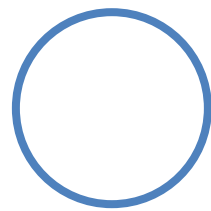




# Chargesplit

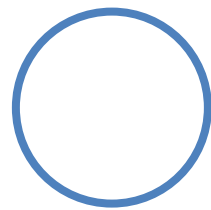
# Who we are..

Developing EV technology from 2017



**Developing started in 2017**

**Company funded in 2020**



**Operating in Consultancy, Hardware development, Software development, Payment solutions in EV sector.**

**FULL in house Technology**

**Expert in whole EV chain**

**Supported by Google from 2019**

Platform

Saas

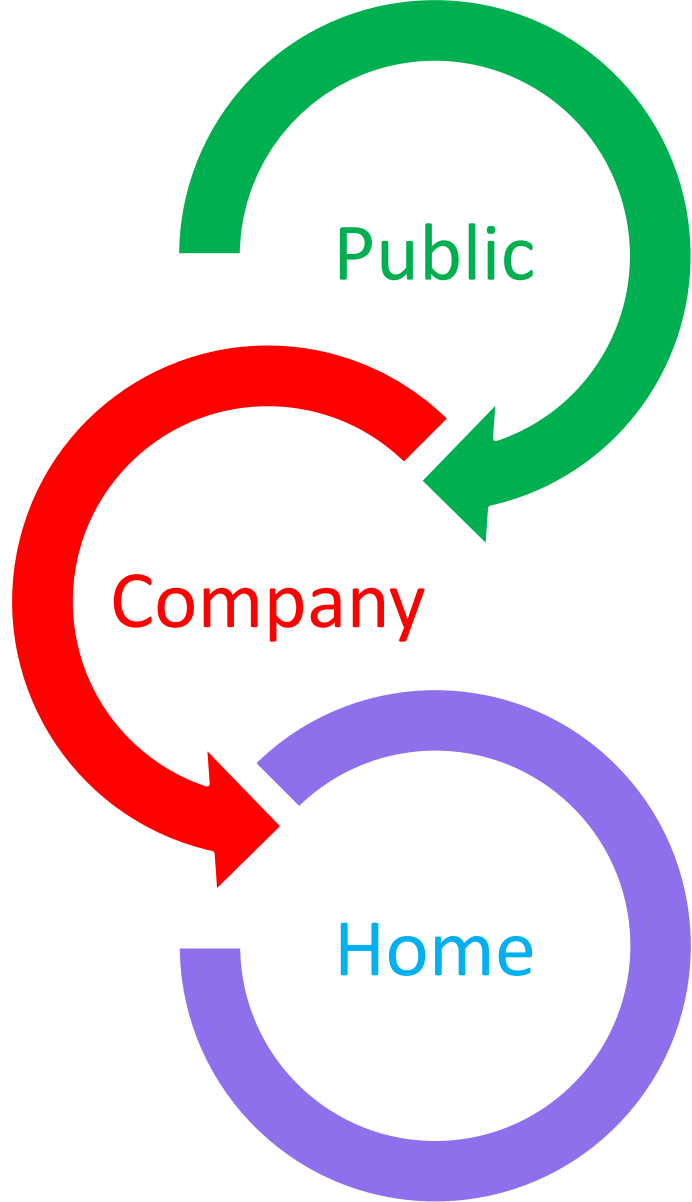
Hardware

Home charging



**Google Cloud**  
for Startups

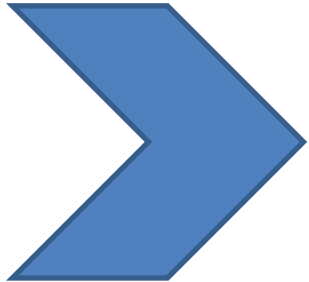
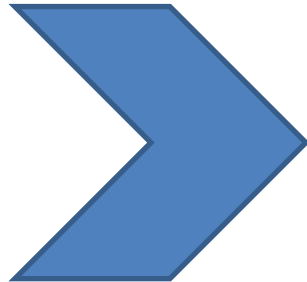
# Vertical market dedicated charging solutions



**Mobile Charging platform with Service + Charging business model for hotel, retail, restaurants, parking. Destination charging Marketplace**

**Private SaaS platform for company Charging**

**Dedicated home Charging station / App**



**Chargers for public usage**

**Chargers for home usage**

Software

Hardware

# Platform

## Destination charging Marketplace

Charge for free in hotels, restaurants, ,Retail buying a service or Standard pay per charge if non business customer

- Sell charging included services ( Hotel rooms, Shopping, Dinner )
- Offer pay per charge to non business customers

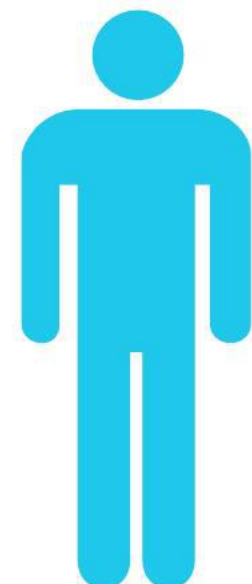


Charging users



Chargesplit

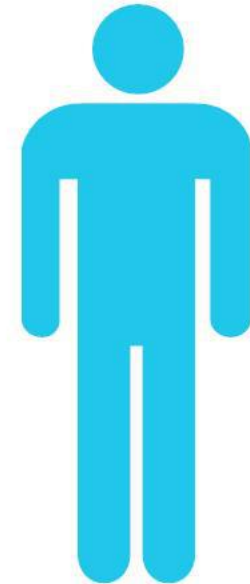
Full automatic process management of Charging / room booking / Couponing / Payments with automatic bank transfer to host. Zero management effort



host

B2B – B2B2C

- Hotel
- Retail
- Parking
- Restaurant
- Fleet
- Airports

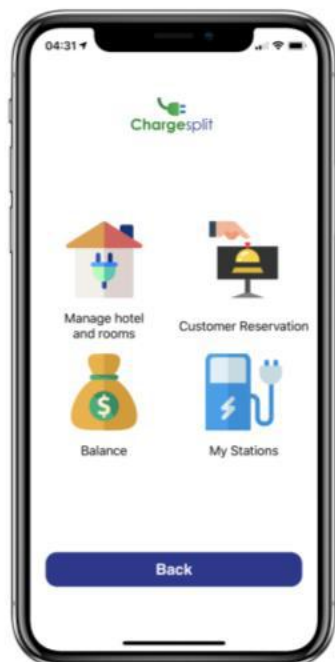


host

B2C - B2C2C

Private users chargepoint sharing

# Hotels How it works? Real destination charging with integrated booking engine

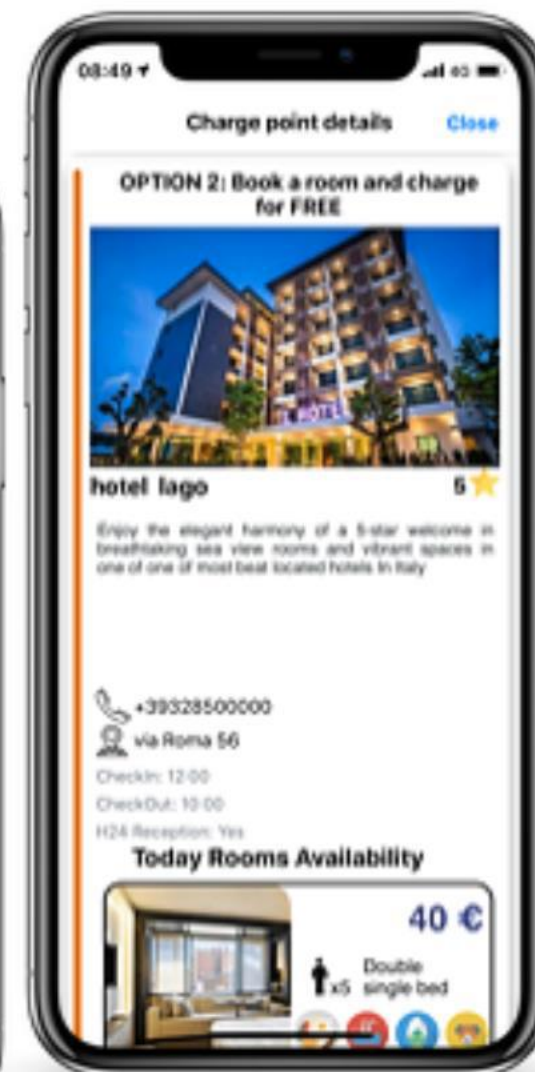
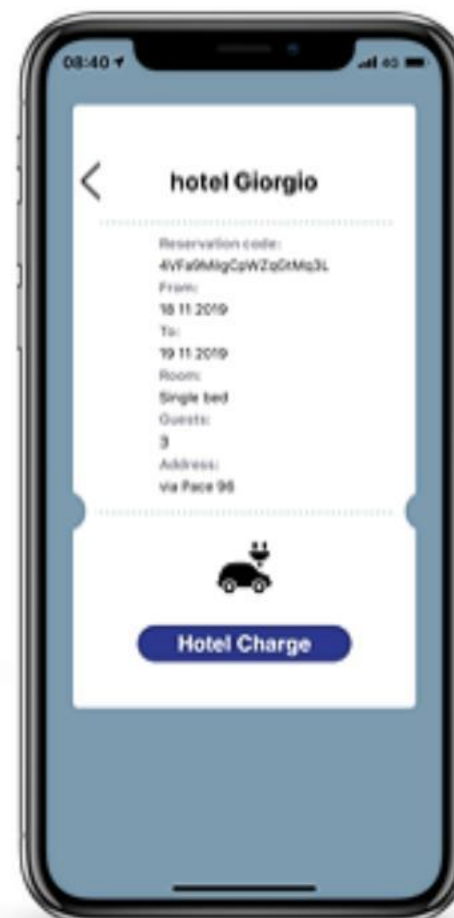


Full room, booking, and service management. Automatic payments to bank account, Chargepoint management. Platform fee on room is 20%. Chargepoint is automatically reserved for guests by room booking



- 1) Search available rooms by area (booking engine integrated)
- 2) Reservation and payment
- 3) By booking, users can directly charge upon arrival at the hotel
- 4) Tap and Charge with hotel ticket and automatic chargepoint reservations

Non hotel guests can charge by kWh tariffs.



# Retail How it works?



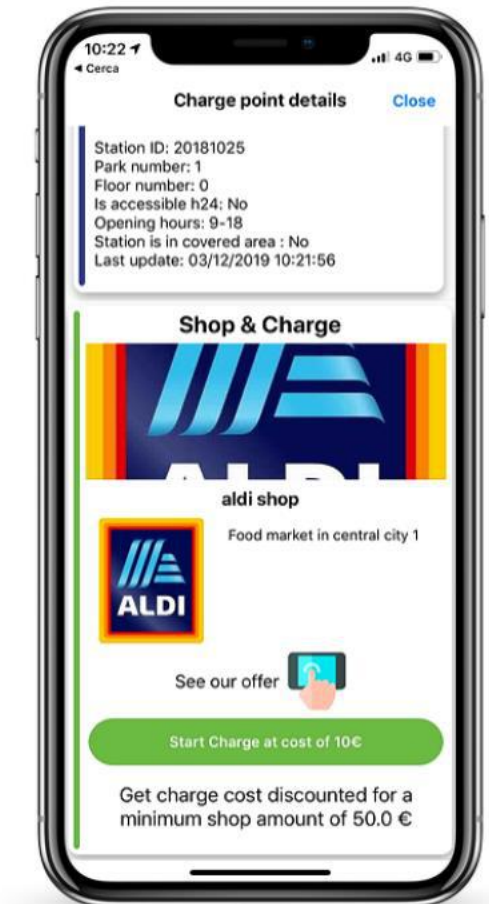
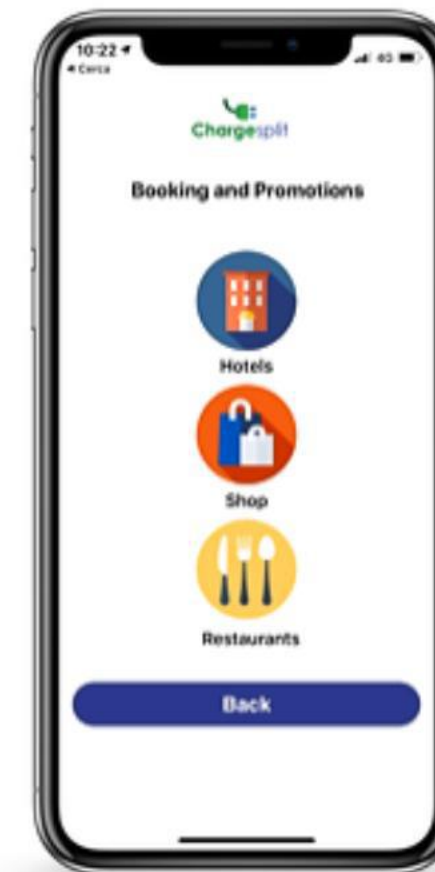
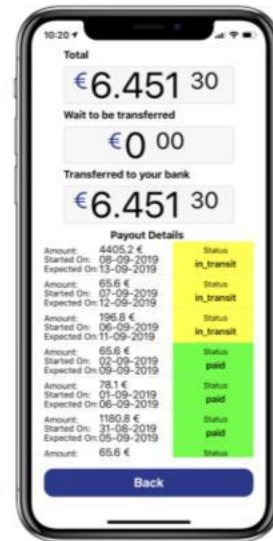
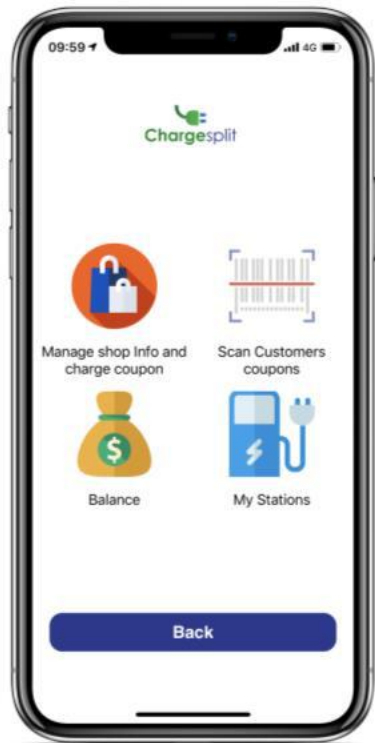
Offer free charging to customers who spend a certain amount of money in my shop.

- Full process management
- Full payment management
- Cash registers integration for big retailer (API)

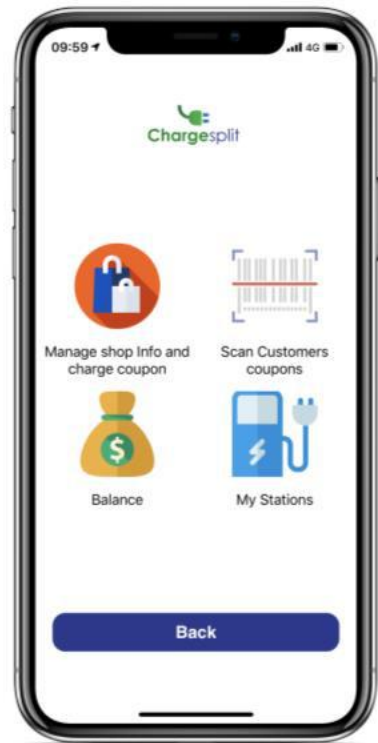


- 1) User arrives at chargepoint, pays for coupon, and charge starts
- 2) Coupon is generated (Qrcode)
- 3) At the end of shopping, during payment, user shows the coupon to shop owner. If spent amount is above min declared user get back payed coupon amount as discount, so charge is free.

Non-customers can still charge by kWh tariffs.



# Restaurants **how it works?**



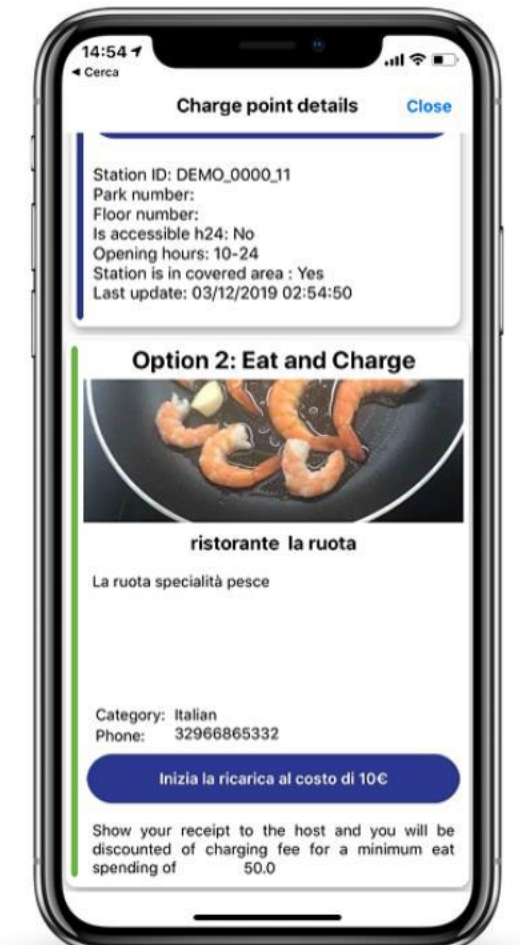
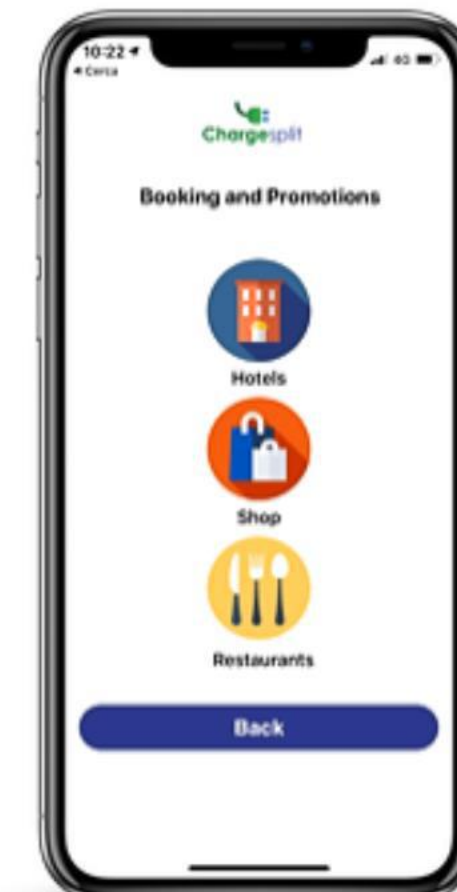
Offer free charging to customers who spend a certain amount of money in my restaurant.

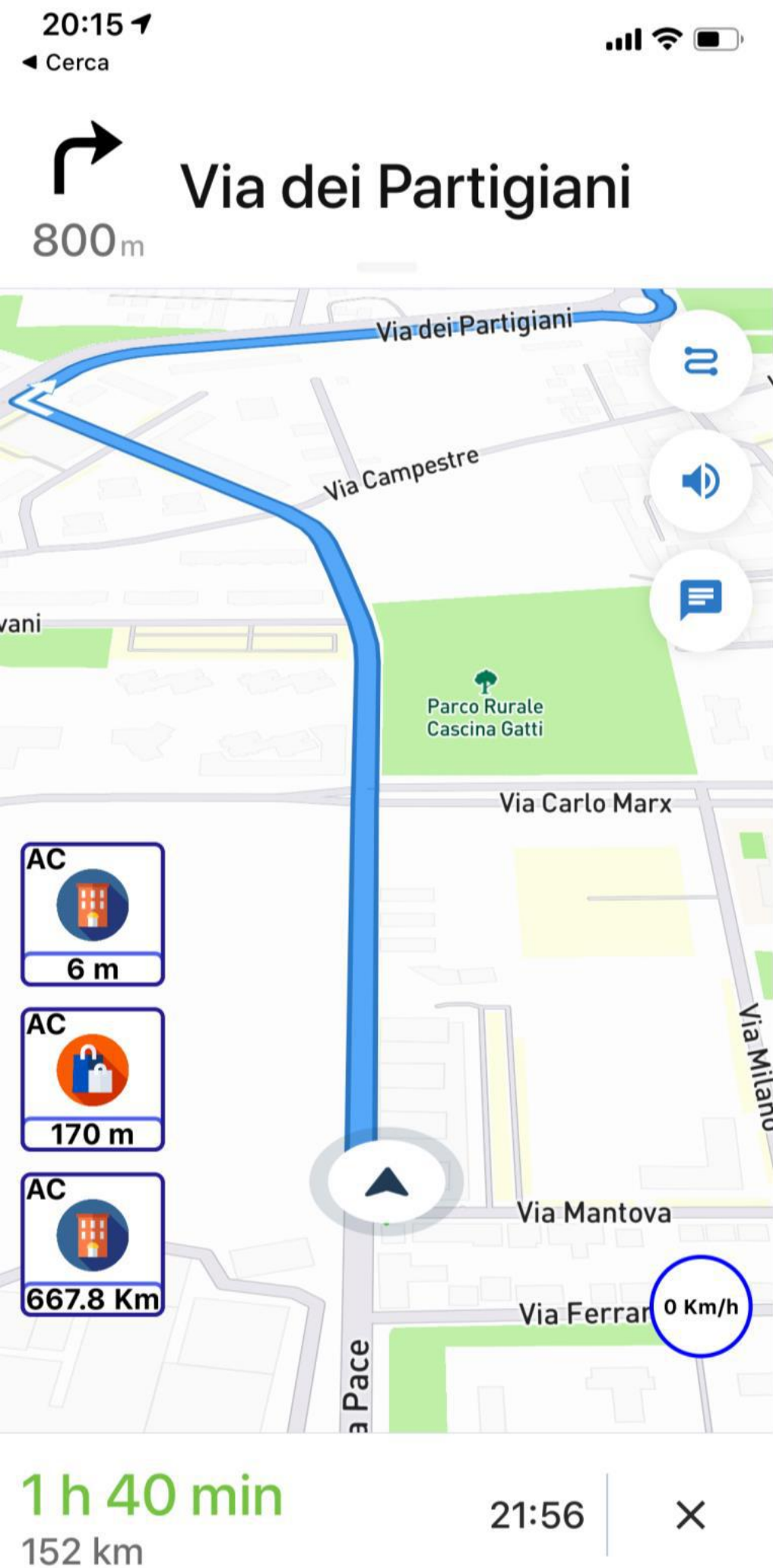
- Full process management
- Full payment management



- 1) User arrives at chargepoint, pays for coupon, and charge starts
- 2) Coupon is generated (QRcode)
- 3) At the end of dinner, during payment, user shows the coupon to restaurant owner. If spent amount is above min declared user get the payed coupon back as discount, so charge is free.

Non-customers can still charge by kWh tariffs.





## Integrated GPS navigation



We integrated a real GPS navigation system into the platform showing users 3 nearest chargepoints, with distance updated in real time, available as they travel to their destinations.

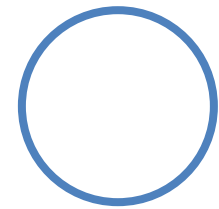
Intelligent ML engine tracks users' routes and gives hosts the option to purchase location-based adverts for their services when users physically approach their business location.





# ChargeSplit SAAS

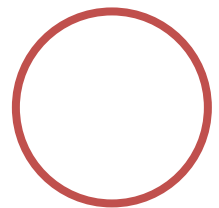
Dedicated , on-demand, web platform for fleet management or companies



**A dedicated, private SAAS web platform for companies who need to manage a private charging environment.**

**Includes our chargepoints for a complete solution.**

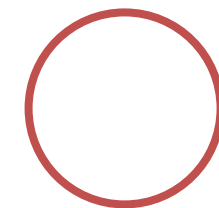
**Full remote management, user management, card management, charge management, car management, data export (e.g. charging data per user), can be integrated with external Auth provider. Can be customized to read badge or phones already in use within companies.**



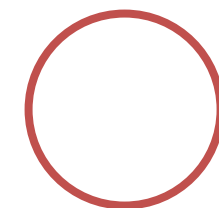
**Wide compatibility for all charging stations protocol:**

**OCPP 1.2 soap to 1.6JS, charging profile, reservations.**

**Private Cloud or on –premise hosting options.**

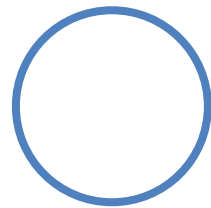


**We can provide full service and custom solutions: installation, teaching and custom IT or electronics integrations.**



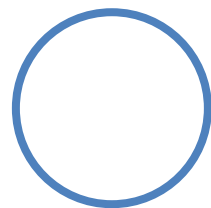
# ChargeSplit Home

Dedicated solution for home charging with business capabilities q2/2020

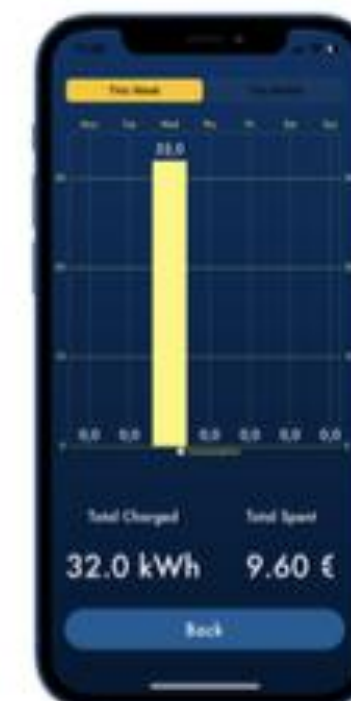
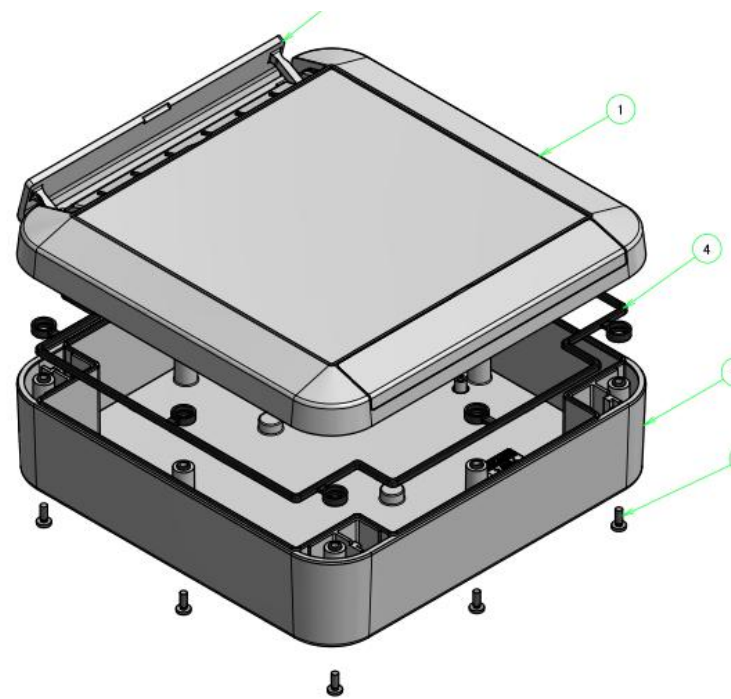


**Supports Bluetooth LE + WiFi**

**IP67 grade , Integrated Load balancing and dedicated APP in small 200X200X65mm package**



**Suitable for business usage with OCPP 1.6js version and Optional HPGP lan and 15118 stack. Socket version available**



# Our stations

Type 1 or 2 tethered or untethered mode 2/3. Full in house technology, custom electronics developments available

## Wallbox

- 3.7kW to 22kW
- OCPP 1.6 js
- Integrated breaker type B + type A (Auto reset)
- Integrated power meter class 0.2 + MID class 1
- RFID - WiFi, Bluetooth, NFC, QRcode
- Parking sensor up to 10m, custom technology
- V2G ready (Exp. for ISO 15118 PnC )
- OLED 2.4' graphic lcd
- RGB LED status and button
- MID Meter
- Full PP management + dynamic CP
- Can be used as home charger too (different firmware)
- Over Current, Earth leak, Overheat, protections



## Pillar

- 3.7kW to 22kW
- OCPP 1.6 js
- Integrated breaker type B + type A (Auto reset)
- Integrated power meter class 0.2 + MID class 1
- RFID - WiFi – BT – NFC - QRCODE
- Parking sensor up to 10m , custom technology
- V2G ready (exp. for ISO 15118 PnC )
- OLED 2.4' graphic lcd
- RGB LED status and button
- Structural aluminium 4mm
- Most compact on market 150x150x1100 mm
- Full PP management + dynamic CP
- Super cost-competitive
- Fully integrated, no external components
- IP54 outer enclosure + IP 65 internal box for electronics
- Security door keylock for easy access
- Additional Security checks: Earth presence, Diode check, Dynamic pp, Voltages, Overheating, Over Current, Stuck relay
- On Display Total charged kWh



Bidirectional 6.6kW AC-DC/ 3.3kW DC-AC under dev (V2G/V2H)

Charge

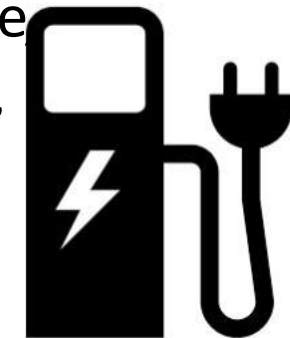
# Market uniqueness: Integrated Parking Sensor Technology

Problem: Charging spots are busy, many users reports arriving at a chargepoint, only to find it occupied.

Solution: We monitor real-time space in front of chargepoints using a calibrated proprietary sensor up to 10 meters. If an object stays in front of a chargepoints for more than a minute, the parking spot is automatically set as busy in the app in REAL TIME. This can also be used for custom real-time availability management in big parking spaces . The sensor is optional and can be integrated in the chargepoint.



Continuous monitoring of object distance (100 times per second) up to 10 meters, using a calibrated 30 cm round beam



Real picture of sensor integrated in wallbox. Technology is fully OCPP-integrated.



Parking spot marked as busy in app ->

Inizia la ricarica

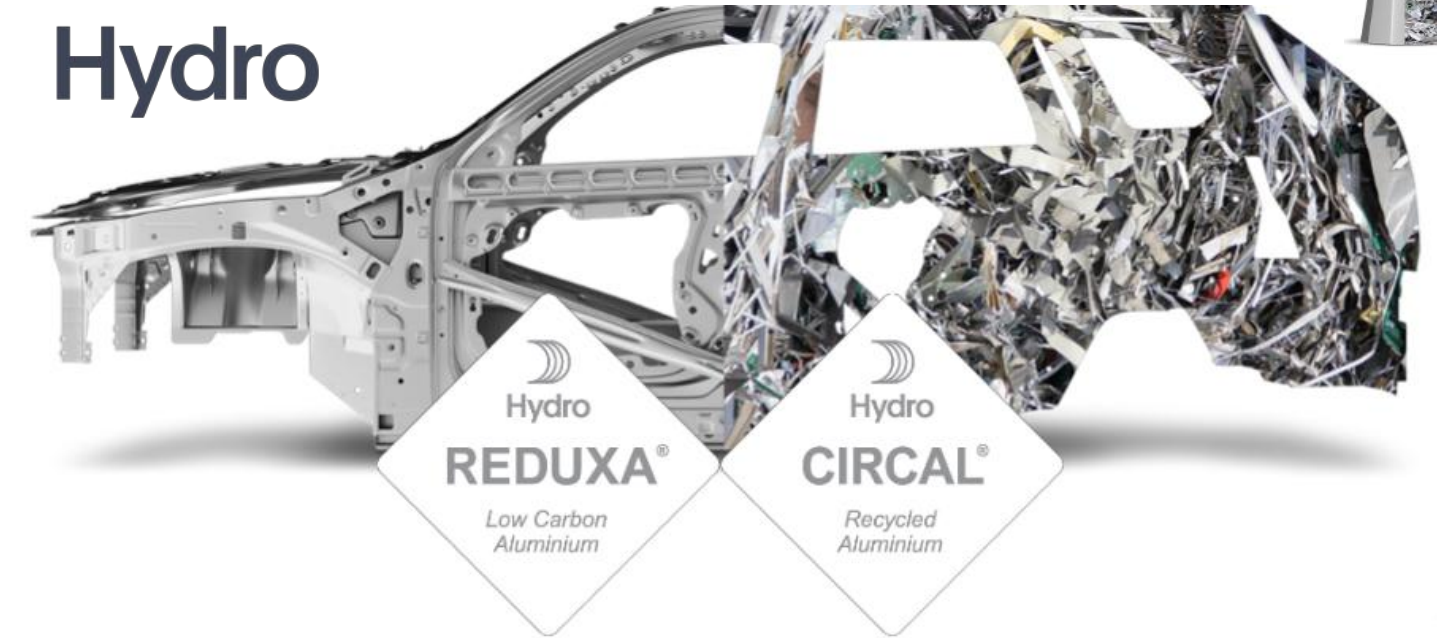
ID Stazione: C089714E114C  
Parking status: NOTAVAILABLE / 0 cm  
connected: true  
Numero Parcheggio:  
Piano:  
Accessible h24: Yes  
Orari Accesso:  
Area Coperta :No...

# New Charging Pillar

Market first Ultra Low CO2 footprint with Hydro CIRCAL™ aluminium

In collaboration with Hydro, one of most important aluminum producer we've developed first low CO2 footprint charging pillar in innovative CIRCAL™ material

1. At least **75%** post consumer scrap
2. **CERTIFIED** by DNV GL based on Hydro traceability and quality principles
3. **2.3** kg CO2e/kg Aluminium
4. **APPROVED** by EPD (Environment Product Declaration)

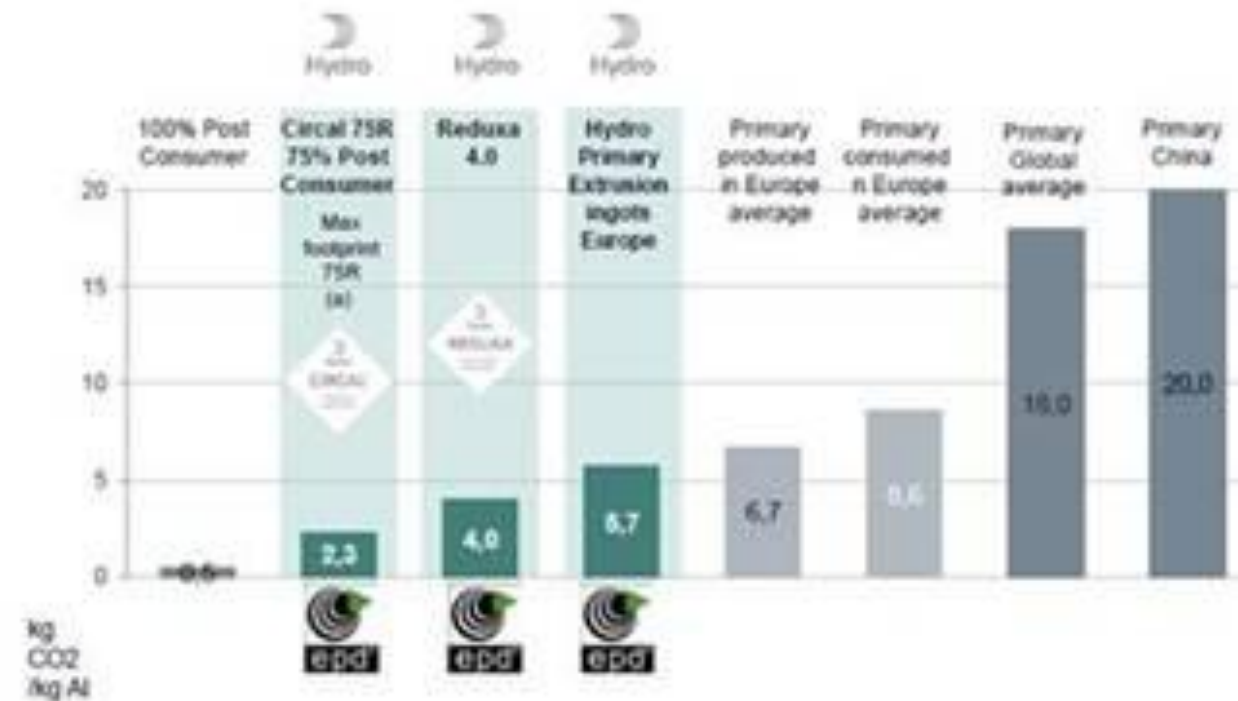


We can provide raw materials produced with low emissions



Primary aluminium produced on renewable power: **4.5 times** lower than the world global primary average

75% recycled aluminium from Hydro: almost **8 times** lower than the world global primary average



Source: IEA/Hydro

(a) 75% EOL Scrap + 10% Process Scrap + 15% Primary Ingot 2.3 kgCO2/kg 75R



# Market CONFIDENTIAL

## Home Charger:

Wallbox es: 45000 plugs per year

$45000 * 600$  ( minimum wallbox price ) = 27 Mil Euro

Platform Considering hotels only for this example:

Hotels In France: 18K and medium room cost 100€

Setup Cost ( 2 charging pillar) 4K

Recurring:  $100 * 2 * 20\% * 12 = 2.4K/year$  ( 1 room/2 night per month)

Taking 5% of this market means:

$4K * 1800 =$  7.2 Mil Euro

$2.4K * 1800 =$  4.32 Mil Euro/Year ( Recurring from platform room fee)

SIMILAR AMOUNTS FOR RETAIL AND RESTAURANTS = X 3

**SaaS Charging for Company: France:** 5,000 mid-sized companies (ETI), 138,000 small and medium enterprises

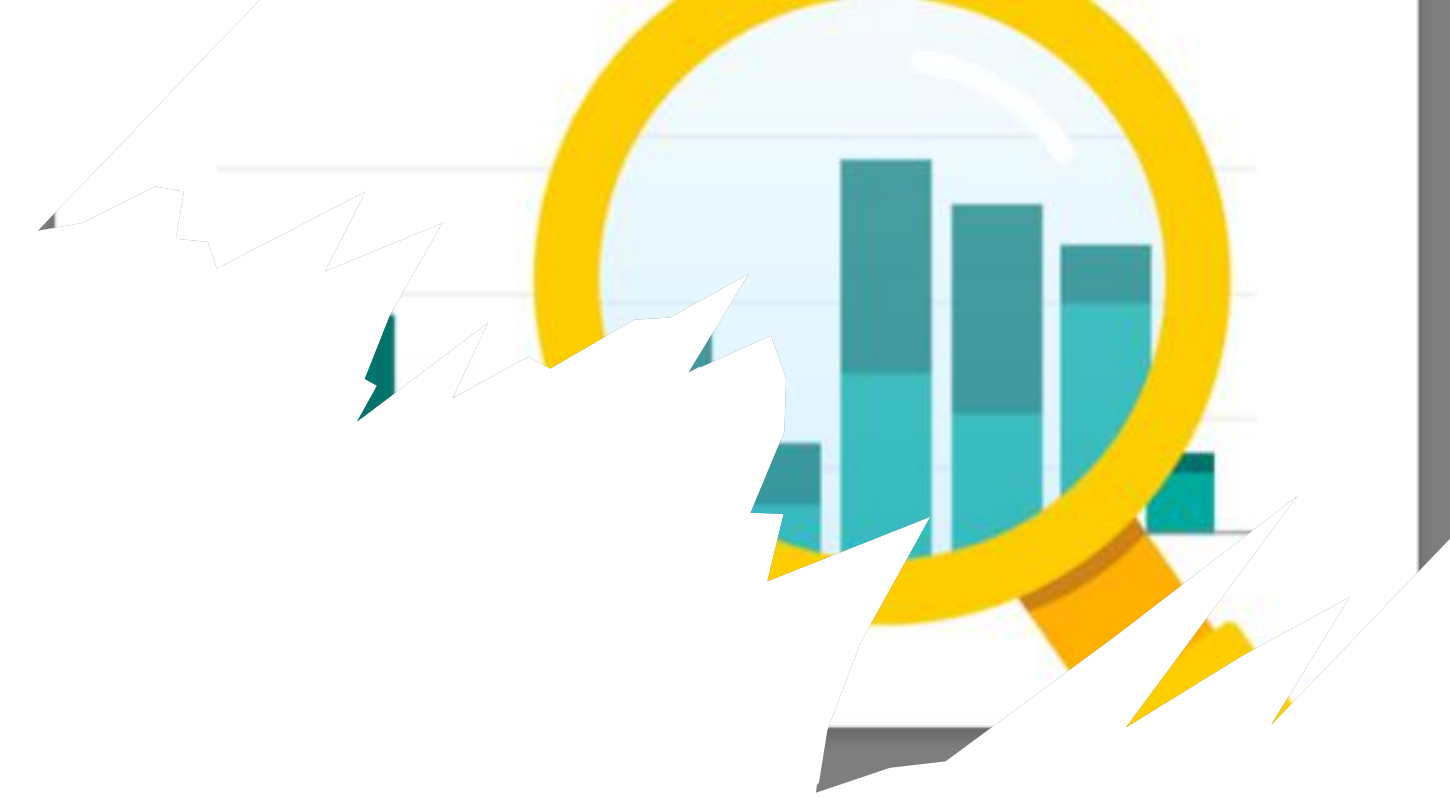
$1.8K \text{ per } 15 = 27K + Sw + installation = 40/50K \text{ per deal (mid size)}$

$1.8K \text{ per } 5 = 9K + Sw + installation = 10/15K \text{ per deal (small / med)}$

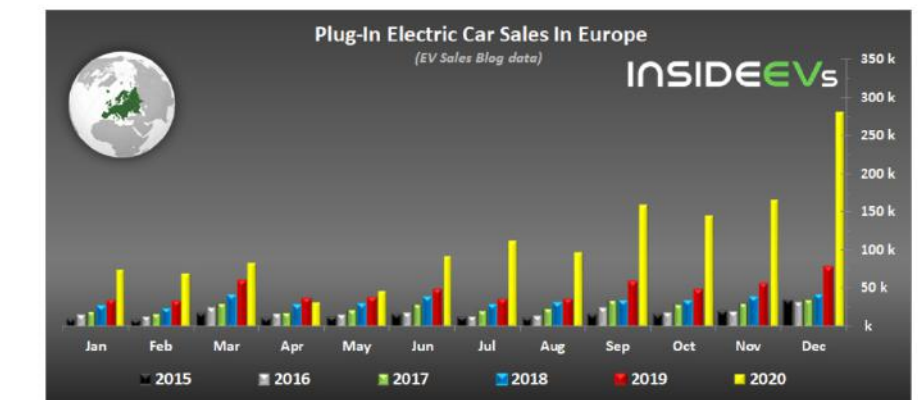
**5% of market big size market = 250 companies = 12.5 Mil Euro**

**3% of small and medium = 4140 companies = 53 Mil Euro**

V2G market arriving -> energy trading platform



Plug-In Electric Car Sales In Europe – December 2020



In 2020, a total of 1,367,138 passenger plug-in electric cars was registered in Europe (up 142% year-over-year). The average market share is 11% (6.2% BEVs and 4.8% PHEVs). In China, it was almost 1,272,000.

# Platform Characteristics

- **Google Serverless Technology:** No physical server, 100% uptime, real-time network update, load balancing per area and infinite scalability
- **Google Realtime Technology:** Clients are updated in real time about the network status of each chargepoint. Realtime and historical statistics.
- **Google ML Technology:** Using the latest Google ML technologies to make previsions on users' routes and faciliating location-based advertising
- **PSD2 compliant:** Payment process are fully EU PSD2 compliant.
- Google pay, Apple pay, Wechat pay (beta)
- **Bank account payments for host:** No payments or credit card stress. All payments are made directly (weekly) to the host bank account  
Using marketplace logic for all services: hotel rooms, charging, Coupons. Hosts users can monitor bank transfers from the app.
- **NFC and QR code:** Tap & charge available at all stations. User simply taps phone on chargepoint and platform detects reservations.
- **Native iOS and Android code:** Only the best performance and features.
- **Integration:** Dedicated API for coupon management in big retailers.
- **Analytics:** User gps data analytics and profiling.
- **Plug and play installation:** Chargepoint configuration is made via app directly from host, tariffs are managed directly from app.
- **Cloud lock:** Charging stations are hardware locked to owner via platform ( same as Apple iCloud protection) .
- **Double working mode:** Pay per charge or free charge per service
- **Custom:** Full in-house technology. We can make any kind of custom solutions on needs. Electronics, firmware, backend , frontend
- **Consultancy:** We can provide wide consultancy in the whole EV sector: microelectronics development, protocols (OCPP, ISO15118, DIN70121) , frontend and backend solutions, integrations, payment platforms, fast custom PCB prototype assembly, Reverse engineering .

AVAILABLE IN English, Italian, French, German

