

# Nature-based solutions feasibility study & design guide<sup>1</sup>



PROJECT:  
**Implementing Nature-based solutions**



COMPANY:  
**Longevity Partners**

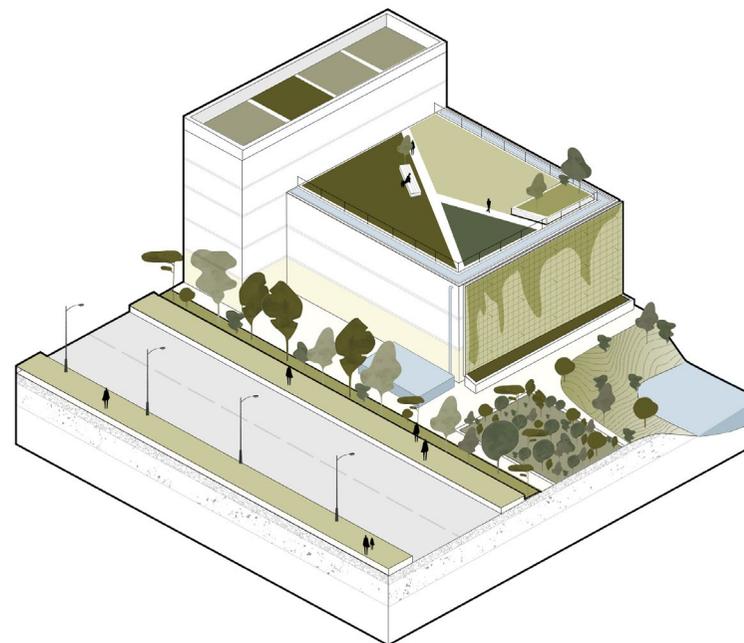


LOCATION:  
**NL**

## Challenge

Realterm engaged Longevity Partners to conduct a feasibility study and develop a Nature-based Solutions (NbS) design guide across multiple assets located in the Netherlands. The report produced by Longevity Partners is a direct response to the Climate Risk Assessments (CRA) previously conducted for these assets, which identified four primary risks: drought, flooding, cold, and soil degradation.

To mitigate these risks and enhance the assets' climate resilience, Longevity Partners developed tailored green infrastructure recommendations taking into account the vulnerabilities and opportunities of each asset.



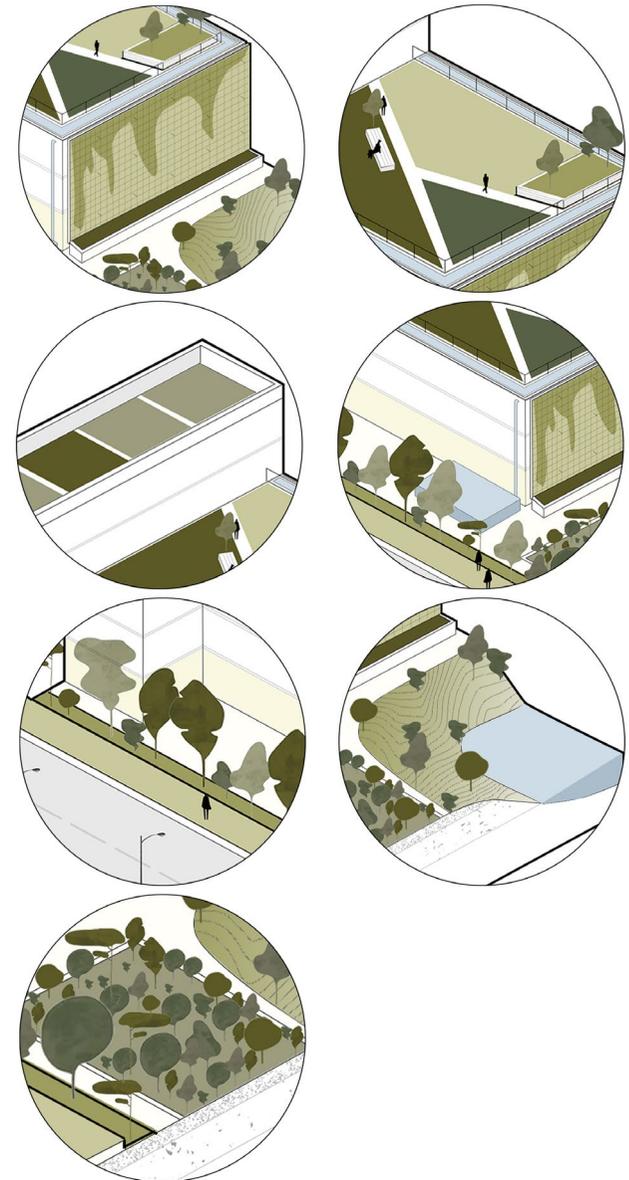
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## Solution/Approach

Longevity Partners analysed the feasibility of implementing Nature-based Solutions (NbS) across the assets. Our approach was structured as follows:

1. **Fund Context:** The report begins by framing Nature-based Solutions (NbS) within Realterm's European core plus fund. As resilience is a core pillar of the fund's ESG+R strategy, NbS serves as a key component in enhancing climate resilience.
2. **Legislation review:** The study examines the European, national, and local policy landscape, highlighting underdeveloped municipal policies but emphasising future regulatory incentives linked to the European Green Deal.
3. **Ecological Site Analysis:** A geographical and ecological analysis was conducted, evaluating biodiversity, connectivity, and green space quality using metrics such as Mean Species Abundance and tools such as Geographic Information System (GIS).

4. **Feasibility Study:** Various green typologies - including rainwater harvesting tanks, green facades, and permeable surfaces - were tested for feasibility based on geographic, legislative, and technical factors.
5. **NbS Design Toolkit:** A list of possible green infrastructure installations and their associated capacity to mitigate the various climate risks the assets are exposed to.
6. **Recommendations:** Custom NbS recommendations were developed for each asset, optimising native vegetation for climate resilience. Recommendations are prioritised based on climate risk, cost, and ease of implementation. The report also includes a procurement section with market-based assessments and cost comparisons for each green typology, ensuring practical and cost-effective implementation.



## Results

The core of the analysis lies in the feasibility study, which assesses the recommended NbS for the assets and their applicability to each site, specifically responding to the results of the climate risk analysis.

The study considers the viability of implementing these recommendations comprehensively, considering factors such as structural capacity, site characteristics, the legislative scope and costs. This analysis aims to identify potential opportunities for implementing Green Infrastructure (GI), which will serve as a crucial step in developing a robust action plan to enhance the climate resilience of the portfolio using Nature-based Solutions.



## Outcome

Following the delivery of these recommendations by Longevity Partners, Realterm proceeded to the following implementations on multiple assets:

- Installation of a rainwater drainage system in order to re-use rainwater for car and facade cleaning, etc.
- Placement of birdhouses or bee boxes in order to increase on-site biodiversity.

The evaluation criteria for implementing NbS for each asset encompassed technical, geographic, and political factors. Technically, the feasibility of NbS recommendations was assessed based on the compatibility



of existing infrastructure, ease of implementation, and their benefits associated with mitigating identified climate risks e.g. Urban Greening Factor (UGF) improvement and certification compliance.



**These assessments gave us a clear insight on the risk level of certain issues such as drought, flooding, heat, cold and soil degradation. It helped us to understand the impacts on challenges of climate change, biodiversity loss and human well-being and what nature-based solutions to consider in order to lower the impact/risks on our assets.**

**Shankar Narain**

Associate Director Property & Project Management – Europe at Realterm

**Company**

Longevity Partners is a global, multidisciplinary sustainability consultancy for the real estate industry. Founded in 2015, we provide the full range of services to support corporates and investors in their decarbonisation journey. We are at the nexus where real estate understanding, decarbonisation expertise, design capabilities, engineering technical ability, and sustainability regulation knowledge collide.

Realterm is an independent global investment manager focused on the transportation industry. We acquire, develop, finance and manage differentiated real estate and infrastructure assets serving land, air, sea and rail networks across the world. Our investments are critical to national, regional and local trucking and logistics users alike, including retailers and wholesalers, bulk and regional warehouse operators, manufacturers and e-commerce fulfilment providers.

