

The E-Bike City as a Radical Shift Towards Zero-Emission Transport: Sustainable? Equitable? Desirable?

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ABSTRACT

Decarbonization, growing urban population and equity issues are urgent challenges of urban planning. However, present transport policy is caught in a course that is unlikely to address them sufficiently within the available time frame. We argue that a stronger emphasis is needed on behavior changes towards lifestyles, activities and modes that are inherently sustainable. This paper presents a transformative vision aimed at such a path by prioritizing a massive use of e-bikes and exploiting their potentials to enhance cycling. Its core pillar is making cycling more attractive and discouraging driving by reallocating ~50% of road space to protected infrastructure. It is expected to contribute strongly towards decarbonization and help growing urban populations with increased transport capacity. However, changing generalized cost of travel across different distances also alters spatial patterns of accessibility, as well as the resulting structures of equity. While city residents travelling over short distances will gain, suburban commuters currently using cars will likely face accessibility losses. But using a common framework of transport justice, we find that the expected accessibility changes are just and may even drive land-use changes favoring more equity in the long term. Finally, we show several research avenues arising from the E-Bike City and invite experts in urban transport to engage in a creative discourse about possible future visions for transport policies in cities.