

ChargeUp

The End-to-End Solution for Electromobility

Salón elektromobilov 2020, Bory Mall, Bratislava

24.1.2020



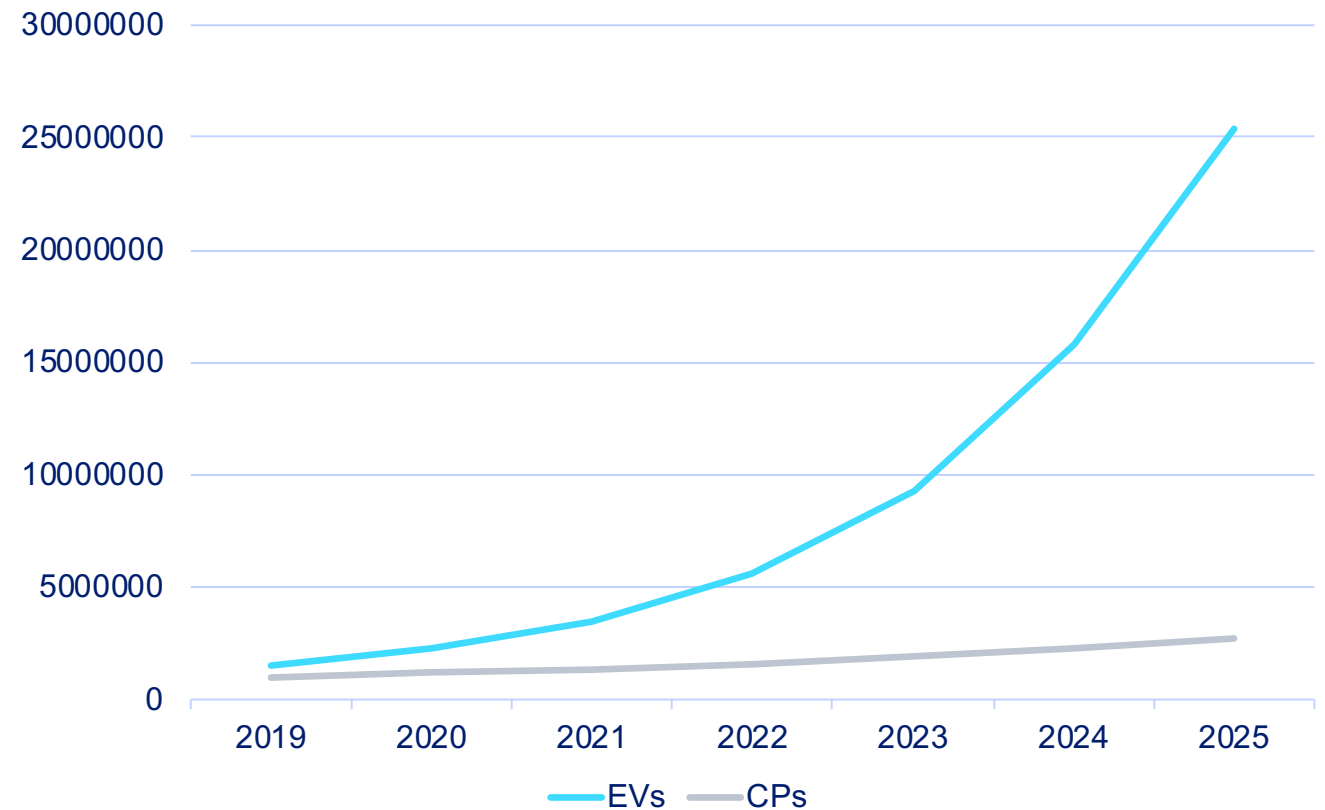
European E-Mobility market situation

■ 2019

- ~1,5 mil. of EVs on the roads
 - 800k battery electric vehicles (BEV)
 - 700k plug-in hybrid vehicles (PHEV)
- ~180k chargers available
 - 150k of AC chargers
 - 30k of DC chargers
- 8,3 EVs per 1 charger

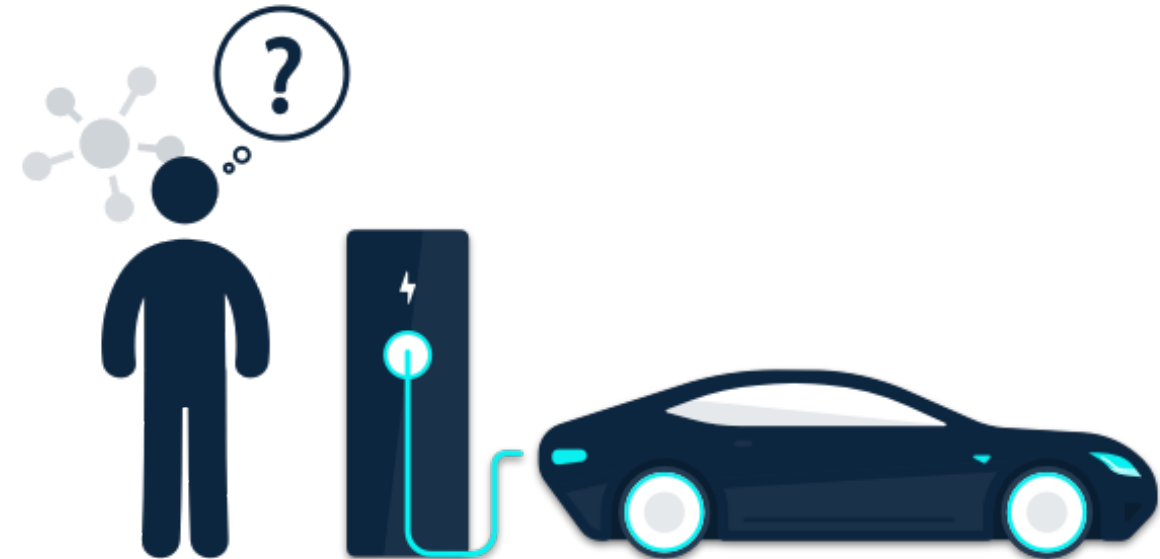
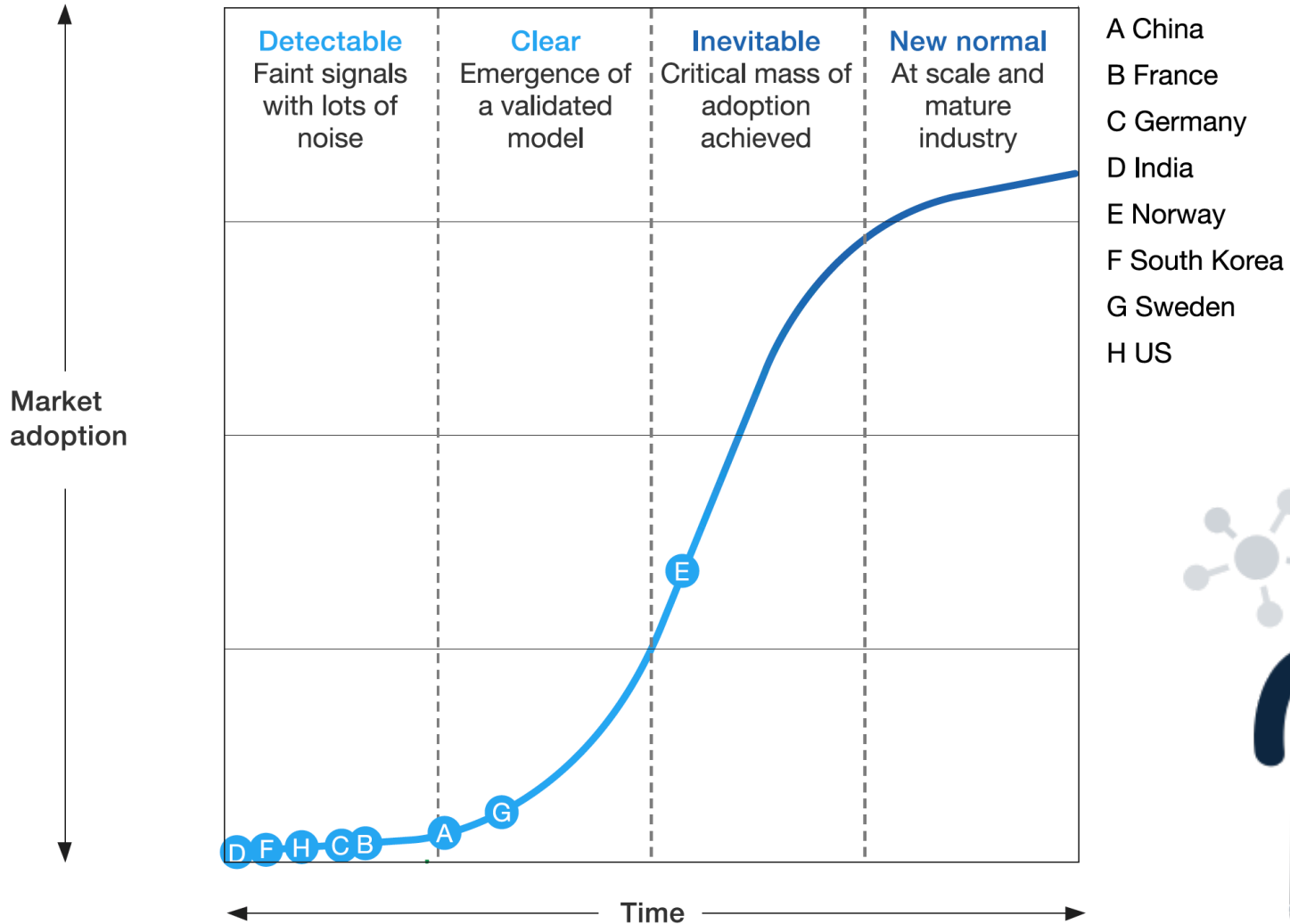
■ 2025 Outlook

- ~25 mil. of EVs on the roads
- Goal: ~10 EVs per 1 charger
- ~2,5mil of chargers needed!

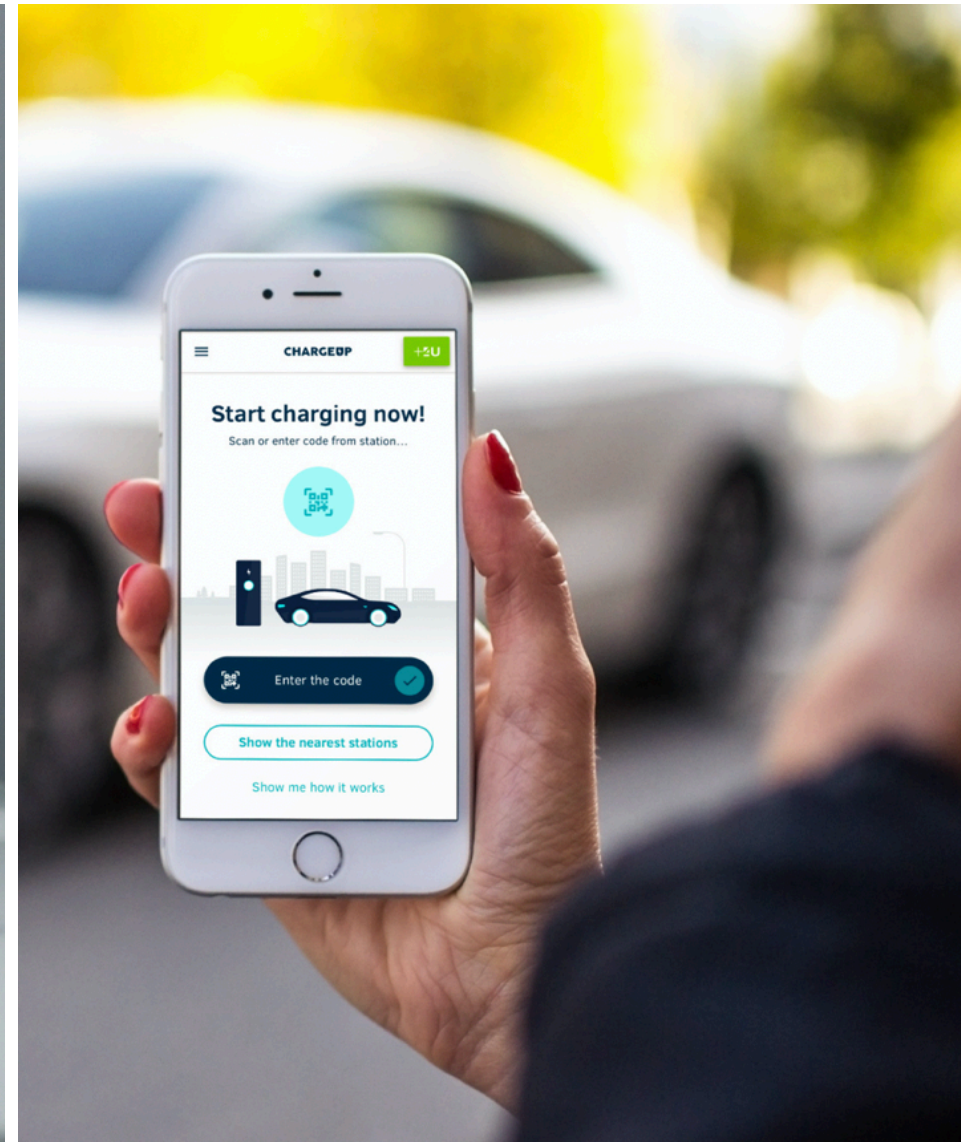
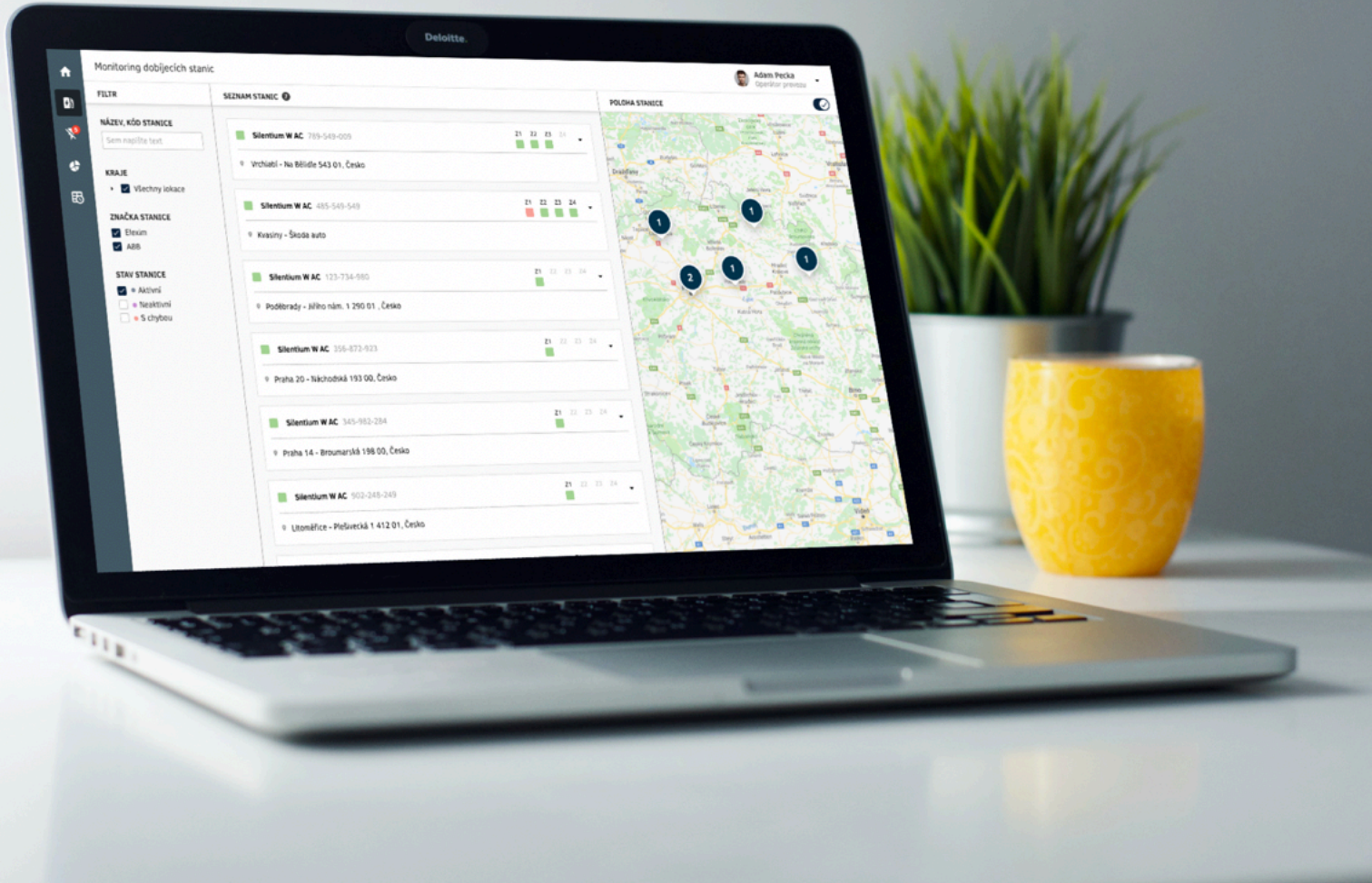


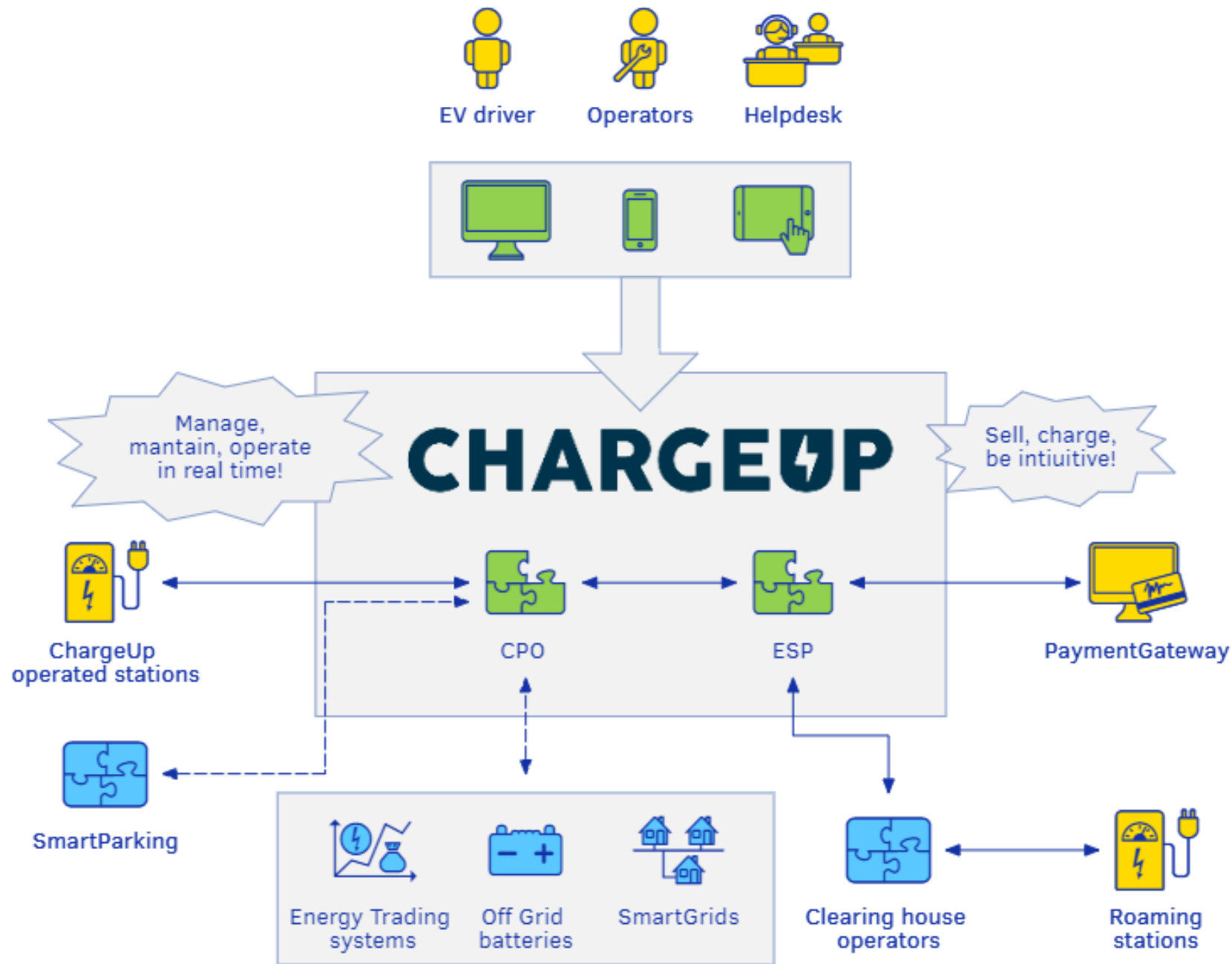
E-Mobility market adoption

The 4 stages of a disruptive trend—focus on electric-vehicle market adoption



Source: Chris Bradley, Martin Hirt, and Sven Smit, *Strategy Beyond the Hockey Stick*, McKinsey, 2018





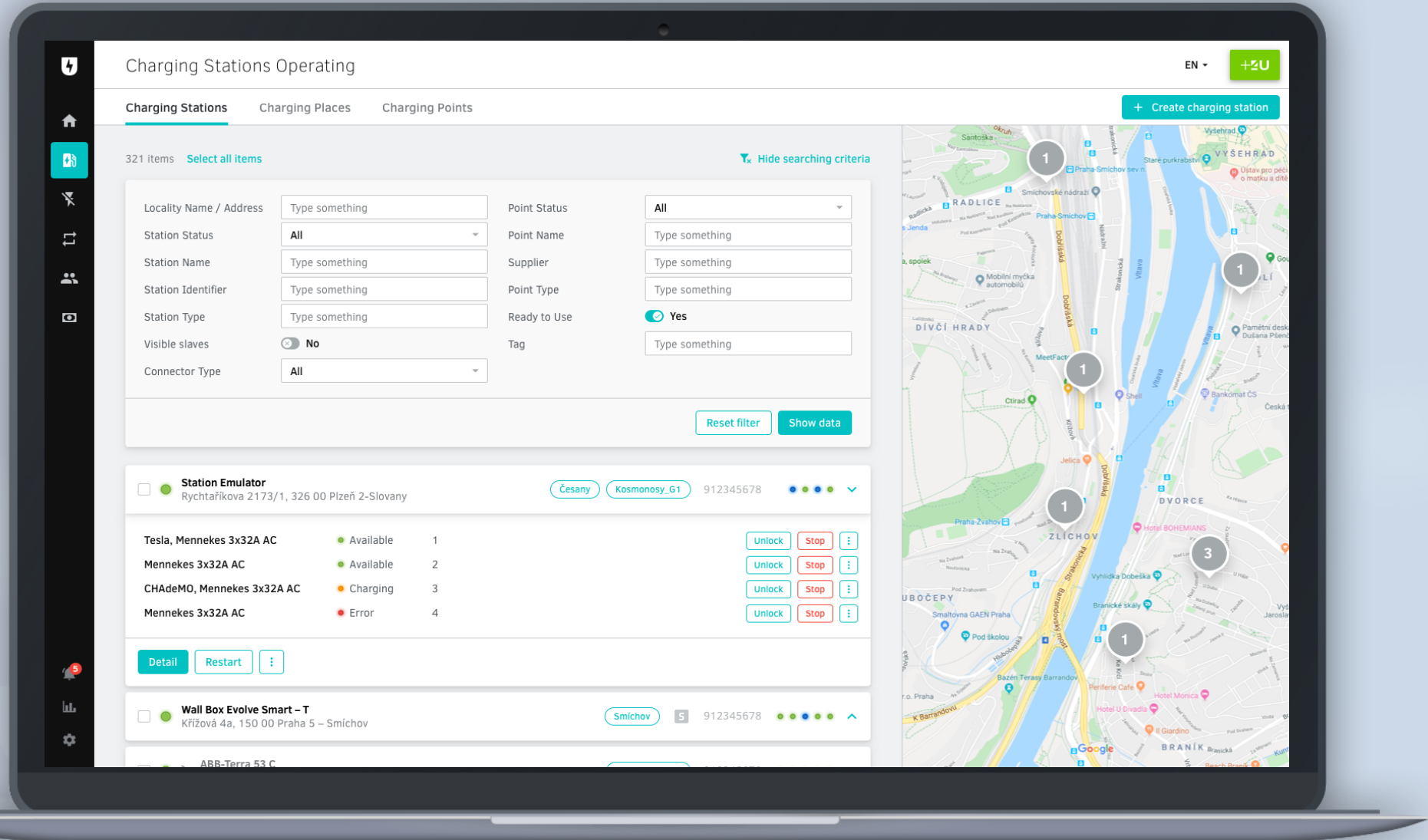
CHARGEUP CPO

- End-to-End solution for charging infrastructure providers
 - Charging stations management
 - Customer management
 - Payment plans & Billing
 - Charging & Authorization
 - Reservations
 - Smart Charging & Metering
 - Integration and further development of solutions

CPO = Charging point operator



Stations filter






Station detail

Charging Station Detail **100-538 Chodov Master 1** EN +ZU

Basic Information Transactions Event Log Alarms 5

100-538 CHODOV MASTER 1 Kosmonosy_G1 Česana

Basic Information

| | | | |
|----------------------|----------------------|--------|---|
| Status | Available | Images |    |
| Type | AC Post eVolve Smart | | |
| Ready to Use | ✔ Yes | | |
| Station Availability | Public | | |

Descriptive Information

| | | | |
|---------------|---|-------------------|----------------------------|
| Code | 100-538-862 | GPS Coordinates | 50.4187919N, 14.9139031E |
| Locality Name | Česana | Locality Address | Rychtařikova 1234, Praha 4 |
| Supplier | Elexim | Installation Date | 11. 11. 2016 |
| Description | Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris tempor eget ex quis rutrum. | | |

Technical Information

| | | | |
|----------------|--|------------|---------------------------|
| Master | ✔ Yes | Protocol | OCPP 1.6 JSON |
| Slave Stations | 100-538 CHODOV S1 100-538 CHODOV S2 | Endpoint | http://172.25.136.14:8010 |
| | | Identifier | S1-100-538 |

Operational Information

| | | | |
|---------------------|------|----------------|-------|
| Heartbeat Frequency | 60s | Reservable | ✔ Yes |
| Alarm Frequency | 180s | Store Endpoint | ✘ No |

Restart ⓘ Edit

Map showing station location in Prague, near Rychtařikova 1234, Praha 4.

Transactions overview

Transactions

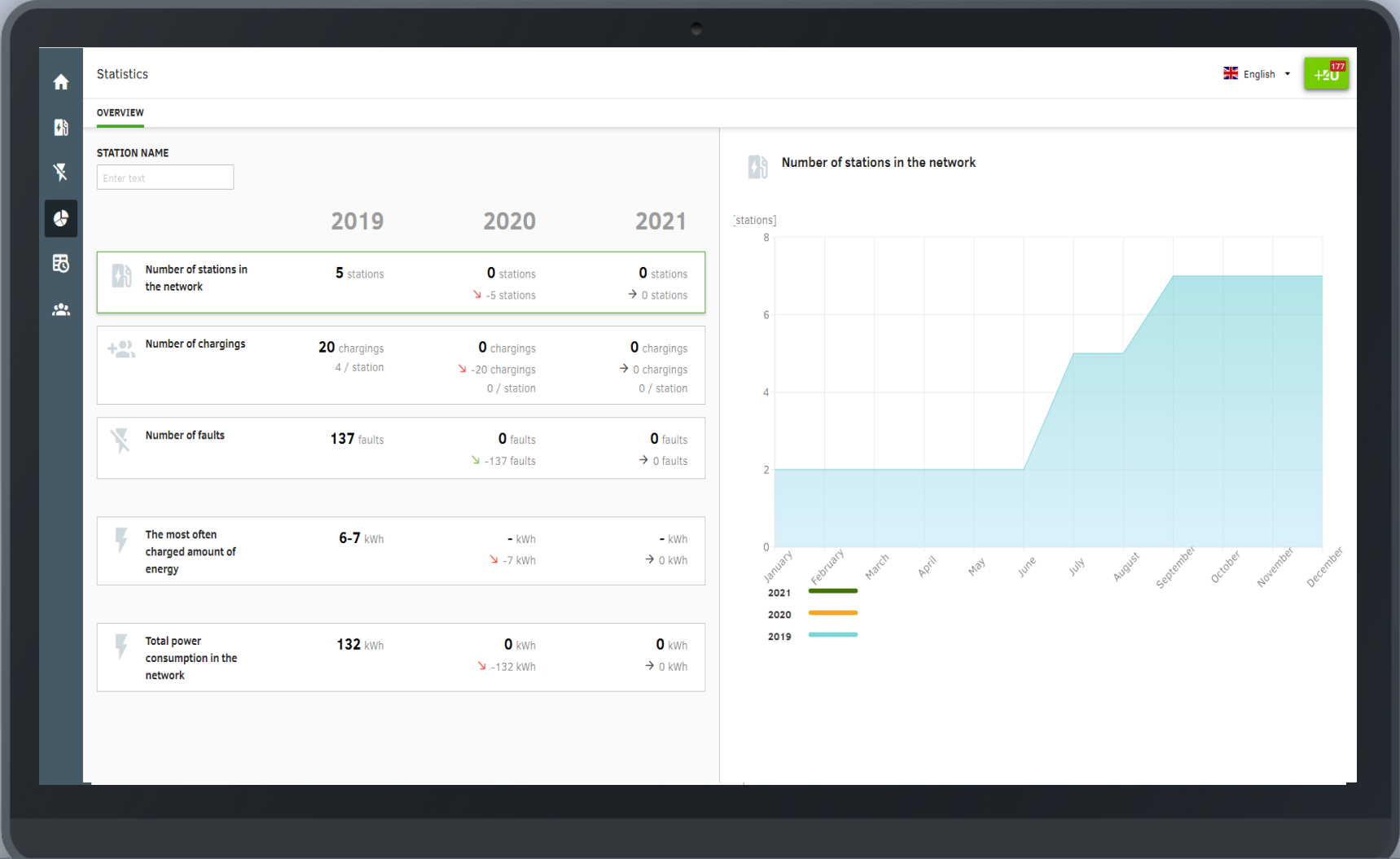
EN

5 items [Select all items](#) [Show searching criteria](#)

| <input type="checkbox"/> | | | From - To | Station Code | Locality Name | Point | RFID | Aggregated Customer | Reservation Duration | Charging Duration | Consumption | Price | <input type="checkbox"/> | |
|-------------------------------------|--|--|------------------------|--------------|---------------|-------|-----------|---------------------|----------------------|-------------------|-------------|------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | | | 1.1.2020 15:11 - 15:43 | 100-547-659 | OC Chodov | A | AB1346546 | ChargeUp | 0:24:30 | 0:28:24 | 78 kW | 218,12 CZK | <input checked="" type="checkbox"/> | |
| <input type="checkbox"/> | | | 1.1.2020 23:11 - 00:43 | 100-547-659 | Česana | 1 | AB1346546 | Jiří Pecka | 0:32:40 | - | - | - | <input type="checkbox"/> | |
| <input checked="" type="checkbox"/> | | | 1.1.2020 23:11 - 00:43 | 100-547-659 | OC Chodov | 1 | AB1346546 | ChargeUp | - | 0:54:48 | 149 kW | 218,12 CZK | <input checked="" type="checkbox"/> | |
| <input checked="" type="checkbox"/> | | | 1.1.2020 23:11 - 00:43 | 100-547-659 | Česana | 1 | AB1346546 | ChargeUp | 0:32:40 | - | - | - | <input checked="" type="checkbox"/> | |
| <input type="checkbox"/> | | | 1.1.2020 23:11 - 00:43 | 100-547-659 | OC Chodov | 1 | AB1346546 | ChargeUp | - | 0:48:21 | 124 kW | 218,12 CZK | <input type="checkbox"/> | |

3 selected items [Unselect all](#) [Stop transaction](#)

Dashboards





CHARGEUP **ESP**

- Responsive web application for EV drivers
 - Extensive European network of charging stations
 - Charge anywhere, anytime
 - Without pre-paid card
 - No contractual obligations
 - White labeling
 - Fully responsive application
 - Customer support 24x7

ESP = E-Mobility Service Provider

Demo



What's next?

- Flexibility features
- Smart charging functions
- Charging stations loadbalancing
- Implementation of OCPP 2.0
- Plug & Charge as defined by ISO 15118



ChargeUp

+

Smart Parking



The image displays the ChargeUp web application interface on both a laptop and a smartphone. The laptop screen shows a search for parking spots in Žiar nad Hronom, displaying details for a 2-hour free spot at 'Žiar nad Hronom - Š. Moysesova / MÚ' and a line graph of occupancy. The smartphone screen shows a map view with 42 free parking spots nearby.

Web Application Details:

- Search: **Hľadať miesto**
- Filters: Počet hodín zdarma, Cena, Vzdialosť, Typ miest
- Location: **Žiar nad Hronom - Š. Moysesova / MÚ**
- Price: **2 hodiny 1€/hod.** (zadarmo Po voľnom státi)
- Occupancy: **31/65**
- Workdays: **2 hodiny zadarmo**, **hodinový poplatok 1€/hod.**
- Average occupancy graph for **Pondelok** (Monday).
- Map: **Číslo parkovacieho miesta: 6S043**, **Voľné miesto**, **Voľné miesto 11 minút**
- Summary: **Ďalšie parkoviská v okolí: 4**, **s celkovým počtom voľných miest: 11**

Smartphone Application Details:

- Search: **Hľadať miesto**
- Location: **Žiar nad Hronom - Š. Moysesova / MÚ**
- Price: **2 hodiny 1€/hod.** (zadarmo Po voľnom státi)
- Occupancy: **31/65**
- Map: **42 voľných parkovacích miest**

