

Sustainable Mobility and Data-driven Planning

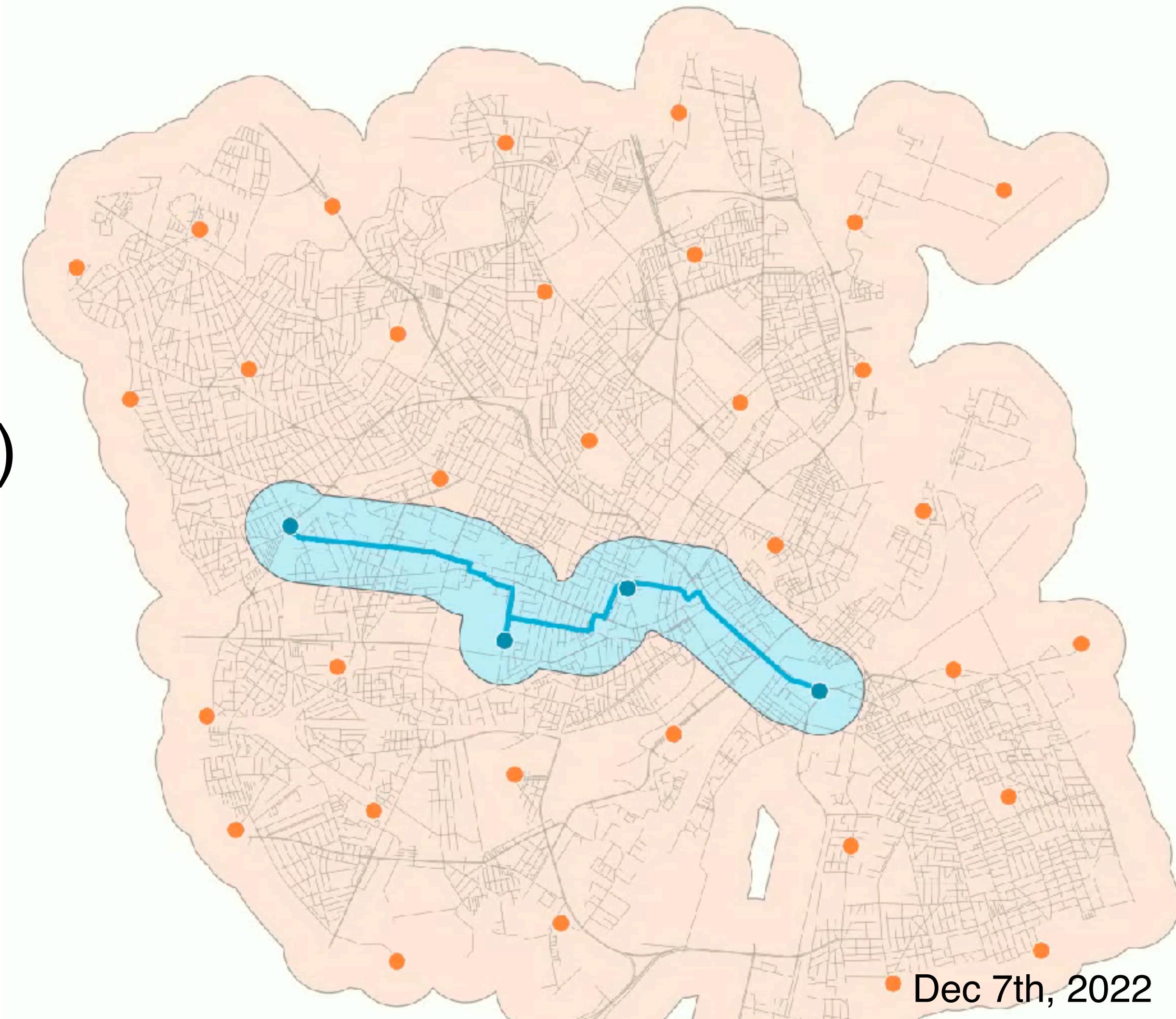
Ane Rahbek Vierø

Michael Szell

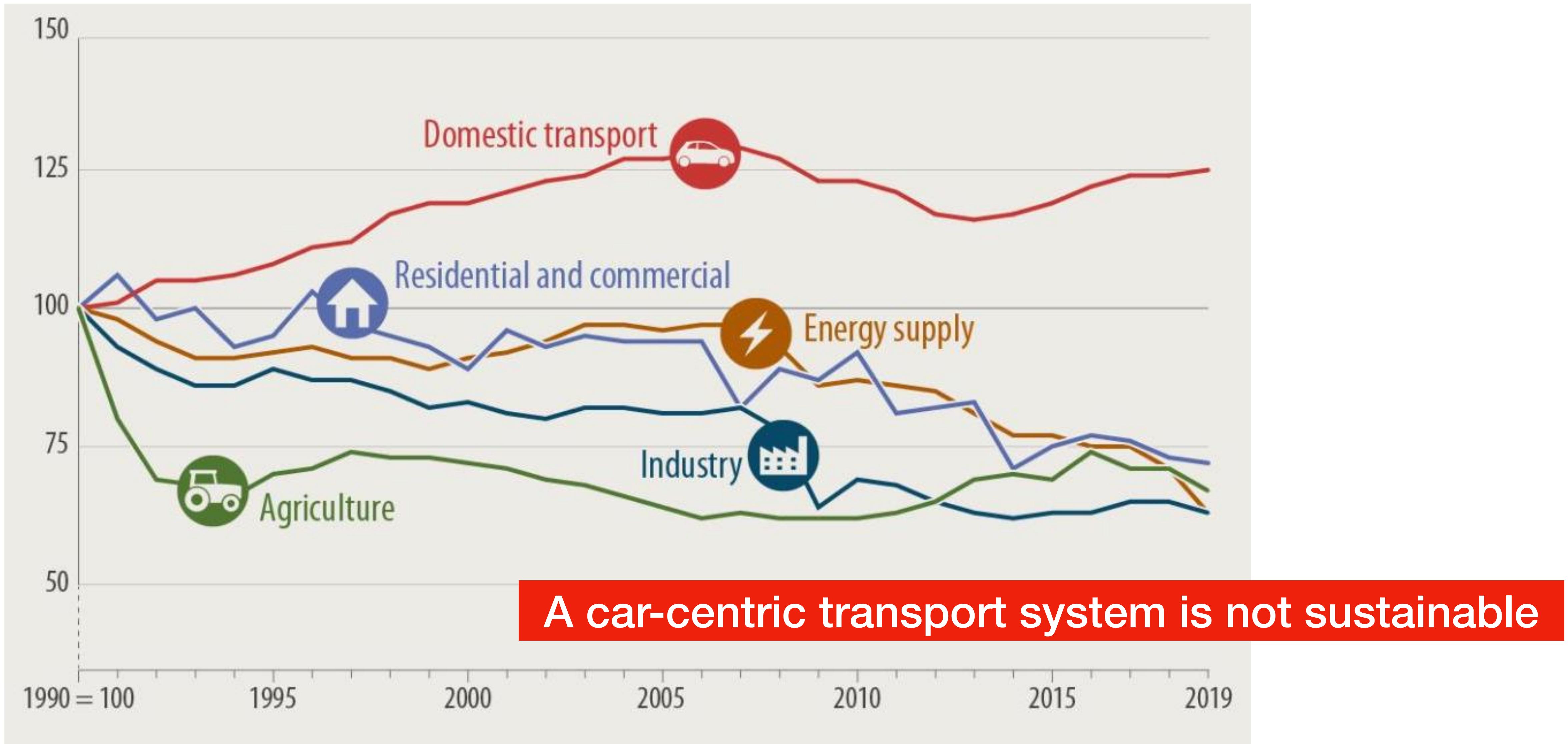
NERDS (NEtwoRks, Data, and Society)

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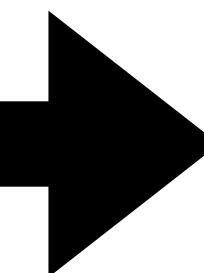
Transport plays a key role in the climate crisis



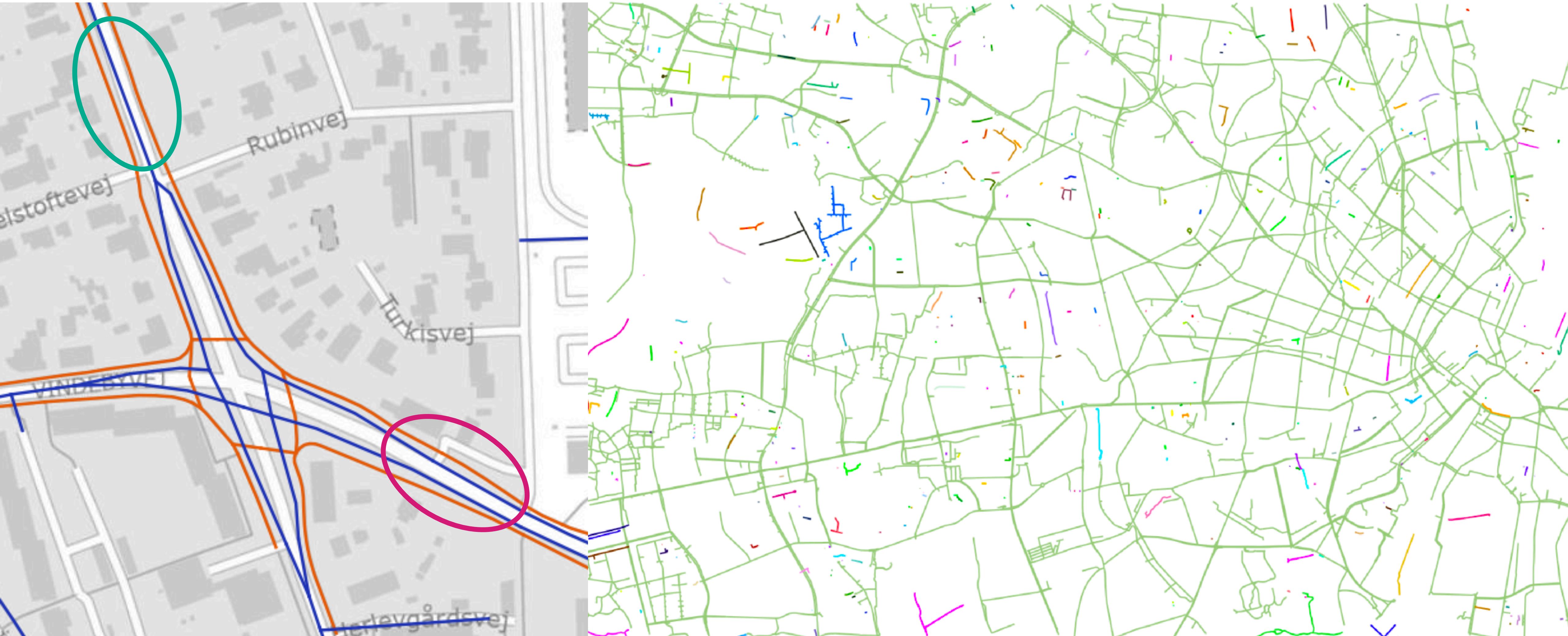
You can't beat geometry: Cars will always be inefficient



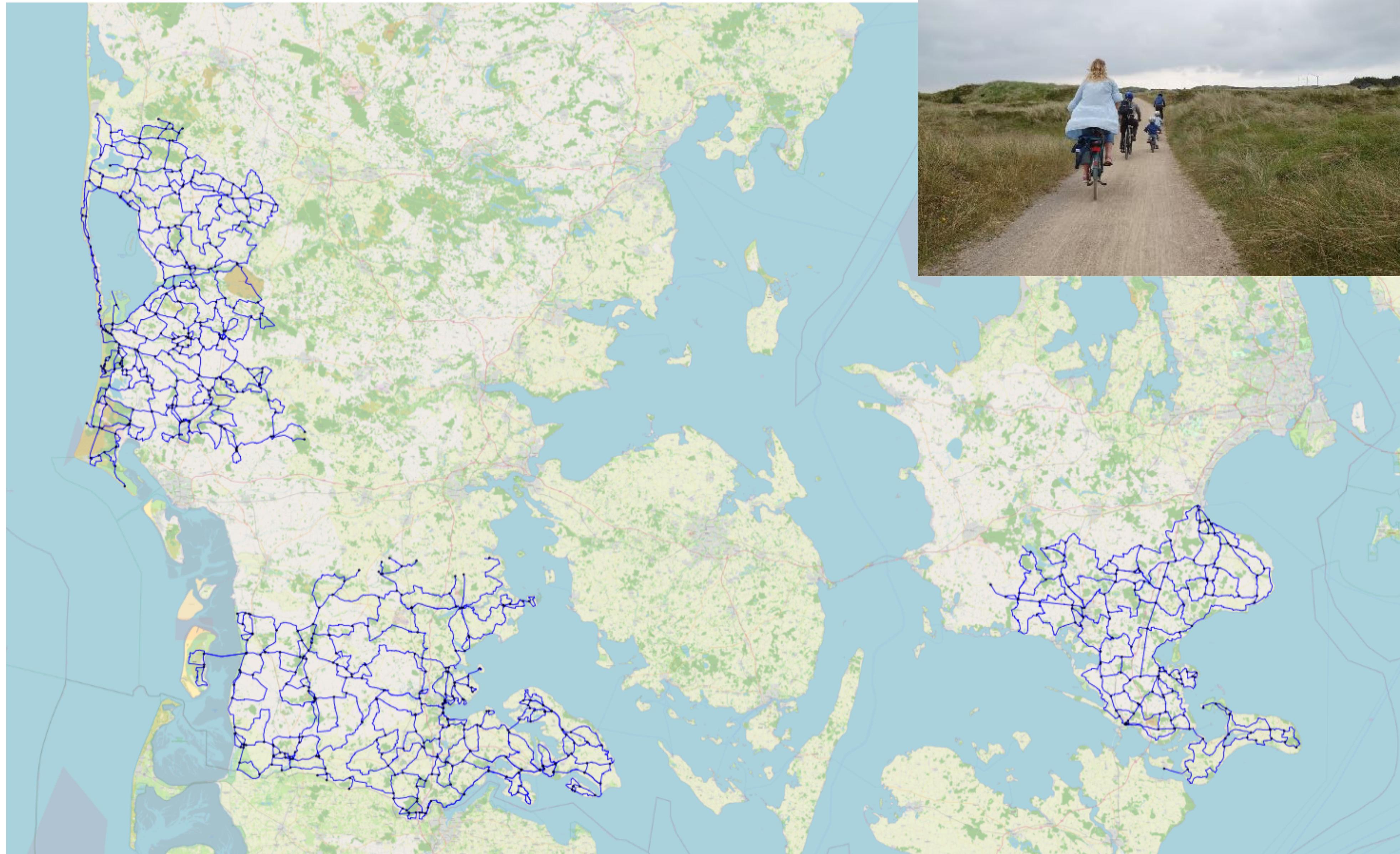
Data-driven planning can support a sustainability shift



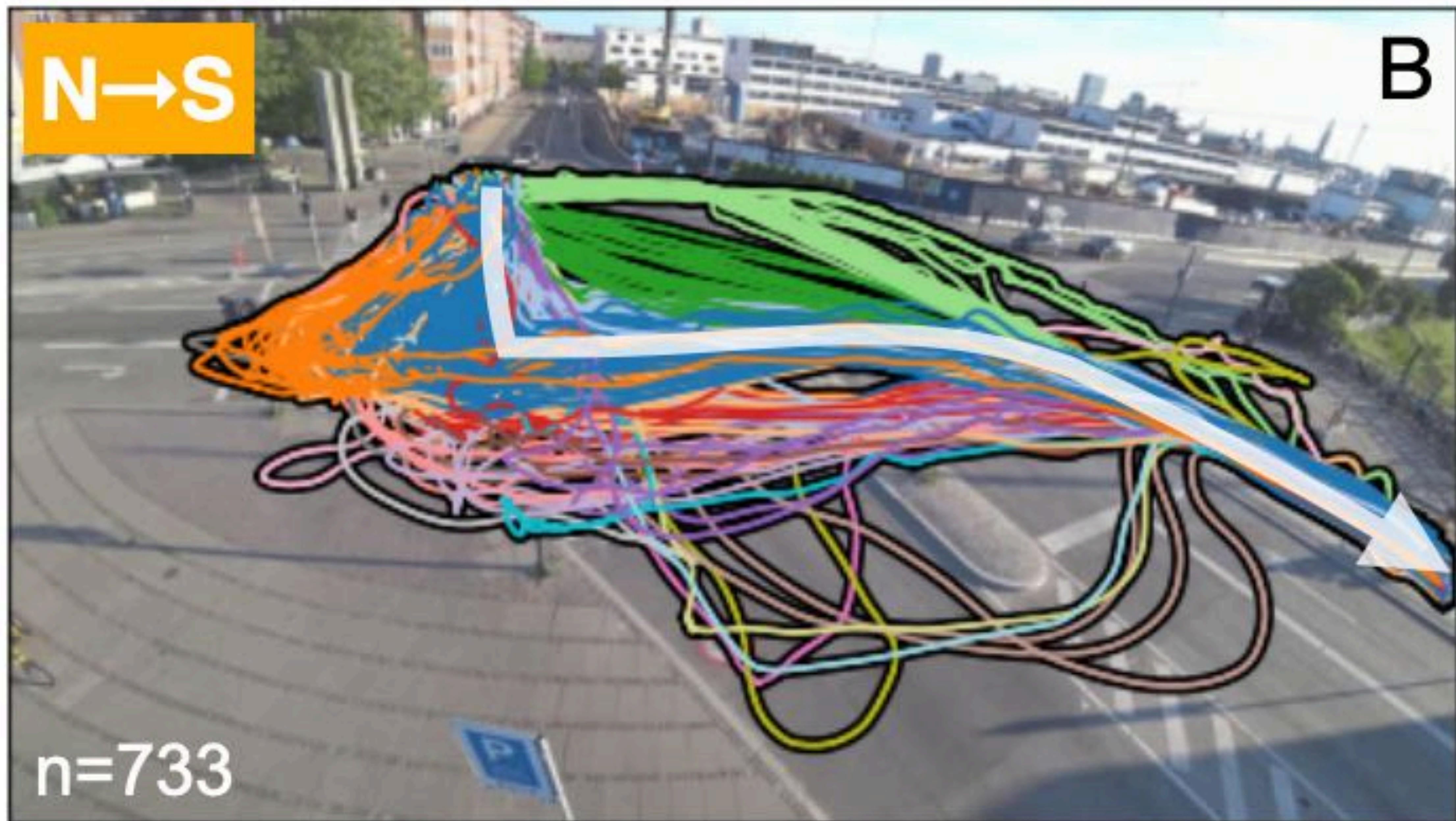
Cycling data are often not prioritized



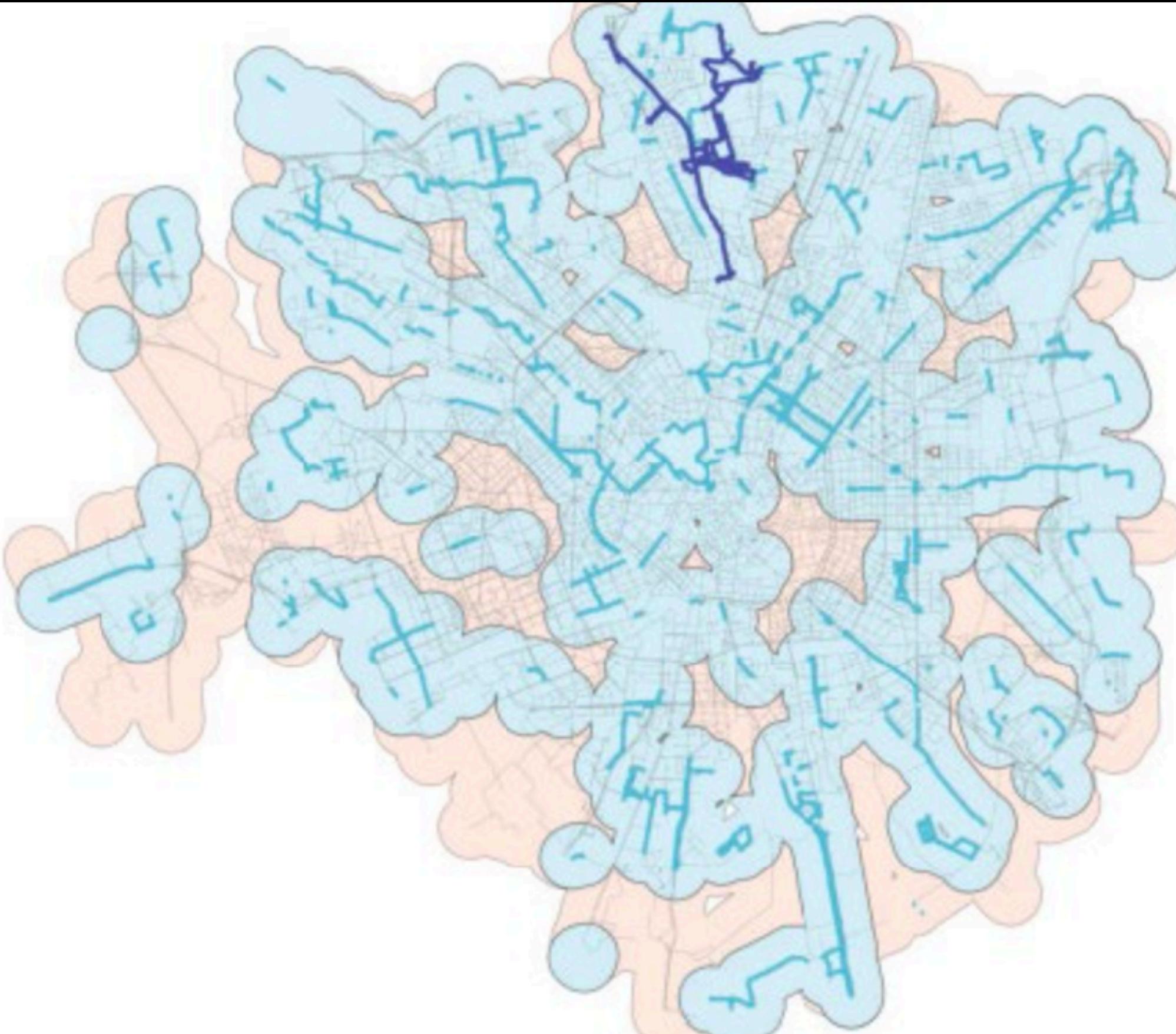
Data-driven planning needs to be human-driven



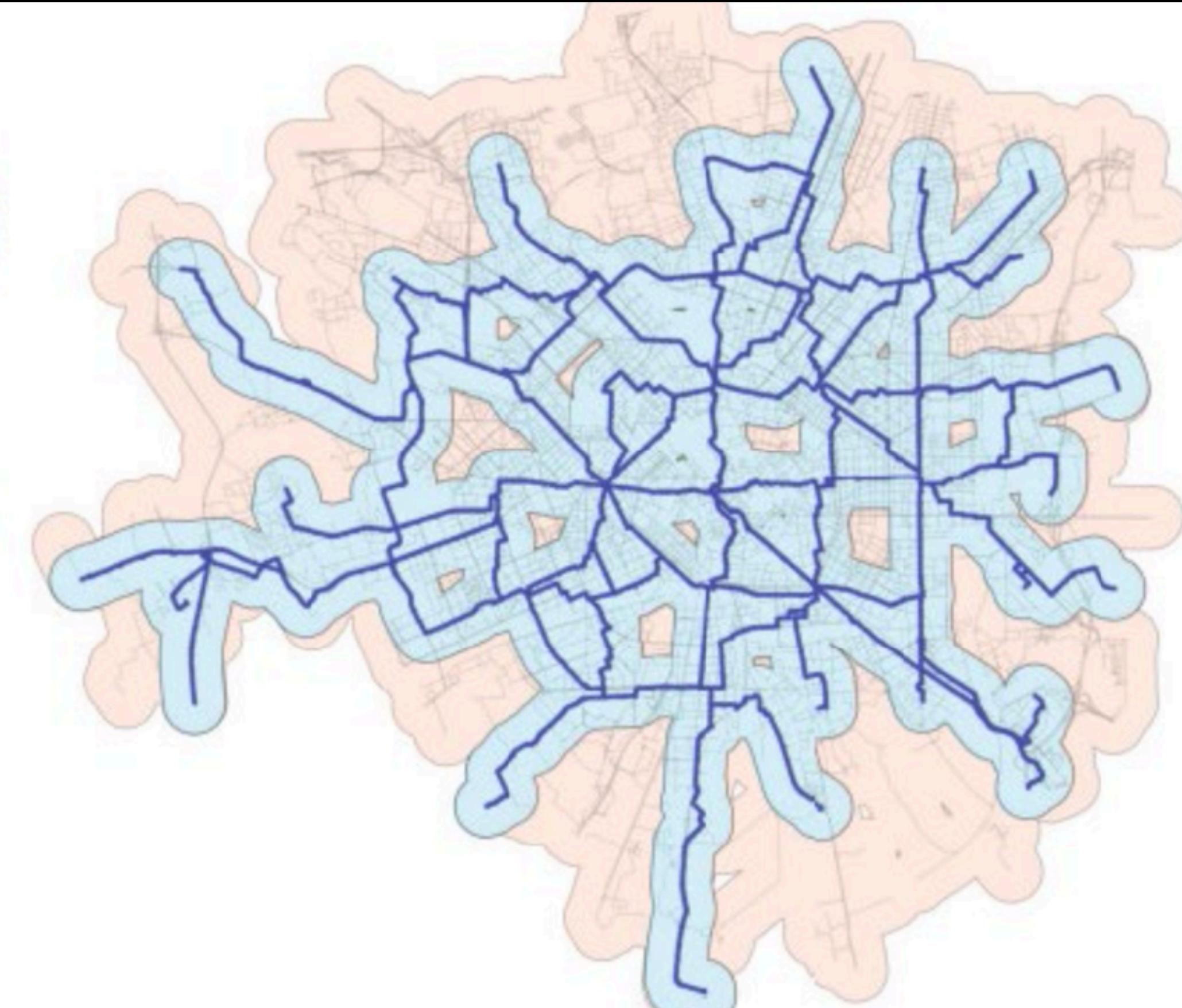
Data-driven planning needs to be human-driven



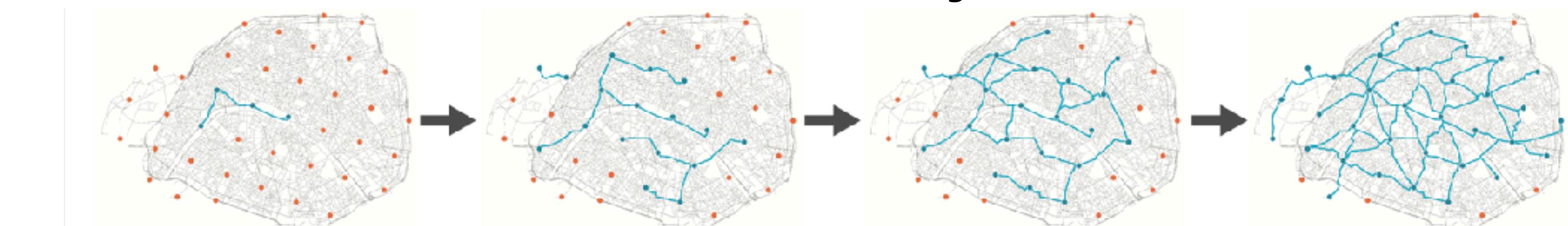
Many bicycle networks lack a long-term growth strategy



Real city

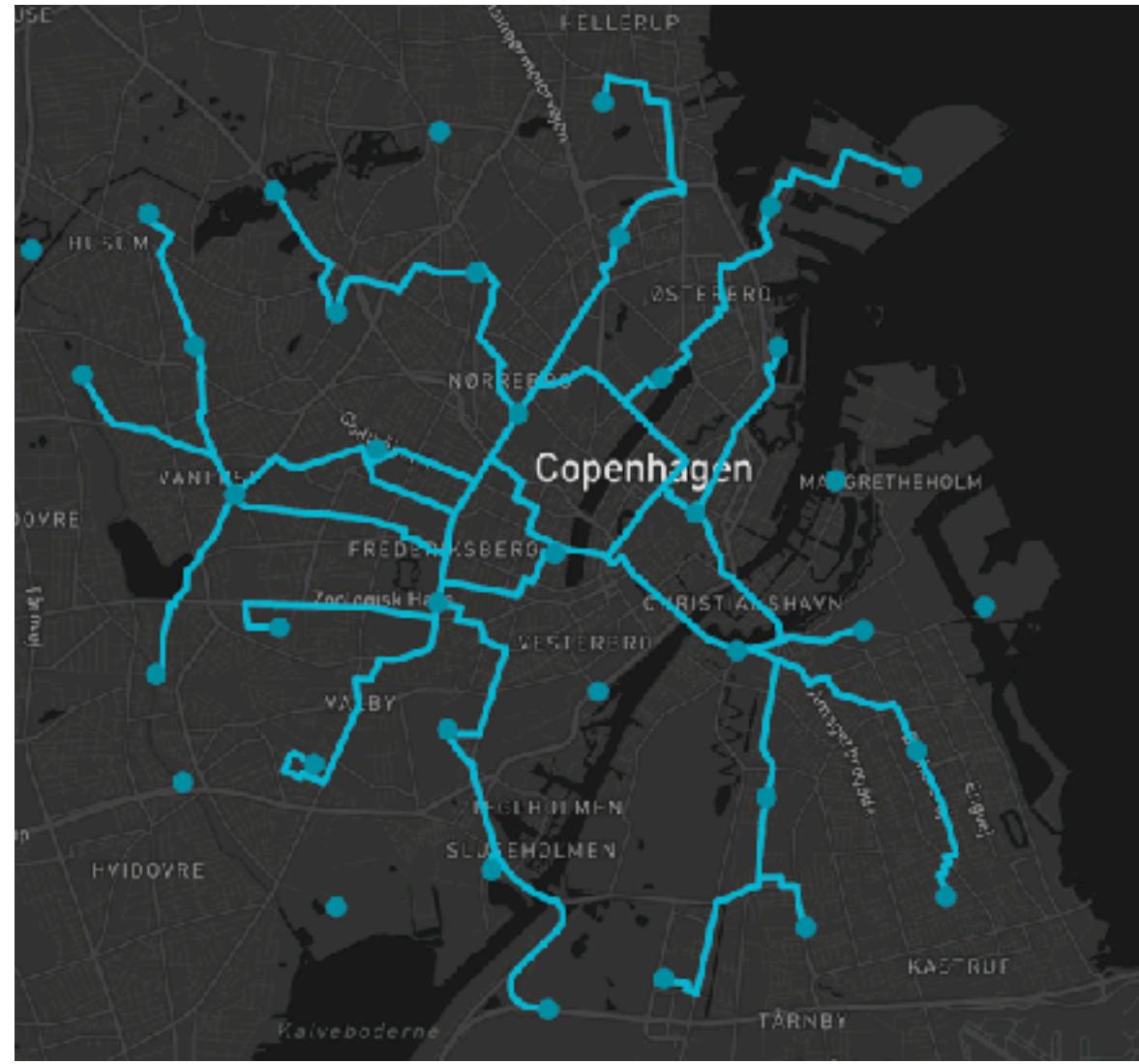


Simulated city

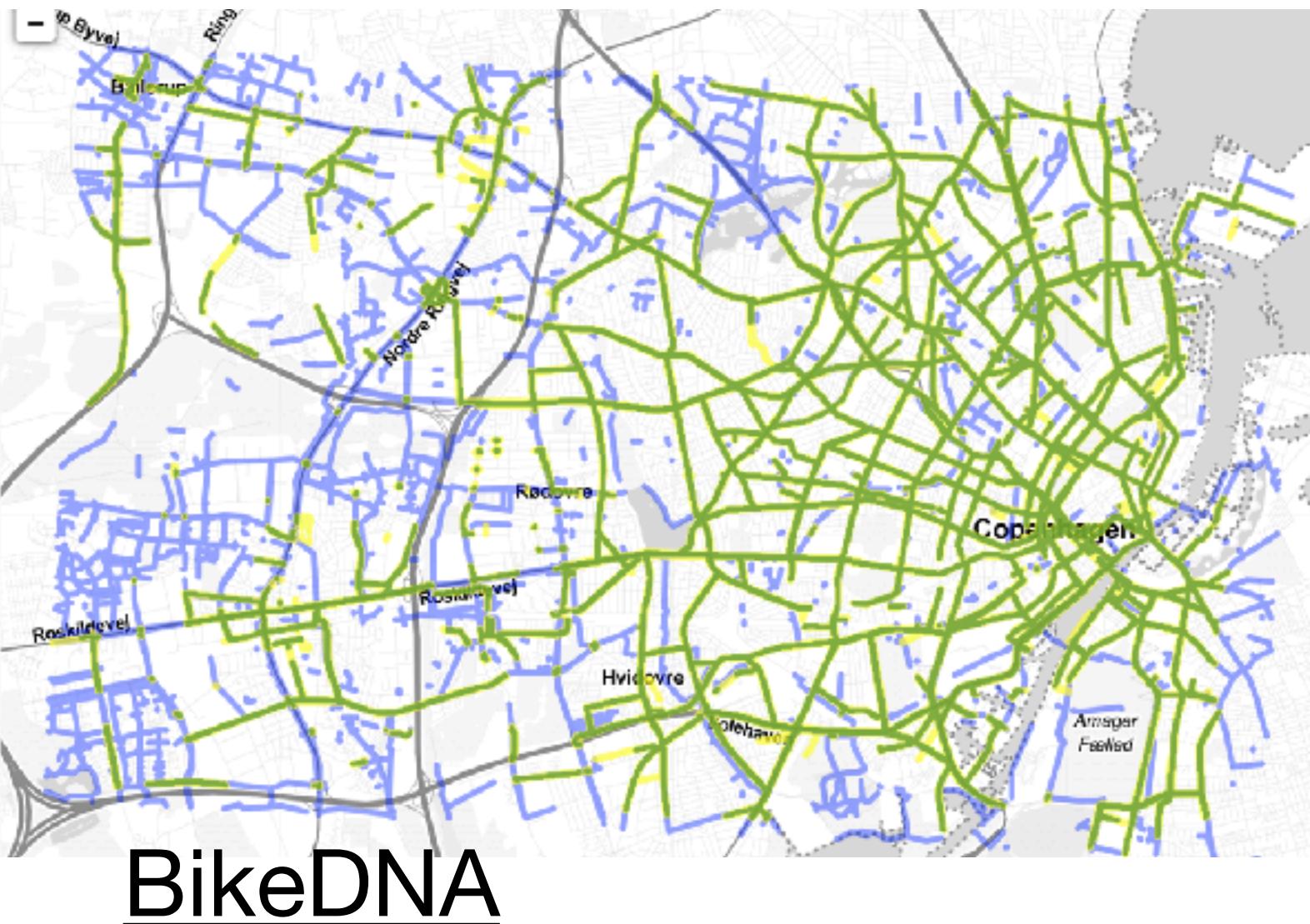


Building sustainable cities is a
political, not a technical question

Our work: Data-driven tools to help sustainable urban planning



Grow bicycle networks



BikeDNA

Geospatial Data Science (Spring 2022)



Geospatial Data Science



Missing Links

Our work: Data-driven tools to help sustainable urban planning

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Research



Data-driven strategies for optimal bicycle network growth

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Gerardo Iñiguez^{1,2,3} and Michael Szell^{4,5,6}

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scientific reports

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Growing urban bicycle networks

Michael Szell^{1,2,3}, Sayat Mimar⁴, Tyler Perlman⁴, Gourab Ghoshal⁴ & Roberta Sinatra^{1,2,3,5}



TRANSPORT FINDINGS

Computational Desire Line Analysis of Cyclists on the Dybbølsbro Intersection in Copenhagen

Simon Martin Breum¹, Bojan Kostic¹, Michael Szell^{1,2,3}

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Keywords: urban data science, cycling, traffic behavior, intersection design, human-centric planning

<https://doi.org/10.32866/001c.56683>

geographical analysis

Geographical Analysis (2022) 0, 1–29

Automated Detection of Missing Links in Bicycle Networks

Anastassia Vybornova¹ , Tiago Cunha¹, Astrid Gühnemann² ,
Michael Szell^{1,3,4}

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B Urban Analytics and
City Science

Data-driven micromobility network planning for demand and safety

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