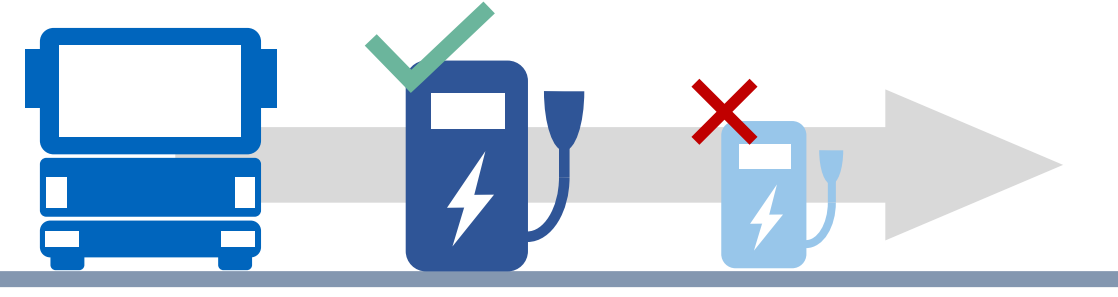


Smart Charging Management

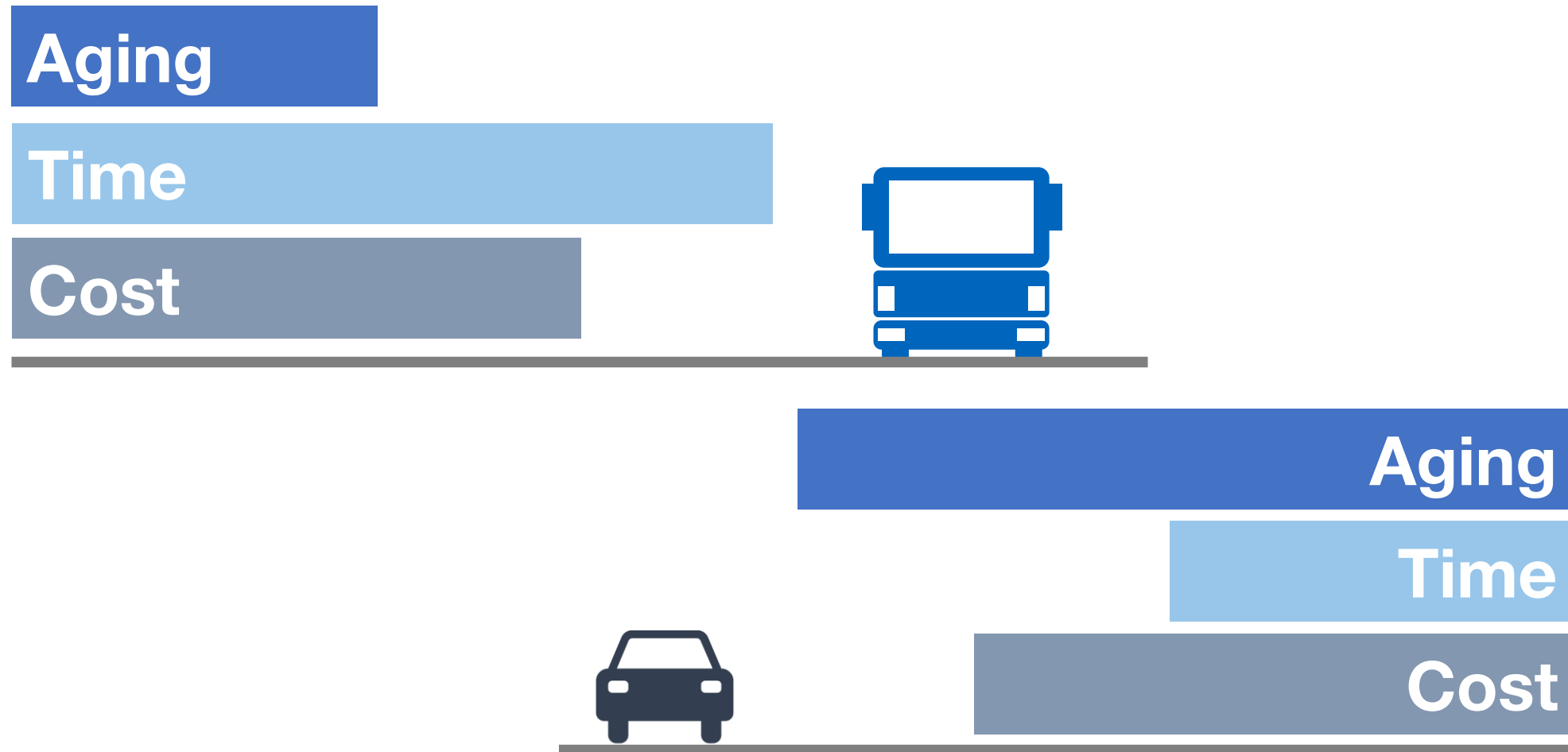
Charging & Operations



On Route

Technology

- ▶ **Connected Energy Management**
- ▶ **Dynamic Charging Stop Strategies**



♥ User Satisfaction

- ▶ **User Profile**
 - Individual weighted strategies
 - Individual PoI selection
- ▶ **Reservation and Queueing**
 - Minimal waiting time
 - Less costs due to plannability for grid operators

€ Business Models

- ▶ **Connected Services**
- ▶ **CPO and MSP Contracts**



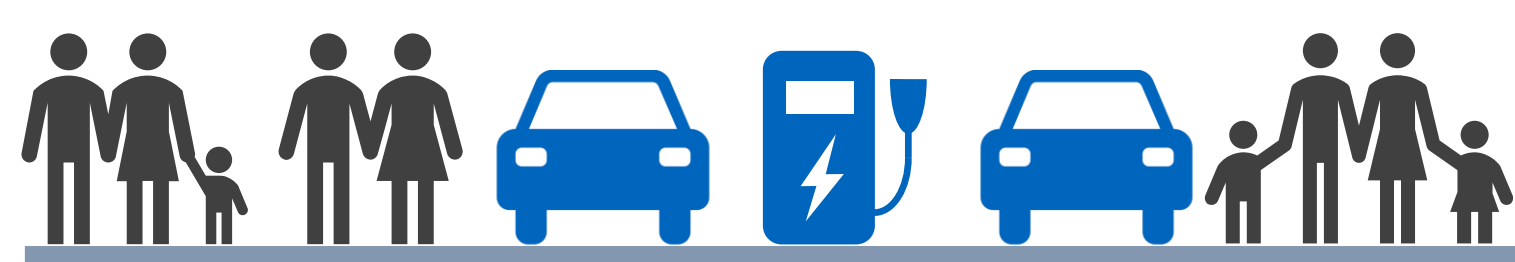
Home Based

Shared Private Infrastructure

- ▶ **Optimized utilization of infrastructure**
 - Innovative concepts in terms of space and time



- ▶ **Shared private charging infrastructure**
 - Maximum utilization of charging points
 - Third party vehicle charging



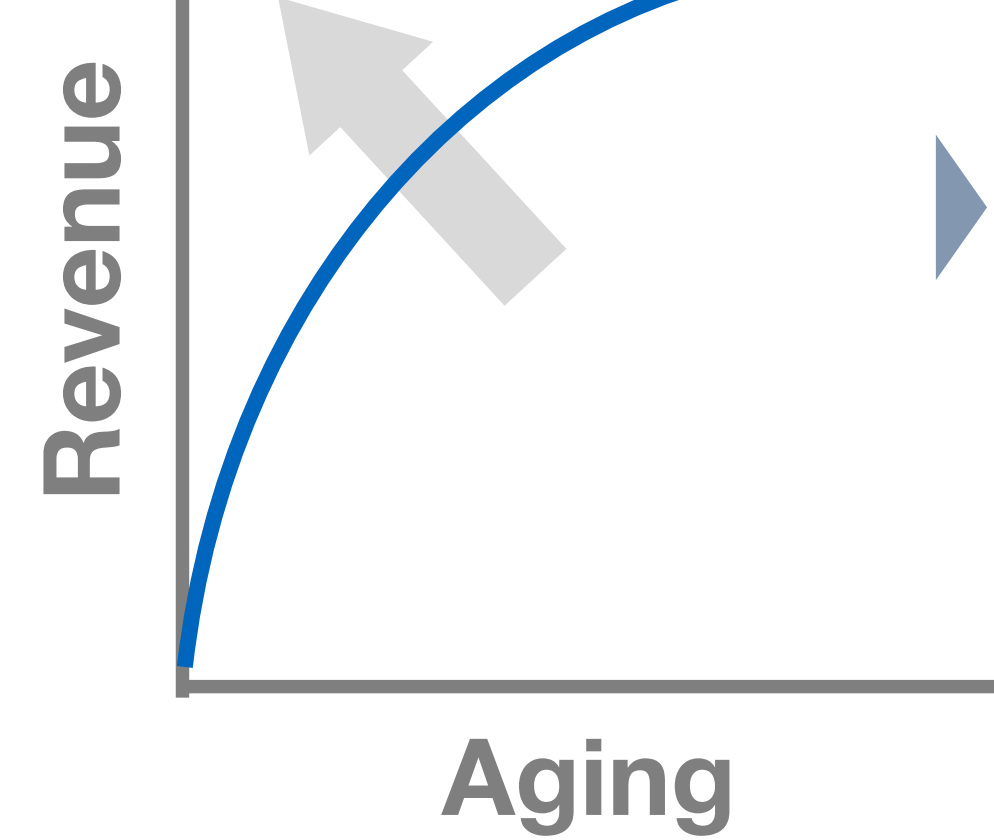
- ▶ **Charging in context of carsharing**
 - Electrified carsharing for residential districts
 - Increased efficiency and capacity utilization

Energy Management

- ▶ **Coordinated Charging & V2B**
 - Charging power prediction
 - Intelligent charging of vehicle fleets
 - Enable peak shaving

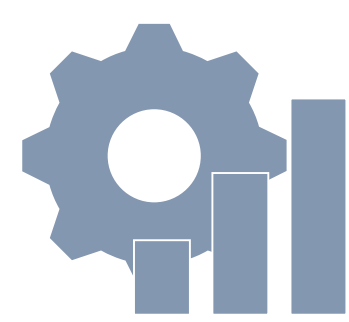
- ▶ **V2X Use-Cases**
 - Reduce energy costs
 - Grid serving

- ▶ **Aging Mitigation**
 - Optimal DoD cycle



Scale-Up

- ▶ **Business models**
 - Investigation of revenue potentials
 - Optimization of charging strategies to reduce TCO
 - Several new roles as MSP, CPO or Energy Provider



- ▶ **Simulation**
 - Scale-up to larger energy systems
 - Definition of infrastructure requirements

