



The development of charging infrastructures for electric mobility in urban areas

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More than 80% of daily car drives are below 70km -
e-mobility can cover most of the urban mobility needs

Fleets



Delivery services

Social services

Company fleets

Municipal fleets

- Known routes and driving time (limited operational range)
- Charging on company site

Car Share / Rent



Municipal / inner-city mobility services

Rental service business

- as part of municipal traffic concept
- Charging on parking / at collection point

- Charging at collection point / on public accessible parking

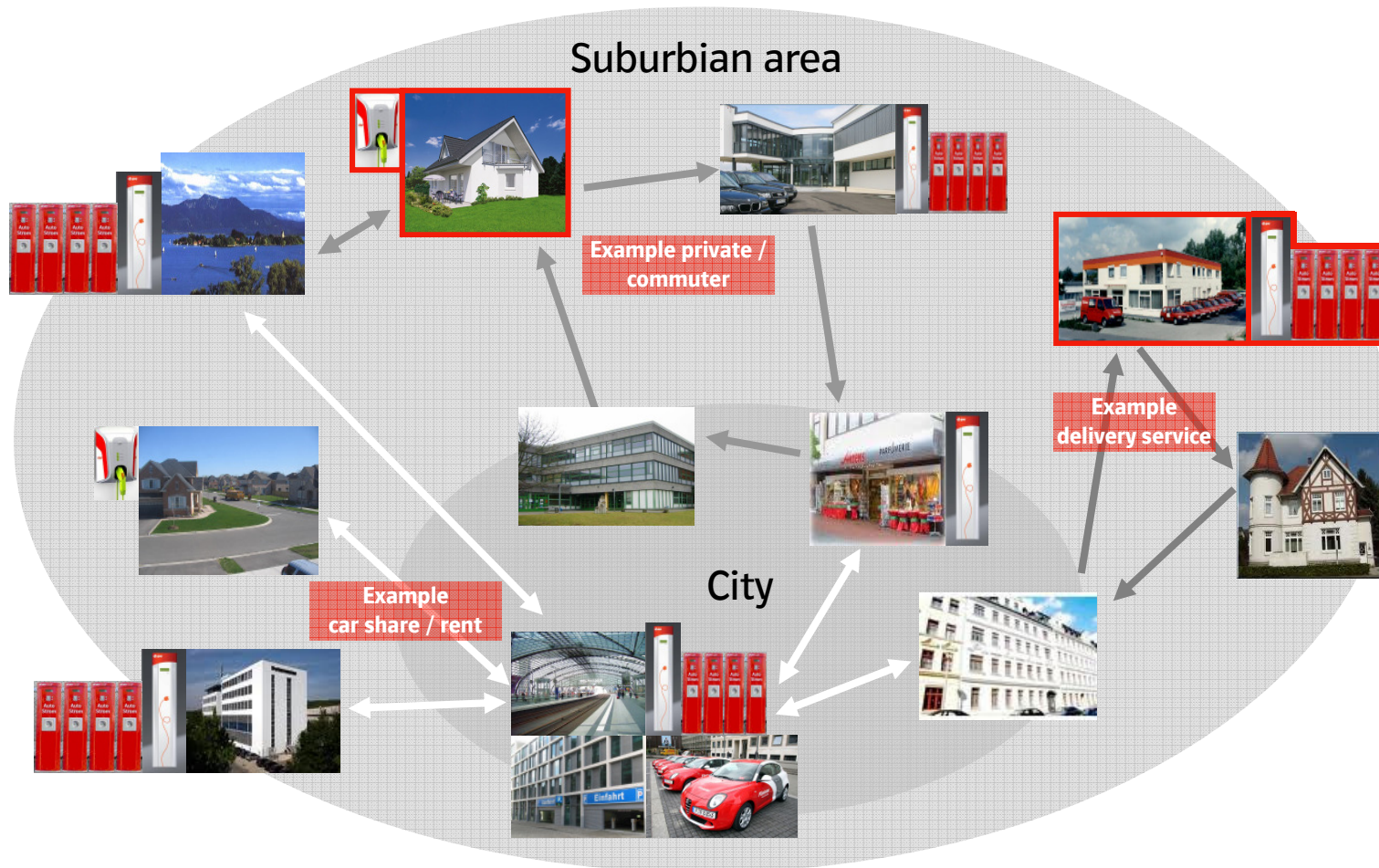
Private use



"2nd car use" / commuter drives

- Charging at home / at worksite / on public accessible parking

Charging is parking: understand the driving routes of e-vehicles



Home-charging: Safety and Convenience for the customer

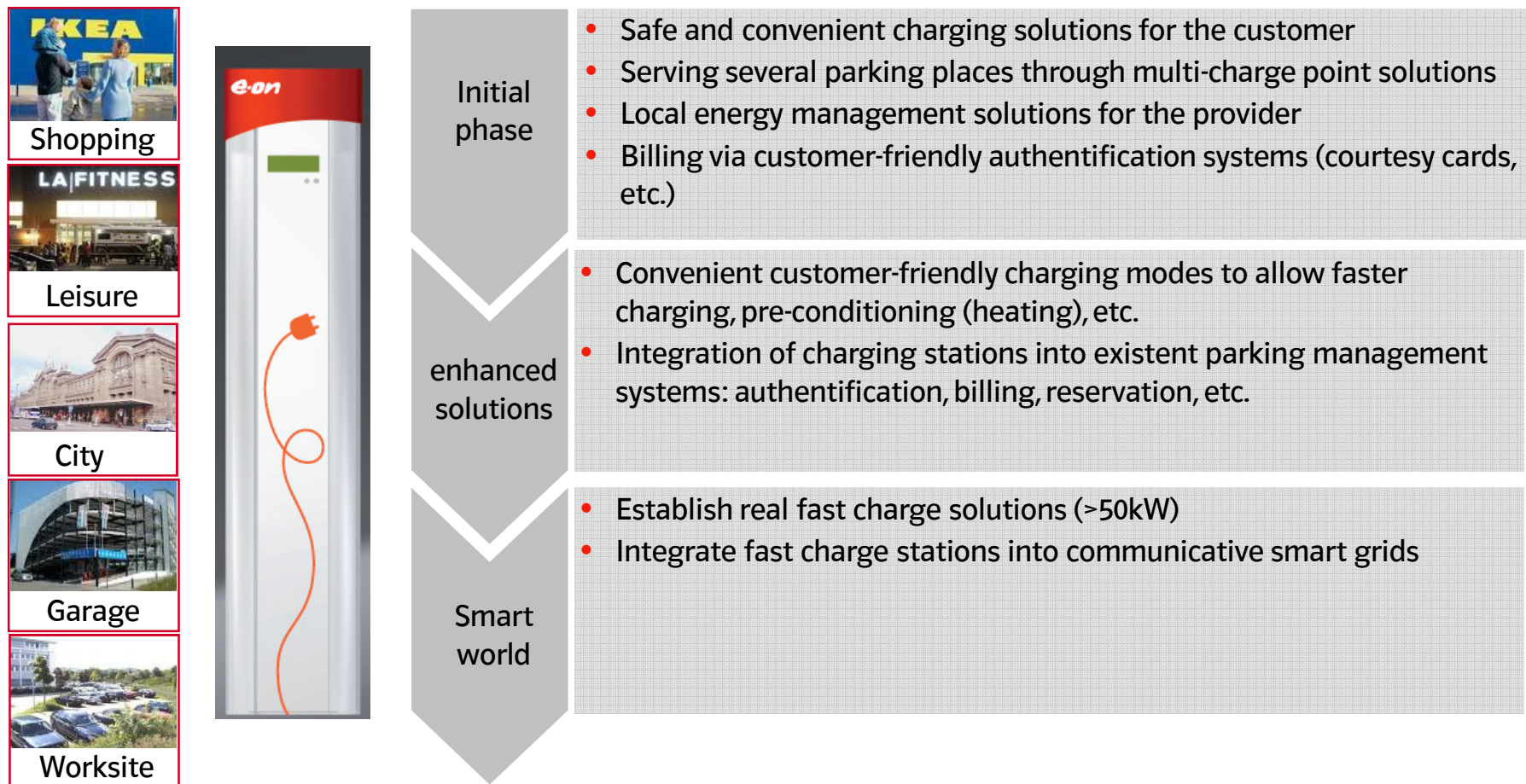


- Safe and convenient charging solutions
- Time-dependent green power tariffs for attractive over-night charging

- Use of intelligent algorithms for grid-efficient charge control
- Optimized pre-conditioning of car (e.g. heating)

- Establish bi-directional smart connection to the grid
- Allow for multiple V2Grid- and V2Home-appliances

Semi-public and public charging: Customized solutions for individual charging concepts



Driving green: E-Mobility powered by renewable energies



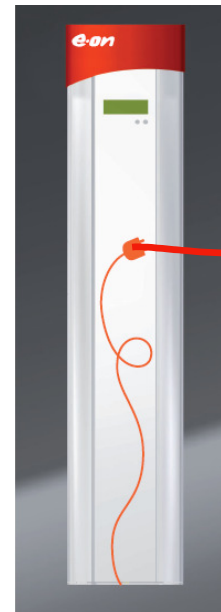
Home charging:

- Green power products with time components
- Charging algorithms for optimized integration of renewable energies
- Home energy management: Combine home-generated solar power with energy demand of e-car



Semi-public and public charging:

- Green power products with time components
- Charging algorithms for optimized integration of renewable energies
- Office / Building energy management: Combine decentral power generation assets with energy demand of e-car fleet
- Future potentials for using fleet car batteries as storages for evening out stochastic wind feed-in



The future of charging: cable-free inductive charging



Optimal use cases on
fix parking grounds,
e.g.

- private garages
 - office parking
 - parking garages
 - Taxi stands
- etc.

convenient & safe!



Thank you for your attention!

For further queries:

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