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We envision a world where renewable energy is universally accessible by providing seamless on-demand charging of electric vehicles in cities.

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# EV Charging Problems (SE)



**Swedish building ownership rates are low:**



- First hand rent,
- Second hand rent,

**“Building” charging prerequisite:**

1. Getting garage or parking (cost)
2. Permit, local grid - ??? (cost, time)
3. Installation (cost, time)
4. Moving Away - ??

# EV Charging Problems (SE)

## Public charging (e.g. Blackbox, Malmö)

- Time consuming
- Unreliable
- Wasteful (extra trip)



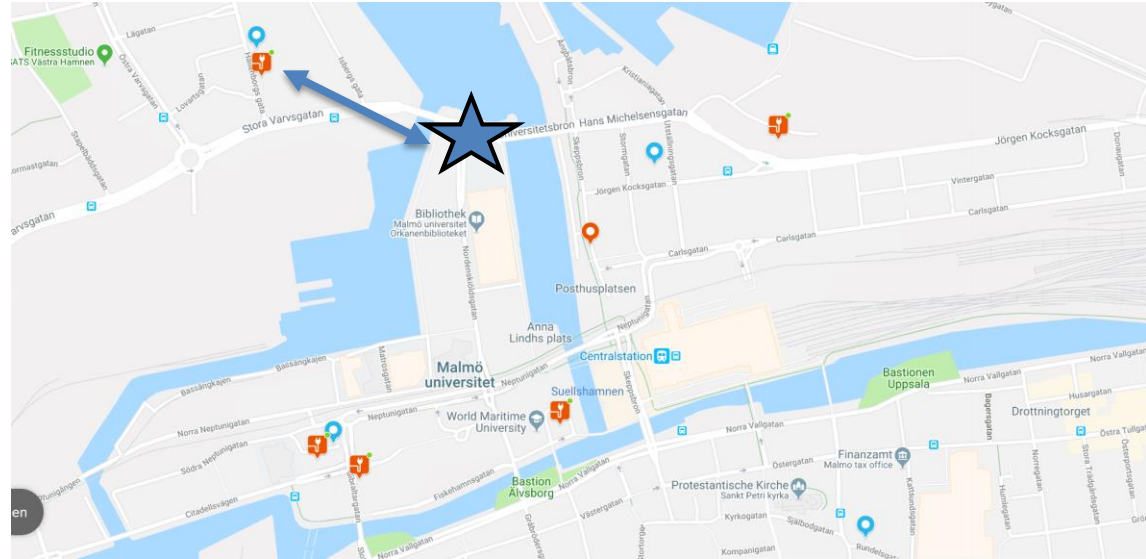
5 min + 650 m



No




2 x (6 min, 450 m)



<https://chargemap.com/cities/malmo>

 Fast → 43kW+

 Out of service

 Standard → 3kW

 Mid-accelerated → 7-11kW

 Accelerated → 22kW

# EV Charging Problems

## Why we still charge old fashioned way?



**1920**



**2020??**

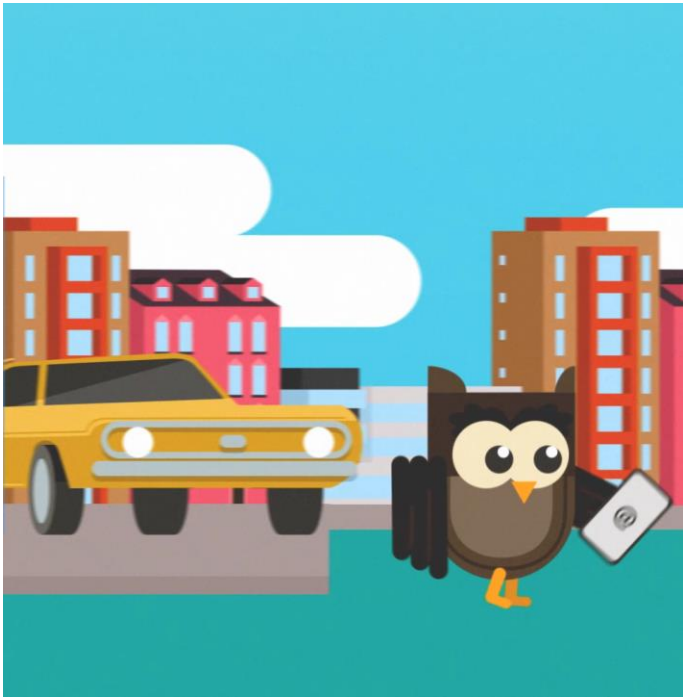


# On-Demand Solutions

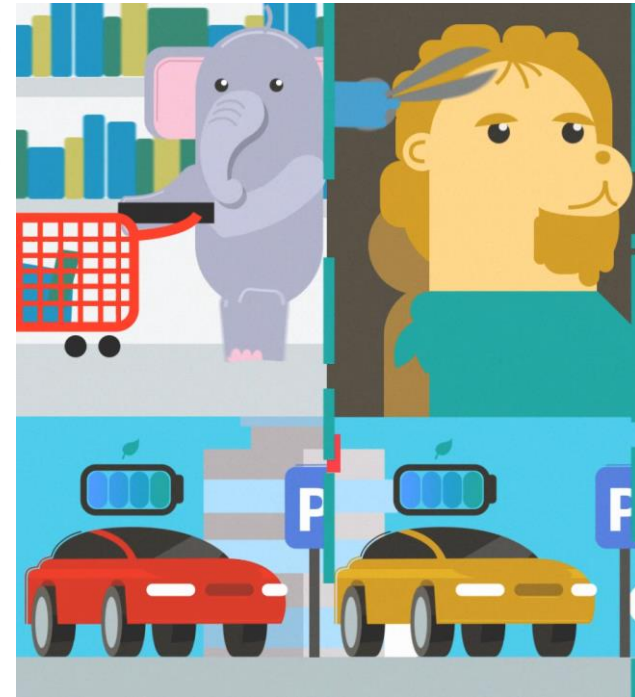


???

# Value Proposition (User)



Parking wherever and whenever



- recharge of battery,
- opportunity charging,
- on-demand, on site

# Parking lot places for storage

Solution a) Between pillars, extra spaces



Solution b) Behind or in front of cars



Solution c) Shopping cart





# Value Proposition (Parking lot)



- Mobile charger gives “freedom” to choose a parking spot location (no constraints, preference, perceived safety)

- Disable (handicapped) drivers can recharge their EVs easily, removal of barrier





# Parking lot delivery



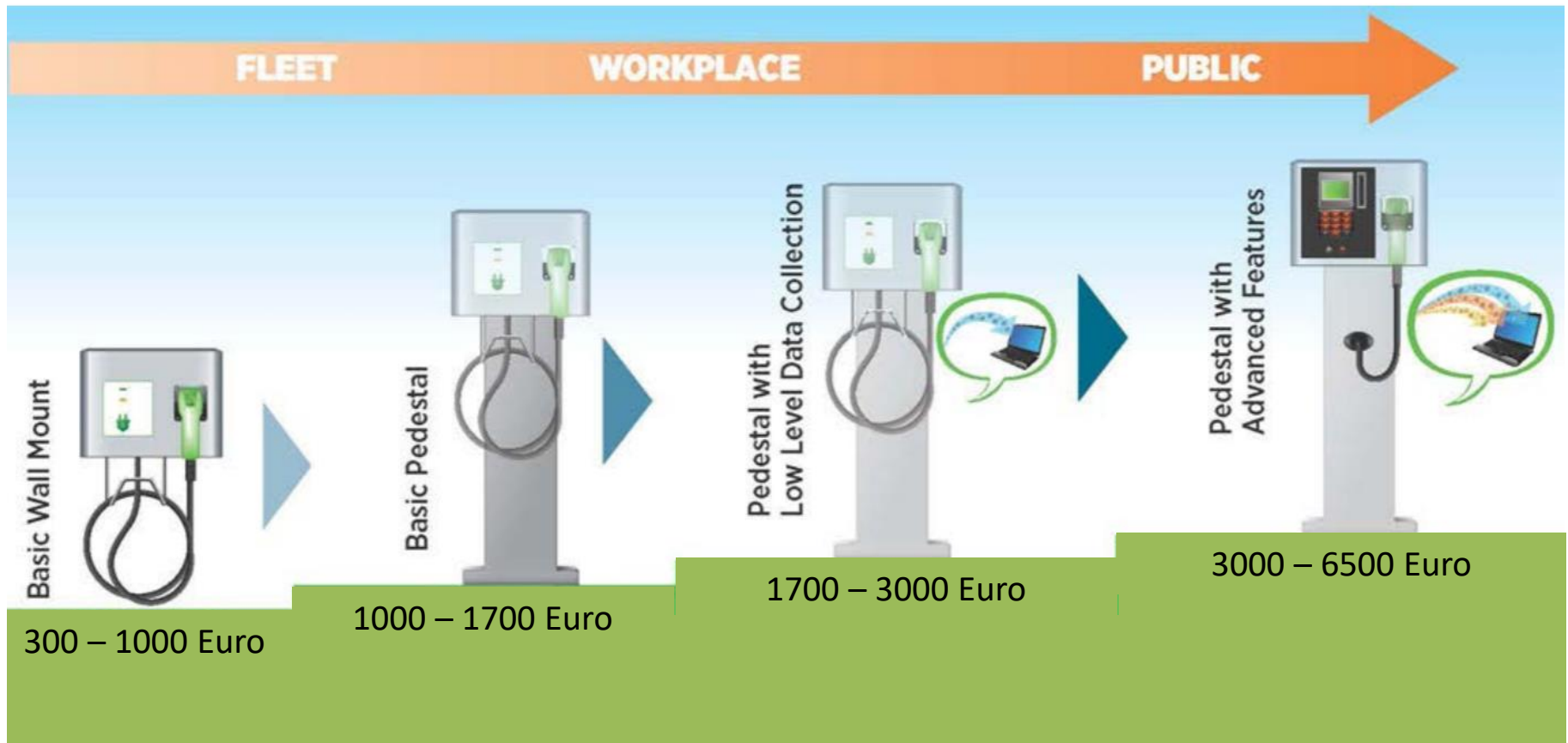
Solution a)  
Entrance with high clearance



Solution b)  
Delivery bay

# Charging Station Cost

Level 2 chargers price differences



Installation cost need to be added on top of it

# Team Kolbev (Switzerland)



Ph.D. in Mech Eng,  
+7 years in Automotive  
industry (e.g. Autoneum)

**Jakub Kwapisz**



Mech Eng, +3 years in  
Automotive industry  
(e.g. BOSCH)

**Phillip Starke**



Ph.D. in Earth Sciences  
at ETH , experience in  
simulation

**Pei-Ju Rita Shih**



Electrician,  
+15 years in  
Automotive industry  
(e.g. Autoneum)

**Thomas Moller**



**Paola Ghillani** - Advisor, Innosuisse coach, member of the board of  
different companies among them Migros, Romande Energie Holding Ltd.



**Dr. Christine Grimm** - Advisor, Lecturer Innovation Management at HSLU,  
ImpactHUB Circular Economy coach



# Construction Experience ESI



# Team ESI (Poland)



**Grzegorz Bryskiewicz**  
**CEO / Project Manager**  
Experience - 11 years



**Michał Kurzela**  
**CTO**  
Experience - 8 years



**Piotr Ciałkowski**  
**Arcitect / Engineer**  
Experience - 6 years



**Marcin Janisiewicz**  
**Civil Engineering Structural Designer**  
Experience - 14 years

## **Additionally**

- Broad network of subcontractors
- Manual workers on a contract of employment: electricians, mechanics, plumbers, fitters, installers, etc.

