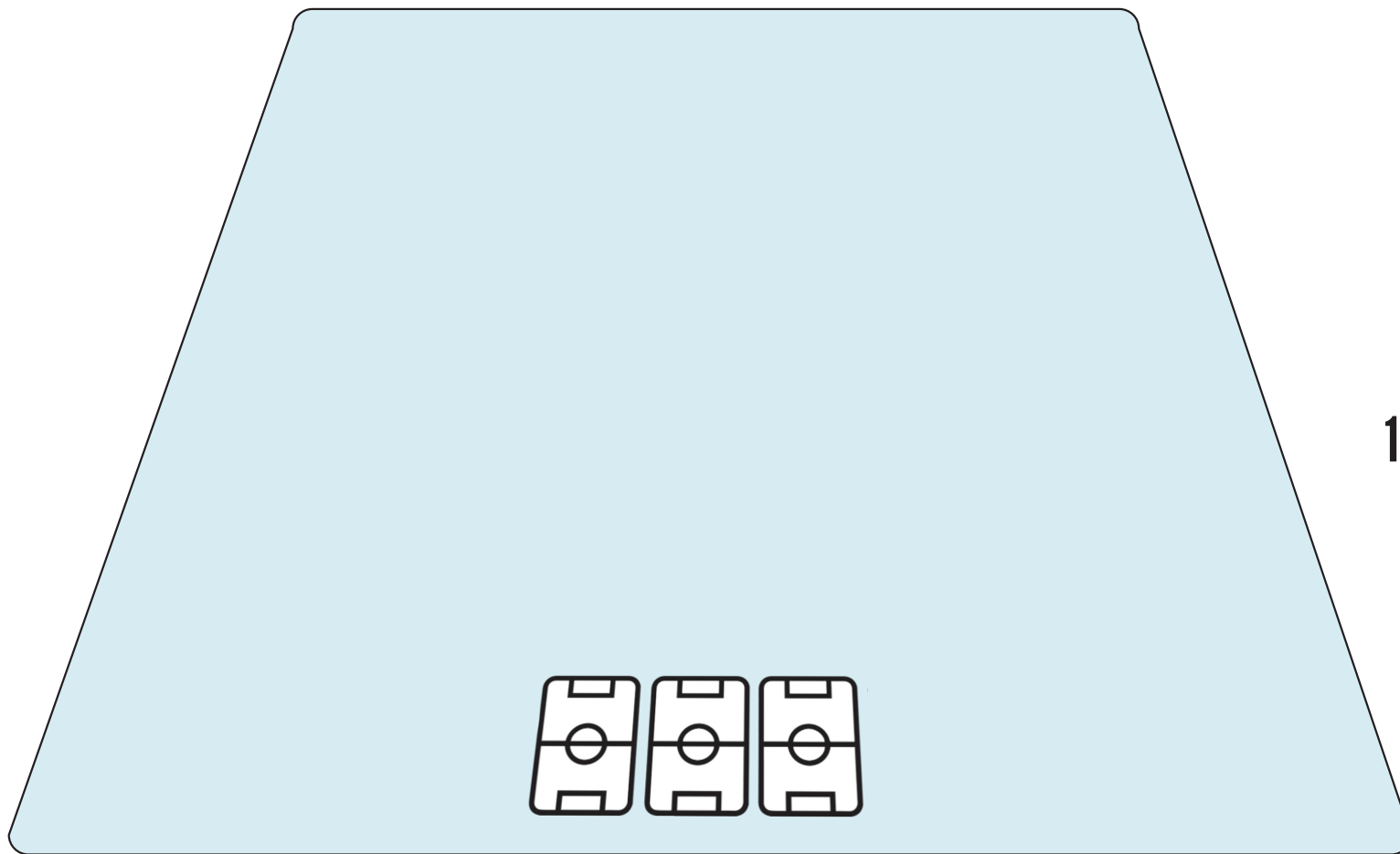


THE ROLE OF BICYCLING IN CHANGING URBAN REGIONS

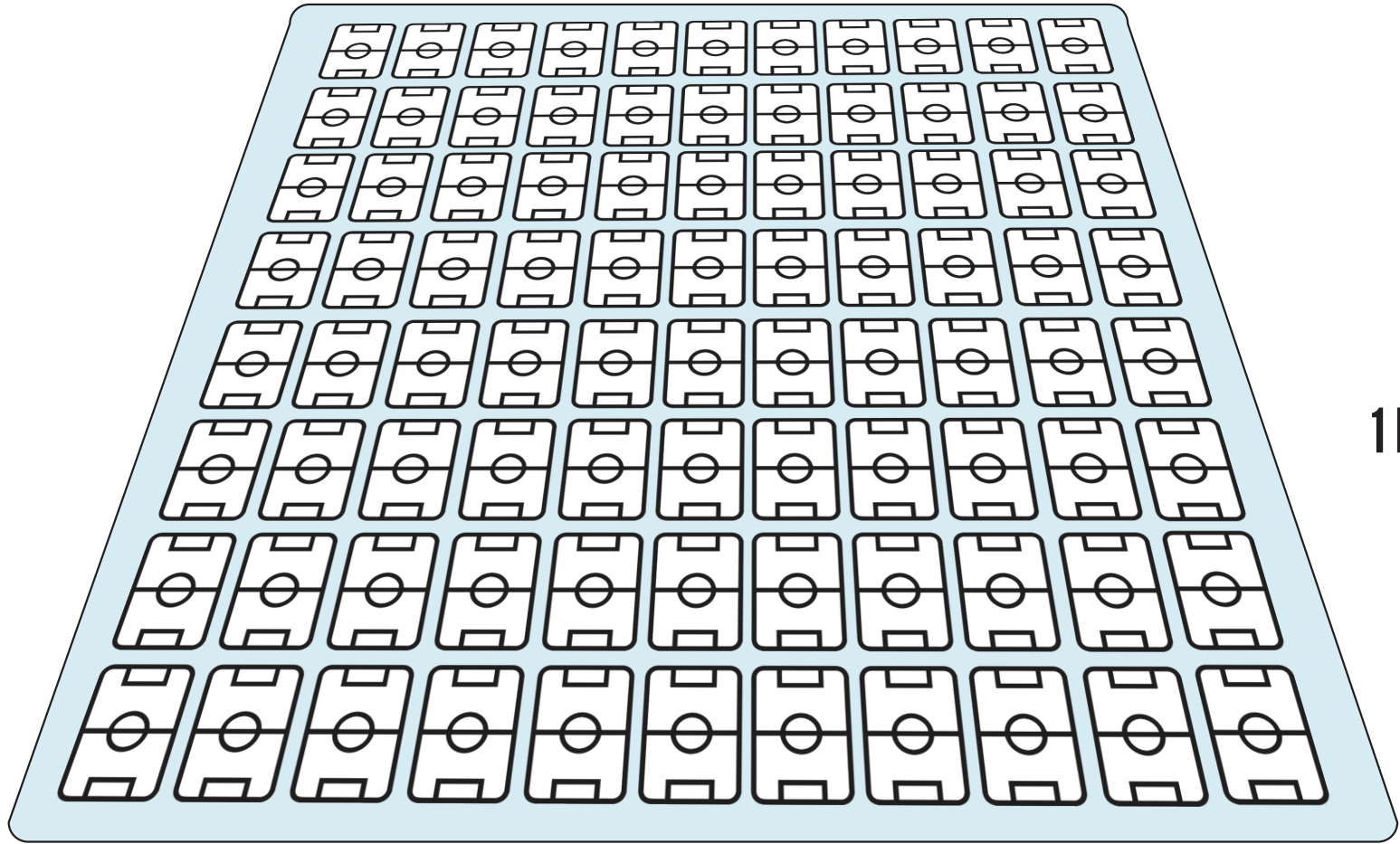
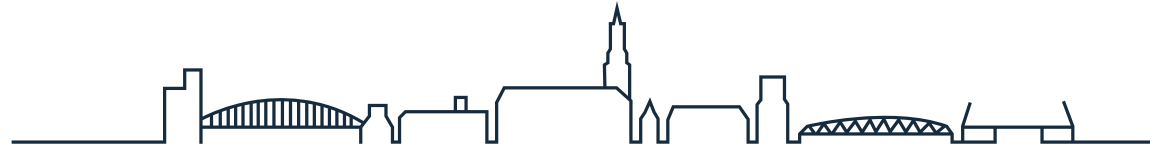
KEVIN J. KRIZEK





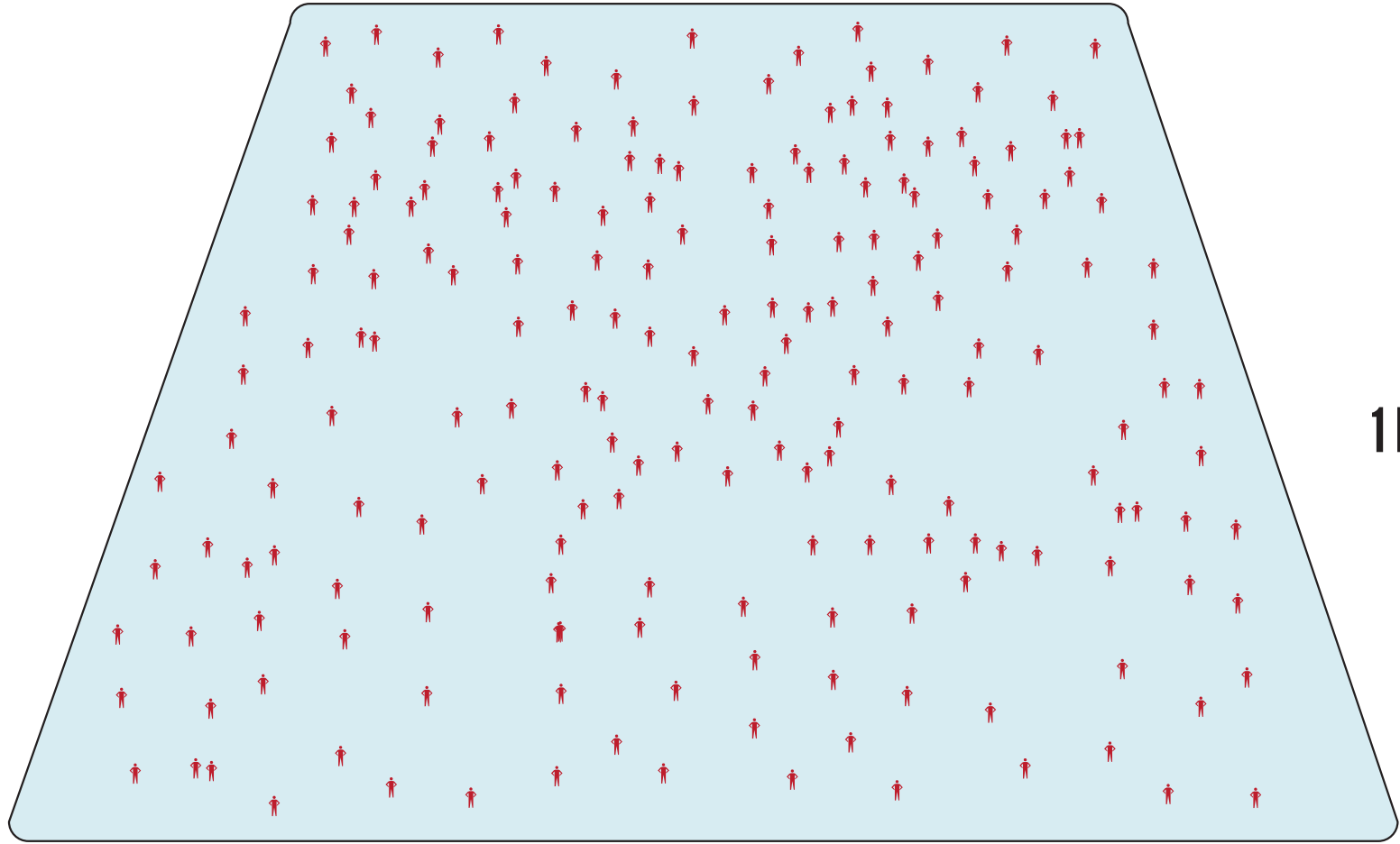
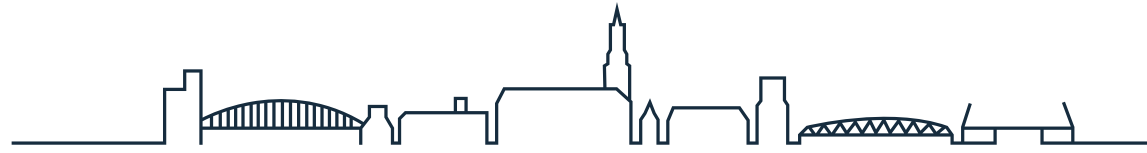
1 km

1 km



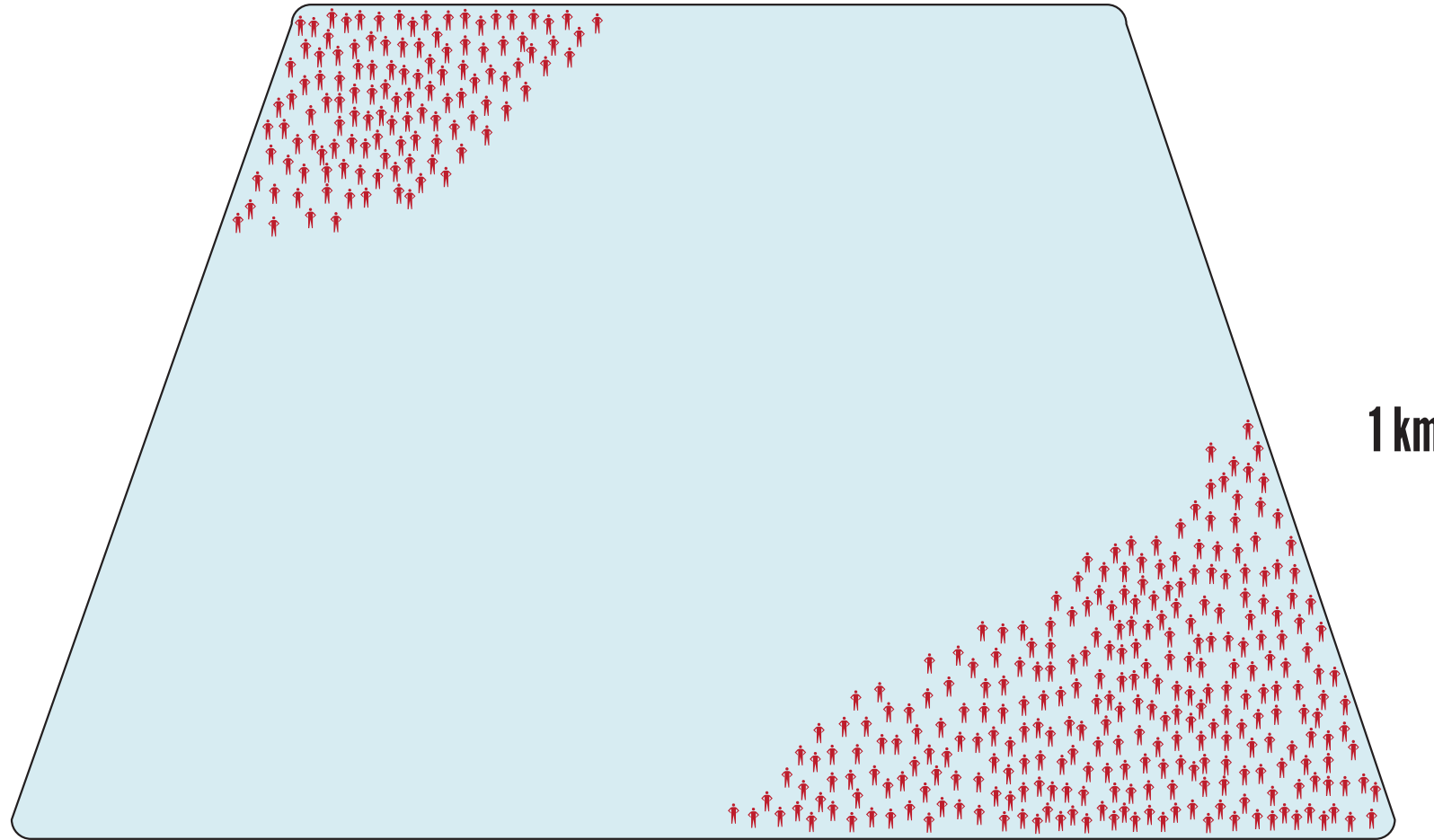
1 km

1 km



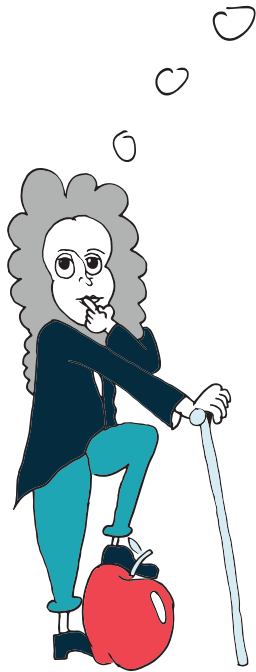
1 km

1 km



1 km

1 km



$$F = G$$





BICYCLING ACCESS

$$m_1 m_2$$

ATTRACTION
PROXIMITY TO DESTINATIONS

$$d^2$$

RESISTANCE
CONNECTIONS TO DESTINATIONS

URBAN FORM DETERMINANTS FOR BICYCLING ACCESS

street density | % bicycle facilities 20km lane miles/km² | 15% bicycle facilities



road safety 5 deaths/year



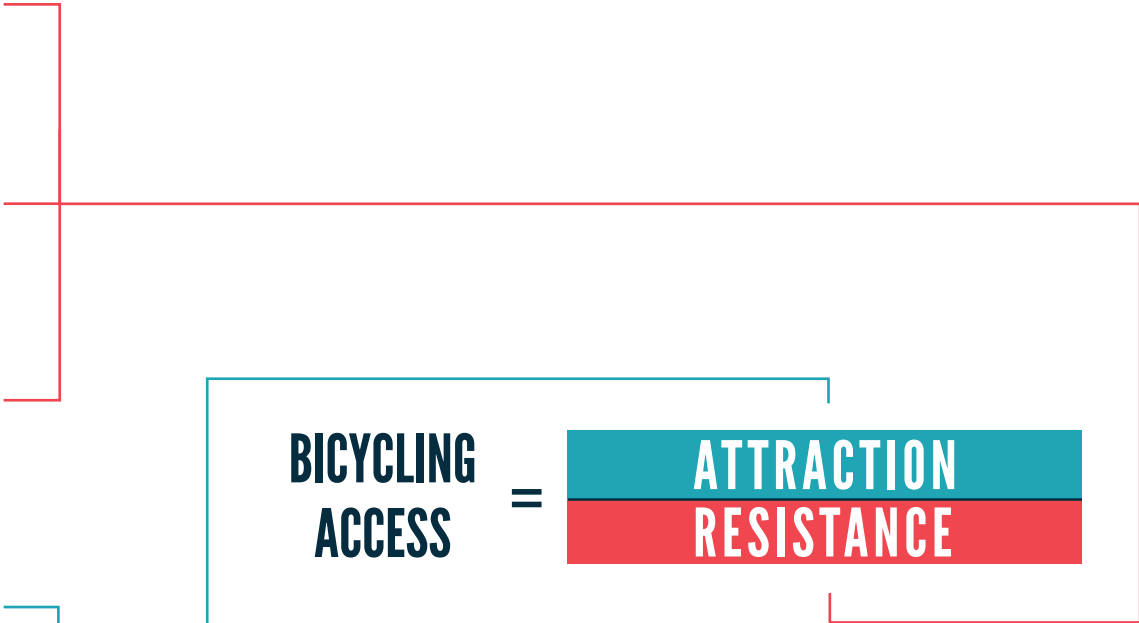
topography 50m/vertical gain



population density 25/ha



land use mix medium



BOULDER

United States



AMSTERDAM

The Netherlands



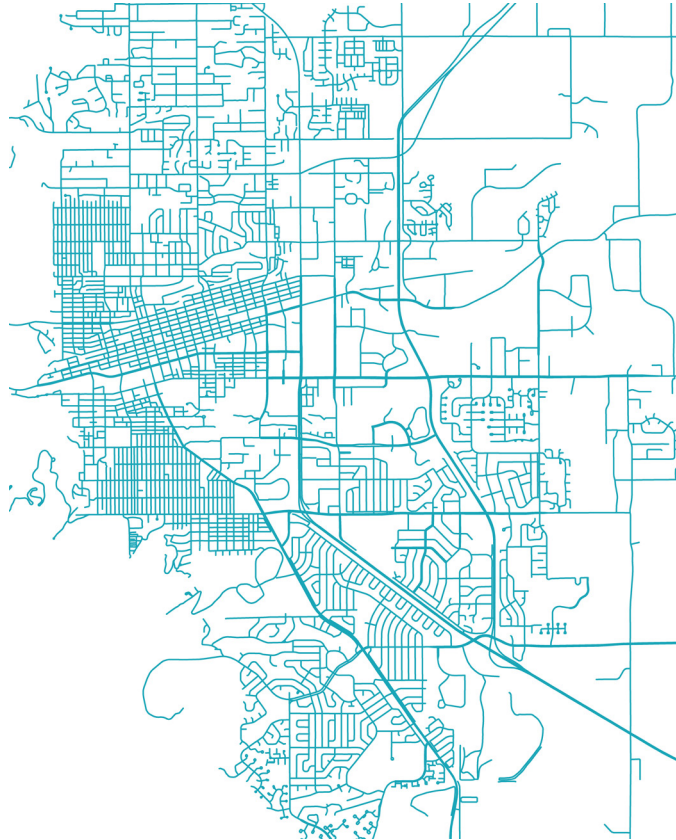
MEDELLIN

Colombia



BOULDER

United States



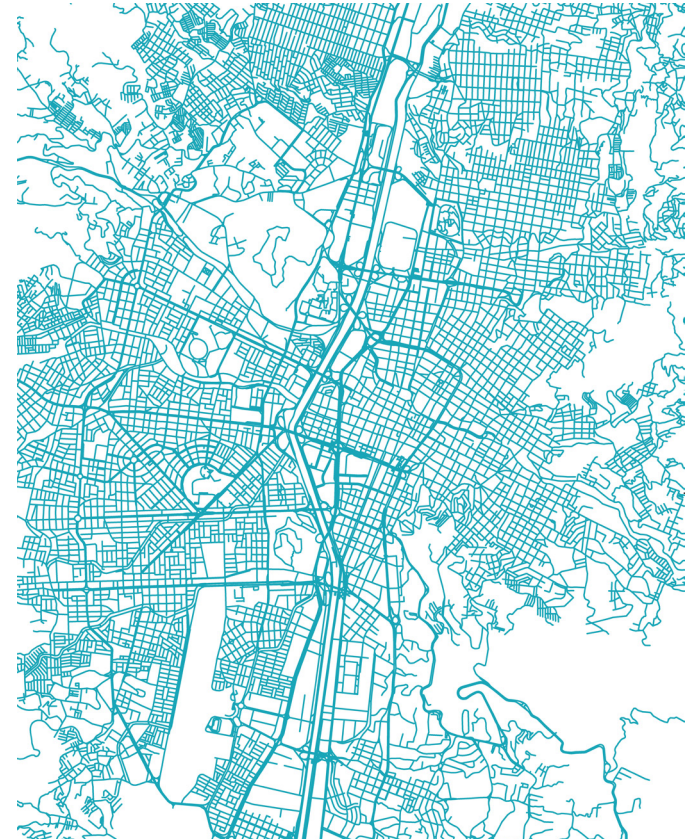
AMSTERDAM

The Netherlands



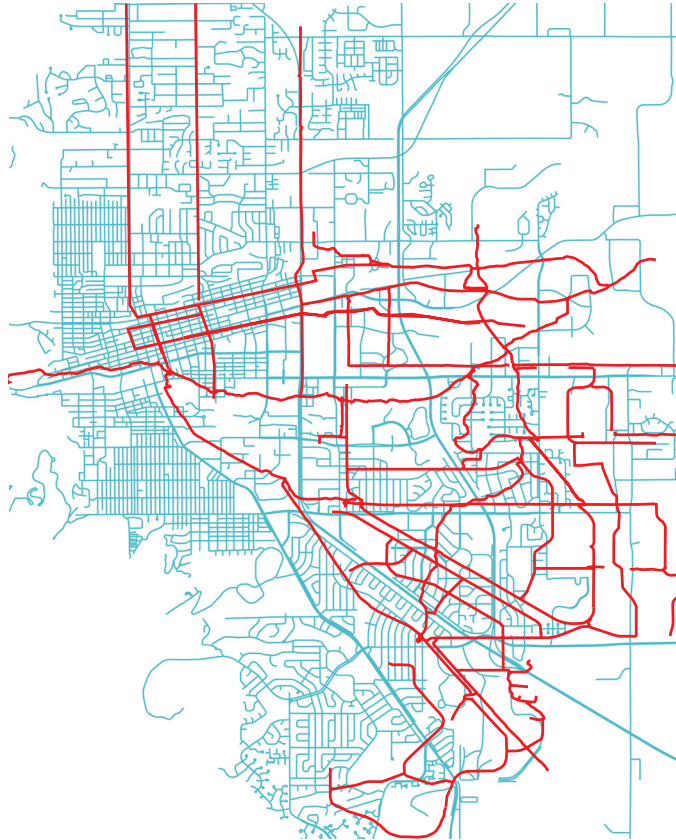
MEDELLIN

Colombia



BOULDER

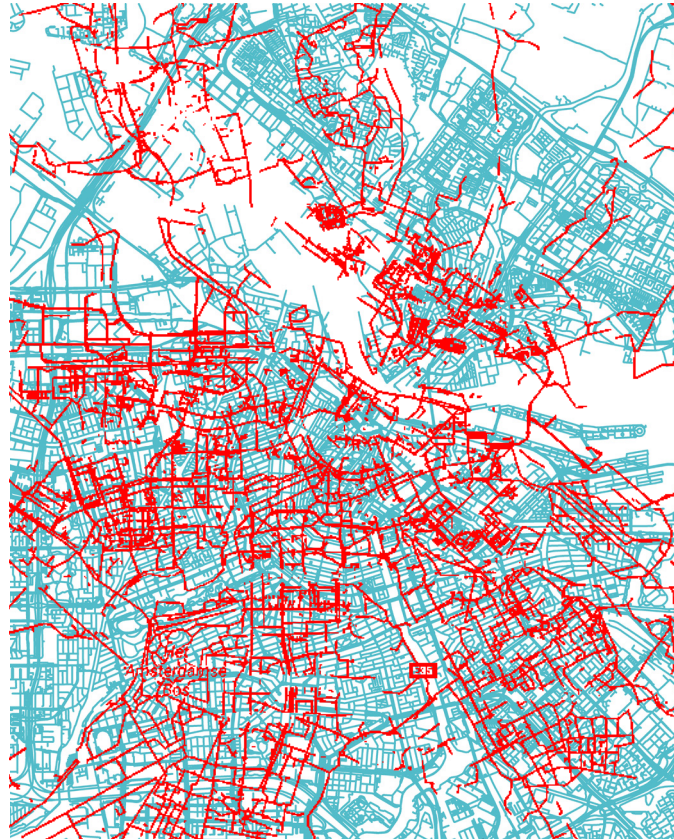
United States



25% bicycle lanes

AMSTERDAM

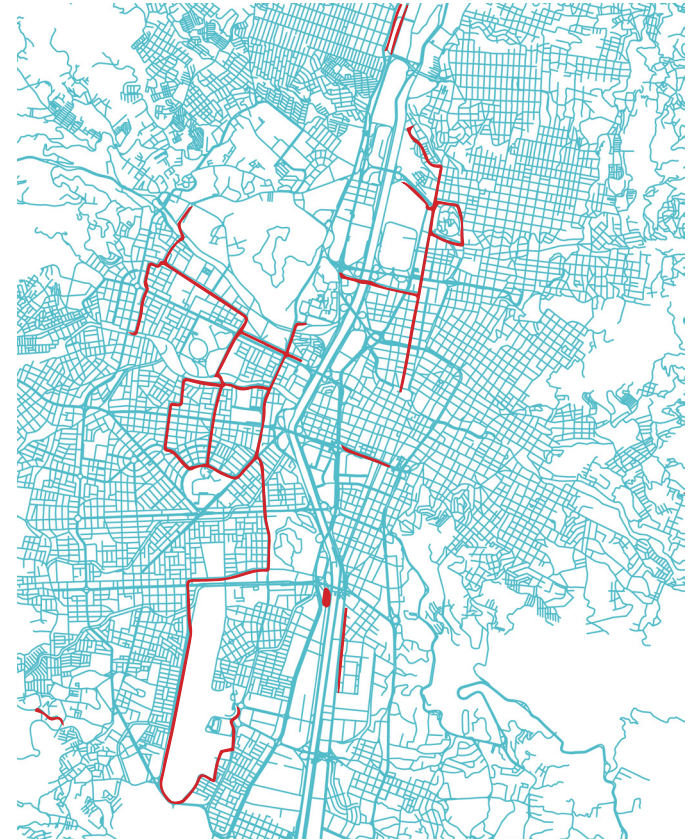
The Netherlands



80% bicycle lanes

MEDELLIN

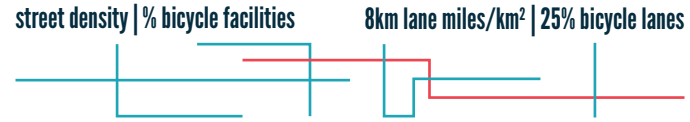
Colombia



10% bicycle lanes

BOULDER

United States



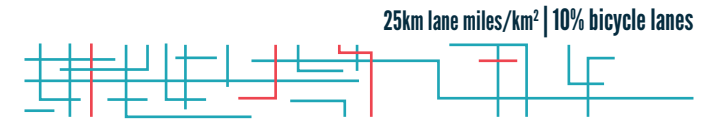
AMSTERDAM

The Netherlands



MEDELLIN

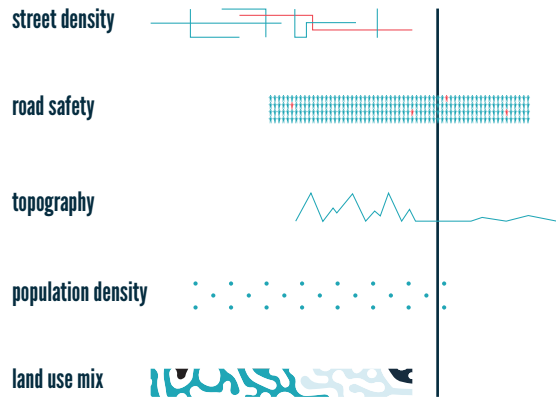
Colombia



Street density and percent of bicycle facilities calculated from GIS; road safety interpreted from annual averages for pedestrian/bicycle related deaths; values for topography gleaned from elevation data; population density recalculated using values from wikipedia and for entire city, not restricted to the area shown earlier; land use mix assessed experientially.

THRESHOLDS to MEASURE and ADVANCE BICYCLING ACCESS

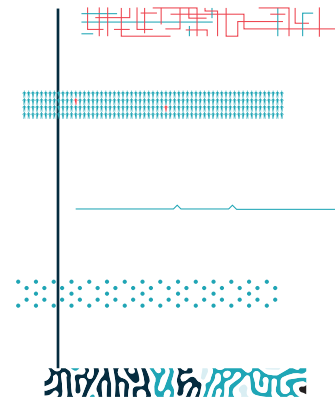
BOULDER United States



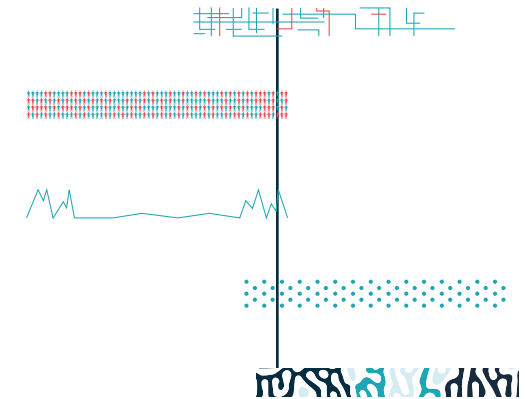
**BICYCLING
ACCESS**



AMSTERDAM The Netherlands



MEDELLIN Colombia



THE ROLE OF BICYCLING IN CHANGING URBAN REGIONS

THANK YOU TO: SUSAN HANDY, MARIANNE HOLBERT AND DAVID LEVINSON

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