

cambio Aachen – 25 years carSharing service

our GOAL:
reduce the negative effects of car use through station-based
carSharing

Roland Jahn
cambio Aachen Stadtteilauto CarSharing GmbH

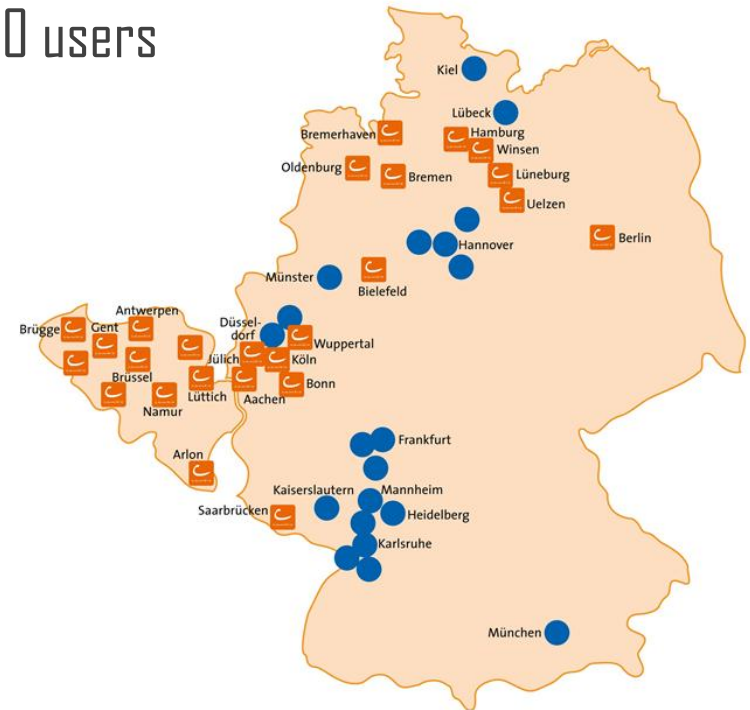
cambio milestones

1990: start as non-profit association: 2 cars, 10 users

2000: foundation of the cambio holding

2015:







- 17 German and 29 Belgian cities
- 1.750 cars, 600 stations, 64.000 user
- via partners 4.000 cars in 188 cities



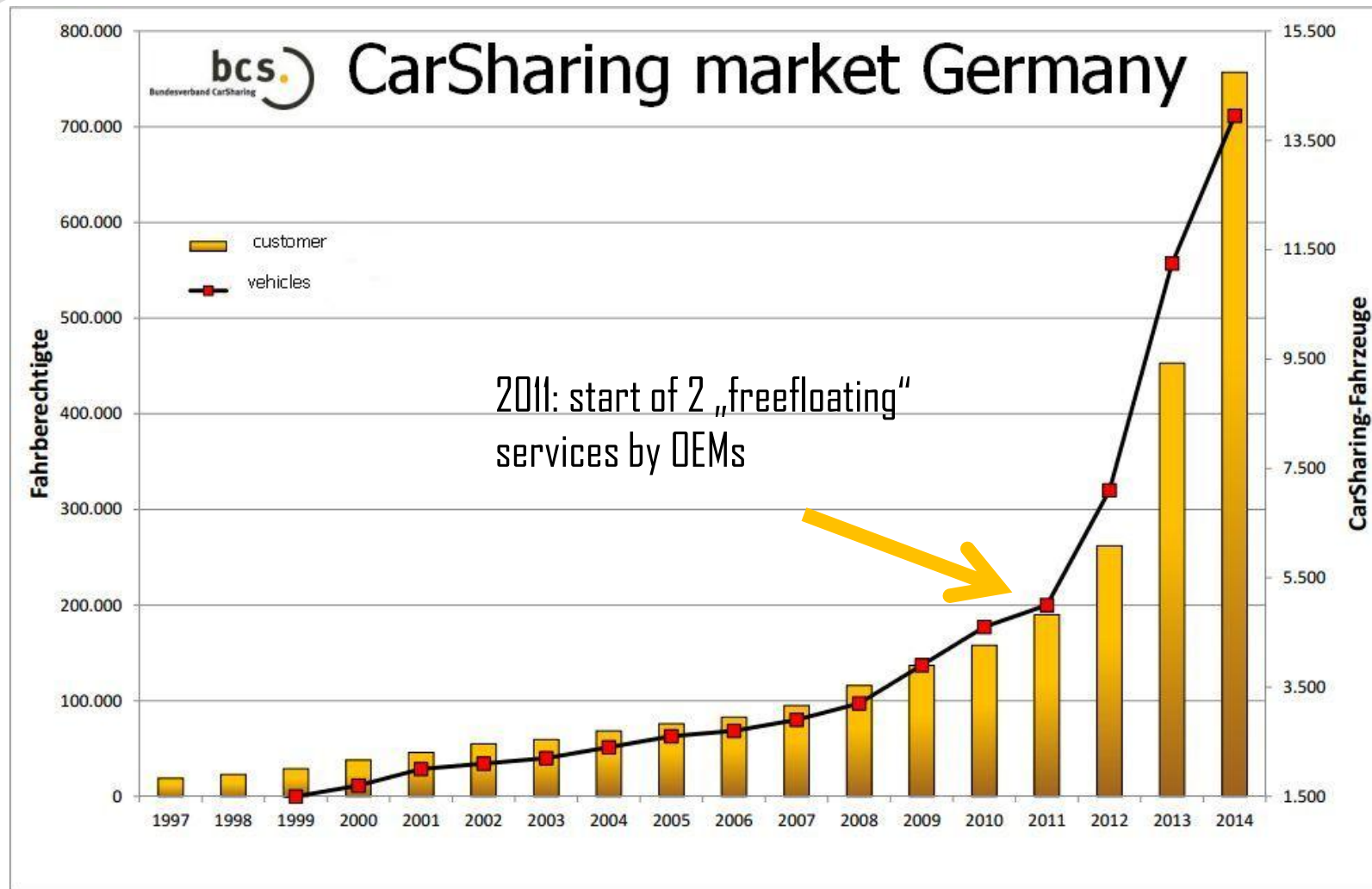
station-based carSharing

- reserved parking spots - no searching for a parking lot
- high predictability: bookings spontaneous or well in advance

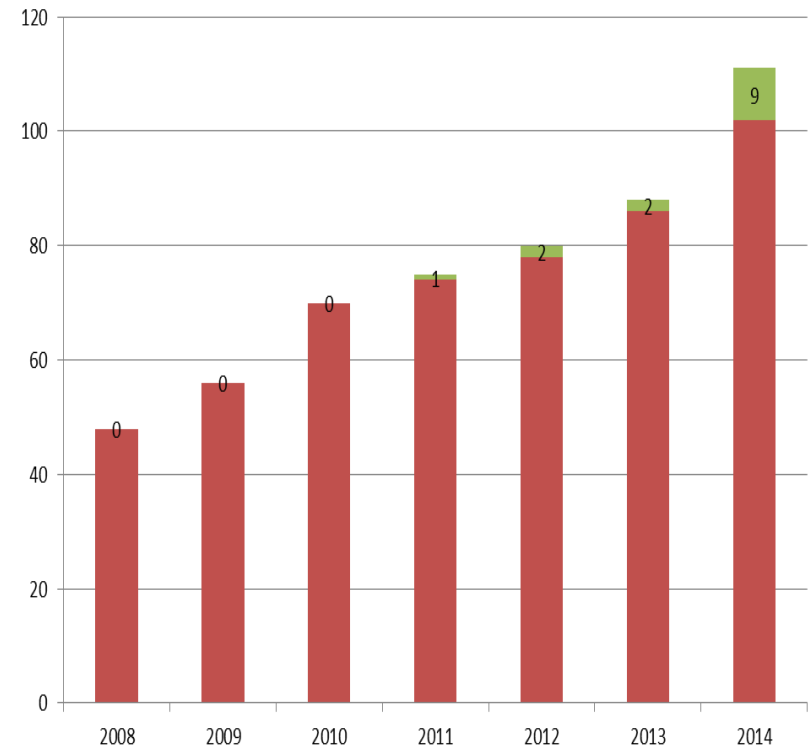
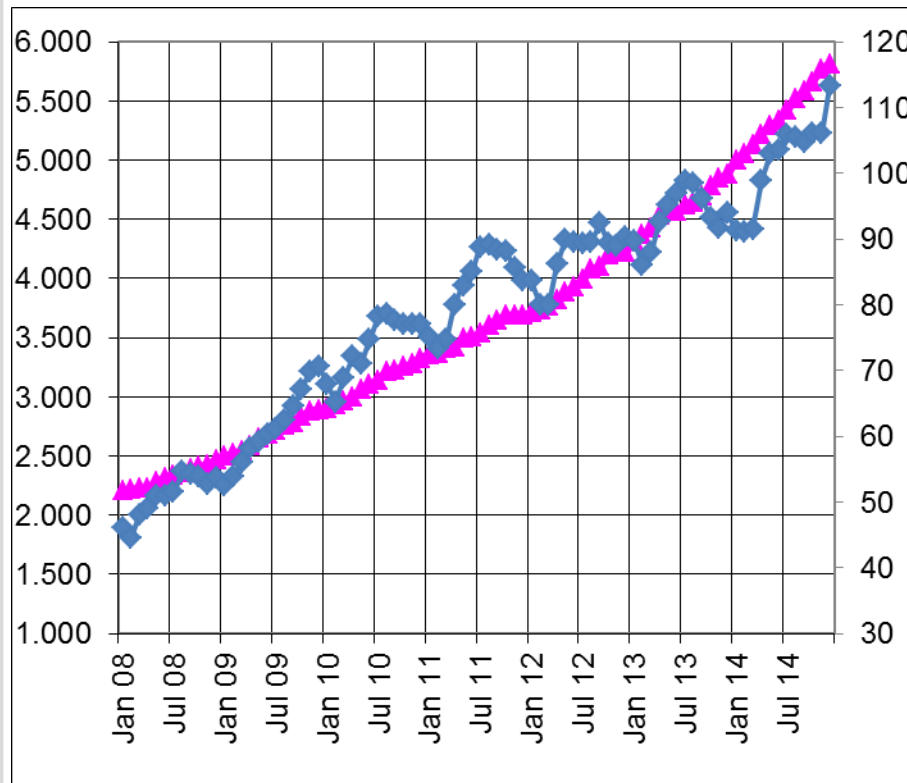


S	 Ford Fiesta 5-türig	 Toyota Yaris Hybrid
M	 Ford Focus 5-türig	 VW Caddy
L	 Transit Transport Cu	 Transit- Bus 'FT300M

- mobility adjusted to the needs of the urban population: the right vehicle model for every purpose



growth of cambio Aachen and use of electric vehicles



why EV's in a carSharing fleet?

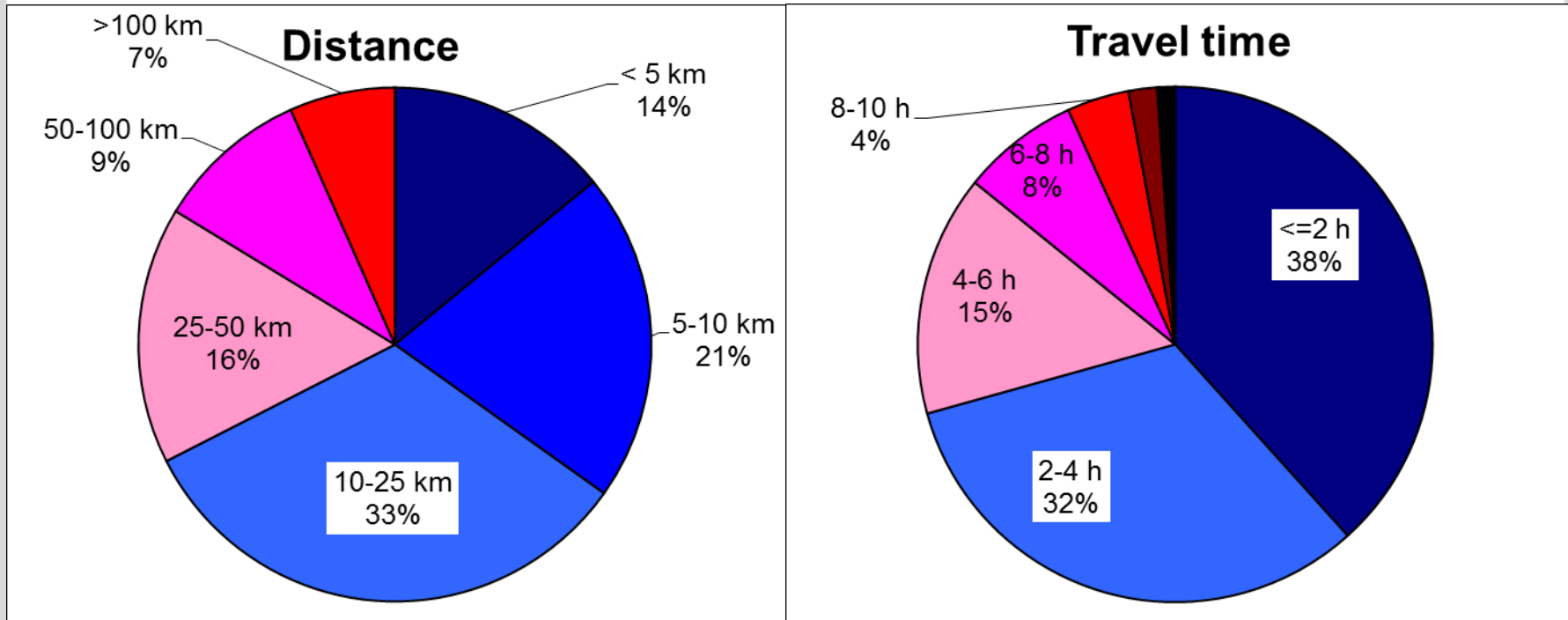
Deficit of EV's

- Low battery capacity
- short range
- High investment costs
- Need of charging device

Attributes of CarSharing trips

- Mostly short distance
- Return to base station
- High utilization

use of carSharing vehicles



obstacles to using EV's

- lack of familiarity with EVs
- handling of the charging cable
- heating often not sufficient for winter operation
- need to specify the desired range
- only small vehicles available
- long-distance trips impossible



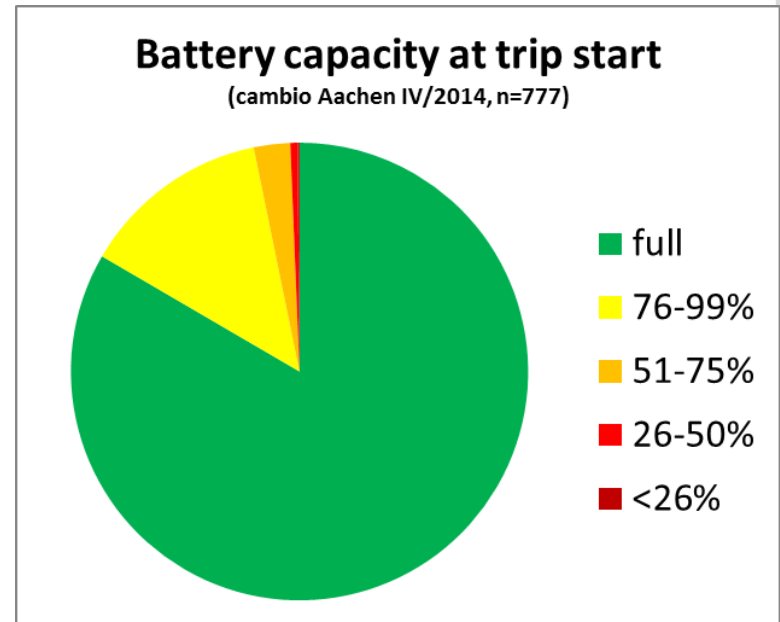
vehicle types used



range 80 ... 120 km
charging time about 5 h
limited suitable for winter

charging strategy

- users are requested to estimate the trip length
- bookable trip length depending on season
- battery charging status monitored permanently
- only 2 breakdowns by too low battery capacity after ~3.000 trips



results

- use of EV's in CarSharing fleet very useful, but demanding
- energy must be produced from renewable energy sources
- public funding necessary
- robust and low-maintenance vehicles
- positive feedback of the customers
- increasing use (approx. 50% of a comparable fuel driven vehicles)
- important topic for cambio's sustainability

thank you for your attention