-it.be/practice/biommap-open-data-et-crowdsourcing-au-service-de-la-biodiversite/](http://www.regional-it.be/practice/biommap-open-data-et-crowdsourcing-au-service-de-la-biodiversite/)

[www.meusecampagnes.be/wasseiges-commune-laureate-de-lappel-a-projet-territoire-intelligent-2019/](http://www.meusecampagnes.be/wasseiges-commune-laureate-de-lappel-a-projet-territoire-intelligent-2019/)

[www.futurocite.be/app/uploads/2019/10/8c-Wasseiges-GAI-MeuseCampagnes-BiomMap.pdf](http://www.futurocite.be/app/uploads/2019/10/8c-Wasseiges-GAI-MeuseCampagnes-BiomMap.pdf)

Funded by the



\*This project has been categorised under 'Digital futures' by the nominating National Rural Network