PESTLE and SWOT Analysis Report

Pilot Area – Middelburg, Inner City

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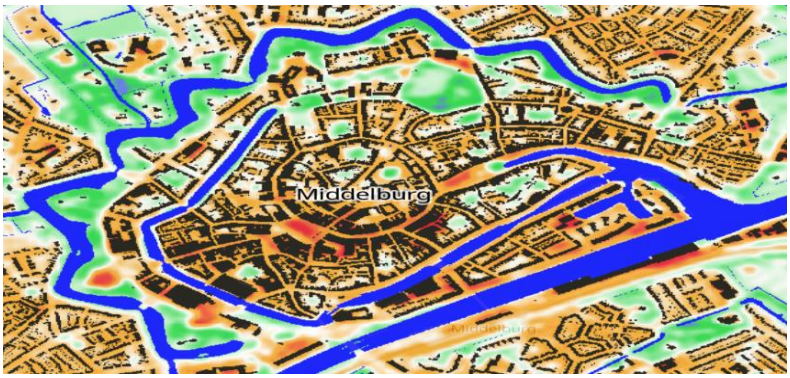
Project Overview

The Cool Neighbourhoods Project seeks to mitigate heat risks and improve liveability across the Interreg North West Europe regions. This report provides a PESTLE analysis (Political, Economic, Social, Technological, Legal, Environmental) for the Middelburg Inner City area, identifying key factors that will shape the implementation of climate adaptation strategies. Additionally, a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis has been conducted to further inform strategic planning.

Summary

Middelburg's Inner City is a historic neighbourhood known for its strong tourism economy but faces significant challenges related to climate change, particularly heat stress due to high levels of paved surfaces and limited greenery, as can be seen in image 1 below. The inner city's role as a tourist hub makes it politically significant, but the rising costs of construction, labour, and inflation may hinder climate adaptation efforts. Social awareness of heat stress is growing, and new technological solutions for cooling public spaces are available, but historic preservation laws restrict the scope of interventions. The area's environmental vulnerabilities are worsening due to climate change, and this creates an urgent need for greening initiatives. The pilot focuses on implementing small-scale measures, such as mobile gardens and shade structures, which align with Middelburg's long-term strategy of creating cool spots across the city.

Image 1 – Heat Stress across Middelburg



PESTLE Analysis

Political

- Growing political awareness of the urgency for climate adaptation, especially in tourism-heavy areas like the inner city
- Political interest in maintaining the inner city's attractiveness to tourists may boost support for climate resilience measures

Economic

- Rising costs of construction materials and labour may challenge the implementation of adaptation strategies
- Inflation could lead to a decrease in tourist numbers, reducing economic resilience and affecting the availability of resources for climate projects

Social

- Changes in tourist volumes can significantly affect the use and atmosphere of the inner city
- Growing awareness of heat stress and its health impacts is driving public demand for adaptation measures

Technological

- New technologies for reducing heat in public spaces are becoming available, providing options for climate adaptation
- Technology can help with the distribution of information and public participation, though historic buildings may limit some technical options, such as green walls or roofs

Environmental

- Climate change is leading to more extreme and unpredictable weather patterns, which exacerbate heat stress and biodiversity loss
- Advances in green infrastructure techniques, such as green roofs and walls, offer potential solutions for reducing heat, though the historic character of the area may limit implementation

Legal

- Legislation regarding the protection of cultural heritage may restrict the adaptation of historic buildings to climate resilience strategies
- Changes in tourism policies could reduce visitor numbers, negatively impacting the inner city's economy

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SWOT Analysis

Strengths

- High political interest in maintaining tourism boosts potential funding for adaptation projects
- The city's established tourist economy could help leverage resources for climate resilience
- Emerging technological solutions provide various avenues to combat heat stress

Weaknesses

- Rising costs of materials and labour, coupled with inflation, make large-scale adaptation efforts more challenging
- The historic nature of buildings restricts the use of certain climate adaptation technologies
- Reliance on tourism makes the local economy vulnerable to downturns, potentially delaying climate interventions

Opportunities

- Increased public awareness of heat stress drives demand for adaptation
- Technological advances in greening techniques offer innovative solutions for reducing heat stress in the city
- A high volume of tourists presents an opportunity for public engagement and awareness campaigns around climate resilience

Threats

- Economic downturns and inflation could reduce tourist numbers and funding opportunities for climate adaptation
- Strict legal protections for historic buildings may complicate or slow the implementation of greening initiatives
- Extreme weather events driven by climate change could exacerbate heat stress, placing further strain on the city's infrastructure, this can be seen by image 2 below.

Image 2 – Potential problems with rainfall

Conclusion

The PESTLE analysis of Middelburg's Inner City highlights several challenges and opportunities for climate adaptation. The area's importance as a tourist destination ensures political interest, but economic constraints, especially the rising costs of construction and labour, may limit the scope of interventions. The historic nature of the neighbourhood introduces legal and technical challenges, as adaptations must respect preservation laws. However, growing public awareness of heat stress, combined with advancements in greening technologies, provides a strong foundation for incremental climate adaptation efforts. The pilot will focus on small, cost-effective solutions that can be scaled up over time.

Recommendations

Political and Economic Leverage

- Secure political support by highlighting the benefits of climate adaptation for tourism and economic resilience.

Cost-Efficient Adaptation

- Prioritise low-cost, high-impact solutions such as mobile gardens and shade sails to reduce heat stress in the short term.

Heritage-Sensitive Solutions

- Implement climate adaptation measures that respect legal and physical constraints related to the historic nature of the inner city, such as green walls and small greening initiatives.

Public and Tourist Engagement

- Use the high tourist footfall to raise awareness of climate adaptation and involve both residents and visitors in greening efforts.

Long-Term Resilience Planning

- Focus on gradual, scalable interventions that improve the long-term liveability of the inner city while maintaining its economic and cultural vibrancy.