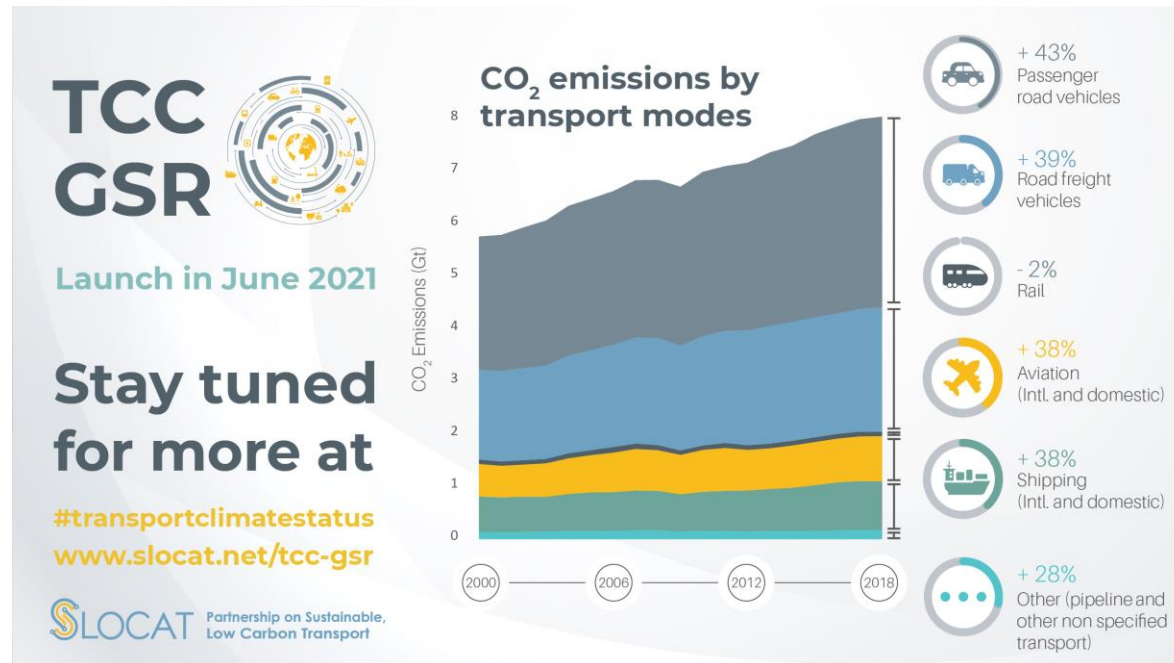


Here is why cities around the world should build 2 km high quality, segregated cycling lane per 1000 inhabitants

Transformative Urban Mobility Initiative (TUMI)

June 2021

To avert catastrophic climate change and limit warming to 1.5°C we will need to **reduce carbon emissions from transport** drastically.

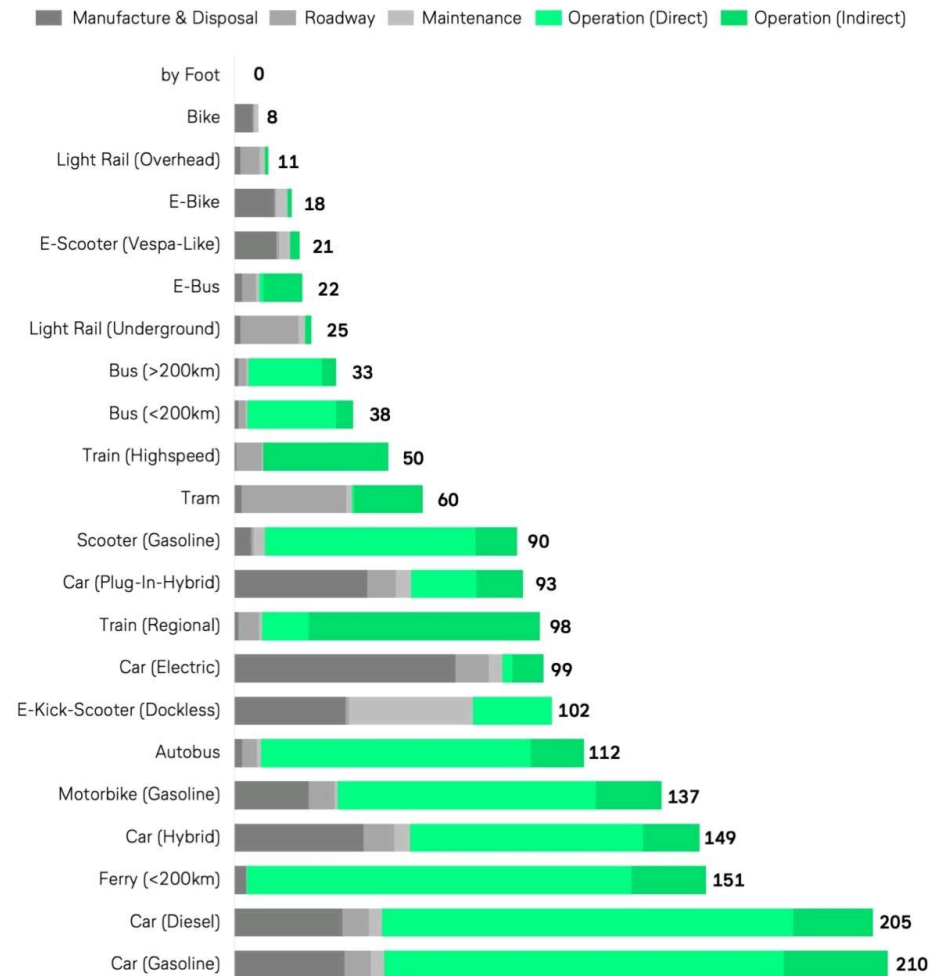


In fact transport is the problem child of carbon emissions. In many countries **transport emissions are rising** while all other emissions are falling.

TNMT

Ranking urban transport modes

Average carbon emissions by transport type (in gram per pkm)



Sources: Lufthansa Innovation Hub Analysis, TNMT.com, press and various research studies — see extra Airtable

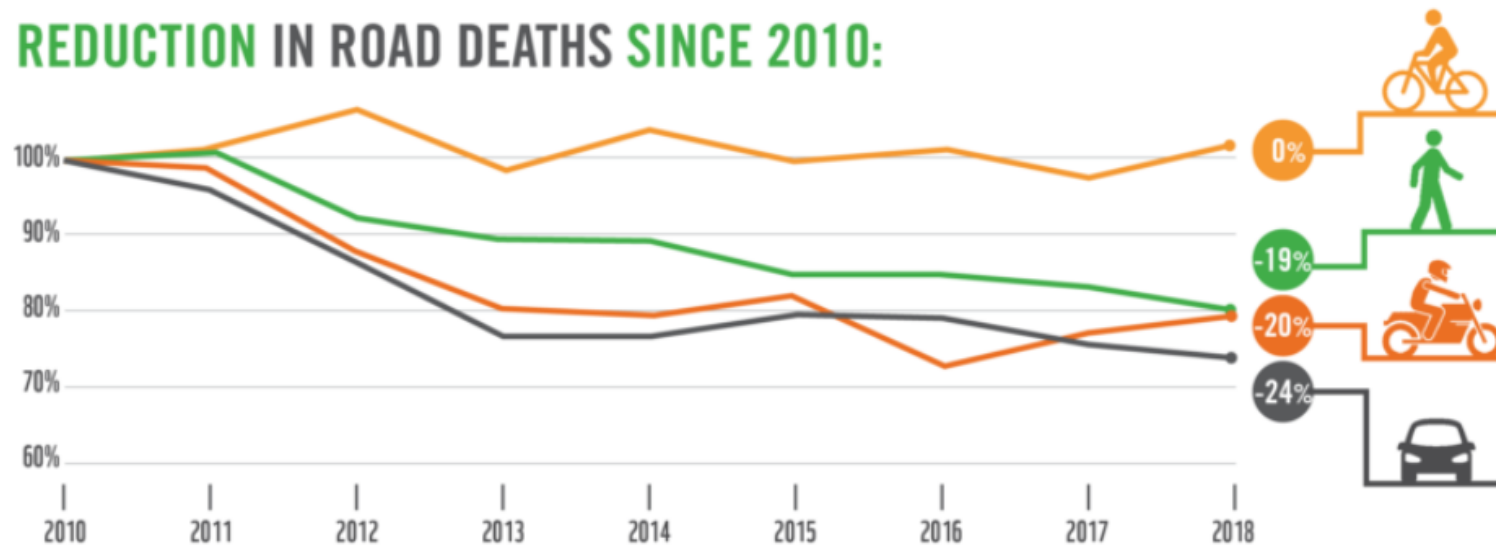
Cycling is (almost) **zero emission** already, together with walking and public transport it can be a great contributor to lower carbon emissions.

Here is why cities around the world should build 2 km high quality, segregated cycling lane per 1000 inhabitants

However, there is a big barrier to increasing cycling and getting more people to use their bikes: **road safety**.

Cyclist fatalities have been decreasing eight times more slowly than deaths of motor vehicle occupants. Specifically, while cyclist fatalities have decreased by only 0.4 % between 2010-2018, motor vehicle occupant fatalities have decreased by around 20 %. An enormous 83 % of cyclist deaths recorded in the European Union are a **consequence of an impact with a motor vehicle**.

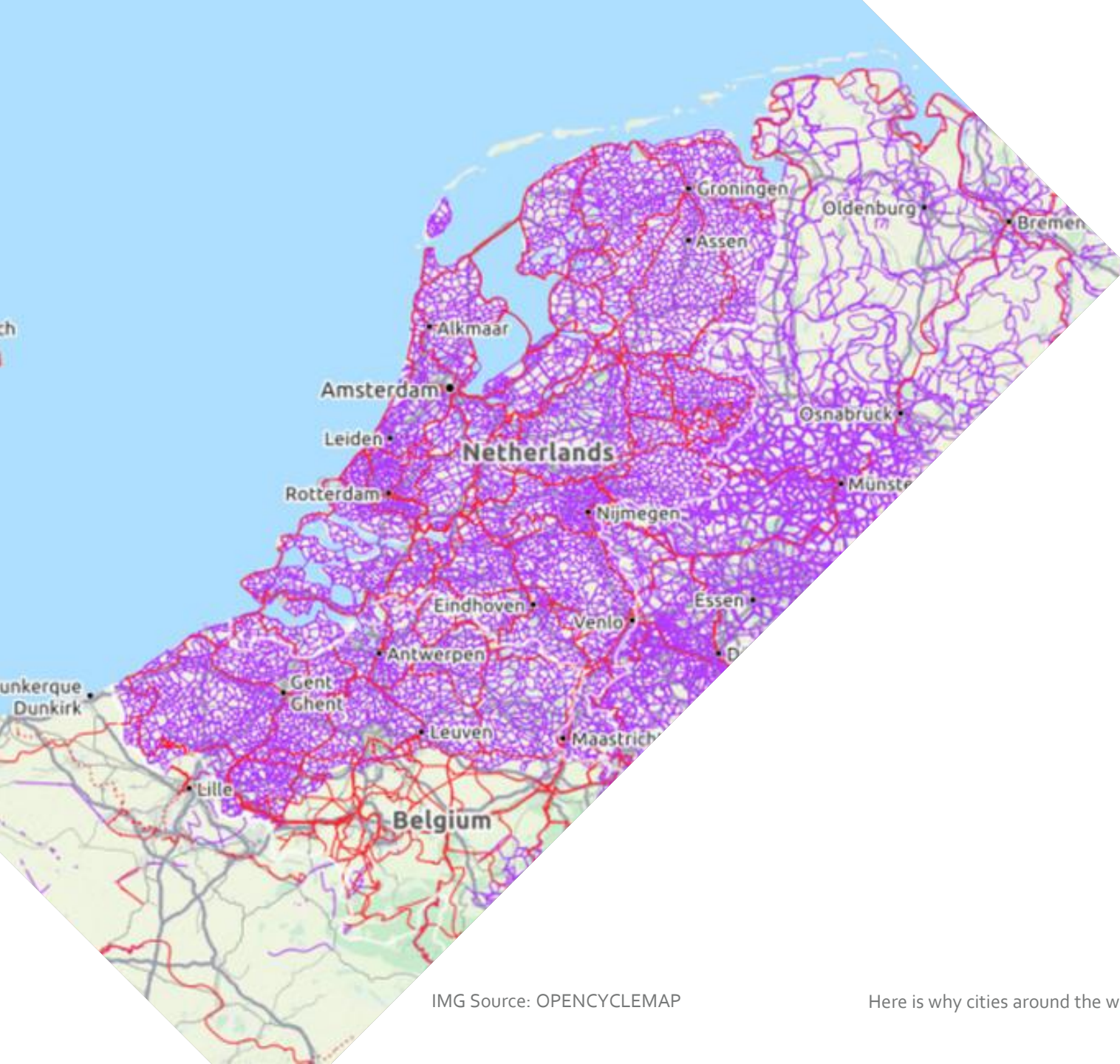
REDUCTION IN ROAD DEATHS SINCE 2010:





But how are countries like Denmark or the Netherlands succeeding?

The two countries have famously **high bicycle mode shares** and decades of experience providing great infrastructure for cyclists.

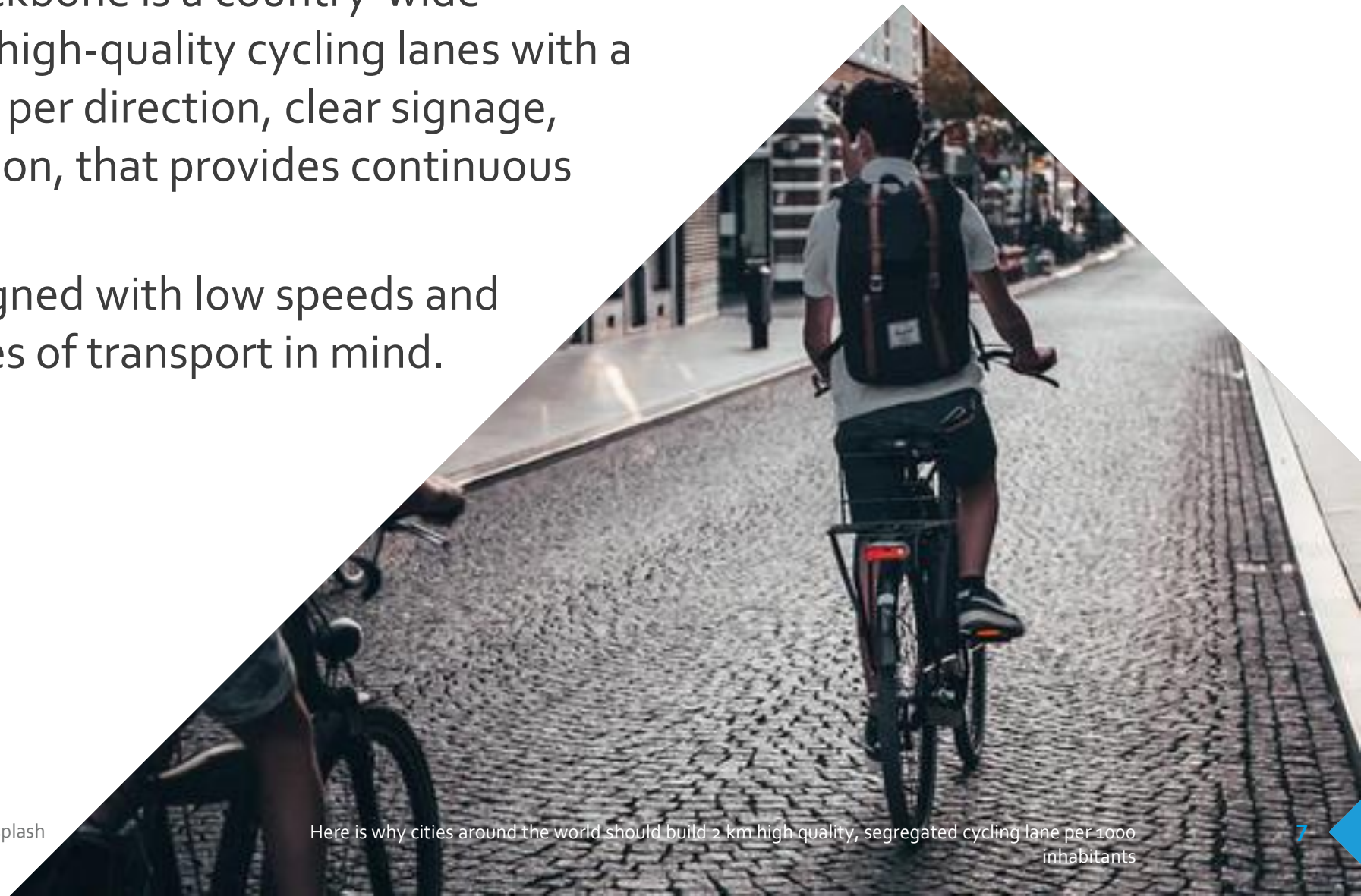


Let's take the best as example:
The **Netherlands**.

Some **35,000 km** of **cycle-track** has been **physically segregated** from motor traffic, equal to a quarter of the country's entire 140,000 km road network; this enables an incredible high cycling modal share.

Quality counts: The backbone is a country-wide network of segregated, high-quality cycling lanes with a minimum width of 2.5m per direction, clear signage, weatherproof construction, that provides continuous connections.

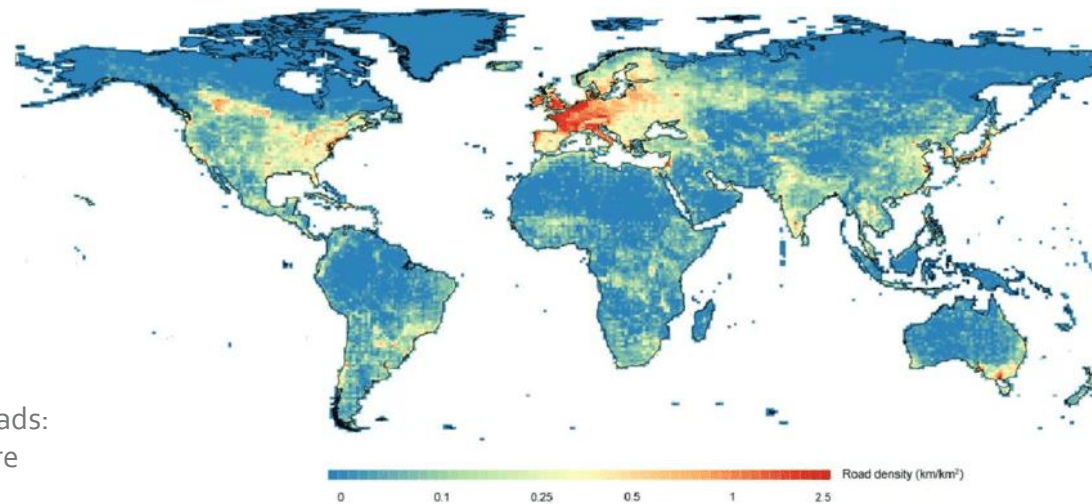
Smaller streets are designed with low speeds and participation of all modes of transport in mind.



The Netherlands cycling backbone is a network of **segregated high quality cycling lanes**. To achieve a quality network such as the Netherlands', governments should build roughly **2km of segregated high quality cycling lanes per 1000 inhabitants**. This cycling quality indicator obviously does depend on local topography and population density.

A global high quality cycling lane network enabling high quality of life and a 1.5°C compatible transport sector is possible. Governments worldwide should aim to set up **annual targets & budgets for segregated high-quality cycling lanes** – aiming at 2km per 1000 inhabitants.

Do you think 16 million km is an exaggerated figure? Figures for road networks vary widely, the 64 million km from Wikipedia seem reasonable. Why should the most sustainable mode of transport (cycling) get less?



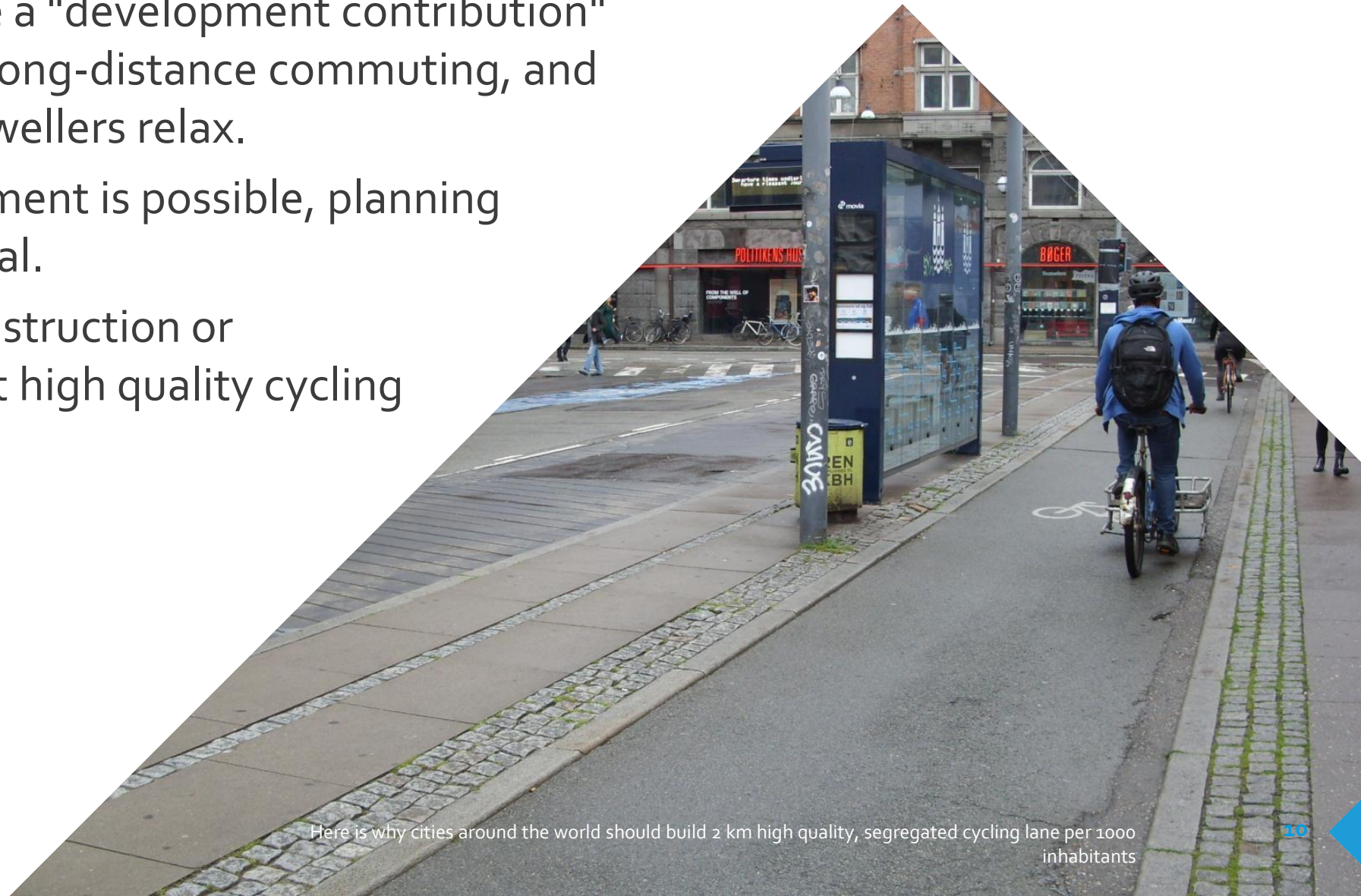
Road density (km km²) per 100 km
3 100 km grid cell

IMG Source: Global exposure of carnivores to roads:
Exposure of carnivores to roads - Scientific Figure
on ResearchGate.

Available from: https://www.researchgate.net/figure/Road-density-km-km-22-per-100-km-3-100-km-grid-cell-We-intersected-the-global-road_fig1_312961184 [accessed 10 Jun, 2021]

Further considerations:

- Large cities can make a "development contribution" to the hinterland for long-distance commuting, and to areas where city dwellers relax.
- Incremental development is possible, planning should be multi-annual.
- No new road/trail construction or rehabilitation without high quality cycling infrastructure.



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