

Business Case Factsheet

Creating a park with water buffering potential in the Municipality of Kontich



Kontich Belgium

Project area

31000 sq m

Landscape

(Sub)urban
residential area



Kontich is a municipality in the southern periphery of Antwerp. In the project area, issues with pluvial flooding occurred.

An historically inaccessible area was made public.

The area now includes a large natural playground and serves as a green corridor for commuters, offering safe walking and cycling facilities. Water ponds and permeable pavement increase the water buffering capacity of the area, mitigating future pluvial flooding risks.

Scenario Comparison

BASELINE SCENARIO

Abandoned site with spontaneous and non-indigenous afforestation.

Former railroad embankment, largely inaccessible to the public.

Surrounding neighbourhood increasingly vulnerable to pluvial flooding.

NATURE SMART CITIES PILOT

Publicly accessible park with over 5000 newly planted indigenous shrubs.

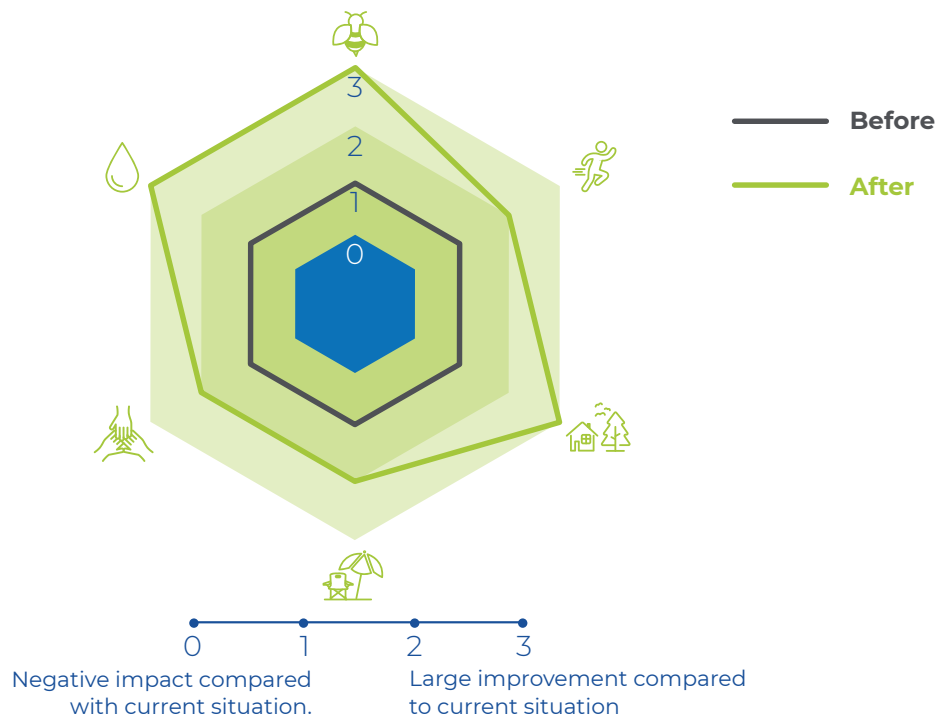
Safe and enjoyable green cycling and walking corridor with permeable pavement.

Visible and qualitative blue space with controlled overflow, capturing rainwater from adjacent streets and preventing pluvial flooding risks.

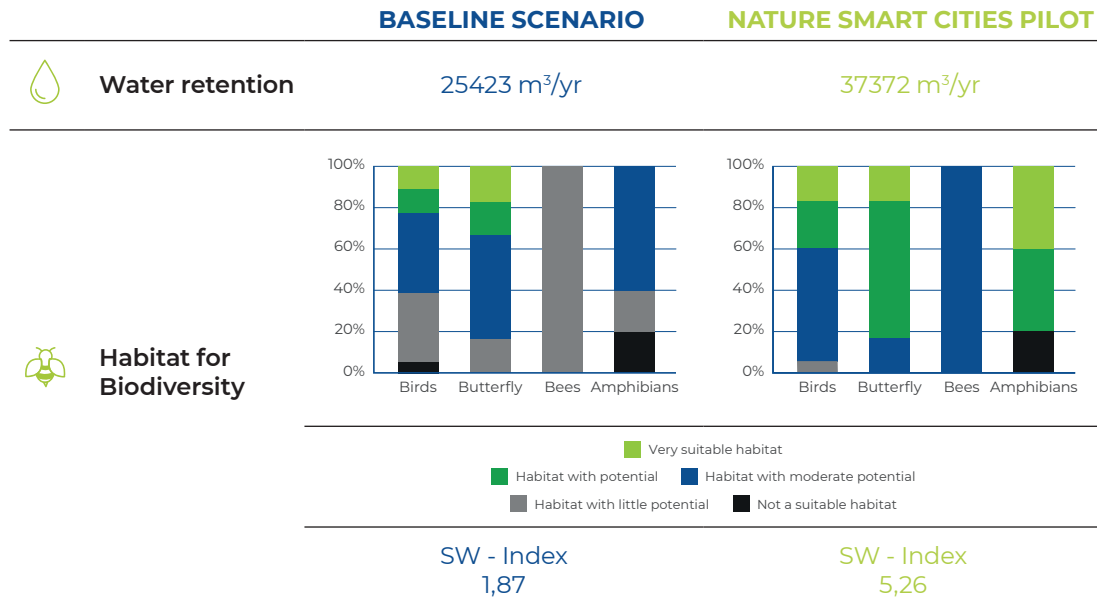
Ecosystem Services


- Food
- Physical and mental health
- Micro climate regulation
- Materials
- Noise pollution
- Recreation, and Tourism by external visitors
- Education and raising awareness
- Aesthetic appreciation
- Social cohesion
- Habitat for biodiversity
- Attractor for companies and investments
- Real estate prices
- Carbon sequestration
- Air filtering
- Water retention and infiltration

Selected Parameters




Scenario Comparison



	BASELINE SCENARIO	NATURE SMART CITIES PILOT
Aesthetic appreciation		
Does this scenario provide an aesthetically attractive place to live or work in?	To a limited extent	To a great extent
Do people value the area for its contribution to the local landscape or streetscape?	To a limited extent	To a great extent
Does this scenario make outdoor activities more enjoyable?	To a limited extent	To a great extent
 Does this scenario include an attractive mix of different landscape elements?	To a limited extent	To a great extent
Does this scenario promote people's engagement with the natural world?	To a limited extent	To a great extent
Does this scenario create, or add to, a sense of place and visual identity?	To a limited extent	To a great extent
Do people enjoy spending time in and around this scenario area?	To a limited extent	To a great extent
Does this scenario contribute towards civic pride in the locality?	To a limited extent	To a great extent

Physical and mental health

	Does this scenario provide an environment that help people relax and reduce stress?	To a limited extent	To a great extent
	Does this scenario provide opportunities for people to socialise with neighbours?	To a limited extent	To a great extent
	Does this scenario provide opportunities for volunteering and 'giving back'?	Not at all	To a great extent
	Does this scenario encourage active outdoor exercise?	To a limited extent	To a great extent
	Does this scenario reduce ambient noise, promote peace, quiet and tranquillity, and so contribute to people's mental health?	To a limited extent	To a great extent
	Does this scenario provide space for sport and active play?	To a limited extent	To a great extent
	Does this scenario provide green elements in a densely urban area?	To a limited extent	To a great extent
	Does this scenario improve shading in the area to improve thermal comfort?	To a limited extent	To a great extent

Recreation, and Tourism by external visitors

	Does this scenario provide a variety of opportunities for informal sport, play, and other physical activity?	To a limited extent	To a great extent
	Does this scenario provide access to green space for local people?	To a limited extent	To a great extent
	Does this scenario provide play and recreation opportunities for children and young people?	To a limited extent	To a great extent
	Does this scenario promote participation in active physical exercise, for example walking, running, and other sports?	To a limited extent	To a great extent
	Does this scenario promote equality of opportunity in play and recreation regardless of gender, ability/disability, and economic status?	To a limited extent	To a great extent
	Does this scenario promote rest and relaxation?	To a limited extent	To a great extent

Social cohesion

Does this scenario encourage people to spend more time in the public realm? **To a limited extent** **To a great extent**

Does this scenario offer opportunities for local people to meet and socialise, e.g. providing benches, spaces for picnics? **To a limited extent** **To a great extent**



Does this scenario increase opportunities to participate in community activities? **To a limited extent** **To a great extent**

Does this scenario provide space for activities and events to take place? **To a limited extent** **To a great extent**

Does this scenario make local residents likely to feel more happy/proud to live in the locality and therefore less likely to move away? **To a limited extent** **To a great extent**

Does this scenario help to reduce anti-social behaviour? **To a limited extent** **To a great extent**

Social cohesion

Does this scenario contribute to a sense of place and visual identity? **To a limited extent** **To a great extent**



Does this scenario support people, and/or groups of people, who are socially or economically marginalised? **To a limited extent** **To a limited extent**

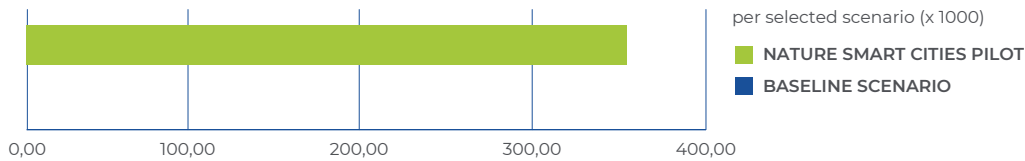
Does this scenario increase volunteering and informal support within the local community? **To a limited extent** **To a limited extent**

Financial Information

Initial Investment

€ 0,00

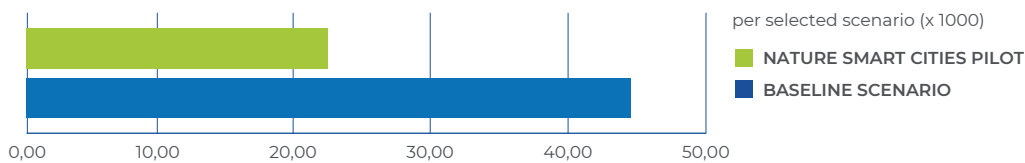
€ 354 756,00



Maintenance Costs (euro)

€ 43 988,03

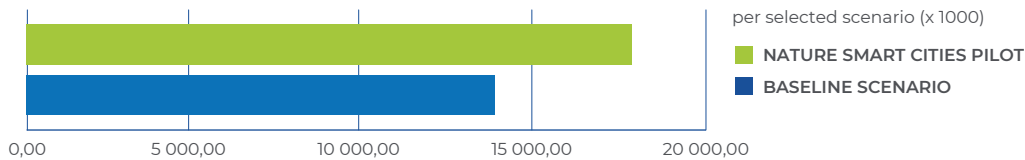
€ 24 110,26



Monetary Benefits (euro/year)

€ 13 893 232,09

€ 17 779 850,92



Conclusion

The former railway embankment in Kontich is now a beautiful park with water buffering ponds, indigenous plants and trees, a natural playground, and a cycle path with permeable pavement. Rainwater from the adjacent neighbourhood is buffered in the ponds and can slowly seep into the ground. Before, the road through this area wasn't used much. The area was overgrown with brambles and weeds and was considered unsafe. Now the road is a much-used connection, full of walkers and cyclists. Neighbours with children meet at the playground too.

This factsheet presents the Business case and data generated for the green infrastructure scenarios using the Nature Smart Cities Business Model. The factsheet design has been adapted for external promotion.

For more information and to access the Business Model visit: <https://www.uantwerpen.be/en/centres/environment-sustainable-development/research/projects/nature-smart-cities/>

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