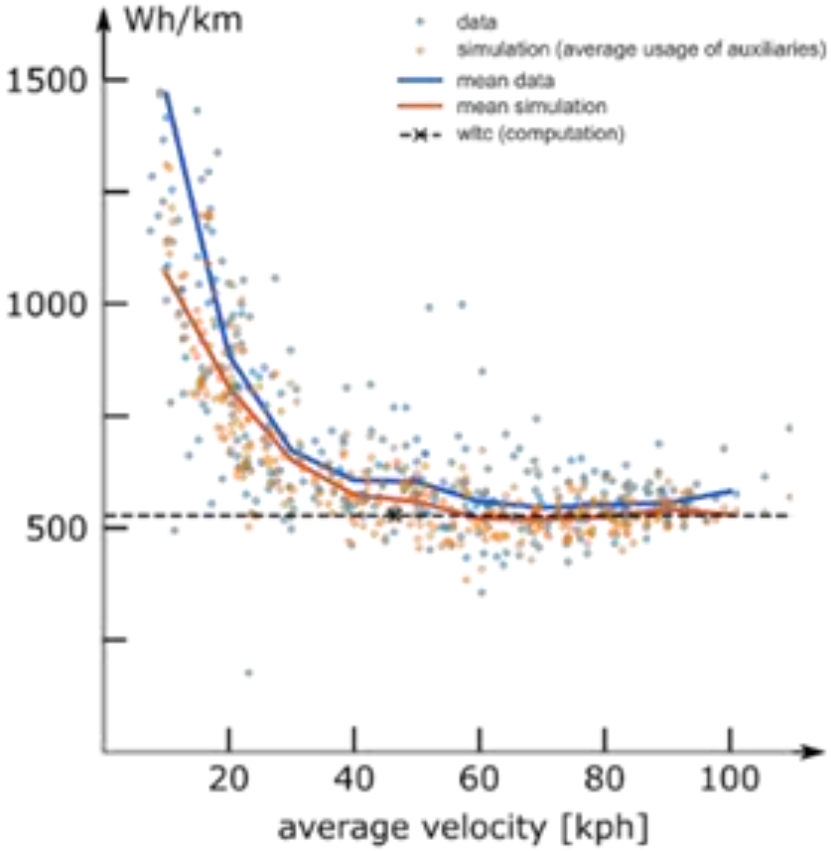
Capacity Area A3 Topic 3.2 Deliverable 1 / Milestone 1

Documentation on extended framework

The simulation approach, its calibration and application have been documented in the final re-port of the project ESMOBIL-RED and a paper currently under review at Applied Energy.

Extended simulation framework for optimal design of vehicles available including thermal considerations for future mobility demand is available

Based on data form the now completed ESMOBIL-RED project, we implemented (as a Python package) our three-stage procedure to compute the energy demand of any passenger car using any common propulsion technology (combustion, electric, hybrid-electric or fuel-cell) and accounting for sources of increased demand under real-world conditions (including heating, ventilation and air-conditioning).



Simulated and measured real-world energy demand as a function of average trip velocity, compared to the norm value obtained in the WLTP. Source: Küng et al.