

Support information for

**High spatiotemporal resolution traffic CO₂ emission maps
derived from Floating Car Data (FCD) for 20 European cities
(2023)**

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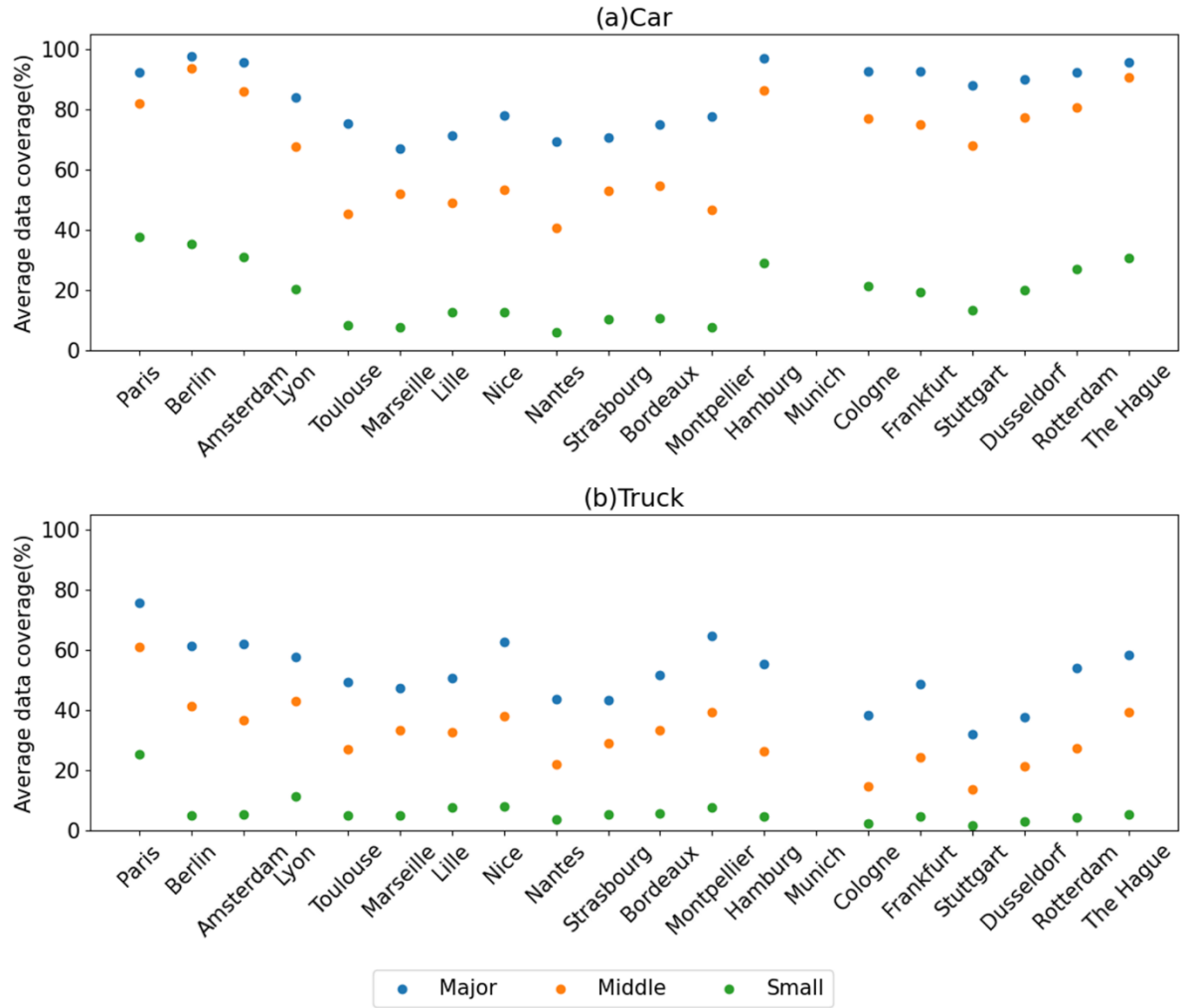


Figure S1: FCD data coverage in 20 cities

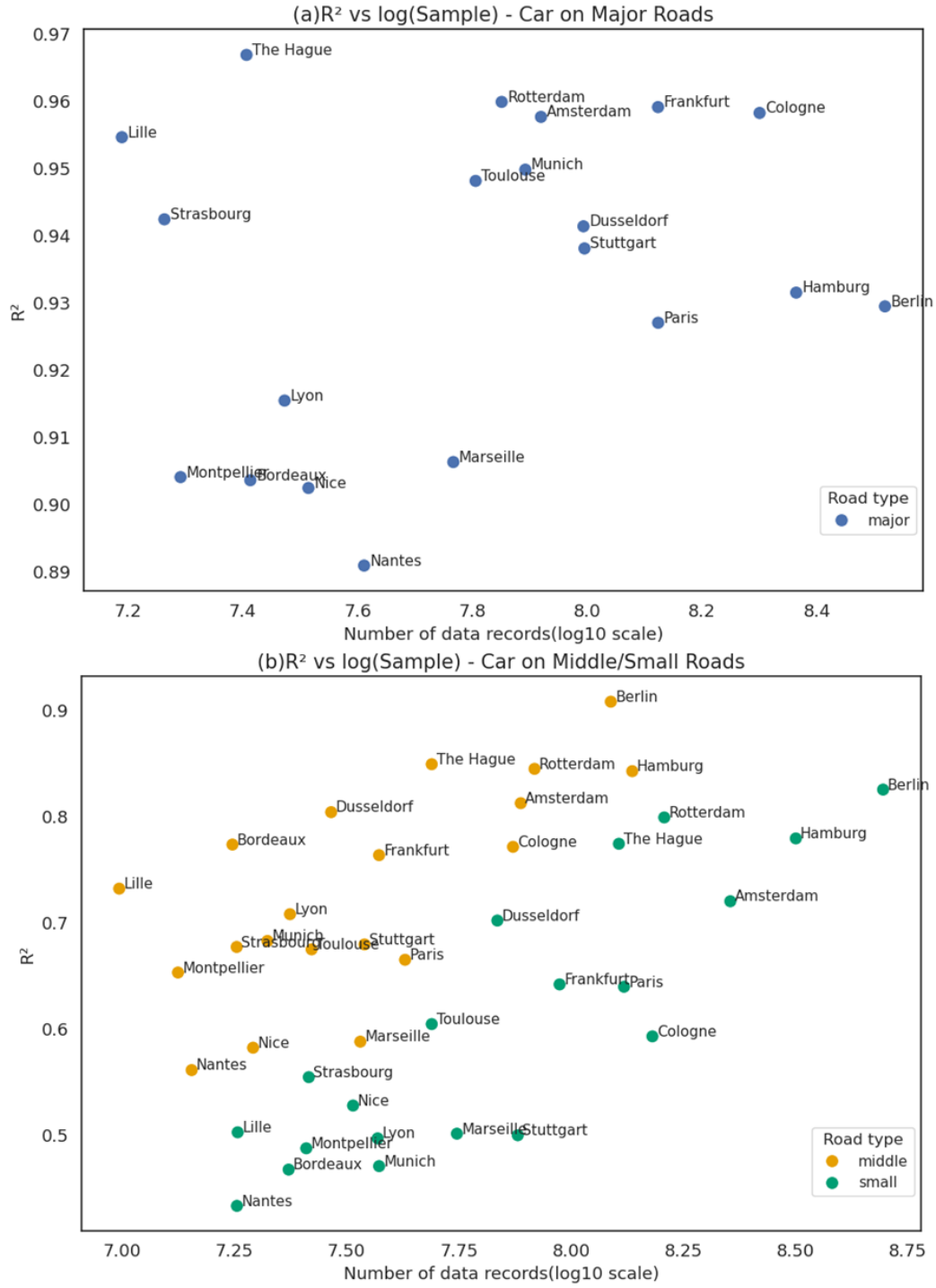


Figure S2: Training R^2 of Car counts in 20 cities. (a) and (b) shows results in major roads and middle/small roads, respectively.

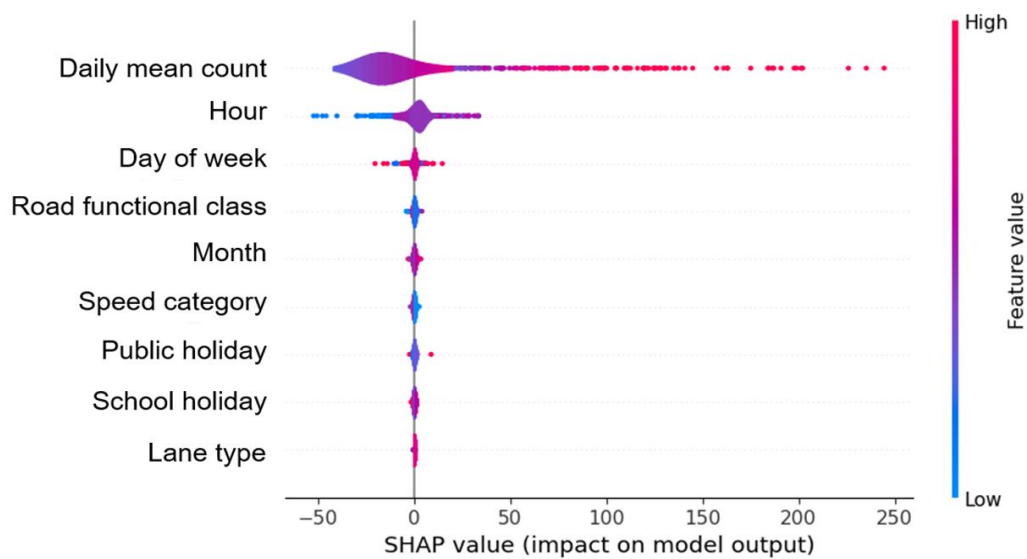


Figure S3: SHAP summary plot

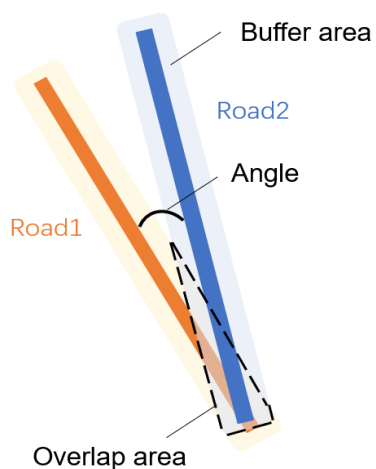


Figure S4: Schematic of matching roads between Opendata and FCD in Paris

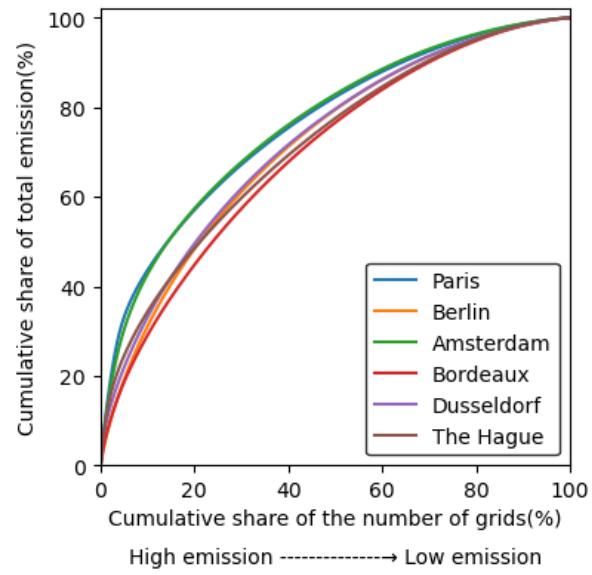


Figure S5: Cumulative curve of grids' emissions in six cities

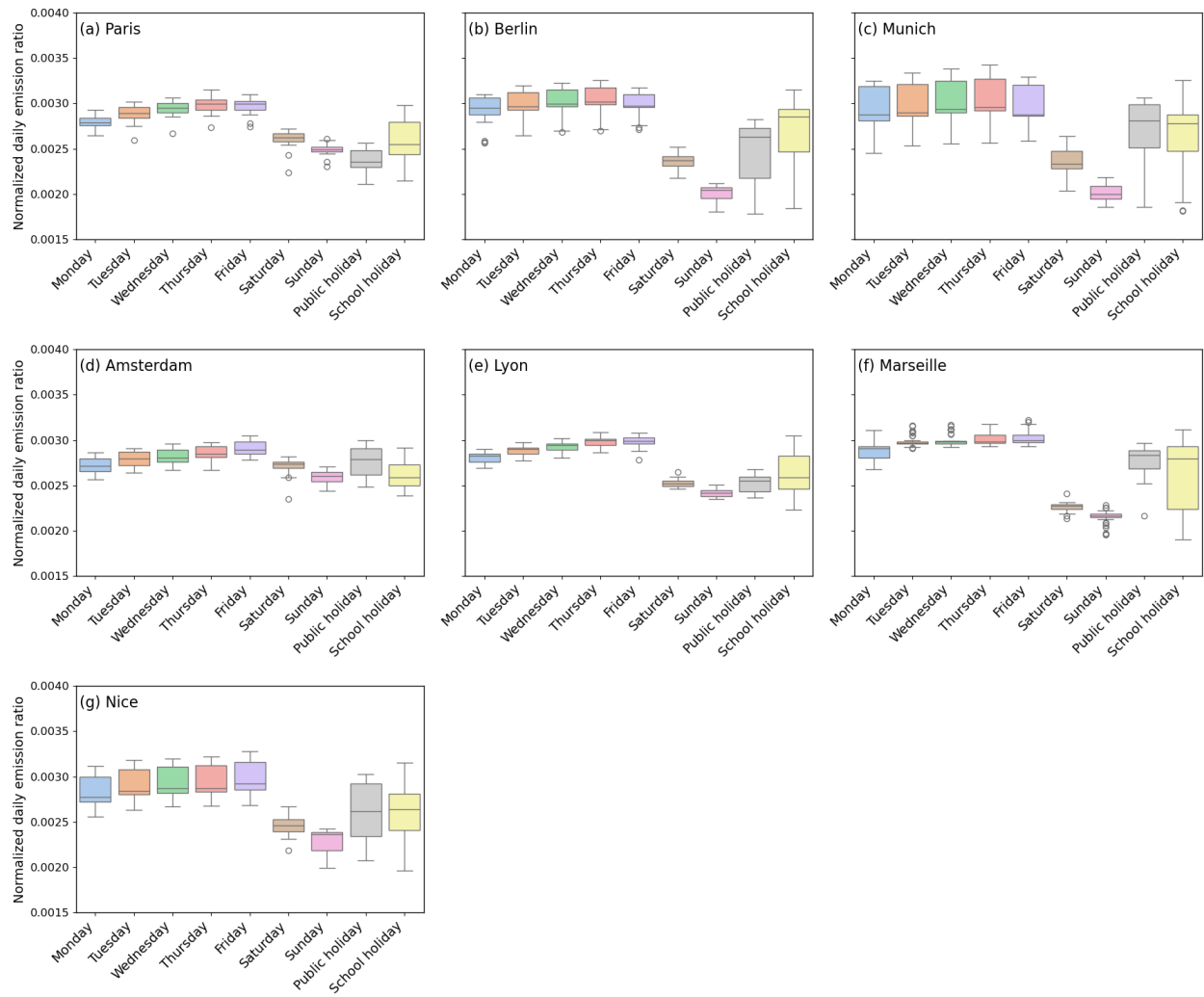


Figure S6: Weekly patterns for the seven cities

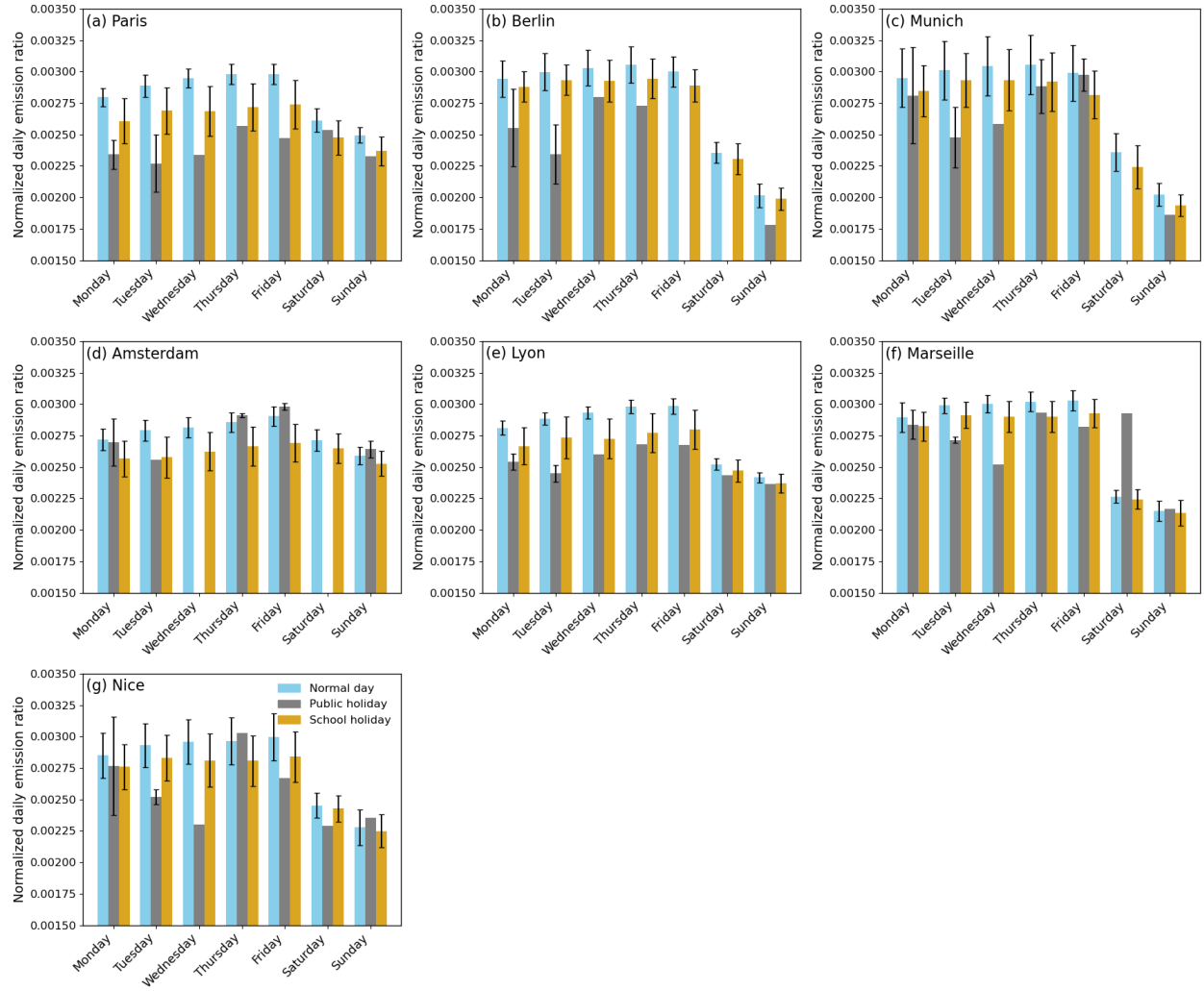


Figure S7: Variations in normalized daily traffic-related CO₂ emissions by weekday and day type in seven cities.

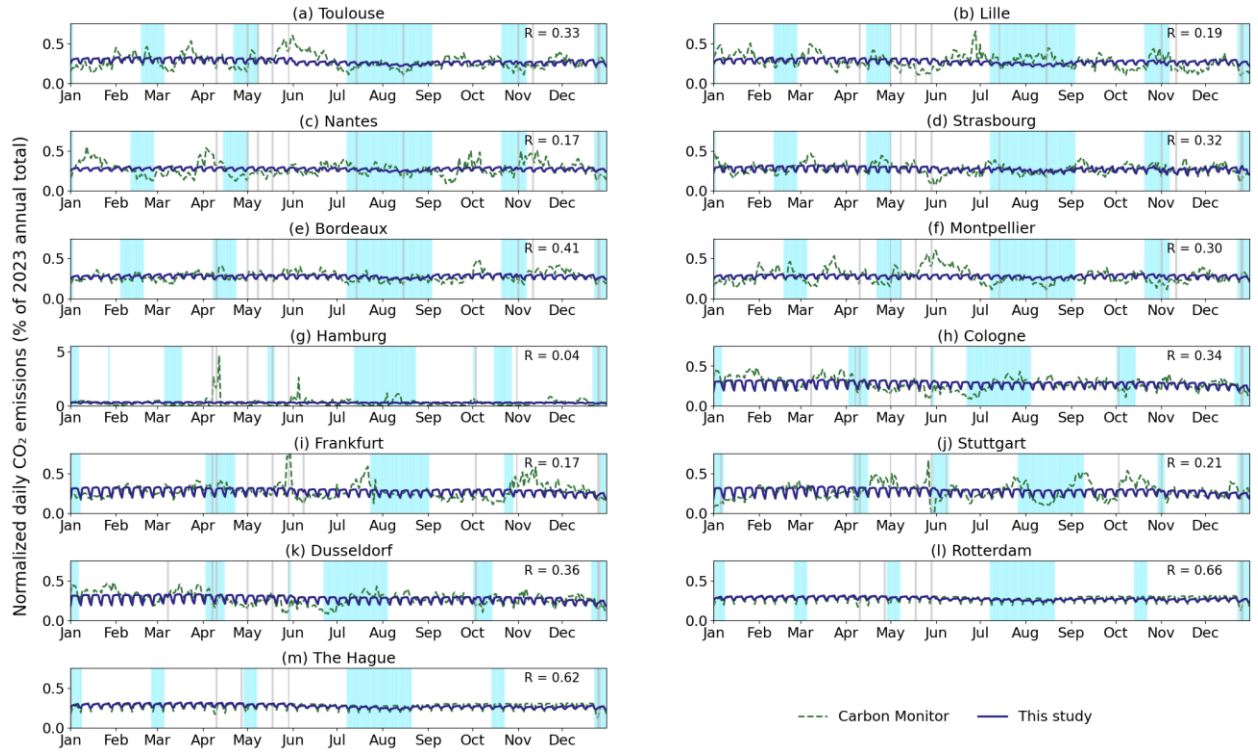


Figure S8: Normalized daily CO₂ emission of 13 cities in 2023. Y-axis represents each day's CO₂ emissions divided by the city's total emissions in 2023. The light blue and grey shades represent school holidays and public holidays, respectively. The y-axis represents each day's CO₂ emissions divided by the city's total emissions in 2023.