

Report Interregional Working Group B4B

'Nature connectivity in Belgium'

Morning Program

Welcome speech by Toon Denys, secretary-general Departement Omgeving (Flemish Department of Spatial Planning and Environment)

(Summary) *Landscape fragmentation poses one of the greatest threats to preserving Europe's biodiversity, which is particularly challenging here in Belgium. Situated at the heart of Europe, Belgium is a vibrant and densely populated country. We have extensive urban development, industrial hubs, and an intricate network of transportation infrastructure, which, while vital to our society, create significant obstacles for our natural ecosystems. However, Belgium is also home to no fewer than 304 strictly protected Natura 2000 areas, and many protected species for which we bear an important responsibility. We have a duty to preserve this natural heritage—not only for our own sake but also as part of the Trans European Nature Network, critical for the survival and wellbeing of all European species.*

In Belgium, connectivity goes beyond the landscape. It's also about bridging divides across regions, languages, and our complex governmental structures. Effective nature connectivity depends on strong human connectivity. We need open communication, aligned objectives, and mutual support. Only through collaboration can we achieve the lasting impact we seek for our natural environment.

Since early 2023, we've made a significant stride in this direction with the launch of the Life B4B project, "Belgium for Biodiversity." It's an inspiring name for a project that brings together 14 partner organizations in Belgium. Through Life B4B, the partners aim to support the protection and restoration of biodiversity throughout Belgium. It's an example to the power of collaboration.

This is the first major assembly of representatives from all Belgian regions focused on nature connectivity. The challenges we face are substantial, but so are the resources in this room: 84 experts from government, research institutions, nature organizations, landscape management groups, and more. Together, I hope we can launch a powerful collaboration that maximizes our collective impact and enables us to achieve our shared vision for Belgium's natural environment.

Let's start connecting!

All the presentations of this day can be found on the Life B4B website: [Workshop on nature connectivity was a succes | Life B4B](#)

Inspirational presentations

- VAPEO: state of play and first insights for the future & results of the survey 'Nature connectivity in Belgium' – Karolien Horckmans, Department Omgeving
- NaturaConnect - NaturaConnect aims to support countries in developing a blueprint for a coherent Trans-European Nature Network (TEN-N) of conserved areas that protect at least 30% of land in the European Union, with at least one third of it under strict protection. The project unites universities and research institutes, government bodies and non-governmental organizations, working together with key stakeholders to create targeted data, knowledge and tools, and build the capacity needed to support European Union Member - Piero Visconti, IIASA, International Institute for Applied Systems Analysis, Austria
- Working on nature connections in urban ecosystems - the case of light pollution - From Batlight District Jette to Life B4B: Setting up a light reduction agenda for Natura 2000 areas in the Brussels region in order to lower the impact of public lighting on biodiversity by 2030 - Nathan Brison – Bruxelles Environment
- Working on nature connections within the Flemish Provinces - Starting from the legal responsibility that provinces have to work on nature connections, 3 Flemish provinces have developed a scientific approach towards connectivity planning. This approach is the base towards implementation by different organisations, such as the Regionale Landschappen (regional landscape organisations), the Bosgroepen (Flemish Forest Associations) and so on – Rembrandt De Vlaeminck, Province of Antwerpen and Thomas Impens, Province of Limburg.
- Implementation of species connections with the help of European funding – Life Connexions - In 2021 began a new LIFE project called "Priority actions for grasslands, forests and associated species connections in Wallonia and Great East region (FR)" or "LIFE Connexions" for short. In continuation of the previous "LIFE Herbages" and "LIFE Prairies Bocagères" projects, the aim is to restore the biodiversity on 500 hectares of threatened natural habitats at least, on a large area including 41 Natura 2000's sites. Furthermore, this project includes actions for the Freshwater Pearl Mussel and the Violet Copper - Sarah Wautelet – Natagora
- Building a future for lynx in Belgium - For several years now, WWF has been studying Belgium's potential for the sustainable return of the lynx. Over the past year, this work intensified in collaboration with two key partners: the new Semois Valley National Park and the University of Liège (Gembloux). The efforts of the project focus particularly on the fragmentation of the species' potential habitat in Belgium and the urgent need to restore connectivity - Corentin Rousseau, WWF Belgium - Cécile Lesire, Ardenne Meridionale and Axel Bourdouxhe, University of Liège.
- Nederlands Natuur Netwerk (Nature Network Netherlands (NNN)) -Development of the Ecologische Hoofd Structuur (Ecological Head Structure (EHS)), which formed the basis for the NNN, and the investment programs for connectivity. - Theo van der Sluis – Wageningen Environmental Research.
- Life TIGRA (Transport Infrastructure and GReen Appendices - Co-building a Life-project in Belgium in order to mobilize funding for enhancing the ecological potential of area's linked

to transportation infrastructure in close collaboration between the regions – Eric Joiris –
Service Public de Wallonie (SPW – Walloon Government)

Afternoon program

Workshop 1: Governance

Interactive brainstorm session about responsibilities, task division and commitments of the different actors involved. How to reach maximum input by aligning efforts and joined follow-up? How do we proceed with collaborations and consultations between different levels of government and other organizations?

During this workshop an attempt was made to divide all relevant stakeholders into groups based on implementation versus knowledge focus and the distance towards society and policy makers. While this approach was not entirely successful, it did result in several important initial conclusions:

- It is not possible to limit the 'knowledge partners' or 'experts' to a certain sector of field. In order to successfully work on nature connections, different types of data and knowledge are relevant, such as species distribution and behaviour, population genetics, landscape development, green management experience (also agricultural), vegetation knowledge, technical knowledge, ...
- Policy makers need expert knowledge from all these topics in order to make the best decisions. Implementers need a clear policy. After implementation monitoring is crucial to know if the measures were efficient or need to be adapted in the future. To summarize: knowledge – policy and implementation need to be in a constant loop, reinforcing and redirecting each other.
- Implementation is strongly divided over a lot of (types) of partners. Nature connections are being accomplished by volunteers, nature and landscape organizations, local governments, regional governments and so on. Because of this we need a framework for consultation and communication across the different levels, fields, sectors involved. Reference is made to the example of the 'Bosalliantie'.
- In order to work together and align all efforts with multiple stakeholders we need to share GIS-data, have a common 'masterplan' with task division, planning scheme and a joined follow-up system in place.
- A very important but also complicated task to pick up together is to build a spatial vision about nature connectivity in Belgium: Which corridors do we need to restore/enforce for which species? How do they need to connect across borders of regions and neighbouring countries? Most European countries already have this vision in place, for example the 'Natuur Netwerk Nederland' of which Theo Van der Sluis gave a presentation in the morning session. Within Flanders important work towards this vision has already been made by the Flemish Provinces. This 'masterplan' or 'spatial vision for nature connections' will be the starting point for determining the ambition level and priorities for Belgium by the policy makers. And this will also be the starting point for task division, planning, joined follow-up, ...

- Nature connections are mentioned several times in the nature restoration law in different articles: Protected habitats, habitats for protected species, river connectivity, forest ecosystems. Connectivity is crucial within most articles but this interweaving with several goals withholds a risk of 'dilution' or 'fragmentation' of the message we need to send to our government and towards Europe. It will be crucial to have a coherent and action-orientated multi-annual approach concerning connectivity within the national restoration plan for Belgium. All concerned stakeholders should contribute and work together to insure this during the ongoing process for the Nature Restoration Plan.

Workshop 2: Towards an integrated spatial vision

Translation of European goals into a spatial vision that ensures nature connections between regions and neighbouring countries. Introduction on Connectivity Modelling - Jeremy Dertien - German Centre for Integrative Biodiversity Research. Brainstorm session about available tools, data, priorities, necessary output for the different actors and further approach within Belgium.

Question 1: Is a spatial vision for nature connections in Belgium necessary?

- Overall, there is a clear consensus about the necessity of a clear vision.
- What do we mean by 'a spatial vision for nature connections'?
 - With this we mean a clear scientific-based visual map to show towards our government what needs to be implemented in order to enhance connectivity in Belgium for relevant species.
 - For this we need to transform theory into practice and reach a clear strategy that focusses on action.
 - We need to work Bottom-up AND top-down to achieve this.
- Goal:
 - This spatial vision will allow us to prioritize and align efforts for maximum impact
 - It will also allow us to lobby towards policy makers and show the importance of the different actions. It is a lot more convincing towards our government to be able to show on a map how building a defragmentation measure completes migration paths for protected species throughout different countries.
 - This will allow us to work together with other European countries towards a TEN-N. And particularly it will allow us to be able to negotiate with other countries about choices that will need to be made. If we don't have a clear plan for ourselves, we cannot argument about adaptations we want towards the roll that Belgium will need to play in the TEN.N.
 - Important for convincing policymakers but also citizens.
 - Think long term and in operational way (implementation)
 - Work on a regional but also local scale: tailor made for local governments towards implementation!
- Content:
 - Speak one language: uniform definitions and general connectivity (nature connectivity is a part of the bigger picture)
 - Including clear guidelines
 - Connections need to be made in between similar eco-systems and species-specific
- Data:
 - A lot available → work together to inventory and keep up to date
 - Even more not available → work together towards crucial research and monitoring to improve data and modelling. Make – monitor – evaluate
 - Translate into models (convince others) → tools necessary
 - Startpoint: Natura2000-areas
 - Include whitespots!

- Bottlenecks:
 - Alignment necessary on different levels: national – regional – local; Political – NGO's – volunteering organizations – citizens ...
 - Risk to simplify too much. Necessary to be able to look at different scales and species/groups of species/ecosystems
 - A clear legal framework and enforcement of rules/laws – top-down – is necessary. A lot exists already.
 - Budget is a major bottleneck
 - In general: money, time and people
 - Compensation options or financial mechanisms
 - In order to even have a chance of resources (from Europe?) we need a clear plan to convince.
 - Don't forget the social aspect (acceptation)
 - Solution: good communication and participation to reach public support

Question 2: Which tools or models can we use?

- Natura Connect offers promising tools but there are also limitations.
- Tools determine the quality and scale of resulting models BUT tools also need to be fed by the necessary data. More detailed data will give more detailed models, if the tool allows it. Important to think about available data first in order to predict the quality of the outcome of models.
- A lot of examples of other countries are in place. Necessary to look into the different approaches, tools, models, ask advice, ...
- The Flemish provinces have taken important steps already towards bottom-up modelling of nature connections within Limburg and Antwerpen. Important to investigate this further for the regional or national scale.
- The tool that is used needs to be scientifically valid BUT the choice of which tool is used is subordinate to the achievement of having a vision in the foreseeable future. Feasibility and time-management need to be included in the equation!!!

Workshop 3: Mobilisation of additional resources

Introduction on existing financing possibilities within the regions of Belgium and on a European scale - Tom Andries, Life B4B Coördinator, Agentschap voor Natuur en Bos, Vlaanderen - Brainstorm session: Which opportunities are already in place to mobilise resources within Belgium and Europe? What are the major funding gaps? Can we detect the biggest needs/priorities for Belgium and combine our efforts towards these goals? Co-building a Life-project as a concrete example of a project proposal within a European funding program.

1. Define: What are the needs that require extra budget. Divide into categories.

People and tasks

- Ecohydrologists
- Environmental management profiles within roads agency
- Project managers
- Support and communication: social/educational → Social scientists *****

- How can we change people's behaviour towards 'space for wild animals', co-existence
- Liaison/shared goals for infrastructure and environmental organisations ****
- Survey on vehicle collisions
- Adaptive lighting
 - How can we change people's behaviour towards 'space for wild animals', co-existence
- Liaison/shared goals for infrastructure and environmental organisations ****
- General remark: Financing projects in which FTE are funded should be long enough to implement the actions properly.

Investments:

- Adaptive lighting / Protection of the night ****

Research and development

- How do defragmentation measures deliver Ecosystem Services? *****
 - This knowledge can be used to mobilise private funding (insurance companies, lighting)

In the centre of all categories:

- Ecological roadside management *****
 - ➔ Need for people, ecological mapping of roadsides, study towards roadsides as functional ecological corridors, budget for ecological development, monitoring, a general vision to prioritise actions, ...

Workshop 4: Wildlife connectivity & capacity building

Introduction by Vogelbescherming Vlaanderen (Flemish Bird Protection Association) with focus on critical knowledge gaps concerning animal suitability of connectivity measures and the role of population genetics on a landscape-scale - Interactive brainstorm on current state of research and discussion on strategies for knowledge exchange, aligning stakeholders, enhancing governance and scaling up research efforts. June Heene, Vogelbescherming Vlaanderen

Several gaps and discussion points were identified, which can be sorted into the following themes:

- Monitoring approaches
 - Difficulty in determining the suitability of different monitoring approaches
 - Monitoring measures exist but are costly, particularly for continuous (long-term) and comprehensive data collection across landscapes
 - Limited technological options for small species (eg bats), due to the size and cost of GPS trackers
 - Maintenance of implemented measures (eg fences, tunnels) is critical but often neglected (because of its cost)
- Data gaps
 - Lack of plasticity data on animal adaptability in fragmented versus natural habitats

- Incomplete knowledge on genetic connectivity; but long-term genetic studies are expensive and infrequent
- Potential bias in behavioural studies, as data often focuses on territorial individuals rather than migratory or young animals
- Existing rule-of-thumb metrics for viable populations are based on assumptions rather than robust data
- Genetic testing and fieldwork are limited to species at risk of extinction, leaving gaps in understanding broader population health
- Policy translation and application
 - Knowledge of species behaviour and genetics is poorly translated to policymakers
 - ♣ Research and fieldwork findings on species often do not reach policymakers
 - Connectivity should consider entire landscapes rather than focusing only on habitat-specific measures
 - ♣ Guiding animals effectively across the landscape requires integrating smaller landscape elements, such as hedgerows or water corridors
 - ♣ Choosing efficient measures and avoiding unnecessary or ineffective actions is key (no need to connect populations that are viable and thriving)
 - ♣ Monitoring results, like road victim databases, are not sufficiently visualised or sufficiently utilised for broader connectivity planning

Concluding: the effectiveness of monitoring and connectivity measures depends on cost-efficiency, data quality and policy integration challenges, with a need for comprehensive, long-term planning and maintenance efforts.

Concluding the day

“If you want to go fast, go alone.

If you want to go far, go together.”

This first interregional working group meeting was an important first get together between crucial partners from the different regions in Belgium. The programme of the day highlighted landscape fragmentation as a major threat to biodiversity in Belgium as a densely populated country with significant infrastructural challenges. Collaboration across regions, stakeholders and governance levels is essential to address these challenges effectively.

Key outcomes included the need for:

- A unified spatial vision to prioritise and align connectivity efforts, supported by shared data and clear actions plans.
- A coherent and action-orientated approach concerning connectivity within the Nature Restoration Plan (NRP) for Belgium. All concerned stakeholders should contribute and work together to insure this during the ongoing process for the NRP.
- A broadly supported and feasible vision on ecological roadside management, endorsed by all stakeholders and enhancing prioritization of actions.
- More attention towards (financial) investments in adaptive lighting, ecological roadside management, and research on the benefits of defragmentation measures.
- Improved communication to secure public and policy support.

The meeting emphasised the importance of combining expertise, policy, and implementation in a continuous cycle of bottom-up and top-down work, and collaboration at all levels to achieve lasting impact. There is much work to be done, but also a lot of expertise and results already in place.

Next steps will be discussed within the Life B4B interregional working group 'protected areas' and the ongoing process for the NRP.

To ensure progress, we would also like to encourage the participants to foster future collaboration by initiating projects and building partnerships that maximise collective impact. For this, we would also like to share each participant's contact information (name, function, organisation and e-mail address). If you don't want your information shared, please reach out to us by Friday the 13th ● of December 2024.