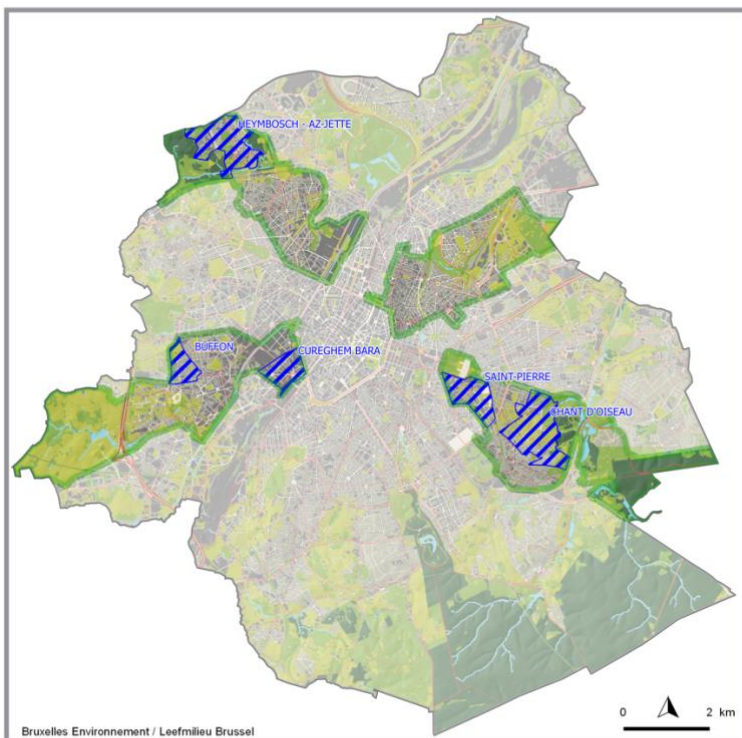


## ENHANCING BRUSSELS ECOLOGICAL NETWORK – BELGIUM

Section	 <p><b>CLEARINGHOUSE</b> 中欧城市森林应对方案</p> <p><i>This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821242</i></p>
<b>1</b>	<b>TITLE OF CASE STUDY AREA:</b> Reinforcement du Réseau écologique bruxellois (REB), Brussels, Belgium
<b>2</b>	<p><b>INTRODUCTION</b></p> <p>"Reinforcement Réseau écologique bruxellois" (REB - EN: Enhancing Brussels Ecological Network) is a project aiming to reconnect green spaces and develop biodiversity, nature and the quality of life in the city. The project is led by the regional agency for the environment, working with public actors, associations and citizens in five neighbourhoods, representing Brussels urban diversity, to develop local strategies to enhance the regional ecological connectivity (i.e. green network - <i>maillage vert</i>). In each of the neighbourhood, a diagnostic study will be carried out, in consultation with local stakeholders, in order to define objectives, projects and carry out innovative developments with an ecological vocation. The local strategies will lead to the development of concrete projects and will offer lessons and inspiration to neighbourhoods with similar characteristics.</p>
<b>3</b>	<p><b>KEY FACTS AND FIGURES OF THE CASE STUDY AREA</b></p> <p><b>Biogeographic region<sup>1</sup>:</b> European Atlantic mixed forests  <b>Surface area:</b> ca. 5 km<sup>2</sup>  <b>Country:</b> Belgium  <b>Region/Province:</b> Brussels Capital Region</p>
<b>4a</b>	<b>LOCATION MAP(S)</b>

<sup>1</sup> <https://www.eea.europa.eu/data-and-maps/data/biogeographical-regions-europe-3>

**Réseau écologique**  
 Transect et quartiers stratégiques



Transect

Quartiers stratégiques

- |                                     |                       |
|-------------------------------------|-----------------------|
| <b>Réseau écologique bruxellois</b> | <b>Réseau routier</b> |
| ■ Zones centrales                   | — Autoroutes          |
| ■ Zones de développement            | — Métropolitaines     |
| ■ Zones de liaison                  | — Principales         |
| ■ Autres zones de végétation        | — Complémentaires     |
| ■ Hydrographie                      | — Interquartiers      |
|                                     | — Voies ferrées       |

Fond de plan / Achtergrond : Brussels Urbis © - CIRB-CIBG -- © IGN-NGI

Location of the study area –

5	<p><b>NAME OF MUNICIPALITY AND WEBSITE ADDRESS</b>                  Brussels Capital Region, <a href="https://be.brussels/brussels">https://be.brussels/brussels</a></p>
6	<p><b>LEAD ORGANISATIONS:</b></p> <ul style="list-style-type: none"> <li>• Brussels Environment / Bruxelles Environnement / Leefmilieu Brussel  <a href="https://environnement.brussels/bruxelles-environnement">https://environnement.brussels/bruxelles-environnement</a></li> </ul>
7	<p><b>LOCAL CONTACT(S)</b>                  Fabien Genart                  Project coordinator                  Géographe, Bruxelles Environnement, Division Espaces verts                  Tel: +32 2 5634227                  e-mail: <a href="mailto:fgenart@environnement.brussels">fgenart@environnement.brussels</a></p>
8	<p><b>PRINCIPLE UF-NBS (Urban Forests as Nature-Based Solutions) ACTION(S)</b>                  Numerous priority actions are foreseen, depending on the neighbourhood typology, and namely:  <u>In 'Closed and dense neighbourhoods'</u></p> <ul style="list-style-type: none"> <li>○ Develop intensive green roofs and green facades</li> <li>○ Accommodate wildlife at the building level</li> <li>○ Plant trees along streets, privilege diversification, and protect and vegetalise tree stand</li> </ul>

	<ul style="list-style-type: none"> <li>○ Re value brownfield in terms of biodiversity; vegetalise squares, roundabouts, berms, school yards</li> <li>○ Create new greenspaces and playground promoting contact with nature</li> <li>○ Diversify plantations to bring about colours and odours the whole year long</li> </ul> <p><u>In (semi)closed neighbourhood</u></p> <ul style="list-style-type: none"> <li>○ Develop private gardens</li> <li>○ Develop small new 'local parcs' within the building blocks, where possible</li> <li>○ Plant trees along streets, privilege diversification, and protect and vegetalise tree stand</li> <li>○ Re value brownfield in terms of biodiversity; vegetalise squares, roundabouts, berms, school yards</li> <li>○ Develop intensive green roofs and green facades, to connect inside and outside building block</li> </ul> <p><u>Suburban &amp; residential areas</u></p> <ul style="list-style-type: none"> <li>○ Develop setback areas, gardens, and connections between gardens to accommodate biodiversity</li> <li>○ Vegetalise squares, roundabouts, berms, parking lots, sidewalks</li> </ul> <p><u>Apartment blocks</u></p> <ul style="list-style-type: none"> <li>○ Develop setback areas, gardens, and connections between gardens to accommodate biodiversity</li> <li>○ Vegetalise squares, roundabouts, berms, parking lots, sidewalk</li> </ul>																				
9	<p><b>OTHER PRINCIPLE NBS ACTION(S) – non-UF</b></p> <ul style="list-style-type: none"> <li>● Practices of participatory urban planning regarding both the public space and private gardens</li> <li>● Develop areas for bathing</li> <li>● Re-think public lighting to enhance biodiversity</li> </ul>																				
10	<p><b>LOCAL STAKEHOLDERS LIST ONLY</b></p> <ol style="list-style-type: none"> <li>1. <b>Governing authorities:</b> Brussels Capital Region</li> <li>2. <b>Associations &amp; 3. Citizens:</b> multiple associations and citizens groups involved throughout the project.</li> <li>4. <b>Municipalities:</b> Municipality of Anderlecht, Municipality of Saint-Gilles, Municipality of Anderlecht, Municipalities of Auderghem, Municipality of Woluwe-Saint-Pierre, Municipality of Jette</li> <li>5. <b>Public/private institutions:</b> n/a</li> <li>6. <b>Park planner and authorities:</b> n/a</li> <li>7. <b>Technicians for park maintenance/monitoring and to educate and support citizens:</b> n/a</li> </ol>																				
11	<p><b>UF-NBS FRAMEWORK</b></p> <table border="1" data-bbox="209 1279 1513 2136"> <tr> <td data-bbox="209 1279 272 1447">a.</td> <td data-bbox="272 1279 552 1447"><b>UF-NBS typology</b></td> <td data-bbox="552 1279 839 2136"></td> <td data-bbox="839 1279 1513 1447">Tree alley and street trees; Street green and green verge; Permeable pavement; House garden; Neighbourhood green space; Green inner courtyard; Neighbourhood green space; Small to medium urban park/public garden; Pocket park; Urban trees</td> </tr> <tr> <td data-bbox="209 1447 272 1603">b.</td> <td data-bbox="272 1447 552 1603"><b>Integration</b></td> <td data-bbox="552 1447 839 2136"></td> <td data-bbox="839 1447 1513 1603">Public area, transportation network (small streets, pedestrian streets, roundabout...), parks and squares. Working on the biodiversity quality (tree species, lightning...) and urban furniture (bench, light, trash...)</td> </tr> <tr> <td data-bbox="209 1603 272 1805">c.</td> <td data-bbox="272 1603 552 1805"><b>Network/connectivity</b></td> <td data-bbox="552 1603 839 2136"></td> <td data-bbox="839 1603 1513 1805">Ecological connectivity is the main objective of the project. The local development strategies, in fact, are not only developed to enhance neighbourhood level quality and quantity of green areas developed, but with the explicit intention to ensure region-wide ecological integration and connectivity</td> </tr> <tr> <td data-bbox="209 1805 272 1939">d.</td> <td data-bbox="272 1805 552 1939"><b>Multifunctionality</b></td> <td data-bbox="552 1805 839 2136"></td> <td data-bbox="839 1805 1513 1939">Multiple functions of public and private green spaces (e.g. ecological connectivity, biodiversity) are combined with the needs and the ambition of the community (e.g. more liveable public space, mobility...)</td> </tr> <tr> <td data-bbox="209 1939 272 2136">e.</td> <td data-bbox="272 1939 552 2136"><b>Multi-scale</b></td> <td data-bbox="552 1939 839 2136"></td> <td data-bbox="839 1939 1513 2136">The project takes place within the Regional Nature Plan (Plan Regional Nature). The reinforcement of this network aims to reconnect green spaces and develop biodiversity, nature and the quality of life in the city. The five neighbourhoods, also, were selected as emblematic of the city's different urbanisation pattern:</td> </tr> </table>	a.	<b>UF-NBS typology</b>		Tree alley and street trees; Street green and green verge; Permeable pavement; House garden; Neighbourhood green space; Green inner courtyard; Neighbourhood green space; Small to medium urban park/public garden; Pocket park; Urban trees	b.	<b>Integration</b>		Public area, transportation network (small streets, pedestrian streets, roundabout...), parks and squares. Working on the biodiversity quality (tree species, lightning...) and urban furniture (bench, light, trash...)	c.	<b>Network/connectivity</b>		Ecological connectivity is the main objective of the project. The local development strategies, in fact, are not only developed to enhance neighbourhood level quality and quantity of green areas developed, but with the explicit intention to ensure region-wide ecological integration and connectivity	d.	<b>Multifunctionality</b>		Multiple functions of public and private green spaces (e.g. ecological connectivity, biodiversity) are combined with the needs and the ambition of the community (e.g. more liveable public space, mobility...)	e.	<b>Multi-scale</b>		The project takes place within the Regional Nature Plan (Plan Regional Nature). The reinforcement of this network aims to reconnect green spaces and develop biodiversity, nature and the quality of life in the city. The five neighbourhoods, also, were selected as emblematic of the city's different urbanisation pattern:
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			the lessons from each of them will be then applicable to the regional territory as a whole.
	<b>f. Strategic planning processes</b>		The project is characterised by a high level of collaboration between different actors. As part of the project, a stakeholder mapping is conducted and workshops are organised to bring them together.
	<b>g. Inter- and transdisciplinary</b>		<p>The project brings together different actors, which have both a different role and a different perspective.</p> <p>The project is conducted by the region in collaboration with a multidisciplinary consortium of private companies bringing in different forms of expertise (from urban planning, citizen participation, biodiversity, landscaping...). In addition, the very design of the project entails an intense collaboration with local actors including municipalities and administration, associations, citizens and users.</p> <p>These collaborations are instrumental both to co-produce local development strategies, but also to enhance interconnections to realise the projects indicated within the strategy.</p>
	<b>h. Social cohesion and biocultural diversity</b>		The goal is to use the nature and biodiversity topic in order to create a local cohesion. A first cohesion is created by the project process itself but the final output (biodiversity enhancement) will also reinforce the public space quality and the social life thereafter. In low density districts, the space available give also a possibility of real biodiversity development.
	<b>i. Governance arrangements</b>	I. Project management structure.	The project is led and coordinated by Brussels Environment, the regional environmental protection agency. Following a public tender, has mandated a multidisciplinary consortium of private companies to conduct the practical aspects of the project.
		II. Local community engagement and the nature of their engagement.	In each of the neighbourhoods, a process of consultation will be carried out with local actors (public actors, associations, citizens and users), to realize a participatory diagnostic study and to define objectives, projects and eventually to carry out innovative developments with an ecological vocation.
		III. City-scale and/or region-wide governance for the project and/or UF-NBS (city and regional stakeholders and character of their engagement)	The project is led by the regional environment protection agency in close collaboration with municipalities.
		IV. National and international governance context (national and international stakeholders and character of their engagement)	n/a

		V. Other (specify)	n/a
j.	<b>Institutional frameworks</b>	I. Project staff responsibilities.	One staff member of the environmental protection agency working on the ecological goals (coordination, collection of ecological and societal data, design of maps...) One administrative working on local projects follow-up.
		II. Project Management Committee (Y/N) if Y.	N
		III. Frameworks <u>above the project</u> that exert influence on the project and/or UF-NBS e.g. Municipality, National Forestry Department.	Brussels Nature Plan (Plan pour le Développement de la nature), for the ecological network.  Plan régional de développement durable (PRDD): for the mapping of the green network.
		IV. Private companies that work on behalf of/or are embedded within the project.	The following companies were hired by the BE to work on the practical aspects of the project <ul style="list-style-type: none"> <li>○ <u>Le BRAT</u>: urbanism, eco-connectivity, Sustainable development, Cartography</li> <li>○ <u>Écorce</u>: Ecology, urban biodiversity, eco-connectivity</li> <li>○ <u>Plant En Houtgoed</u>: landscaping with high ecological value, landscape ecology/ biodiversity</li> <li>○ <u>21 Solutions</u>: project management, participation</li> </ul>
		V. Trade representative organisations that are involved in the project	n/a
		VI. Regulatory frameworks that the project operates within (i.e. bylaws, municipal laws, national laws, licences and leases, partnership agreements etc)	n/a
		VII. Other (specify)	n/a
		k.	<b>Economic frameworks</b>
II. Project delivered services and monies raised by project	<ul style="list-style-type: none"> <li>- Mapping the ecological goals for different kinds of neighbourhoods throughout the regional territory</li> <li>- Strengthening the citizens involvement in urban projects</li> <li>- Prospecting and making an inventory of potential green development area</li> <li>- Involvement of local stakeholder in the project</li> <li>- Developing local projects for UF-UNBS, in</li> </ul>		

			collaboration with local actors.
		III. City, regional general funds	Regional funds: 165.000 € for the prospecting, communication and project designing.  Regional and communal funds (amount to be defined) for the landscaping works.
		IV. Special funds e.g. National Lottery, Challenge funds	n/a
		V. National government funds	n/a
		VI. Private sector investment	The private sector investment will depend on the local projects and in the interest of local stakeholders to join in. So far only the public stakeholders (municipalities) are involved in the local projects.
		VII. International funds e.g. European Union structural funds, LIFE + etc.	n/a
		VIII. Other (specify)	
	<b>I. Sino/European comparative relevance</b>		n/a
	<b>m. UF-NBS valorisation</b>		UF-NBS valorisation depends on the urban context where the projects take place. Using UNBS in a very dense urban context is more powerful if the project aims to tackle social issues (e.g. providing recreational space, good quality public space...). On the other hand, in low urbanized area, UNBS are more focused on ecological and biodiversity issues (social issue is less important there due to the already better life quality). Ecological awareness goals remain pertinent for the whole mission.
	<b>n. Procurement of UF-NBS</b>		n/a
	<b>p. Ecosystem services (list the three most important services being provided in no more than 50 words)</b>		<ul style="list-style-type: none"> <li>- Educational services</li> <li>- Pollination</li> <li>- Climate regulation</li> </ul>
	<b>q. Renaturing</b>		Make the best of the current situation in different urban context and improve the ecological capacity with light and no-expensive works
<b>12</b>	<b>LESSONS AND TRANSFERABILITY (max. 100 words)</b>		
	<ul style="list-style-type: none"> <li>- Importance of creating local stakeholder group (local municipalities, citizens, association)</li> <li>- Importance of including the urban context in the development process</li> <li>- Importance of mapping and inventorying the green objects on different thematic (size, owner, location in the</li> </ul>		



	<p>Brussels ecological network...)</p> <ul style="list-style-type: none"><li>- Importance of regional centralization for piloting and consistency</li><li>- No achievement without communication work and close follow-up</li></ul>
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