



hiWalk and hiBike

Active mobility indices as tool to facilitate systemic traffic transition
in cities

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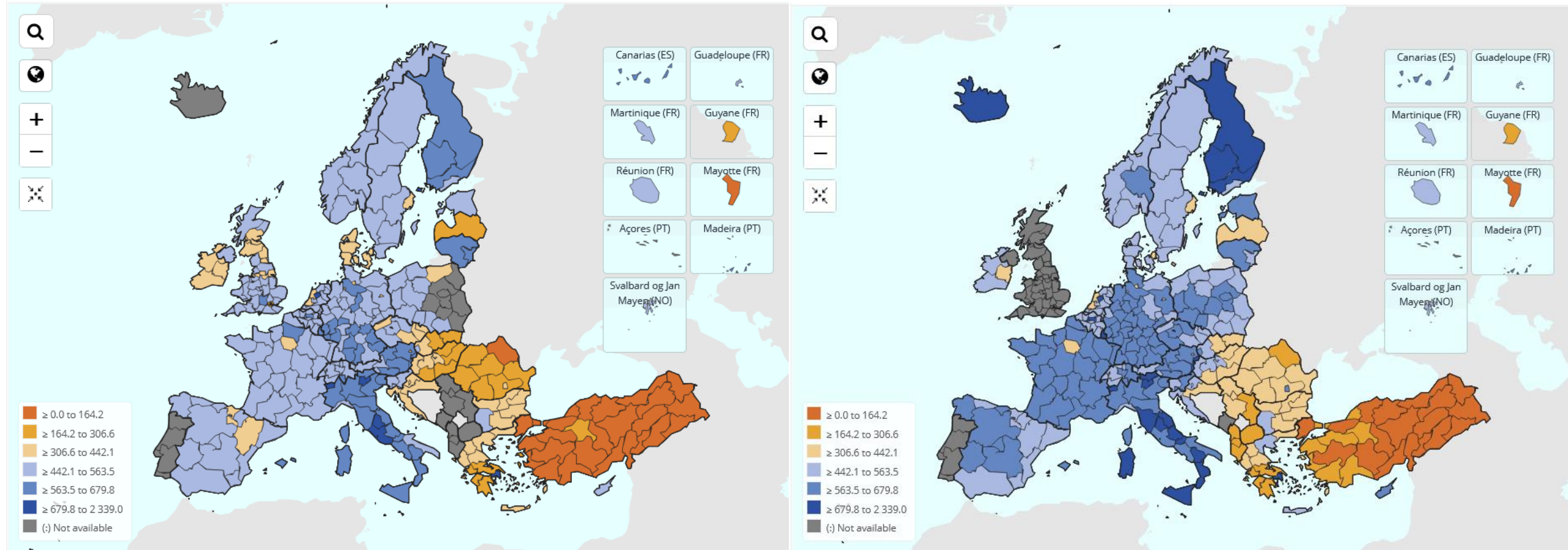
Structure



1. Climate Change: an imperative for urban mobility transformation
2. Gaps in current metrics
3. hiWalk & hiBike: our approach
4. hiWalk & hiBike: assessment results
5. Challenges, potential & systemic integration
6. Conclusion: Let's walk (and bike) the talk!

1

Climate change: an imperative for urban mobility transformation



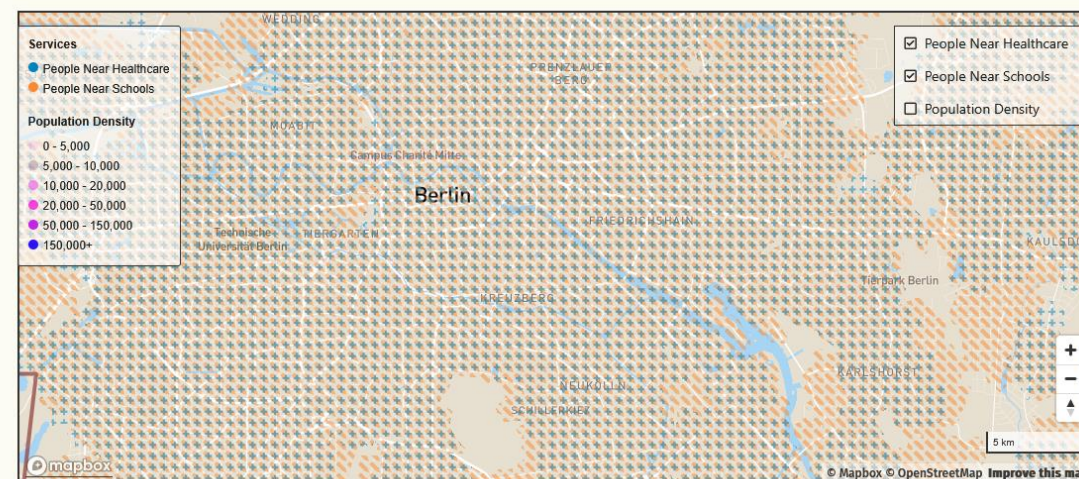
Motorisation rate (passenger cars per 1000 inhabitants), 2012 (left) versus 2021 (right)

2 Gaps in current metrics

Walk Score

Walk Score
87

Walk Score®	Description
90-100	Walker's Paradise Daily errands do not require a car.
70-89	Very Walkable Most errands can be accomplished on foot.
50-69	Somewhat Walkable Some errands can be accomplished on foot.
25-49	Car-Dependent Most errands require a car.
0-24	Car-Dependent Almost all errands require a car.



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People Near Services in Berlin [DEU]:
77% of residents are within a 1km walk of both education and healthcare.



<https://pedestriansfirst.itdp.org/city-tool/step-1>

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3 hiBike & hiWalk: our approach

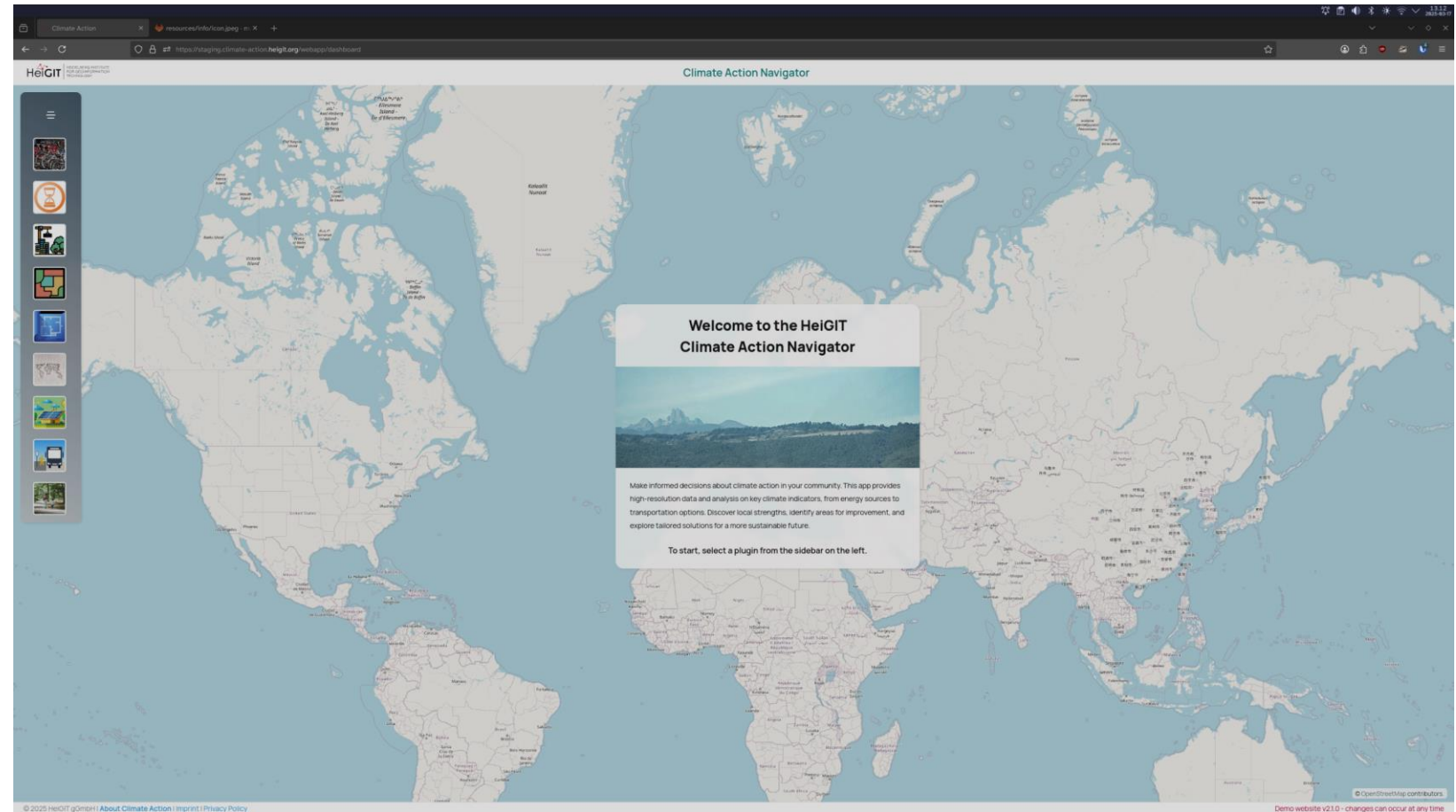


Open:
Open Source / Code / Data

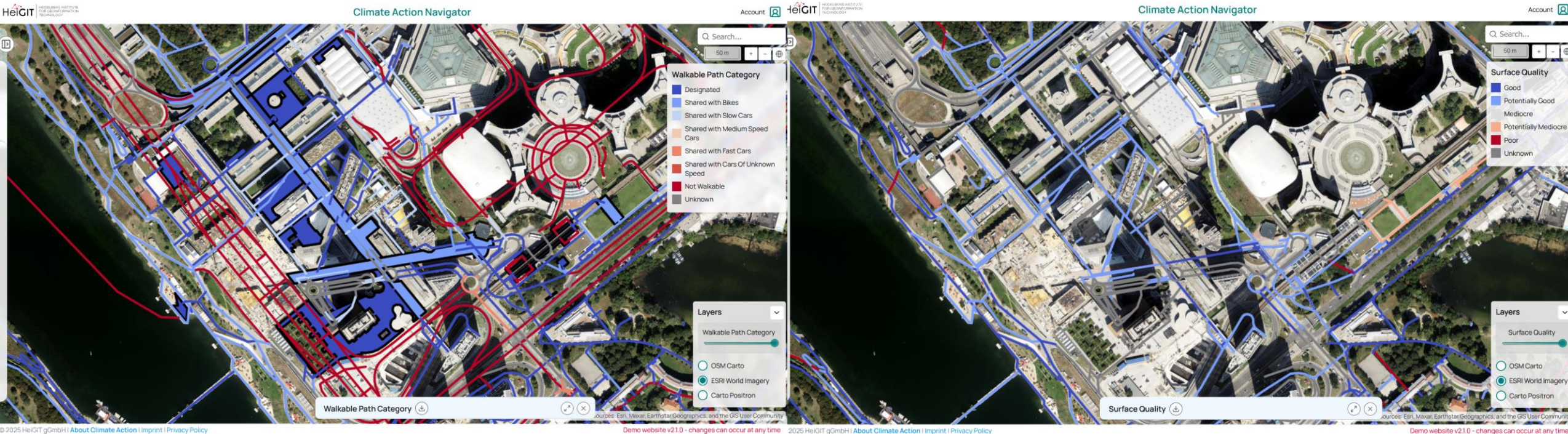
Targeted:
Evaluation on street-level

Useful:
Co-creation with practitioners

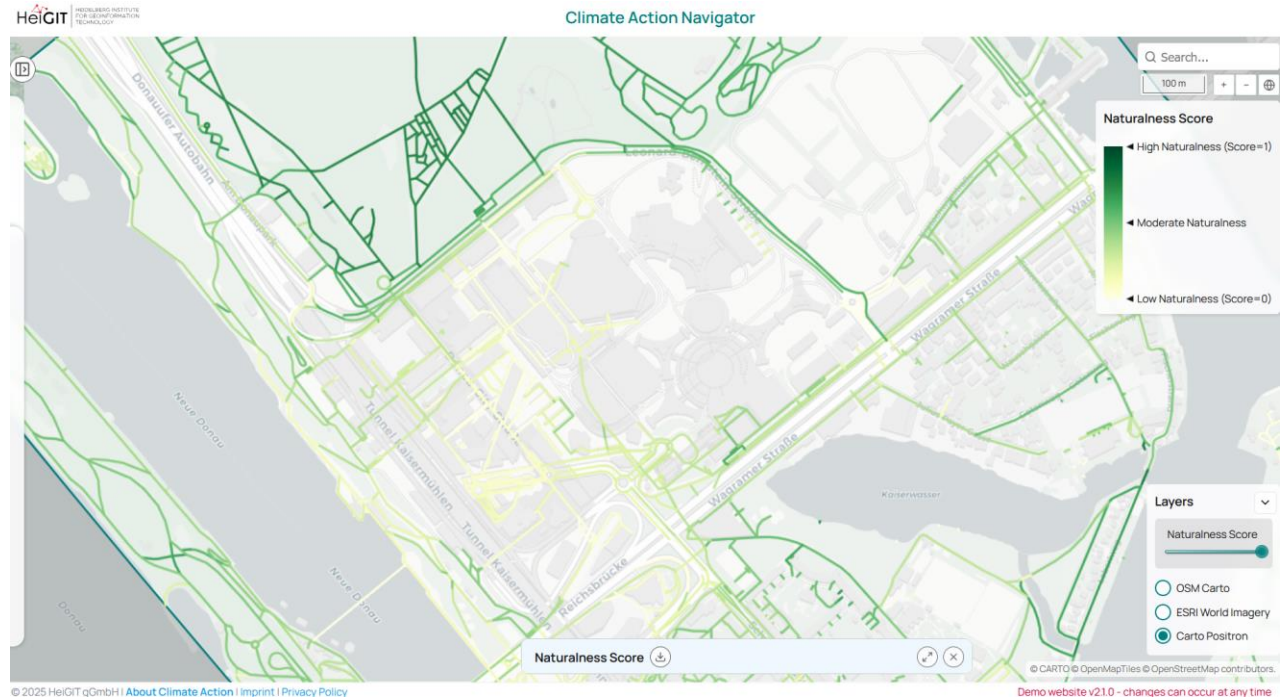
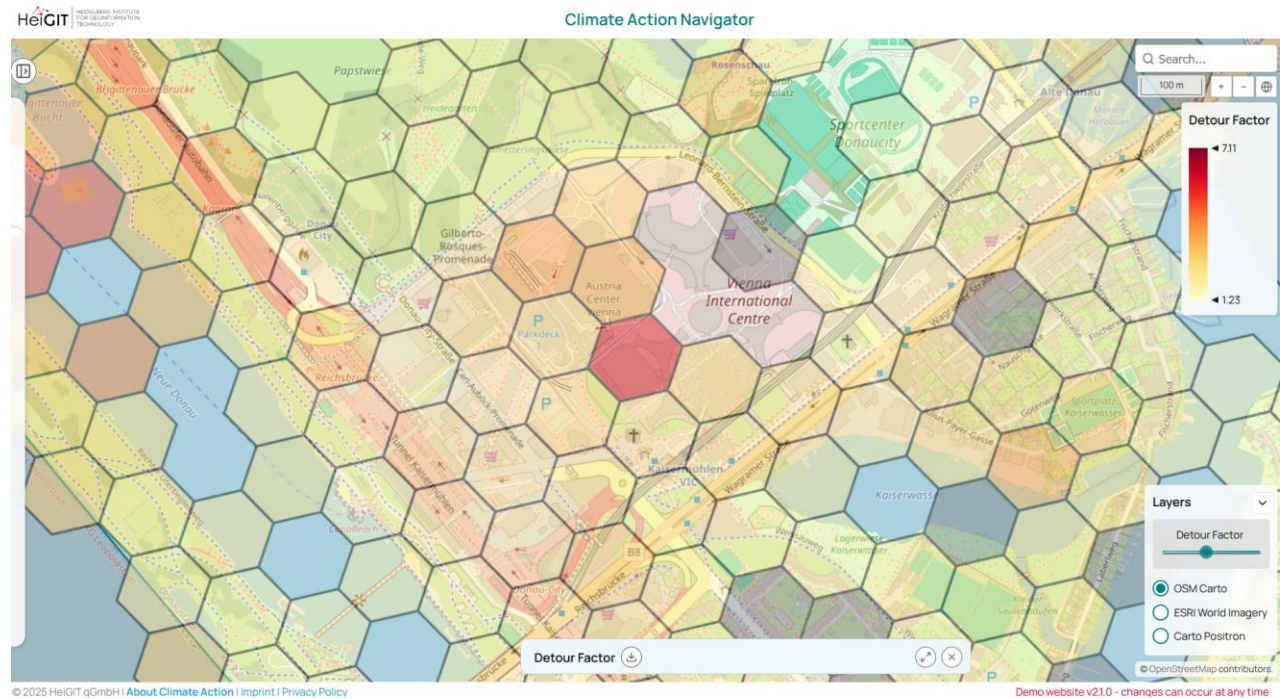
Adaptable:
Evolving to global scale



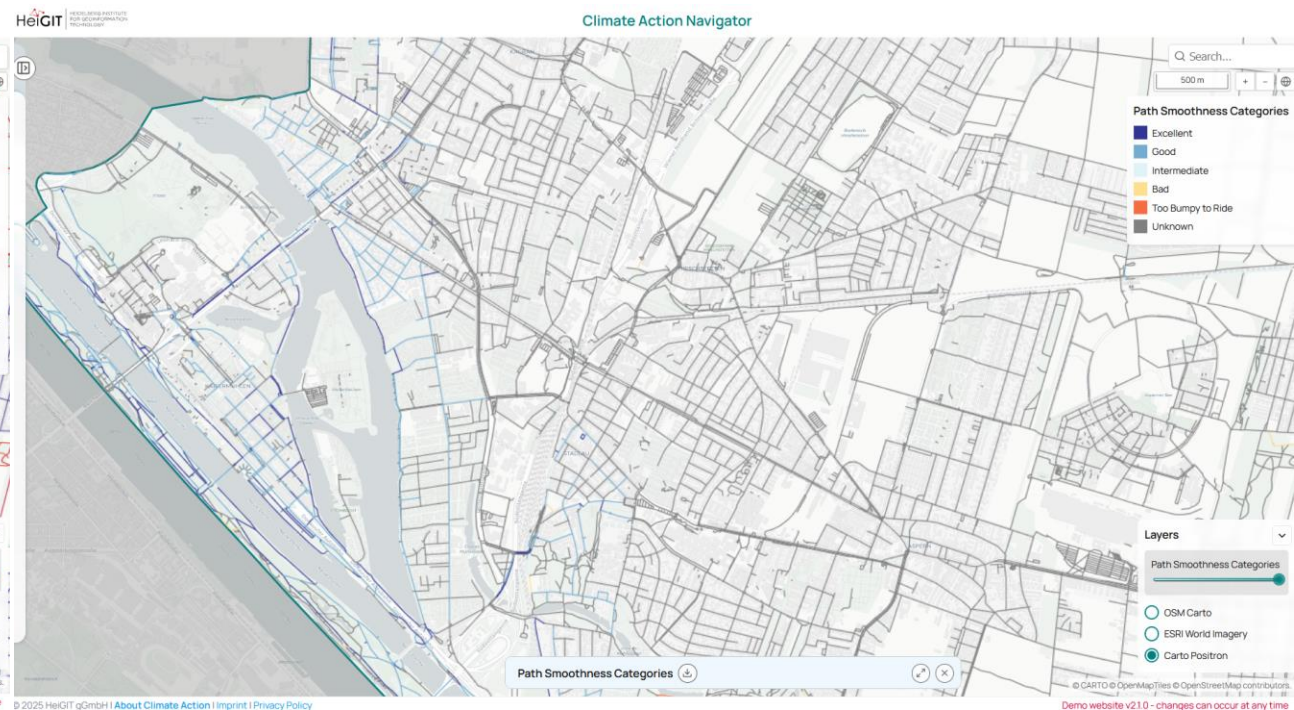
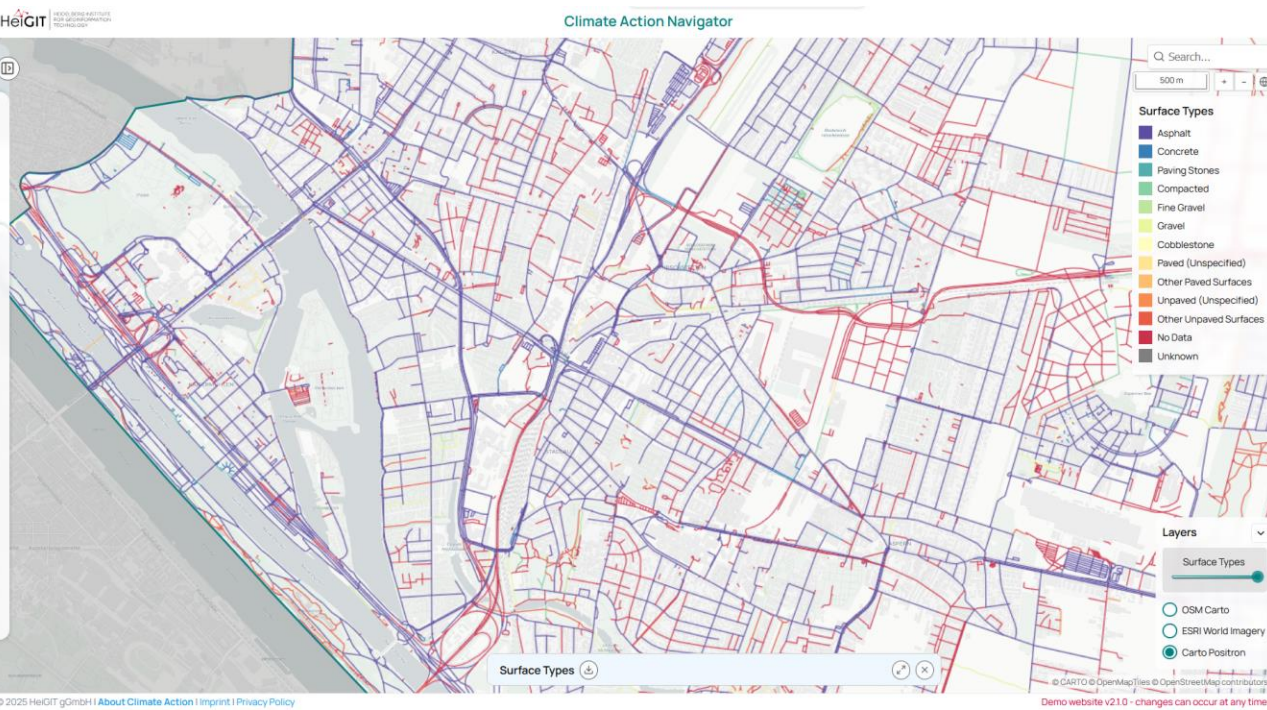
4 hiWalk: infrastructure & surface



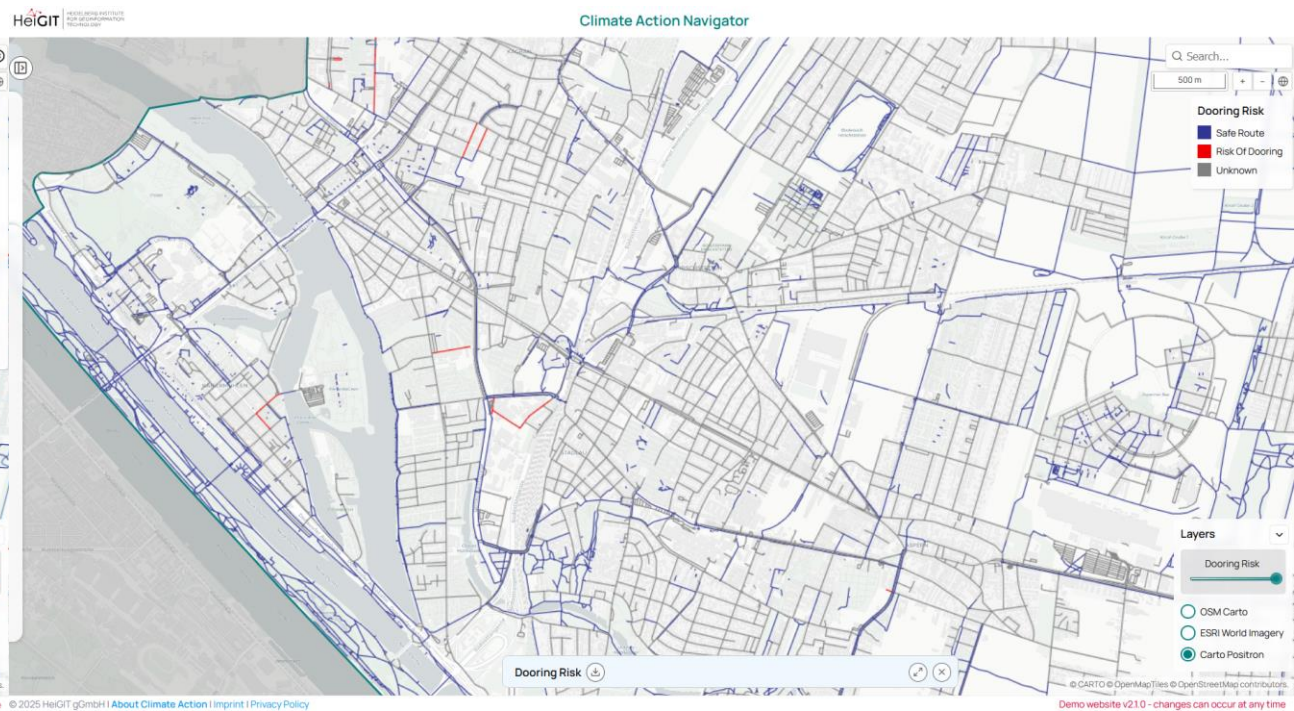
4 hiWalk: connectivity & naturalness



4 hiBike: surface types & smoothness

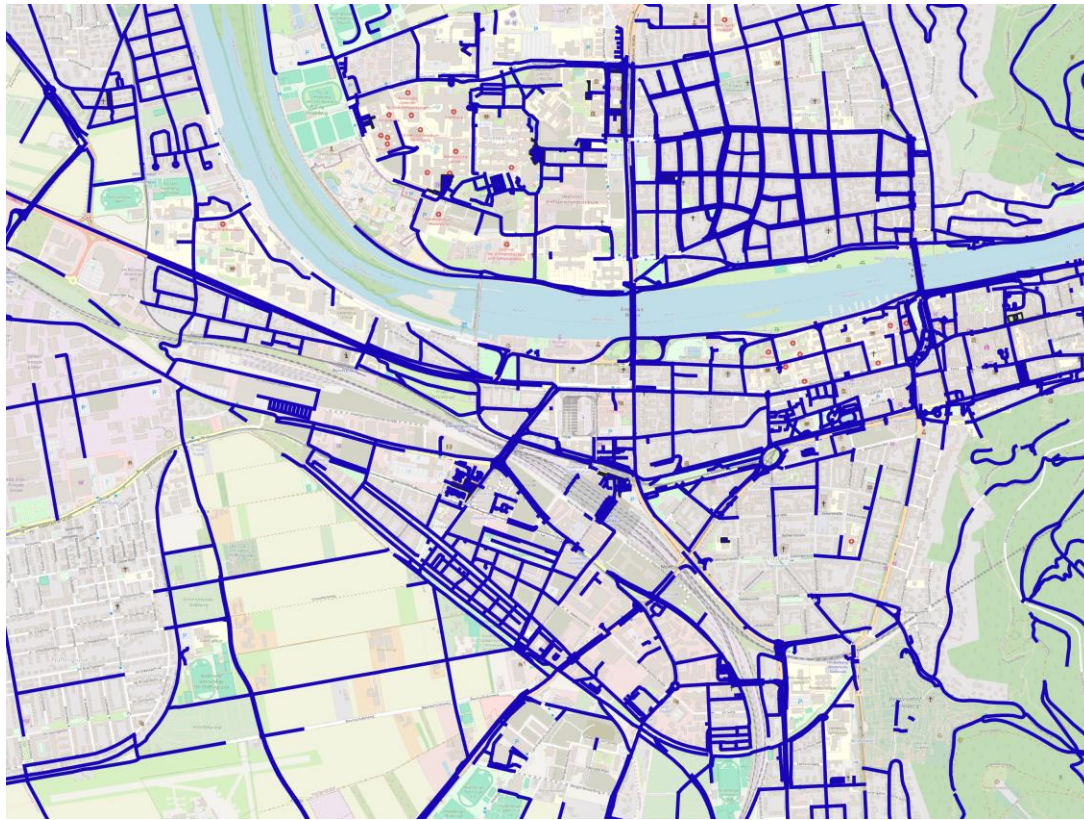


4 hiBike: infrastructure & dooring

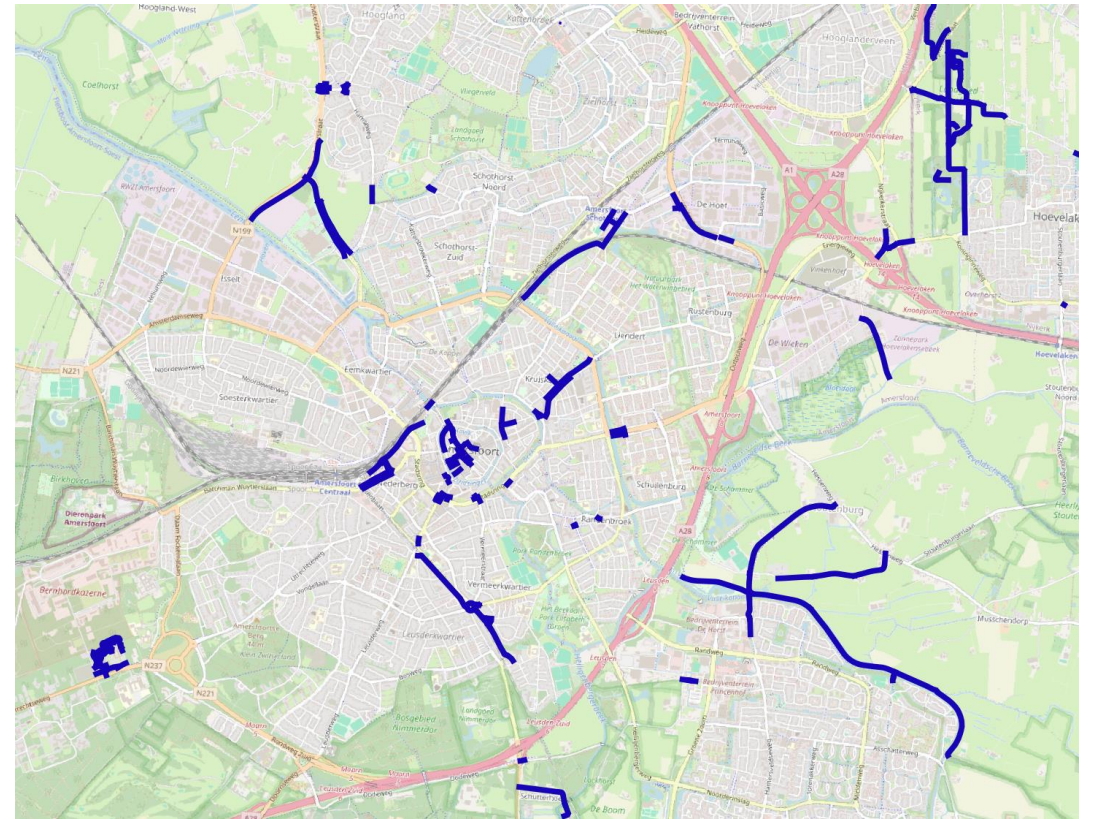


5 Challenges: data quality

Heidelberg: available smoothness info



Amersfoort: available smoothness info



5 Challenges: same same, but different (Lagos)



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5 Systemic integration in ORS (openrouteservice)



Factors considered in route planning

Shortest Route

Street length

Walkable Route

Street length

+

Walkable
paths

Walkable & Green Route

Street length

+

Walkable
paths

+

Greenness



5

Potential for 15min city: accessible, and *nice & pleasant*

Accessibility to supermarkets within 15 minutes via

- Shortest Route
- Walkable Route
- Green & walkable Route



6 Let's walk (bike) the talk!



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LAUNCH EVENT

5. June 2025, 2pm (CEST)

<https://heigit.limequery.org/722699?lang=en>

