

## PERI-URBAN FOREST OSTEND – BELGIUM

<p>Section</p>	 <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>
<p>1</p>	<p><b>TITLE OF CASE STUDY AREA:</b> Peri-urban forest Ostend (Stadsrandbos Oostende, aka Geuzenbos) – <a href="http://www.buitengoed.be">http://www.buitengoed.be</a>.</p>
<p>2</p>	<p><b>INTRODUCTION (max. 150 words)</b></p> <p>The peri-urban forest is a new afforestation in the coastal and harbour City of Ostend (Belgium). Planting started in 1996, and the aim is to develop 120 ha of multifunctional forest. Actually, the forest cover is around 90 ha. The forest is a buffer zone between the residential area, the industrial zoning, and the creek area which is of historical and ecological importance. The peri-urban forest is part of a Green Ribbon network (<i>Groen Lint</i>) that surrounds the city core.</p> <p>The forest is located on land owned by the City of Ostend and is managed by a cooperative business “Buitengoed”. Main partners in the cooperative are an insurance company, the public managing company of the industrial zone, a trade union, and a nature conservation organisation.</p>
<p>3</p>	<p><b>KEY FACTS AND FIGURES OF THE CASE STUDY AREA</b></p> <p><b>Biogeographic region<sup>1</sup>:</b> Atlantic  <b>Surface area:</b> 120 ha  <b>Country:</b> Belgium  <b>Region/Province:</b> Flanders/West Flanders</p>
<p>4a</p>	<p><b>LOCATION MAP(S)</b></p> 

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



 Peri-urban forest Ostend

<https://www.google.com/maps/d/edit?mid=1qRQK4eyvqdyHAVY5WstXezPZDFevk2La&usp=sharing>

The peri-urban forest is included in the Green Ribbon network (*Groen Lint*), see map below (Number 5 marks the location of the peri-urban forest).  
(map: [http://www.buitengoed.be/beheer/documents/groen\\_lint\\_duurzaamheid.pdf](http://www.buitengoed.be/beheer/documents/groen_lint_duurzaamheid.pdf))



5	<b>NAME OF MUNICIPALITY AND WEBSITE ADDRESS</b> Oostende: <a href="http://www.oostende.be">http://www.oostende.be</a>			
6	<b>LEAD ORGANISATIONS:</b> City of Ostend Cooperative Business Buitengoed Natuurpunt (Nature Conservation NGO)			
7	<b>LOCAL CONTACT(S)</b> Guido Vandenbroucke, Director Buitengoed <a href="mailto:guidovedebe@skynet.be">guidovedebe@skynet.be</a>			
8	<b>PRINCIPLE UF-NBS (Urban Forests as Nature-Based Solutions) ACTION(S)</b> <ul style="list-style-type: none"> <li>Forest plantations</li> </ul>			
9	<b>OTHER PRINCIPLE NBS ACTION(S) – non-UF</b> <ul style="list-style-type: none"> <li>Vegetable garden where members can collect vegetables and fruits</li> <li>Children's farm.</li> </ul>			
10	<b>LOCAL STAKEHOLDERS LIST ONLY</b> <ol style="list-style-type: none"> <li><b>Governing authorities:</b> City of Ostend</li> <li><b>Associations:</b> Buitengoed (Cooperative Business), Natuurpunt (Nature Conservation NGO), Trade Union (ABVV)</li> <li><b>Citizens:</b> Citizen-members of the Cooperative Business, volunteers who engage in tree planting and other nature conservation activities</li> <li><b>Municipalities:</b> City of Ostend</li> <li><b>Public/private institutions:</b> Public institutions: Management Agency of the Oostende Industrial Area (Plassendale NV), Flemish Agency for Nature and Forest (ANB); Private: P&amp;V Insurance Company</li> <li><b>Park planner and authorities:</b> The afforestation has been planned by the City and the Cooperative business.</li> <li><b>Technicians for park maintenance/monitoring and to educate and support citizens:</b> Forest management and education is done by staff and volunteers of the Cooperative Buitengoed, supported by the Flemish Agency for Nature and Forest (ANB).</li> </ol>			
11	<b>UF-NBS FRAMEWORK</b> <table border="1" data-bbox="209 1989 1481 2078"> <tr> <td data-bbox="209 1989 272 2078">a.</td> <td data-bbox="272 1989 853 2078">UF-NBS typology</td> <td data-bbox="853 1989 1481 2078">Forested areas (urban forest)</td> </tr> </table>	a.	UF-NBS typology	Forested areas (urban forest)
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b.	<b>Integration</b>		<p>The peri-urban forest is a buffer between the residential zone (in the west), the industrial sites (in the north) and the wetlands (creeks) in the east. A remarkable landscape element is the old railway line (line 62), which has been transformed into a cycle path.</p>
c.	<b>Network/connectivity</b>		<p>The peri-urban forest is part of a green network in, through, and along the city (termed Green Ribbon or Emerald Necklace – <i>Groen Lint</i> in Dutch).</p>
d.	<b>Multifunctionality</b>		<p>The functions mentioned in the management plan are recreation and ecology (Van den Balck &amp; Bertens, 2017). The forest has also an important buffer function between the adjacent land uses, and is important for connectivity between green areas in and around the city.</p> <p>The project also includes an urban gardening project, and a children's farm.</p>
e.	<b>Multi-scale</b>		<p>The peri-urban forest is connected with other green spaces and nature areas through the Green Ribbon. It is the wild counterpart of the city park, which is locally known as "the small forest" (37 ha).</p> <p>The peri-urban forest is part of the larger plan for 5.500 ha of additional urban forests in the Flemish Region (to be realised between 1996 and 2010).</p>
f.	<b>Strategic planning processes</b>		<p>The peri-urban forest is part of the larger plan for 5.500 ha of additional urban forests in the Flemish Region (to be realised between 1996 and 2010), which in itself was included in the Spatial Structure Plan for Flanders (1996 – 2006). The location and design of the new forest is based on a localisation study (Dumortier et al. 1996), and has been included in the nature development project "Oostends Krekengebied" (VLM, 2006). The realisation of the forest is also in line with the Nature Goals, that implement the Habitat Directive (Goal to increase alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>).</p>
g.	<b>Inter- and transdisciplinary</b>		<p>The afforestation project includes both an ecological, as a social angle (focussing mainly on recreation, but also on urban agriculture). Citizens are involved either as volunteers, either as members of the cooperative who is managing the forest.</p>
h.	<b>Social cohesion and biocultural diversity</b>		<p>The afforestation project is of social importance, as it provides a place to local inhabitants that is less influenced by the multiple tourists that visit the city. It provides a space where local people can meet (when walking, visiting the urban vegetable garden, or the children's farm). The new development creates a new space, that is home to the population, instead of providing a space to tourists.</p> <p>Most of the soil in the area is clay (sand and dunes are exceptions), which is very fertile and has been in use for agriculture since it was retrieved from the sea. Forest is not traditional for the landscape, so it can be questioned if the afforestation project is respecting the biocultural diversity. However, Ostend is a city that sees a significant influx of retired people from all over Belgium. This migration includes newcomers from areas that see more forest than the coastal region; the</p>

				new peri-urban forest is transforming the coastal landscape into a more common landscape to them.	
i.	Governance arrangements	I. Project management structure.		The project is managed through the City council and the Buitengoed Cooperative. The Flemish Agency for Nature and Forest supports the forest management.	
		II. Local community engagement and the nature of their engagement.		The local community is engaged through <ul style="list-style-type: none"> <li>- The city council, who is funding most of the project</li> <li>- The local cooperative Buitengoed</li> <li>- Citizen-members (shareholders) of the cooperative</li> <li>- Citizen-volunteers to the cooperative</li> </ul>	
		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 peri-urban forest is part of the Green Ribbon network, but there is no integrated governance approach for the network. The Masterplan for the Green Ribbon does not include governance aspects.	
		IV. National and international governance context (national and international stakeholders and character of their engagement)		The realisation of the peri-urban forest is grounded in the urban forest development strategy included in the Spatial Structure Plan for Flanders (1996 – 2010), which aims at developing 5.500 ha of new urban forests in Flanders. The main responsible actor for this achievement is the Flemish Agency for Nature and Forest (ANB, Agentschap voor Natuur en Bos). In the case of the peri-urban forest in Ostend, the involvement of the Flemish Agency has been mainly as a funding authority, by providing financial support for acquiring land, and co-funding the planting costs.	
		V. Other (specify)		n/a	
	j.	Institutional frameworks	I. Project staff responsibilities.		Managing the forest and surrounding nature, organising citizen events and education activities, running the children’s farm and the collective urban garden.
			II. Project Management Committee (Y/N) if Y.		n/a
			III. Frameworks <u>above the project</u> that exert influence on the project and/or UF-NBS e.g. Municipality, National Forestry Department.		The realisation of the peri-urban forest is grounded in the urban forest development strategy included in the Spatial Structure Plan for Flanders (1996 – 2010), which aims at developing 5.500 ha of new urban forests in Flanders. Although this goal has not been reached during the timespan of the Spatial Structure Plan, it has been included in most Coalition Agreements for the Flemish Region since 2000. The most recent Coalition Agreement (2019-2024) has repeated the aim of planting more (urban) forests. The peri-urban forest is included in <ul style="list-style-type: none"> <li>- A nature and forest management plan for the peri-urban forest and the adjacent creeks and wetland (running from 2017 to 2040).</li> <li>- A nature development project (VLM, 2016)</li> </ul>

		IV. Private companies that work on behalf of/or are embedded within the project.	The cooperative Buitengoed is a private partner. This cooperative business is the responsible partner for developing and managing the peri-urban forest.
		V. Trade representative organisations that are involved in the project	The agency that is managing the industrial estate (NV Plassendale) is one of the founding partners of the cooperative Buitengoed.
		VI. Regulatory frameworks that the project operates within (i.e. bylaws, municipal laws, national laws, licences and leases, partnership agreements etc)	The land is owned by the city, and the management responsibilities are transferred to the cooperative Buitengoed and the Flemish Agency for Nature and Forest.
		VII. Other (specify)	n/a
k.	<b>Economic frameworks</b>	I. Community fundraising	Citizens can support the establishment and management of the peri-urban forest through several actions <ul style="list-style-type: none"> <li>- Becoming member-shareholder of the cooperative Buitengoed</li> <li>- Becoming annual member of the Buitengoed cooperative</li> <li>- Acting as a volunteer</li> </ul>
		II. Project delivered services and monies raised by project	The peri-urban forest is focussed on delivering the ecosystem services recreation, buffering, and biodiversity. Food production is also delivered, through the urban collective vegetable garden and the income from selling meat produced by the cattle that is grazing in the nature domains in the city.
		III. City, regional general funds	The City of Ostend has bought the land, and has lend the land. The Flemish Region is co-funding land acquisition, tree planting, and the nature management interventions. The public company that is managing the industrial zone in the City has contributed to the starting capital for the Cooperative Buitengoed.
		IV. Special funds e.g. National Lottery, Challenge funds	n/a
		V. National government funds	n/a
		VI. Private sector investment	Two private investors have contributed to the starting capital for the Cooperative Buitengoed.
		VII. International funds e.g. European Union structural funds, LIFE + etc.	<b>Interreg IVA 2 Seas, "21st Century Parks"</b> – <a href="http://archive.interreg4a-2mers.eu/approved_project_160967b70.pdf?id=16096">http://archive.interreg4a-2mers.eu/approved_project_160967b70.pdf?id=16096</a> Interreg IVA 2 Seas "Urban Habitats" <a href="http://archive.interreg4a-2mers.eu/approved_project_160642668.pdf?id=16064">http://archive.interreg4a-2mers.eu/approved_project_160642668.pdf?id=16064</a>

		VIII. Other (specify)	n/a
	<b>i. Sino/European comparative relevance</b>		Both the city and the peri-urban forest are rather small. Comparability to China has yet to be assessed. It could be more interesting to smaller touristic towns, as an illustration how new afforestation can both serve as a buffer between residential and industrial zones, and as an additional recreational offer in a touristic city.
	<b>m. UF-NBS valorisation</b>		The peri-urban forest is creating value as the forest is facilitating a green image to the city, and as it is creating additional recreational opportunities in the city.  The direct monetary value of the forest is limited.
	<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>		1) the provision of recreation and educational facilities for local residents and tourists; 2) biodiversity & ecological connectivity 3) buffering industrial sites from residential sites
	<b>q. Renaturing</b>		Afforestation of previous agricultural land.
<b>12</b>	<b>LESSONS AND TRANSFERABILITY (max. 100 words)</b>		
	<p>This case is particularly interesting for the main actor, the Cooperative Buitengoed. This is a joint undertaking by the public management agency for the industrial site, an insurance company, a trade union, and a Nature Conservation NGO. The City is facilitating and supporting the cooperative. However, it turns out that the Cooperative business is not self-sustaining, and alternative management approaches are being developed. The case is also interesting from a tourism industry perspective. The case illustrates how a tourist city can expand its touristic offer with new urban green space.</p>		
<b>13</b>	<b>REFERENCES (Harvard style)</b>		
	<p>Dumortier, M., Hoffmann, M. en Kuijken, E. (1997). Localisatiestudie en structuurplan stadsrandbos Oostende, 62 p.</p> <p>Van den Balck E. &amp; Berten D. (2017). Geïntegreerd beheerplan Oostends Krekengebied en Geuzenbos. Sweco Belgium, under the authority of the City of Ostend and the Flemish Agency for Nature and Forest.</p> <p>Wambecq, W., De Meulder, B. (2018). Between Land and Sea: Reshaping the Belgian Coastline A Case Study between Ostend and Blankenberge. <i>The Plan Journal</i>, 2 (2), 273-294. doi: <a href="https://doi.org/10.15274/tpj.2017.02.02.20">10.15274/tpj.2017.02.02.20</a></p> <p>Technum, ADR &amp; Descombs G. (2014). Masterplan Groen Lint. <a href="https://www.oostende.be/file/download/83e555e2-bb3d-4993-9024-a3cd79491aa8/A285EBB1745239C67843699E32B7FAD3">https://www.oostende.be/file/download/83e555e2-bb3d-4993-9024-a3cd79491aa8/A285EBB1745239C67843699E32B7FAD3</a></p> <p>VLM (2006). Projectrapport Natuurinrichtingsproject Oostends Krekengebied.</p> <p>Van Gossum, Peter, et al. (2009) "New environmental policy instruments to realize forest expansion in Flanders (northern Belgium): A base for smart regulation?" <i>Land Use Policy</i> 26.4: 935-946.</p>		