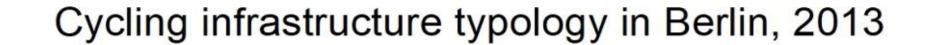
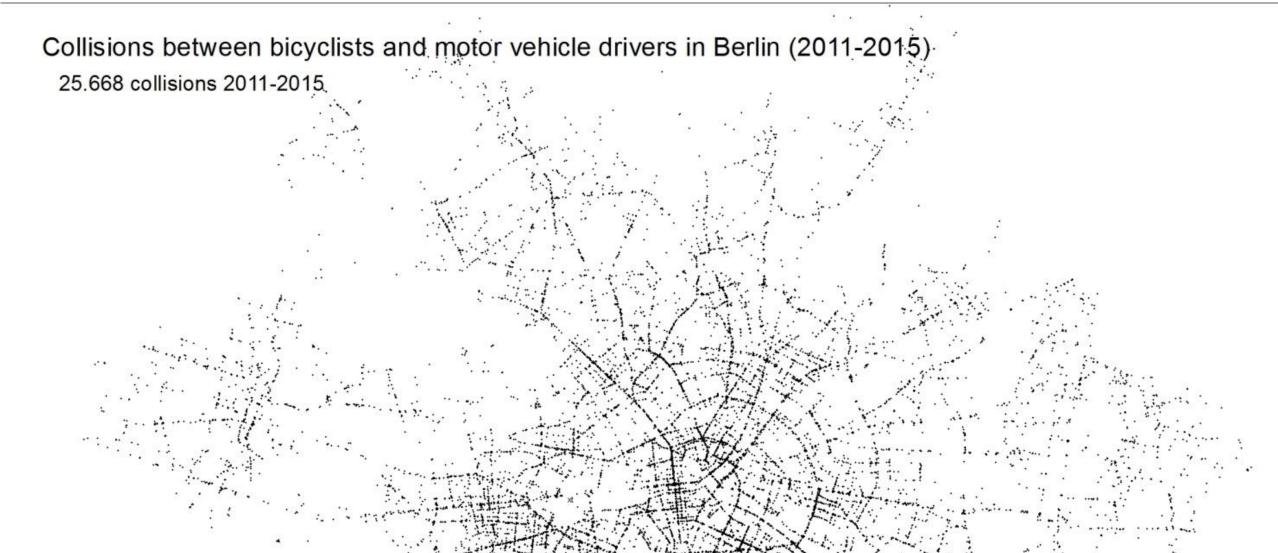
Interrelating Bikeway Typology and Collisions Involving Motorized Vehicles and **Bicycles in Berlin.**

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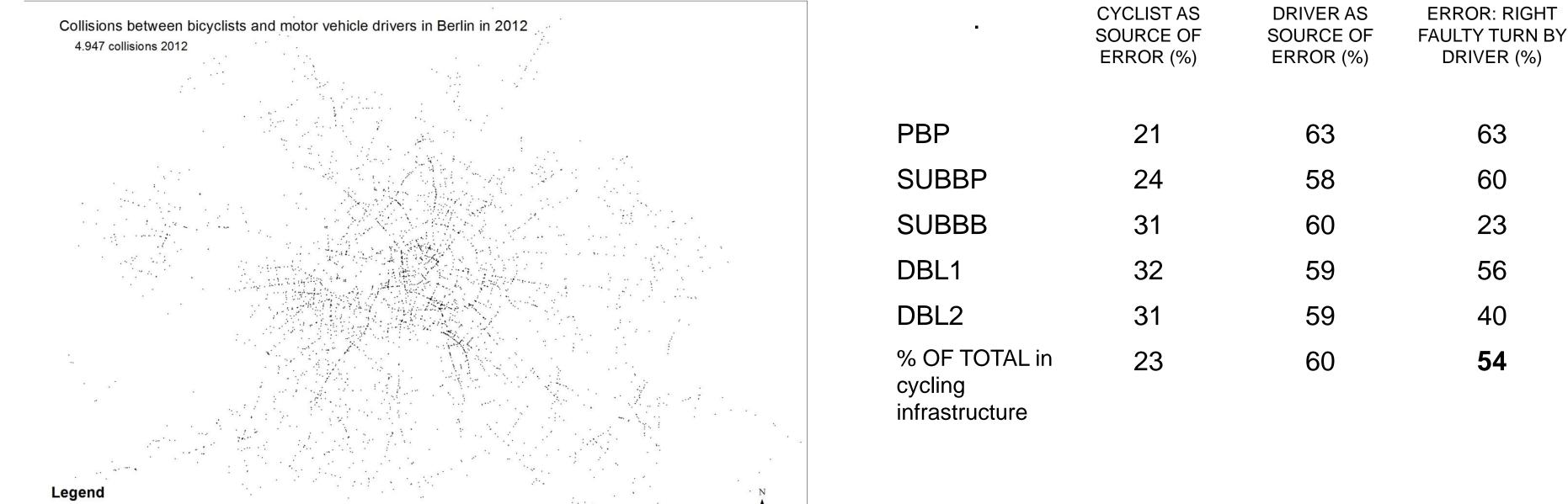






Kartengestaltung: Quentin Jammot-Paillet

Every day, 1.4 million trips are made by bicycle in Berlin. In 2008, bicycle represented 13% of modal share in the city, and since then, these amount of cycling trips have been increasing by 3% yearly. In 2016, there were 17 fatalities on cyclist's side, in contrast with the 10 registered in 2015. Once suggests that street infrastructure literature influences injury and crash risk to cyclists, this paper provides initial steps of a methodology, analytical framework and preliminary conclusions on the Berlin case. We used a dataset provided by the Police of Berlin that encompasses 25.668 geos positioned collisions involving bicycles and motorized vehicles between 2011 and 2015, and the GIS shape files of city's bikeway typology in 2013 provided by the Senate of Berlin. Six typologies were investigated for interrelation: (1) Protected Bicycle Path (PBP), (2) Shared Use Between Bicyclists and Pedestrians (SUBBP), (3) Shared use Between Bicycles and Buses (SUBBB), (4) Dedicated Bicycle Lane 1 (DBL1), (5) Dedicated Bicycle Lane 2 (DBL2), (6) No Bicycle Infrastructure (NBI) adjacent to motorized lanes. Results show that in only 197 intersections, 72% of fatalities and 65% of severe injuries of cyclists happened. Observing all collisions in streets that have any adjacent bikeway type, drivers are pointed as the source of error that influenced the crash in 60%, while cyclists account for 23%. When the error is the faulty turning right in streets without any type of bikeway (NBI), drivers account for 53 % and cyclists for 36%. Finally, we interrelated the observed crashes with typologies, resulting in the density of crashes by cycling infrastructure type. This study may provide insights







into new bicycle road facilities design and building, prior planning for those segments with higher densities.

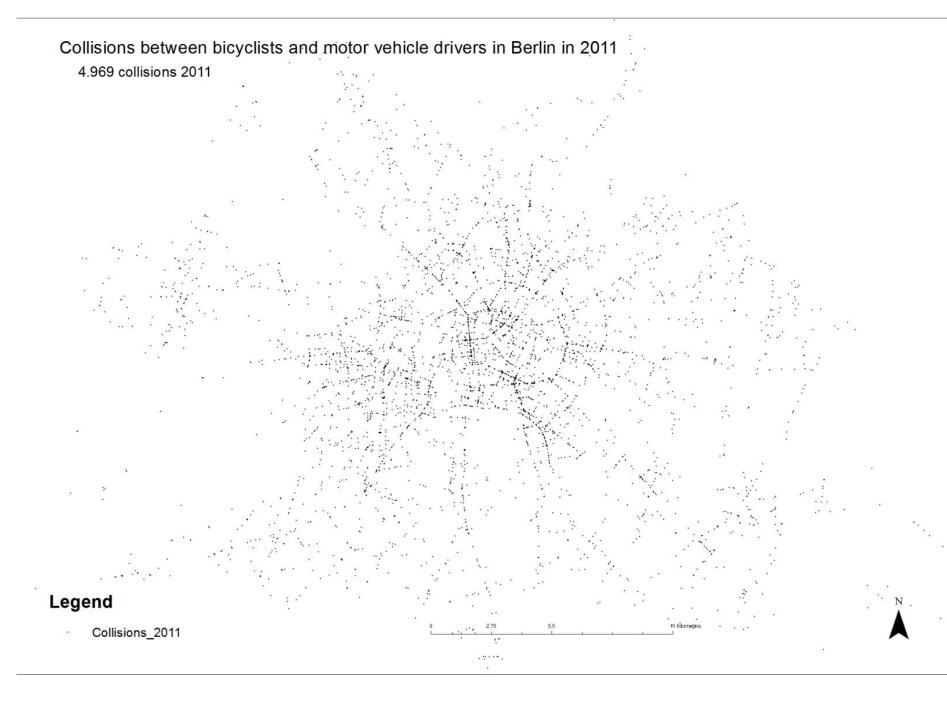


Fig 5. Dedicated Bicycle Lane 2 (DBL2)

Fig.6 No bicycle infrastructure (NBI)





DRIVER AND

CYCLIST AS

SOURCE (%)

16

18

8

10

17