



1 THE CHALLENGE GREEN FOR GREY

Flanders is one of the 'most grey' urbanised regions in Europe today. No less than a third of the space is taken up by houses, infrastructure, industry and recreation. The open space is becoming severely fragmented into ever smaller patches and each day, another six hectares disappears.

The quality of life in the city and suburbs in particular is noticeably under pressure. Green spaces that can fulfill various functions are becoming smaller and smaller. They are changing into grey landscapes that have a single function and offer limited social added value.

The objective of the Green4Grey project is to give the undeveloped residual spaces in Flemish suburbs a new purpose and a versatile implementation (water storage, recreation, food provision, green lungs, etc.). By doing so, a limited space is used to respond to the major challenges of climate change, urbanisation and the loss of biodiversity.

Flanders wants to halt the increasing 'greying' of the landscape. By creating multifunctional green/blue spaces, Green4Grey aims to show how Flanders can implement this policy objective. An area-specific, integrated approach and collaboration with various partners from plan to implementation is central to this.

2 THE APPROACH COLLABORATING FOR MULTIFUNCTIONAL GREEN-BLUE

2.1 VARIOUS FUNCTIONS MERGE AT ONE PLACE

Green4Grey transforms grey semi-artificial landscapes into more natural urban landscapes where various functions are combined:





Nature and biodiversity:

Valleys in a peri-urban context often serve as hotspots for protected fauna and flora, such as the tree frog, the grass snake or rare orchids.



Environmental education:

People building their own living environment, learn more about nature and appreciate it more.



Health and well-being:

Green spots not only provide fresh air but also offer a retreat from urban stress.



Green business sites:

Working in a beautiful green landscape enhances productivity and well-being.



Green living environments:

Attractive green neighborhoods and green elements between residences increase real estate value.



Climate adaptation:

Green climate-proof environments can help to cope with climate change impacts, such as alternating periods of drought and heavy rain.



Green environments for outdoor activities and as meeting places:

Green spots in a peri-urban context can be designed as attractive places to meet people. By connecting these stepping stones, a green network is developed that stimulates cycling, hiking, jogging,....



Sustainable food production:

A tree orchard or pesticide-free community garden provides local and sustainable food.



Water quality improvement:

Enhanced water quality is favorable for people, animals and plants



Water retention:

Naturally meandering streams not only stimulate biodiversity, but also act as water buffers offering protection against flooding during heavy rainfall events.

The Flemish Belt - Het Zeen (Zaventem):

BEFORE AFTER



Green4Grey transformed the Zeen (Zaventem) from a traditional park with lawn into a natural city landscape that combines water storage, outdoor activities in a green environment and biodiversity.



















De Wijers - Schansbroek (Genk):

BEFORE



Green4Grey implemented the transformation of a former mining basin (winter image) in Schansbroek (Genk) into a pleasant resting place for visitors to the Schansbroek neighbourhood park and employees of the Thorpark, the adjacent international technology park on the former mining site (summer image).

AFTER









The Green4Grey project wants to combine various functions in each project area, because in so doing:

- it limits the amount of space that is taken up;
- it achieves a number of diverse objectives (such as water management, preservation of natural landscape, improvement of the environment for fauna and flora, recreational added value, etc.);
- the various functions are assessed simultaneously and in a balanced way. By holding thorough consultations with partners, all the themes are assessed and implemented simultaneously in a high-quality and balanced plan with sufficient support.
- it increases the biodiversity and the ecological functioning of these places by simultaneously focusing on different ecosystem functions;
- it makes the city and its suburbs more climate-proof by restoring the natural dynamic (avoiding heat islands, naturally buffering the rain water, etc.);
- it creates win-wins that increase social added value.

MULTIFUNCTIONAL DESIGN: In the Kerremans Park (Asse)



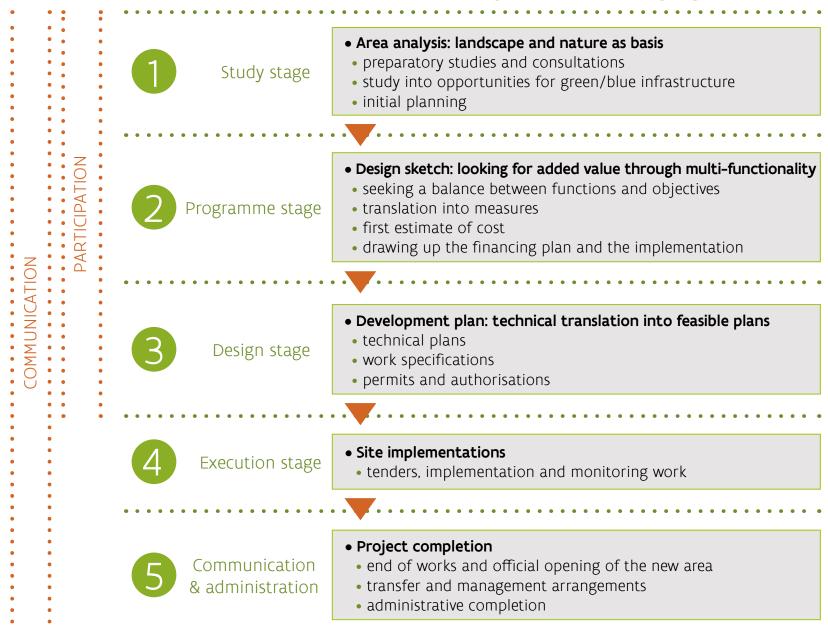
In the Kerremans Park (Asse), the new green/blue infrastructure was designed in such a way that a variety of functions were combined. After completion, this gave the area considerable added value for workers, local residents and recreational visitors. Following functions were combined: nature and biodiversity, climate adaptation, outdoor recreation in green areas, health and well-being in noisy city environments, environmental education and green working & living environments.



2.2 VARIOUS OBJECTIVES IN ONE AREA: FROM PLAN TO REALISATION

All areas follow a step-by-step plan with attention for 'integration' of several objectives, functions or visions.

INTEGRATED APPROACH



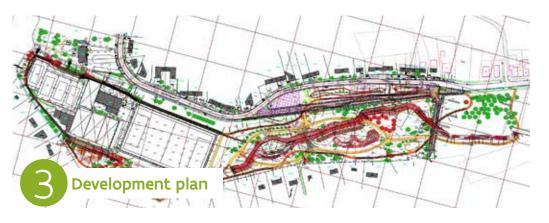




Het Zeen (Zaventem):

An integrated approach at the study stage leads to an integrated design of the project zone. The new area has various functions: water storage, climate adaptation, greener living environment, environmental education, recreation, peace and quiet in the busy suburban surroundings, and improved water quality.







2.3 THE IMPORTANCE OF A PARTICIPATIVE APPROACH

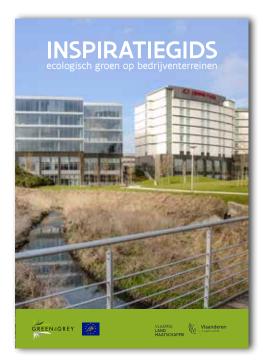
In suburban areas, pressure on the open space causes many, sometimes contradictory, claims on the limited space. In order to give the new design of the remaining open space a greater chance for success, it is important to create support among the large group of possible users and the large number of local residents.

Participation was an important tool in the Green4Grey project to:

1) improve the quality and sustainability of the plans by gathering local knowledge and to design the areas specifically for the future users. In this way, the mentality changes from NIMBY (Not In My Backyard) to PIMBY (Please In My Backyard) for green infrastructure.

2) strengthen the future users in their ownership of the area, so that there is commitment to take action themselves for more green space in the suburbs. This strengthens social cohesion.

3) learn from each other and get to know other viewpoints. Neighbours, colleagues and policymakers exchange experiences or knowledge about ecosystem services and thus expand their own possibilities. In this way, collaborations and new initiatives are stimulated after the end of the project.



A green design for Zellik Research Park was set up in collaboration with the business sector; an inspiration guide for ecological green on business sites was developed for the project.



The local residents are important future users of the Schansbroek neighbourhood park (Genk). During workshops, they helped shape the plans and in this way experienced that account was being taken of their needs and desires.



A versatile team of students and experts in various disciplines looked for solutions to combine the various functions within the open space and to translate this into a sustainable vision for the Demer valley in Hasselt.



Policymakers and experts from various European urbanised regions developed an inspiration guide during an expert meeting. This guide contains recommendations for the implementation of more green-blue infrastructure projects in the EU.

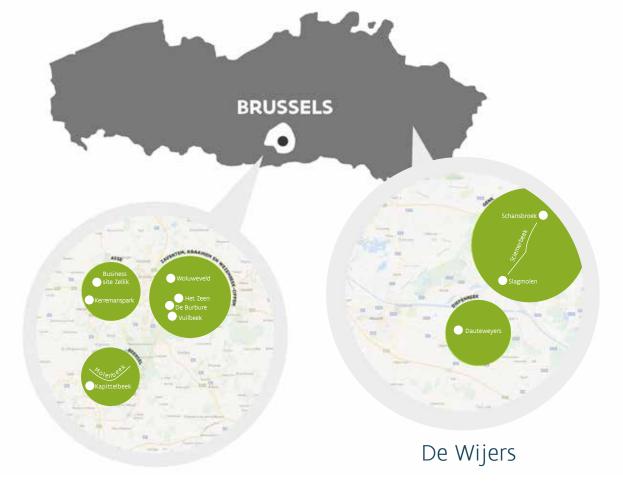


Green4Grey involved children, our future generation, through various actions during the design, implementation and execution of the plans.

3 THE RESULTS - GREEN/BLUE ON SITE

3.1 TRANSFORMATION OF SIX PROJECT AREAS

Green4Grey has implemented green/blue stepping stones in six project areas: three projects in the Flemish Belt around Brussels and three in the De Wijers urbanised area around Hasselt-Genk. All the project areas are green and undeveloped residual spaces that are under pressure from the encroaching urbanisation.



The Flemish Belt

The Flemish Belt



De Wijers











Investment budget 3.8 million euro - European subsidies 900,000 euro - Total area of project areas: 346 ha

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Theme		Urban issues
Suburban nature and biodiversity		 biodiversity is declining as a result of urban pollution lack of green spaces fragmenting landscape due to grey infrastructure or inferior habitat conditions
Water buffering & storage		 disrupted water balance flooding (due to hardening of the ground, straightened waterways and insufficient buffer space) dehydration (due to former mining industry and direct drainage of the well water via sewerage)
Water quality improvement		 dirty sewage in water course threatens adjacent fauna and flora valuable spring water disappears into the sewer erosion causes soil and nutrients to be flushed into the waterways
Greener living environment Recreation/activities in the open space Health & well-being	₹ # \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	 because the number of natural landscape elements is decreasing, the landscape is becoming increasingly artificial many residents have few opportunities to relax in an urban environment with lots of noise, traffic and pollution there are few recreational opportunities due to poor infrastructure, feeling unsafe and illegal waste there is hardly any play nature in the urban environments. reduced contact with nature can have an impact on health and well-being
Green working environment		 because the number of natural landscape elements is decreasing, the landscape is becoming increasingly artificial many employees have few opportunities to relax in an urban environment with lots of noise, traffic and pollution
Environmental education		• little contact with and feeling for the natural landscape in the direct living environment causes a lack of knowledge about the environment
Sustainable food production		• the declining number of open space areas reduces the potential area for sustainable food production
Climate adaptation		• climate change is exerting extra pressure on urban landscapes (extreme precipitation, heat-island effect, landscapes drying out, etc.)

















GREEN4GREY realisations

- 346 ha of open space with new habitats & improved habitat conditions for fauna & flora in six project areas
- 8 ha of new habitats by transforming grey infrastructure or pastures, fields into more natural forests, grassland, tall herb vegetation or thickets (bushes)
- 16 pools or source areas restored
- 4 km of linear landscape elements (natural verges, wood edges, etc.)
- 6 ha of invasive species control
- 1.25 ha of increased infiltration or seepage of the water by removing asphalt
- 2 ha of new buffer space for water storage (incl. wadis, natural precipitation buffers):
- 800 m of open watercourse (previously this watercourse was underground)
- restoration of water balance in five project areas
- In five project areas, source areas were connected to a stream
- 2.2 ha of landscape transformation for the benefit of erosion control
- 346 ha of greener & more recreation-friendly zones housing environment in six project areas
- 7 km of paths for soft mobility for various target group (walkers, joggers, etc.)
- Play nature in five project areas
- 83 ha of additional green working environment in two project areas
- 2.2 km of nature learning trail constructed
- 18 information signs with environmental educational messages
- 2.3 ha of orchards (fruit) & 1 allotment garden complex
- 231 ha of climate-adaptive areas (areas providing protection against extreme weather conditions)

3.2 VISION DEVELOPMENT AT VALLEY LEVEL

When drawing up integrated plans at landscape level, a long-term vision was developed for green-blue infrastructure on a larger spatial scale. Strategies were also developed for major social challenges for which local interventions prove inadequate solutions. Consider climate change, urbanisation, etc. In addition, Green4Grey wants to create a 'domino' effect and stimulate others to take new initiatives once the project is concluded.

In the **Stiemerbeek valley** through the centre of Genk, solutions were proposed for making the water and sewerage system more resilient. In the Molenbeek valley, a vision was developed to create a functional green-blue corridor in the urbanised landscape in the Flemish Belt to the south of Brussels.























Stiemerbeek Valley: multifunctional valley system



4 TIPS - GREEN-BLUE HIGHER ON THE AGENDA

To stop the greying of the city and suburbs, green-blue infrastructure must be put higher on the agenda. The experiences from the Green4Grey project show that it can be done, and they deliver insights for a successful project. What is crucial here is commitment at all levels (from the cooperation of the local neighbourhood to the higher policy levels).

- 1. Make a plan for green/blue infrastructure that integrates multiple objectives into one plan (such as biodiversity, water buffering, recreation, environment education). This ensures that diverse target groups are interested in implementing the plan.
- 2. Focus on participation. Involve all the parties in the preparation of the plan and be flexible enough to adapt the plans and make compromises based on the local needs (without compromising the overall environmental objective of the project).
- 3. Use a wide range of modern communication tools tailored to different target groups at each step in the process: from the design to after the realisation of green/blue infrastructure. Use simple words for complex concepts (e.g. logos or pictograms for complicated concepts such as ecosystem services).
- 4. Invest in environmental education and raising awareness. Explain clearly where specific investments are needed. Each individual who is persuaded of the usefulness of green/blue infrastructure is as valuable to a green/

- blue future as the investment itself. He or she becomes an ambassador for the investment and conveys the message to others.
- 5. Ensure that management, maintenance and respect for long-term investments are an essential part of the project from the outset. Participation processes and communication with residents help combat problems such as poor management and vandalism.
- 6. Show visible field results to policy-makers and experts (including via site visits): many plans get stuck in the conceptual stage, because they are not understood by the policymakers or are too abstract. Ensure that there are quick wins in lengthy processes. Quick wins are plans that can be carried out quickly and with considerable 'profit' (in the broadest sense of the word).
- 7. Develop long-term visions for green/blue infrastructure on a large spatial scale. They may not be immediately achievable, but they form a stepping stone for future developments and offer a counterbalance to increasing grey infrastructure. What's more, they are necessary to respond to larger

- societal challenges such as climate change.
- 8. View each site realisation as a starting point for new projects. Thus, initially small investments by a partner can lead to a larger-scale dynamic (domino effect).
- 9. Work closely with local authorities. Local authorities are the ambassadors of the project, both for consensus and for long-term maintenance. Co-financing by a regional authority (of X% of the total project) instead of a total subsidy (100% of the project costs) to the local partner can encourage greater responsibility for the investments in the long term and create a strong sense of ownership.
- 10. Work together with experts and organisations from other similar regions of the EU Member States. Organise meetings of experts and site visits. In this way, knowledge can be exchanged on similar challenges and issues relating to the implementation of green infrastructure.





STIEMERBEEKVALLEI WORDT STADSPARK Twee landinrichtingsprojecten in de kijker

ue элеметревкуаліві із вел алтірота bluvme heverpodel voor de natuurgebindes in en rond Genk. Stad Gesk wil van de valdi strage en blowurgene lind malaen, kiler allen de natuur sriigit zo nieuwe opties, macr ook fletters en wande-jooss- b Standen en Schansbroek zijn als eerste projec-ten aan de beurt.

De Skemerbeek ontspringt in GRILLIG verbindingen bestroon. De Weglenschell en loogt van doorwe Noor lang niet dies is verforen prossent belangrijke ster

MANUFACTOR OF THE PARTY OF THE BEEK TUSSEN GENK EN DIEPENBEEK MOET WEER KRONKELEN 4,3 miljoen voor groene Stiemerbeek

Green measures for grey areas

Grey infrastructure elements have made flanders (Belgium). the most fragmented and second most snaled region of the EU. Projections indicate that urban speakl and gray infrastructure expension in Flanders is likely to increase by 17% by 2050.

"Due to a combination of surface sessing and climate change effects, flooding will occur more frequently in the future in perierbon and urban areas such as in Flunders. This will damage buildings and enhantscore, with high costs for society," says LIFE-CRESSWEET project manager, Pieter De Corte "We are implementing natural water retention measures such as renaturations artificial streams and creating wade, which will have the effect of creating natural flooding areas, and water retertion bodies to capture water from rainfall during peak showers." Land use is also being changed from internive agriculture to grasslands, increasing the soil's water infitration capacity. In periods of heavy rainfall, these blue and green infrastructure elements capture water upstream. Given the amount of soil

sealing, these measures are of crucial importance to prevent urban flooding," explains No De Corte "These green areas are also used for recreational purposes, such as walking biking or jogging, and so create co-benefics for health. They act as green landscapes, which is positive for mental health and for social interaction," he concludes.



Opening van het nieuwe park Het Zeen Sterrebeek

Op zaterdag 9 juni 2018 worden de Inwaners van Zaventem uitgenodigd in het park Het Zeen, Om 14 u. opent het park met een streepje muziek en een drankje. Verder word je uitgenadigd am de nieuwe Fit-Q-Meter, multisportterrein en Finse piste te testen. De kinderen kunnen zich tot 17 u. laten schminken, een feestvlagje maken en ravotten in de nieuwe speeltuin. De realisatie van het nieuwe park is een project van anze burgerparticipatie Zoventem aan Zet' en is onderdeel van het Europese milieuproject LIFE Green4Grey. De opening kadert in de EU Green Week, een jaarlijks evenement omtrent duurzaamheid in heel Europa met als thema in 2018 'Groene steden voor een groenere toekomst'. Green4Grey will natuurlijke landschappen in een stedelijke omgeving creëren waarin verschillende functies gecombineerd worden. Concreet goat het om biodiversiteits- en hobitatverbetering, waterbuffering en verbetering van de waterkwaliteit, groene woon- en bedrijfsomgevingen, gezondheid en welzijn, buitenoctiviteiten in het groen, duurzame voedselproductie of klimaatadaptatie. De Vlaamse Landmaatschappij (VLM) en de gemeente Zaventem maken samen met de gemeenten Asse, Beersel, Diepenbeek, Genk, Kraainem en Wezenbeek Oppern deel uit von het Life+ project Green4Grey. Met Green4Grey investeert de VLM samen met de gemeente in de inrichting van groene en blauwe infrastructuur om grijze verstedelijkte landschappen in de Vlaamse Rand rand Brussel te voorkomen. Lees meer op projectwebsite www.green4grey.ba







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yoor groene infrastructuur

INSTITUUT NATUUR- EN BOSONDERZOEK



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IN GROTE LIJNEN

ECOSYSTEEMDIENSTEN IN BEELD

Ecosysteemdiensten zijn de voordelen die de maatschappij van de natuur – van ecosysteaccosystemeneristen zijn de vooroesen die de maatschappij van de natuur – van ecosystemen – ontvangt: voedselproductie, klimaatregulatie, bestuiving door insecten, bescherming tegen overstromingen, luchtzuivering of groene ruimte voor recreatie. Vlaanderen is een kleine, verstedelijkte regio waar de natuur en de levering van ecosysteemdiensten onder druk staar

Overheden, bedrijven en particulieren houden vaak te weinig rekening met ecosy-Overheden, bedrijven en particulieren nouden vaak te weinig rekening niet ecosysteemsdiensten omdat hun waarde voor de samenleving en de economie nauwelijks gekend is. Nochtans raken ze aan de kern van heel wat themas die de voorbije jaren steeds meer Vlamingen beroeren: overstromingen, luchtkwaliteit en versnippering van de

In het kader van het project Green4Grey van de Vlaamse Landmaatschappij (VLM) zijn een aantal pictogrammen ontwikkeld die de verschillende ecosysteemdiensten uitbeelden. Het G4G project krijgt steun van het LIFE+ programma van de Europese Commissie.

→ Meer info: http://www.green4grey.be/nl/groen-blauwe-infrastructuur



COMMUNICATION IMPACT OF THE PROJECT

Number of local events	44 (7 of which were opening events)
Number of networking moments (information walks, steering groups, press conference, design workshops, networking with European projects, etc.)	> 200
Total number of people reached	>20.000
Type of target groups	Policymakers, Experts, Administrations, Businesses, Residents, Associations, Students, Teachers, Children
Level	Local (> 8000), Regional (> 6000), European (> 5000)
Number of press releases	32

Number of social media messages	126
Number of followers	223
Number of press articles	67
Number of references in publications	21
Number of reports on TV	3
Number of visitors to the website	>20.000
Number of posts on the website	118
Number of information signs on site	18
Number of views of Green4Grey project film	(Figures not yet available)



Marina

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Sport

Net gemist

VIVAL Nieuws sit Vicendere 6 Brussel

Hallerbos wordt verbonden met Zoniënwoud

Vandang is in Decop de eerste spadesteek gegeven van het landiarichtingsproject Land van Teirlinck'. De bedoeling is om vin natuurgebied het Hallerbes te verbinden met het Terkingsprond.





Green4Grey – inspiratiegids natuurvriendelijke inrichting bedrijventerreinen

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Europese middelen voor ruimtelijke ontwikkeling







516 (2015-2016) – Nr. 1 19 oktober 2015 (2015-2016)

Beleidsbrief

Vlaamse Rand 2015-2016

ingediend door minister Ben Weyts





STORT OMGEVORMO TOT NATUURGEBIED

Nieuwe groene long vlak bij Brusselse ring

Het nieuwe Kerremanspark in Zellik vormt een groene oase vlak bij de Brusselse ring en het Researchpark. Een pad van een kilometer nodigt uit tot een wandeling.





This project is realized with support from the financial instrument LIFE of the European Union:









With financial support and cooperation from the municipalities of:















With support from:



VLM.be green4grey.be