

Car Sharing – history and present in Budapest

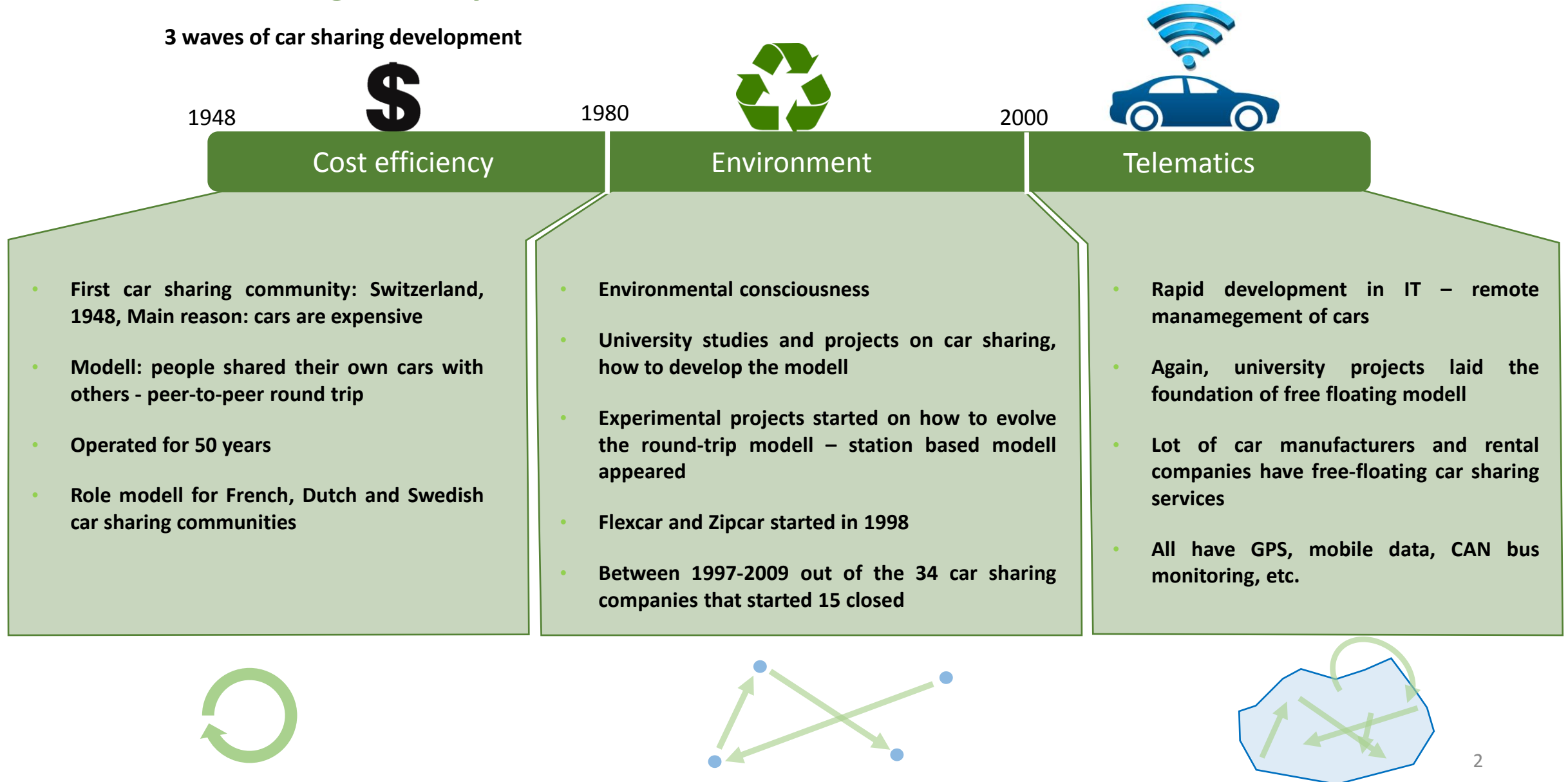


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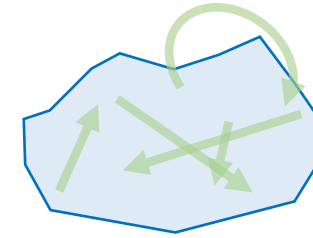
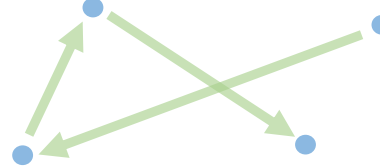
Michaletzky Bálint

Car sharing- history

3 waves of car sharing development



Comparison of modell



Modell	Round Trip	Station based	Free Floating
Pick-off drop-off	<ul style="list-style-type: none"> At any station or at owner of vehicle Vehicle has to be returned to the original spot 	<ul style="list-style-type: none"> Vehicle picked up and returned to any given station in the network 	<ul style="list-style-type: none"> Pick-up and drop-off is not limited to specific points but a large area
Car owner	<ul style="list-style-type: none"> Privately (Peer-to-peer) or Service provider 	<ul style="list-style-type: none"> Privately (Peer-to-peer) or Service provider 	<ul style="list-style-type: none"> Service provider
Fleet	<ul style="list-style-type: none"> Diverse fleet 	<ul style="list-style-type: none"> Homogeneous or diverse 	<ul style="list-style-type: none"> Homogeneous
Pros	<ul style="list-style-type: none"> Peer-to-peer version demands low investment Low fleet management costs 	<ul style="list-style-type: none"> Diverse fleet can meet different needs Around a station can replace private cars and trips 	<ul style="list-style-type: none"> Flexible and can replace private trips and cars Averting needs to public transportation
Cons	<ul style="list-style-type: none"> Inflexible usage and availability is geographically limited 	<ul style="list-style-type: none"> High fleet management costs due to imbalance in the distribution of vehicles at the stations Inflexible usage and availability 	<ul style="list-style-type: none"> Regulatory and municipality cooperation required on parking

Car sharing – effect of free floating in 5 cities

Effect of free
floating car
sharing

car2go – 25 cities – 3 continents

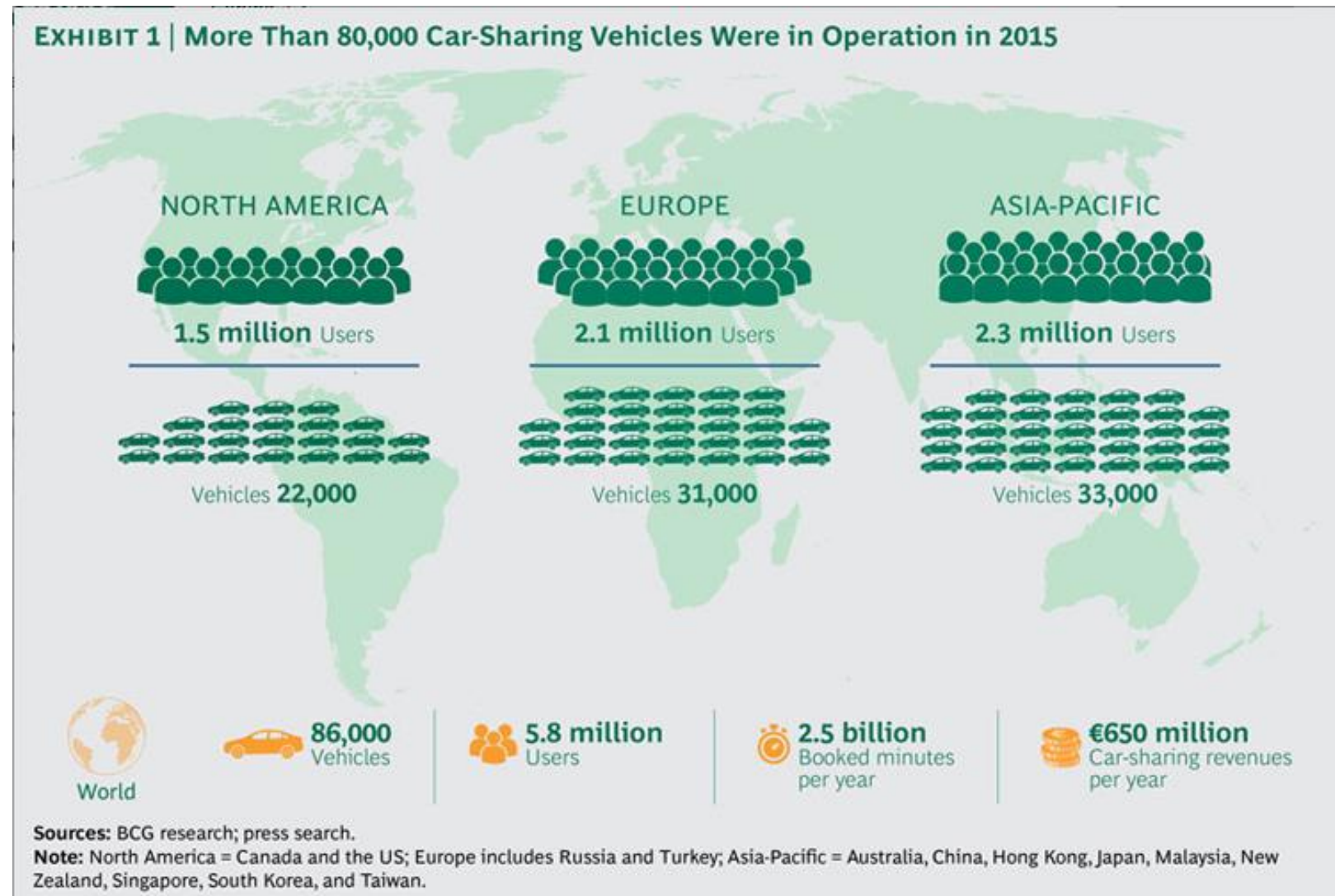
Survey conducted by University of Berkeley, 2016 July)

San Diego – Calgary – Seattle – Washington – Vancouver

- **Shedding effect:** car sharing member selling a car
 - 1 – 3 cars
- **Supression effect:** car sharing member not buying a new/additional car
 - 4 – 9 cars
- **On average:** 7 – 11 cars per car sharing car

Car sharing – by the numbers

Car sharing

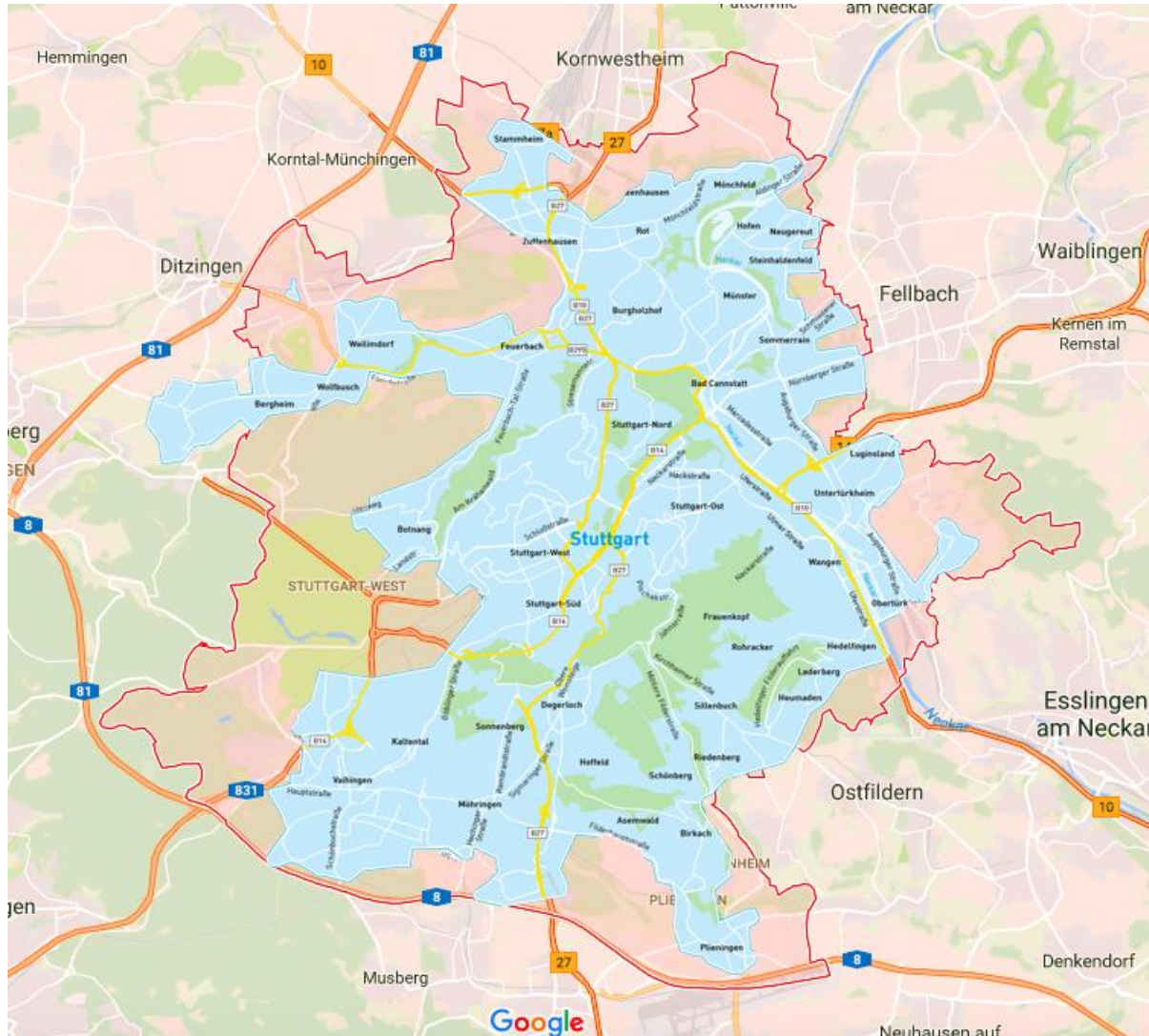


Car sharing example – Stuttgart



Population	623,000 2,700,000
Area	207 km ²
Electric charging points	500+
Car sharing companies	<ul style="list-style-type: none">• 1 free floating: 75 km² – 600+ electric cars• 2 round trip 700+ cars• 1 peer2peer 100+ cars

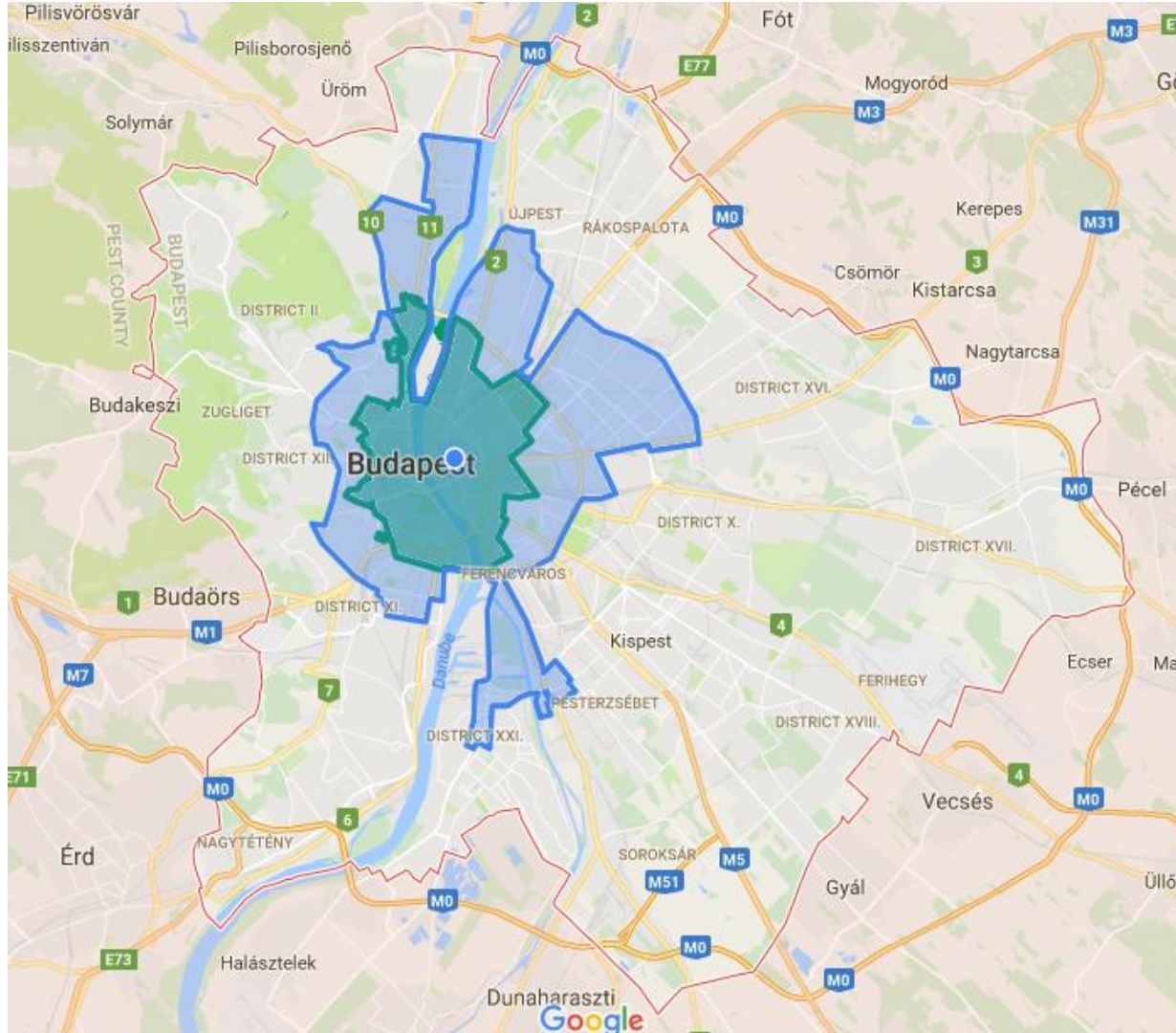
Stuttgart



Car sharing – Budapest



Budapest



Population

1,700,000
2,500,000

Area

525 km²

Electric charging points

30

Car sharing companies

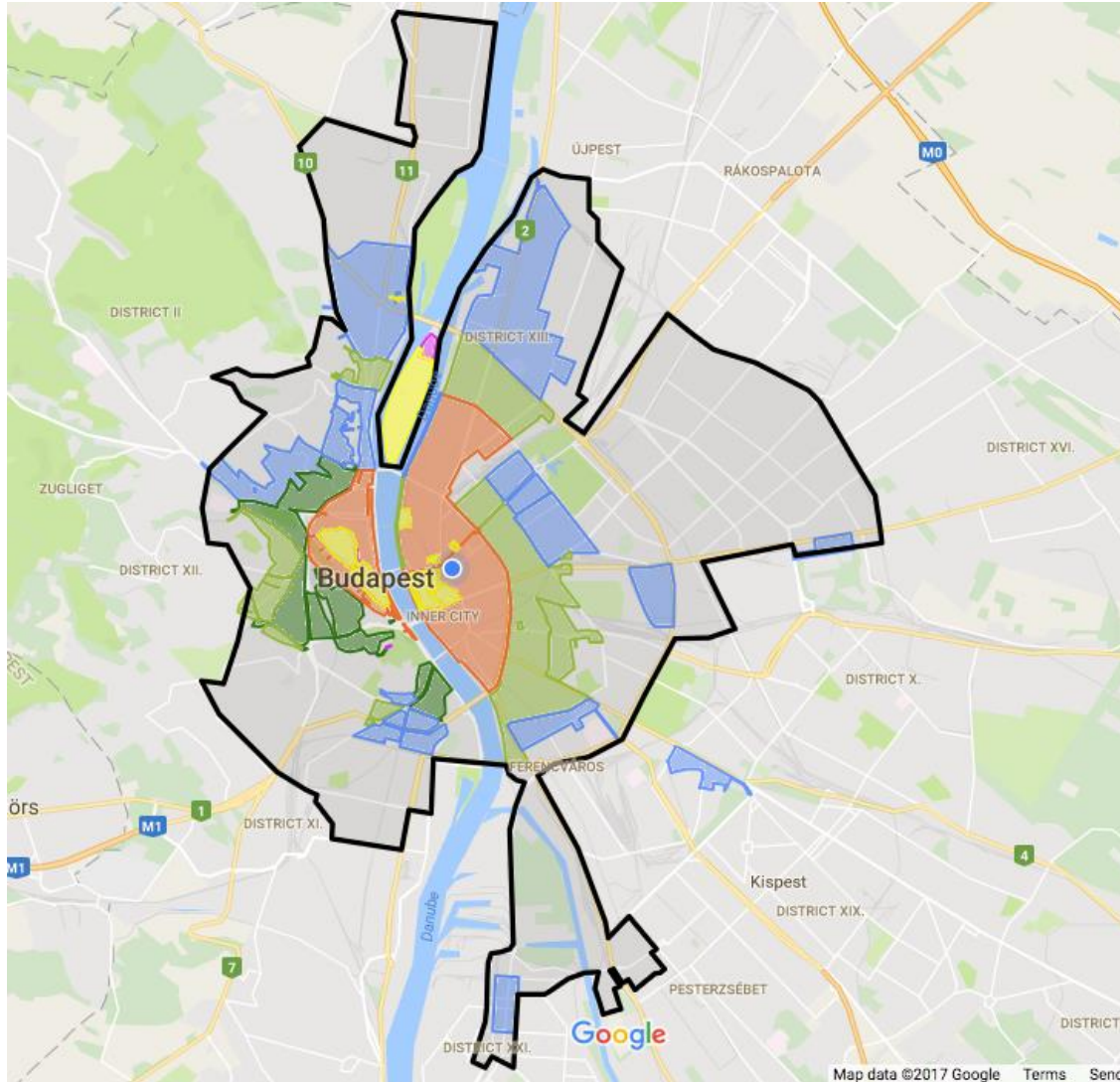
- 1 free floating 25 km² 75 electric cars
- 1 round trip 20+ cars

Our goals

- 75-100 km² service area
- 500-800 electric cars
- combined services – special cars at stations
- mobility as a service – integrated mobile app with other public transport modes (train, trams, buses, BuBi, GreenGo)

Challenges in Budapest

Budapest



Parking

- fragmented
- ad-hoc pricing

Charging stations = bureaucracy

Difficult to build public charging stations

- municipality
- involved authorities (BKK-Közút, etc.)
- local DSO – ELMŰ

+1 Budapest municipality

at every charging station!

Thank you for your attention!

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