URBAN GREENING & NNLT
DE WIJNAERT GHENT
9 DEC 25

The need for urban green infrastructure

spatial indicators for a people-oriented understanding

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HO GENT

vrp vlaamse vereniging voor ruimte & planning

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Accessible green space

Greenness visibility

Need for green infrastructure

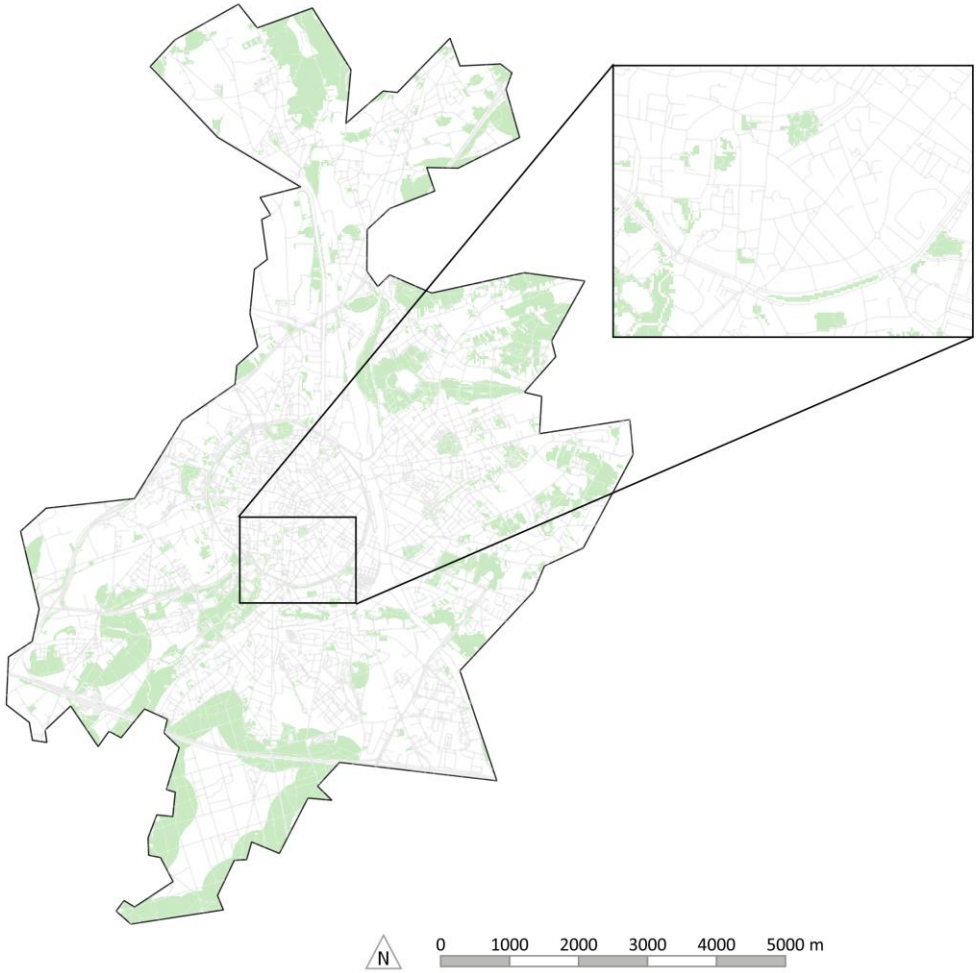
Distance: “every inhabitant should have xxx m^2 green space within xxx m of the dwelling”

Ratio: “xxx m^2 per inhabitant”

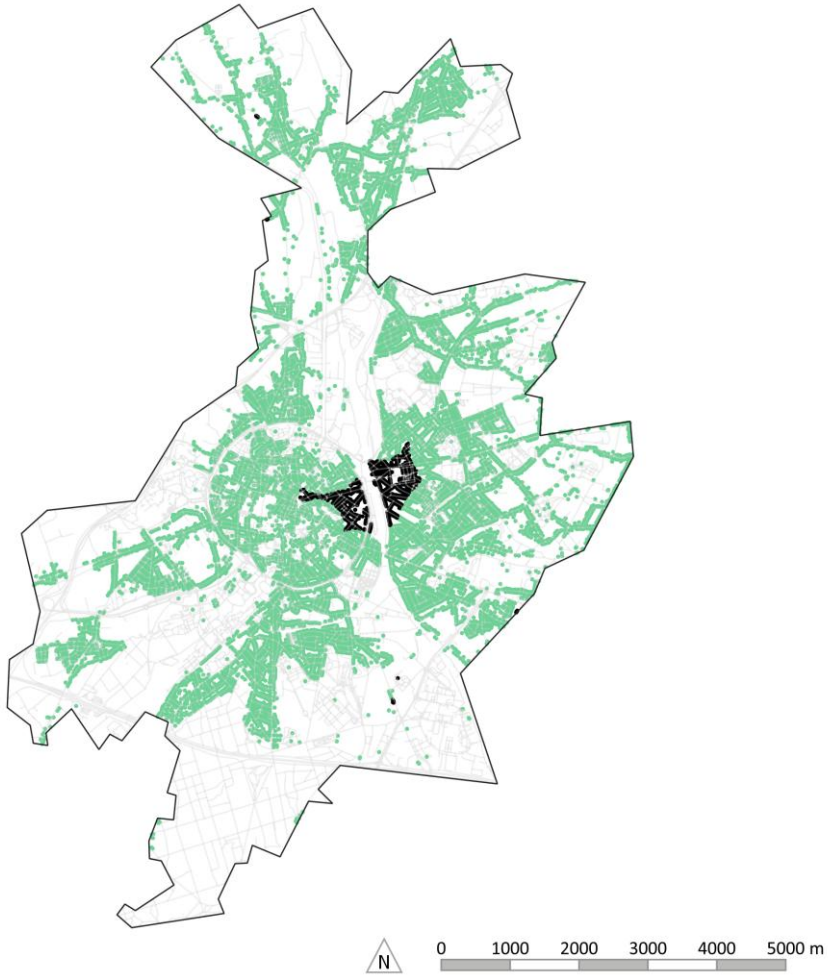
Distance: “every inhabitant should have xxx m^2 green space within xxx m of the dwelling”

Ratio: “xxx m^2 per inhabitant”

Case Leuven: distance



accessible green space

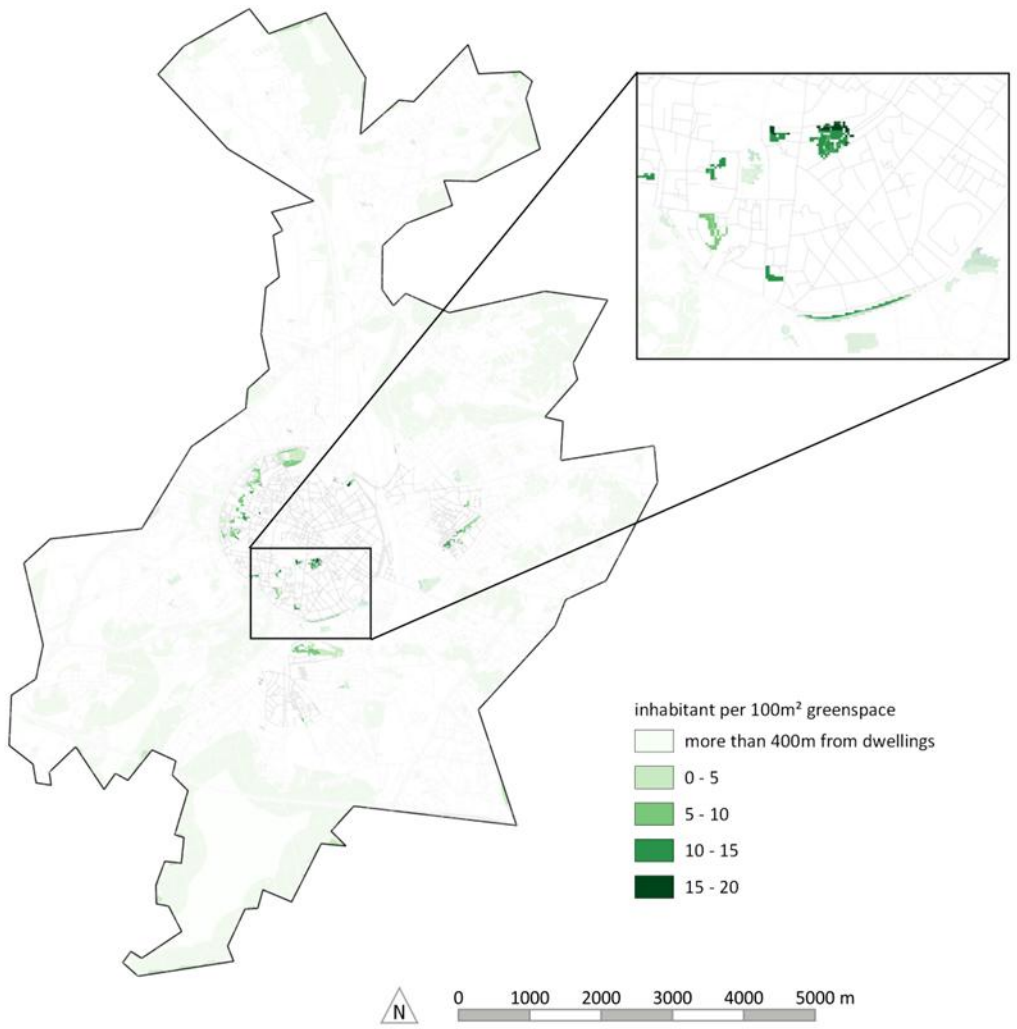


dwellings in the proximity of acccessible green space

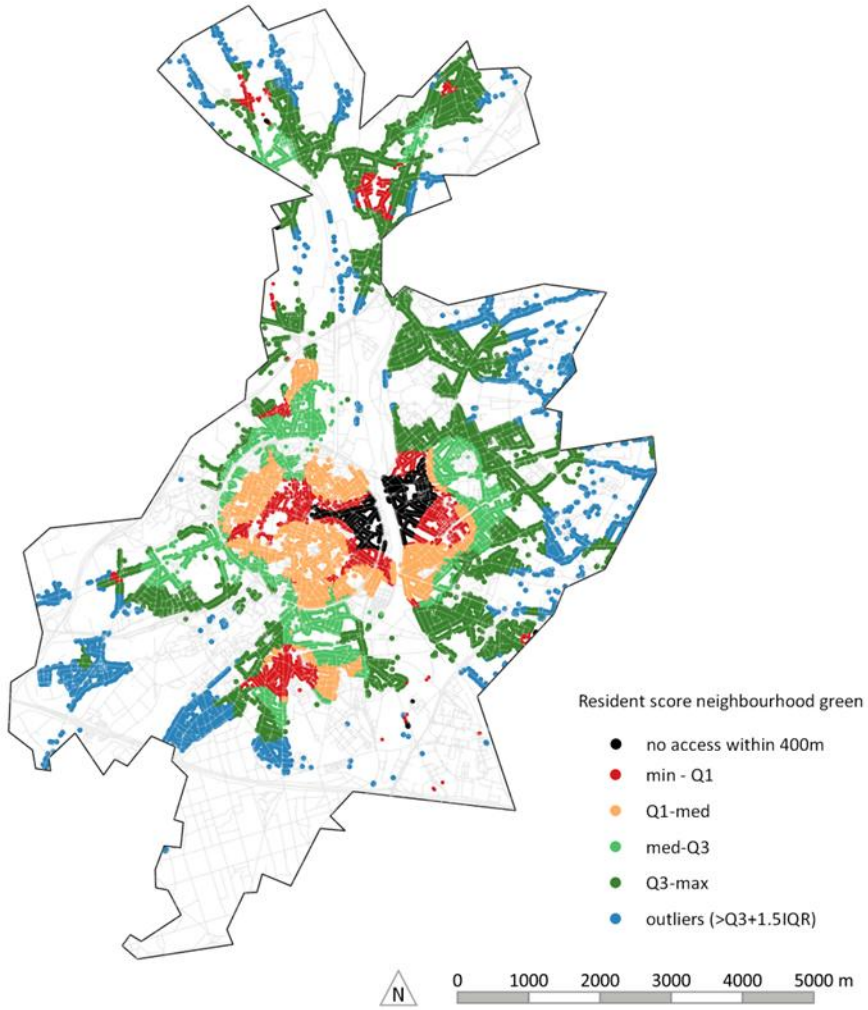
"More than 90% of people in Flanders live in close proximity to accessible green space"

Vervoort, P., Pisman, A., Vandermoere & F., Loots, I. (2023). Access to health promoting green space in relation to population density : case Leuven (Belgium). In Nimish, B., Sebag, G. & Robertson, H. (Eds.), The empathic city: an urban health and wellbeing perspective. Cham: Springer International Publishing

Case Leuven: high res. ratio+distance



Amount of inhabitants per 100m^2 accessible green space



Green space per inhabitant per dwelling

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The correlation between the amount of urban greenery observed from human versus aerial perspective is likely low or insignificant.

Helbich et al.(2019), Larkin and Hystad (2019), Wang et al. (2019)

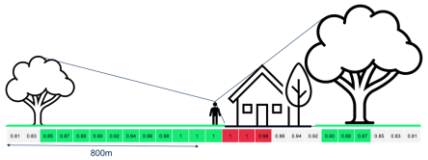
The two measures might capture different aspects of urban greenness.

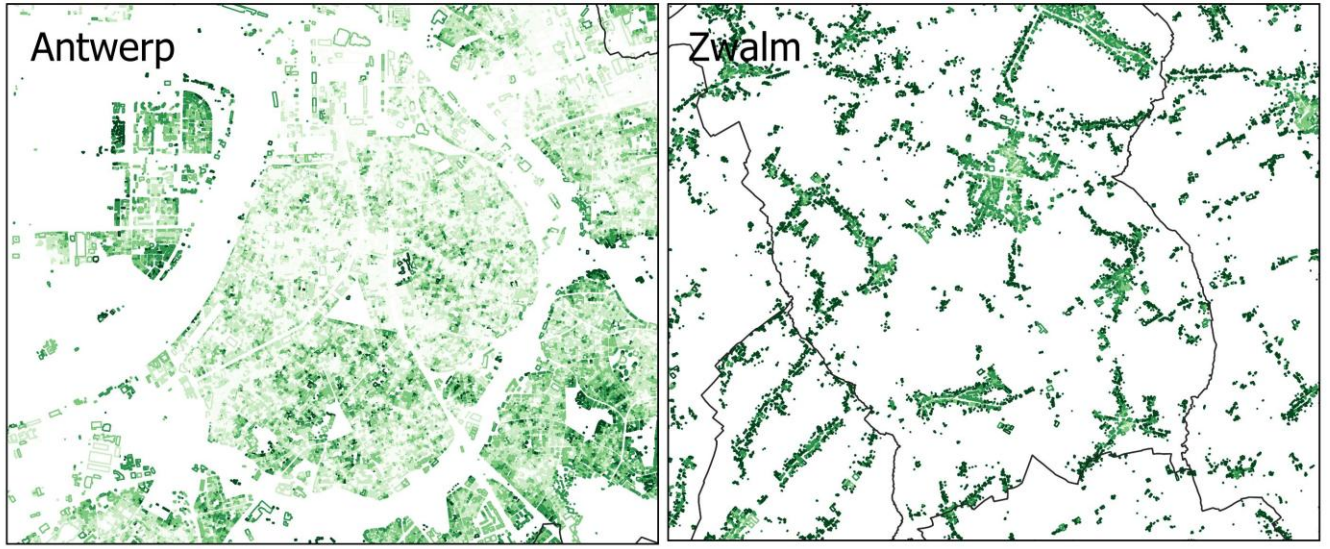
Falfán et al. (2018), Villeneuve et al.(2018)

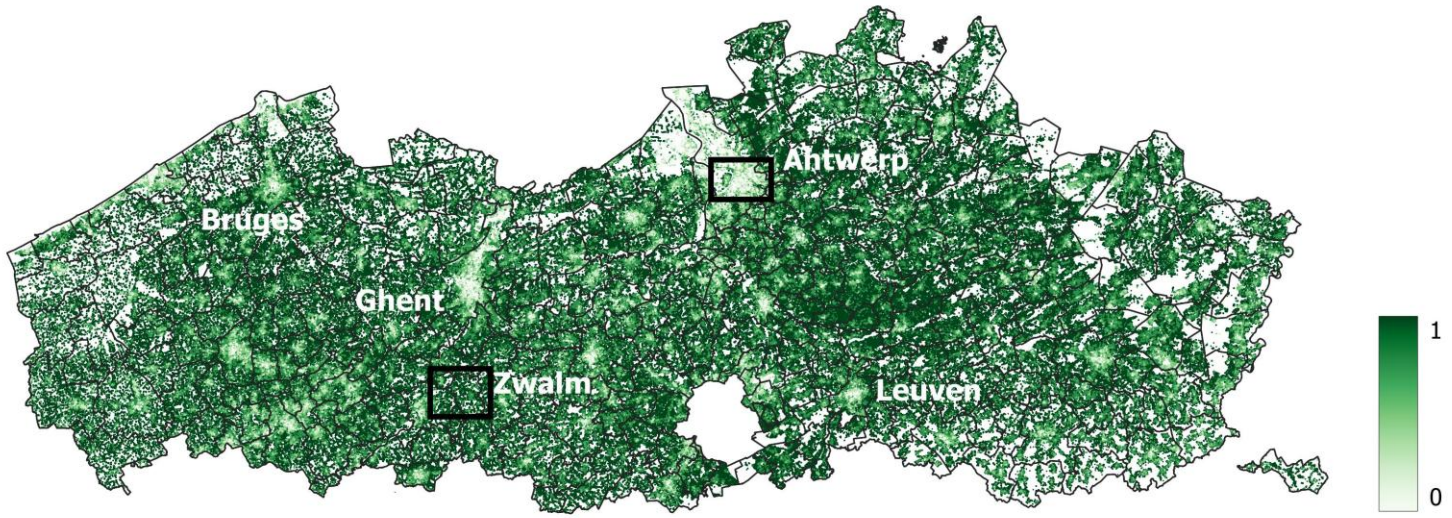
aerial perspective

human perspective

Peter Vervoort, Stijn Vanderheiden, Lorenz Hambsch, Lien Poelmans, Frédéric Vandermoere, Ilse Loots (2024) Greenness visibility in urban living environments as pathway to promote health and well-being: Mapping spatial differentiation in Flanders (Belgium) based on viewshed analysis, Nature-Based Solutions, Volume 6,100187 https://doi.org/10.1016/j.nbsj.2024.100187.







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GREENNESS VISIBILITY

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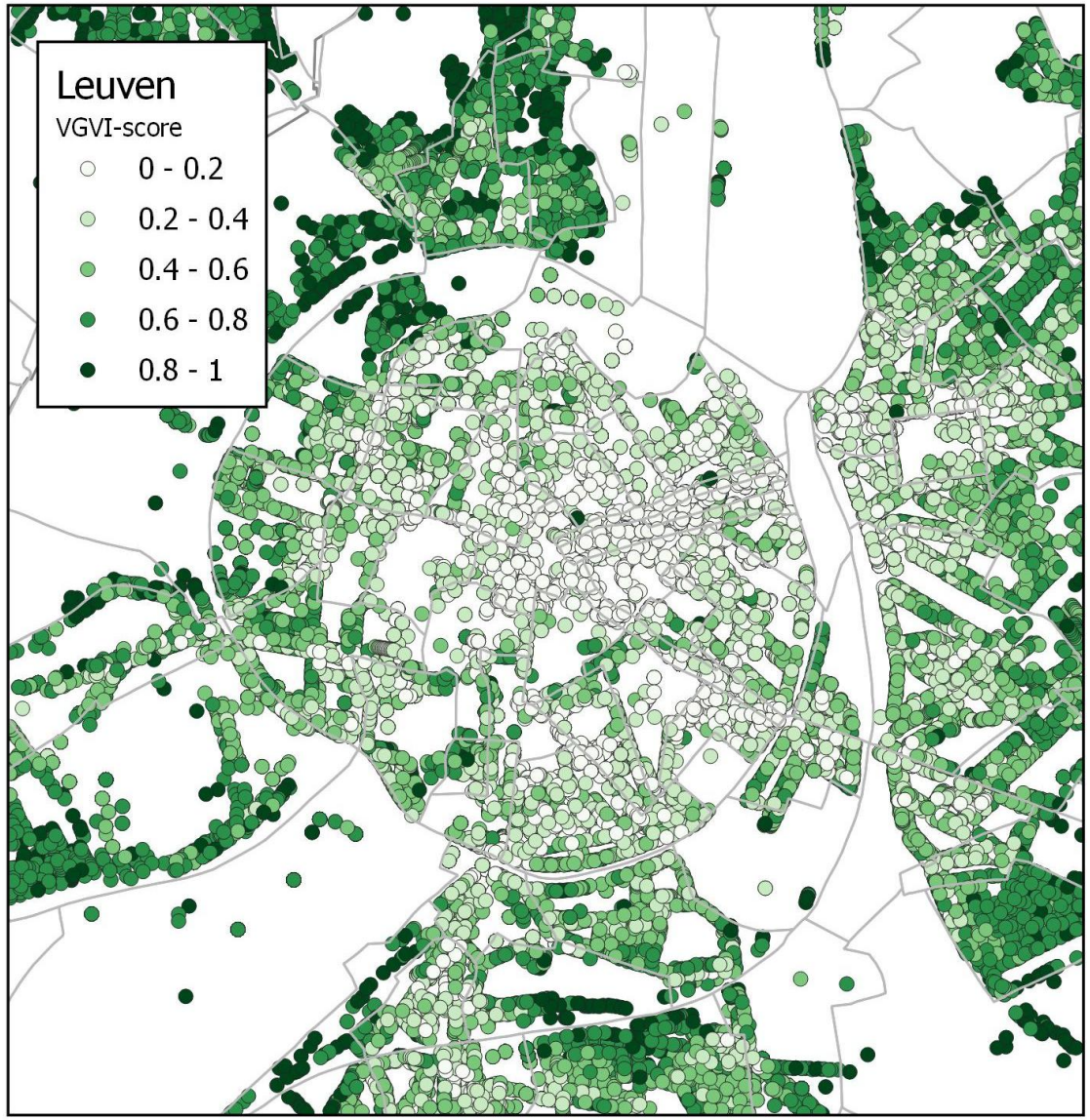
Case Leuven: aerial vs human perspective



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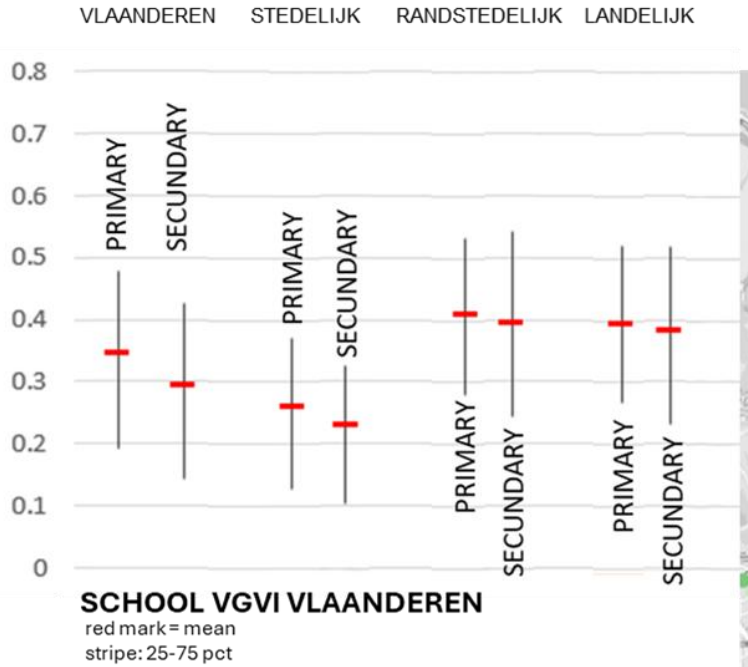

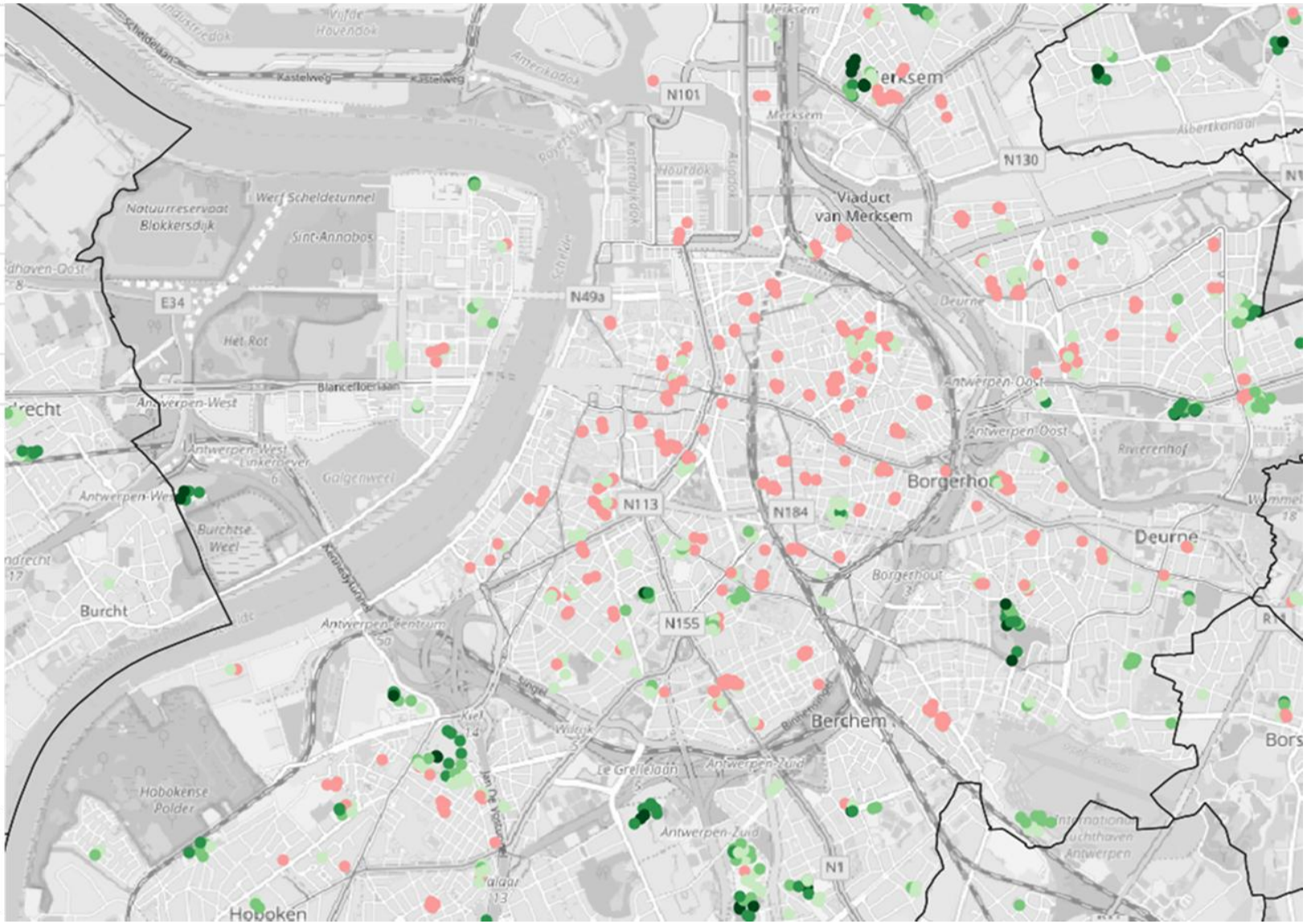

NEED FOR GREEN INFRASTRUCTURE

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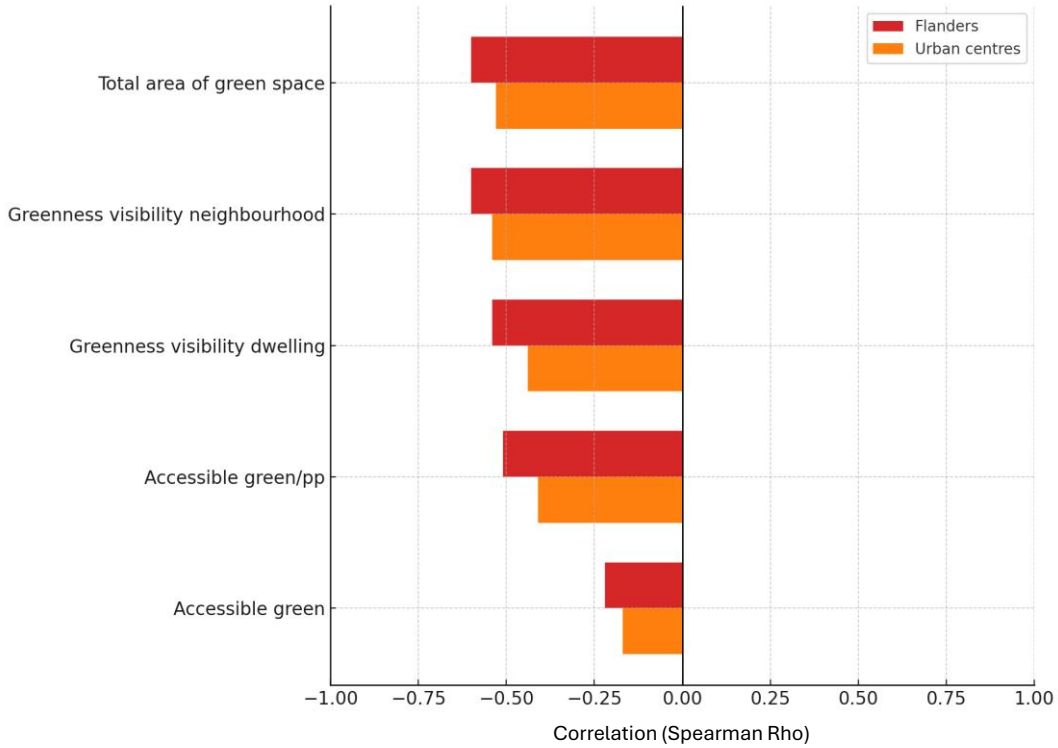


Green space indicator and
Neighbourhood deprivation

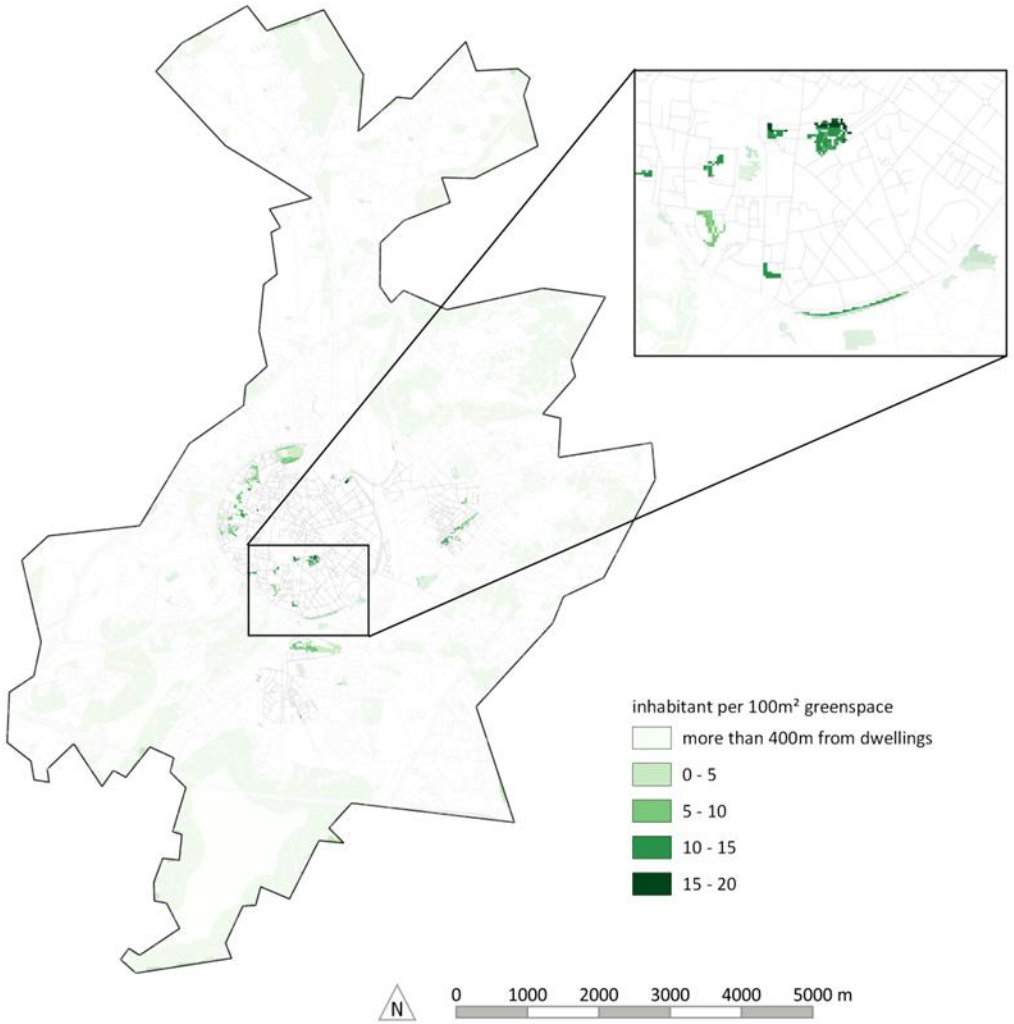
In Flanders, and within the Urban Centres in Flanders a **greater neighbourhood deprivation** is consistently associated with **less green space**.

*People of **lower socio-economic** status are more frequently exposed to multiple environmental hazards and social stressors.* FEINSTEIN, 1993

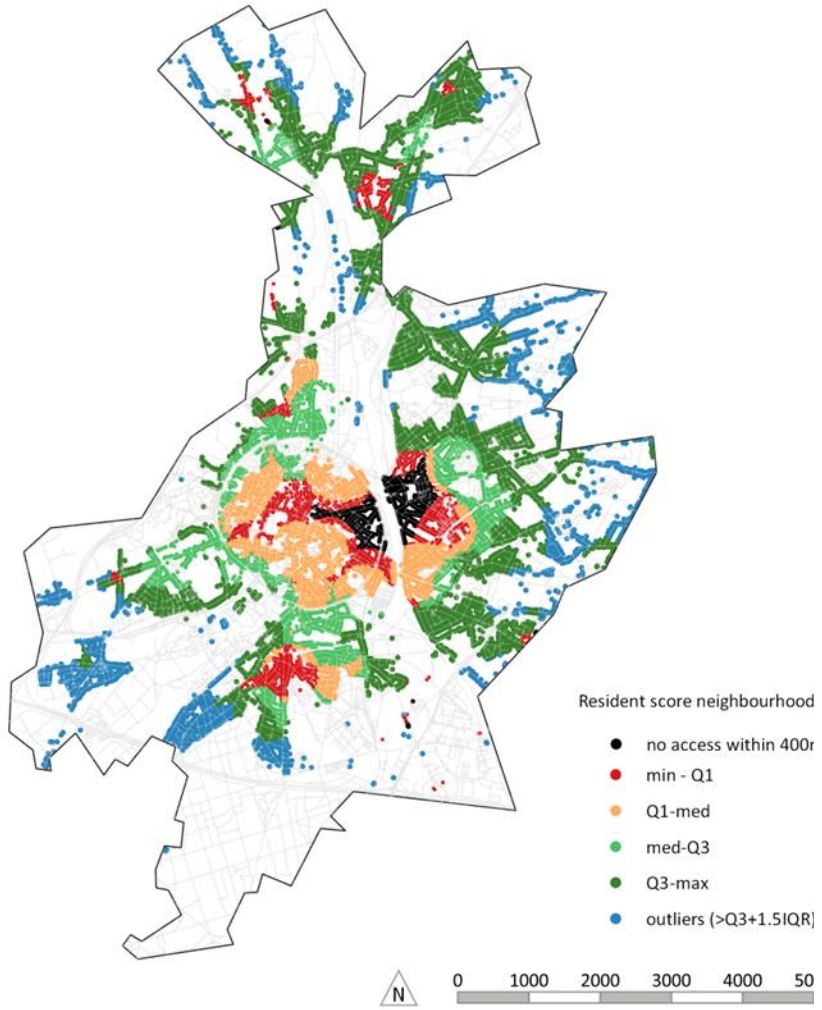
*They face **greater health risks** and have **poorer health outcomes** than others.* MORELLO-FROSCH et al., 2011

***Green space has greater protective effects** for low-SES people and neighborhoods than for more affluent groups.* RIGOLON et al. 2021

Case Leuven



Amount of inhabitants per 100m^2 accessible green space



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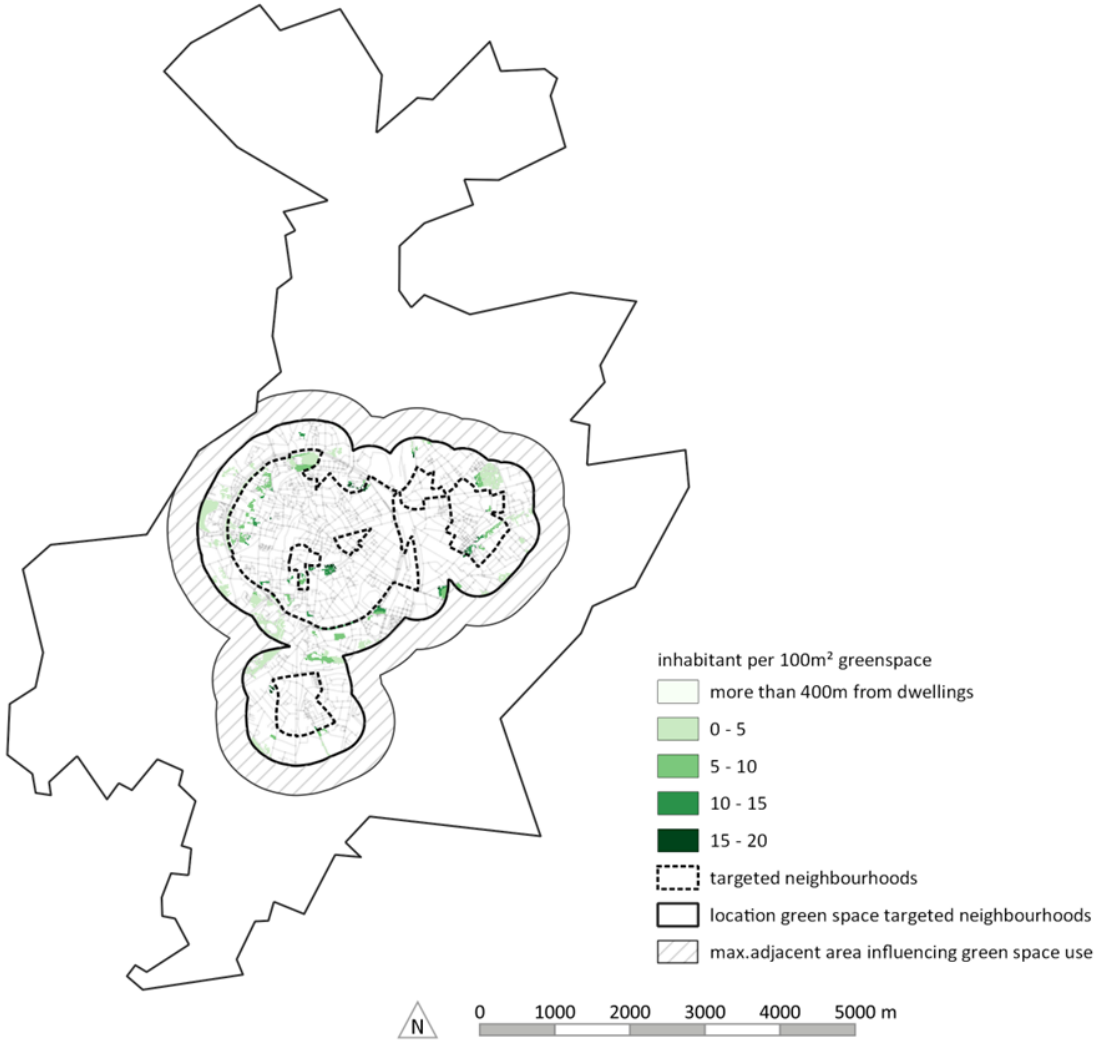
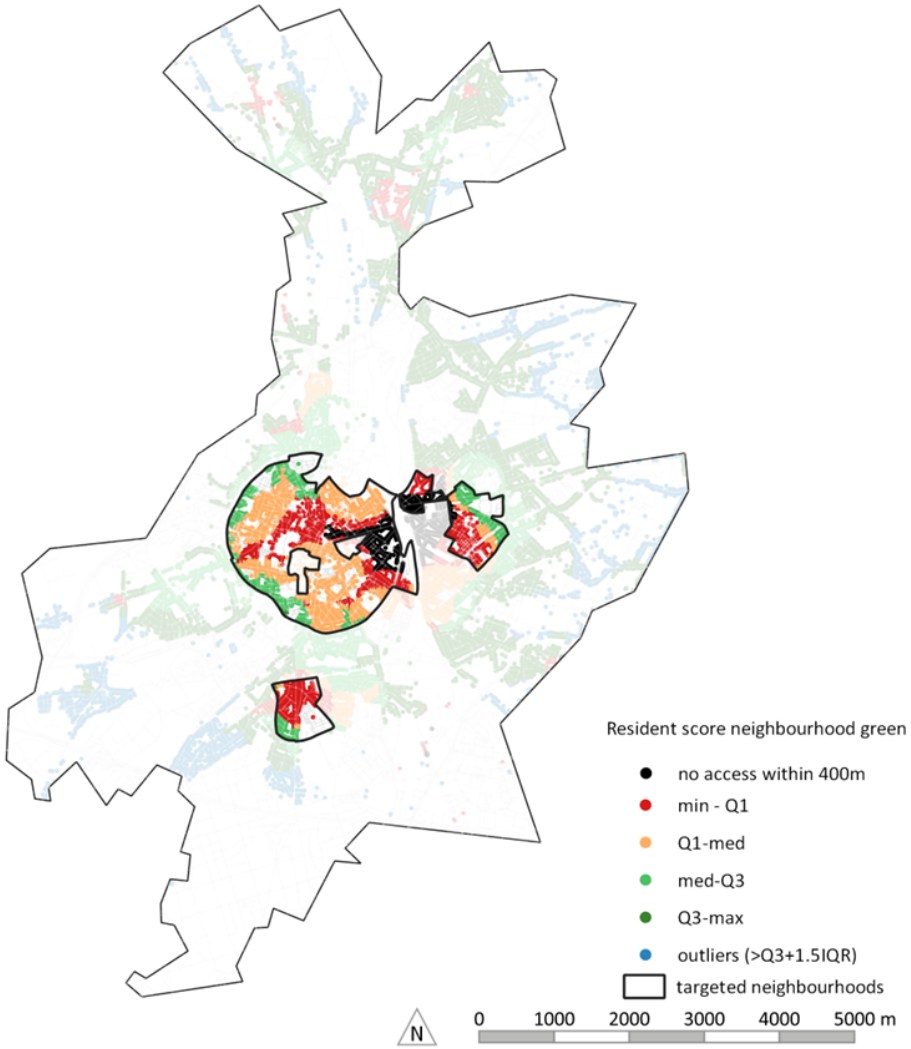
Case Leuven



According priority areas for greening initiatives



Neighbourhoods with both a low median income and a low green resident score

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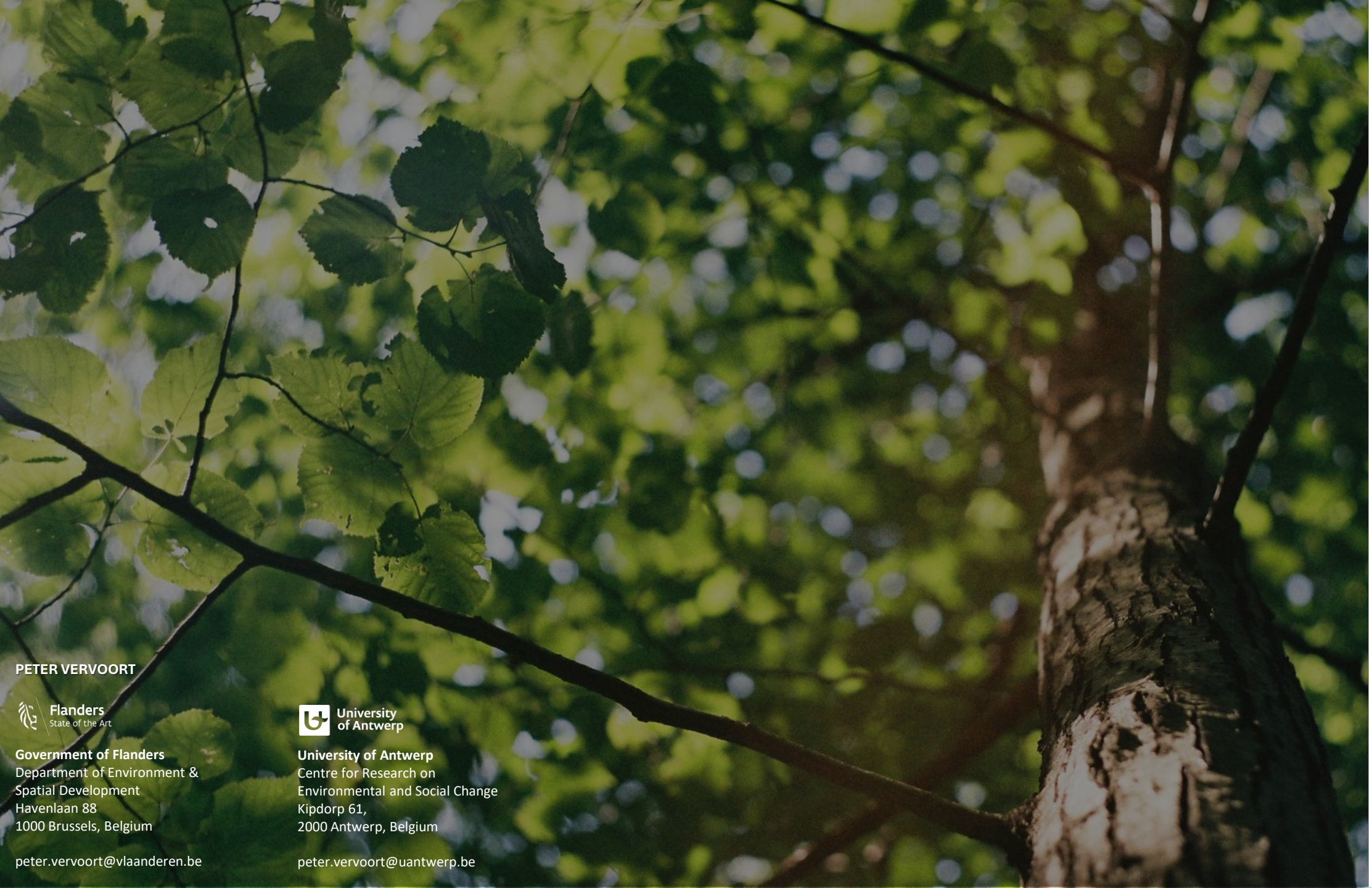

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