Technical University of Munich TUM School of Engineering and Design Institute of Automotive Technology



Real-World Labs

Charging and Operations

Testing Opportunities –



Vehicle fleet & chargers

- Four dedicated EVs incl. full data access
- AC & DC chargers up to 350kW on site incl. OCPP smart charging



CoSES microgrid lab

- Represents five buildings
- Quadruple sector coupling

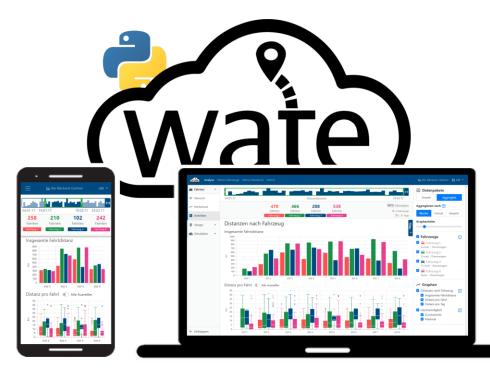
In-house dynamometer



Extended in-situ measurement setups

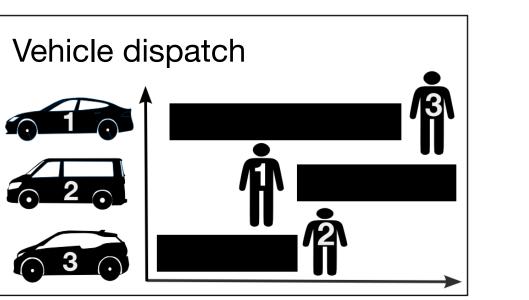
- max. 250 km/h & 280 kW
- Pedal robot for cycle tests

Shaping the transition -



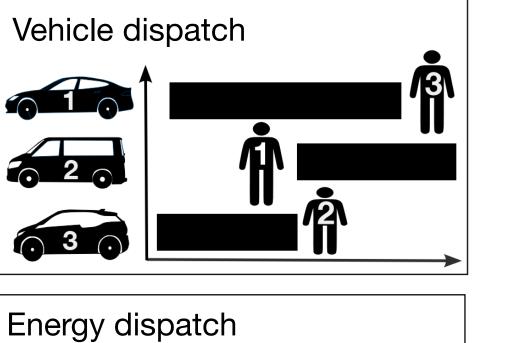


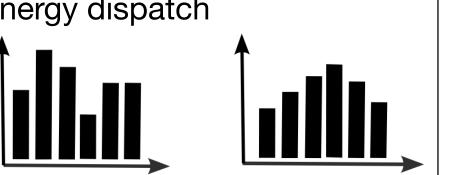
- Fleet size & composition for current moblity patterns
- Charging infrastructure



Automated fleet dispatch for commercial applications

- Most efficient order fulfilment
 - Minimum energy cost





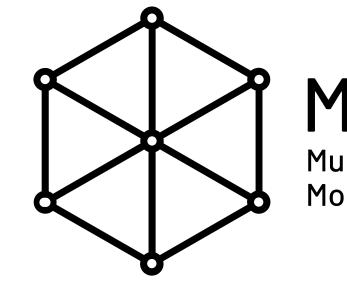
-Showcasing innovation -

ComfficientShare: Car sharing made appealing

- District-level availability for high user comfort
- Finding the balance between large and small scale
 - Insights on transitional behavor & battery aging
- Clever charging management minimizing electrical load







MCube Munich Cluster for the Future of Mobility in Metropolitan Regions

Multidisciplinary cluster on Munich's urban mobility

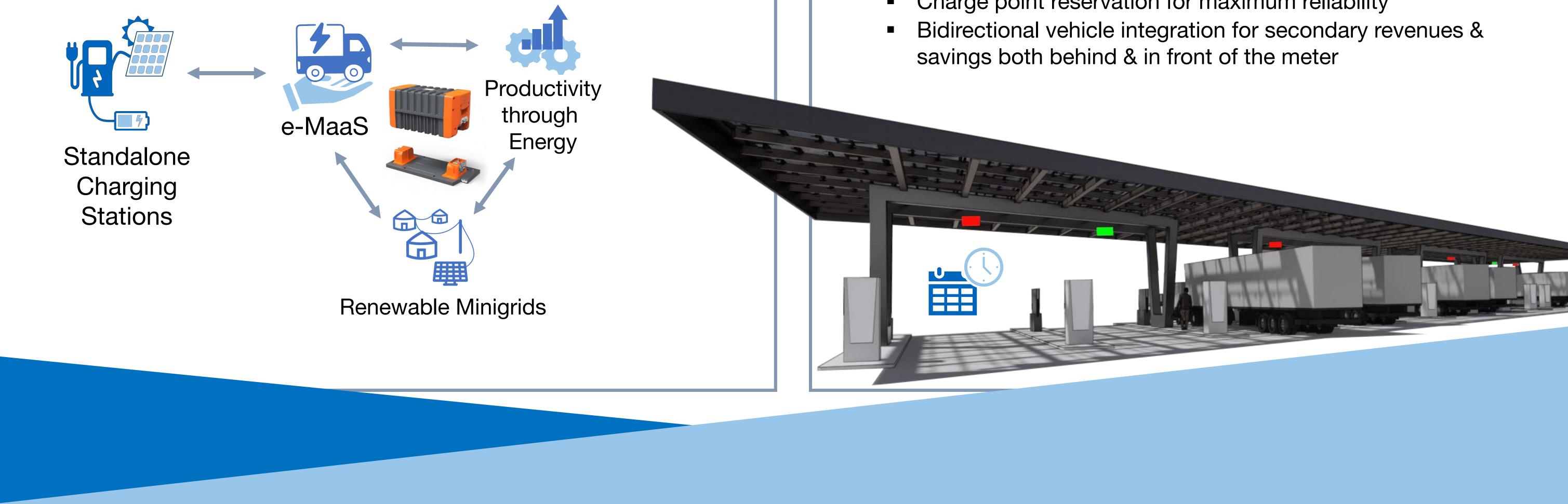
Electrify & Automate for quality of time, space & air

Solving global challenges —



aCar & SolChargE: Unlocking the joint potential of e-mobility and rural electrification in Africa

- Integration of EVs in agricultural business
- Optimum share & design of charging solutions
- Modular battery systems for cost-efficiency





NEFTON & SPIRIT-E: Enabling battery electric HDVs

- Megawatt Charging for long-haul logistics
- "Shared Hub" pilot accelerating charger scale-up
- Charge point reservation for maximum reliability