EVBox: Powering our sustainable future

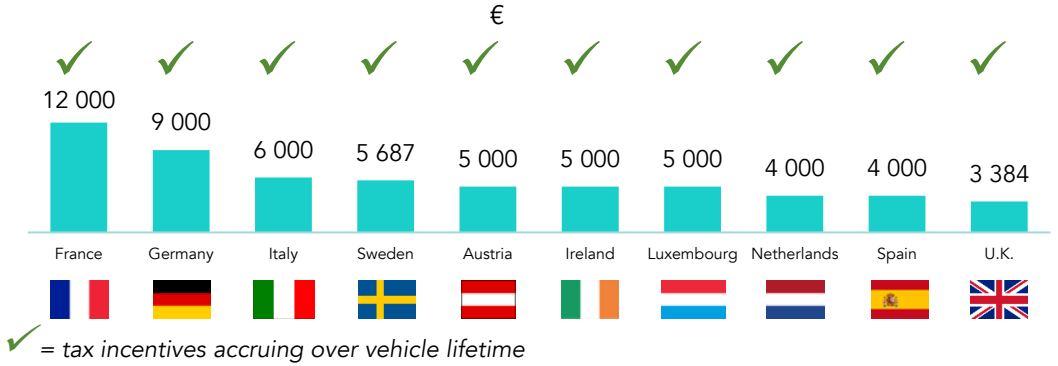
Bjørn Utgård, VP Sales
bjorn.utgard@evbox.com

EVBOX
GROUP

European policy tailwinds

Electric vehicle car incentives

National BEV incentives in place [2]



An increasing number of countries have introduced legislation, outright banning sale of ICEs beyond a certain date.

National internal combustion engine sales phase-out policies in effect

Electric vehicle charging port incentives

EU member state EV infrastructure incentive mechanisms

50% Cost contribution for consumers **40%** Cost contribution for commercial CP	**€900** Subsidy for residential connected CP installation	**50%** Tax deductible on private & commercial CP installation
€1,000 Subsidy for residential CP installation	**75% / £350** Subsidy for residential & commercial CP installation	**€600** Subsidy for residential CP **€1,800** Subsidy for commercial CP
13.5% Corporate tax deductible **75%** Individual tax deductible	**36%** Subsidy for CP installation	**€1,000** Subsidy for public CP **€1,000** Dealer discount with EV purchase

Enter

EVBox Group

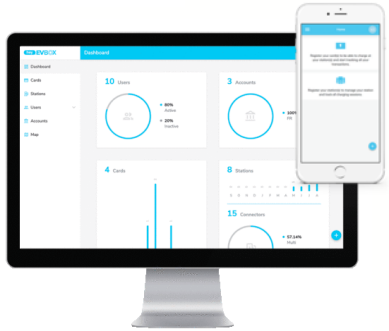
We empower forward-thinking businesses to build a sustainable future by providing flexible and scalable electric vehicle charging solutions.

Our offering

Platform solutions allows for bundling of charging software, hardware, and services.

EVBox AC & DC smart charging stations

Everon enterprise charging management software



Support & services

Our full portfolio

Solutions to meet all customer needs

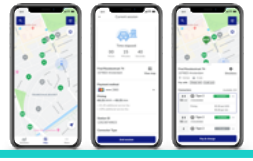
CUSTOM CORPORATE & FLEET SOLUTIONS

- *Utilities*
- *Charging network*
- *Fleets & lease*
- *Fuel retailers*
- *Car dealerships*

Branded charging stations

Charging management platform

White-label mobile app for business drivers



API capabilities to integrate into parking, fleet, and energy applications

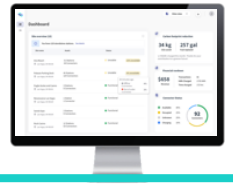
Professional services for training, site management, and upgrades

INTEGRATED COMMERCIAL SOLUTIONS

- *Workplace*
- *Hospitality*
- *Retail*

Regular & Fast Charging Stations

Charging management software



EVBox care services

Project Planning, Site Optimization, Energy Management

RESIDENTIAL & AUTOMOTIVE SOLUTIONS

- *Private home*
- *Apartments / Condominiums*
- *Automotive*

EVBox Elvi home charging with lifetime subscription & charge card for drivers

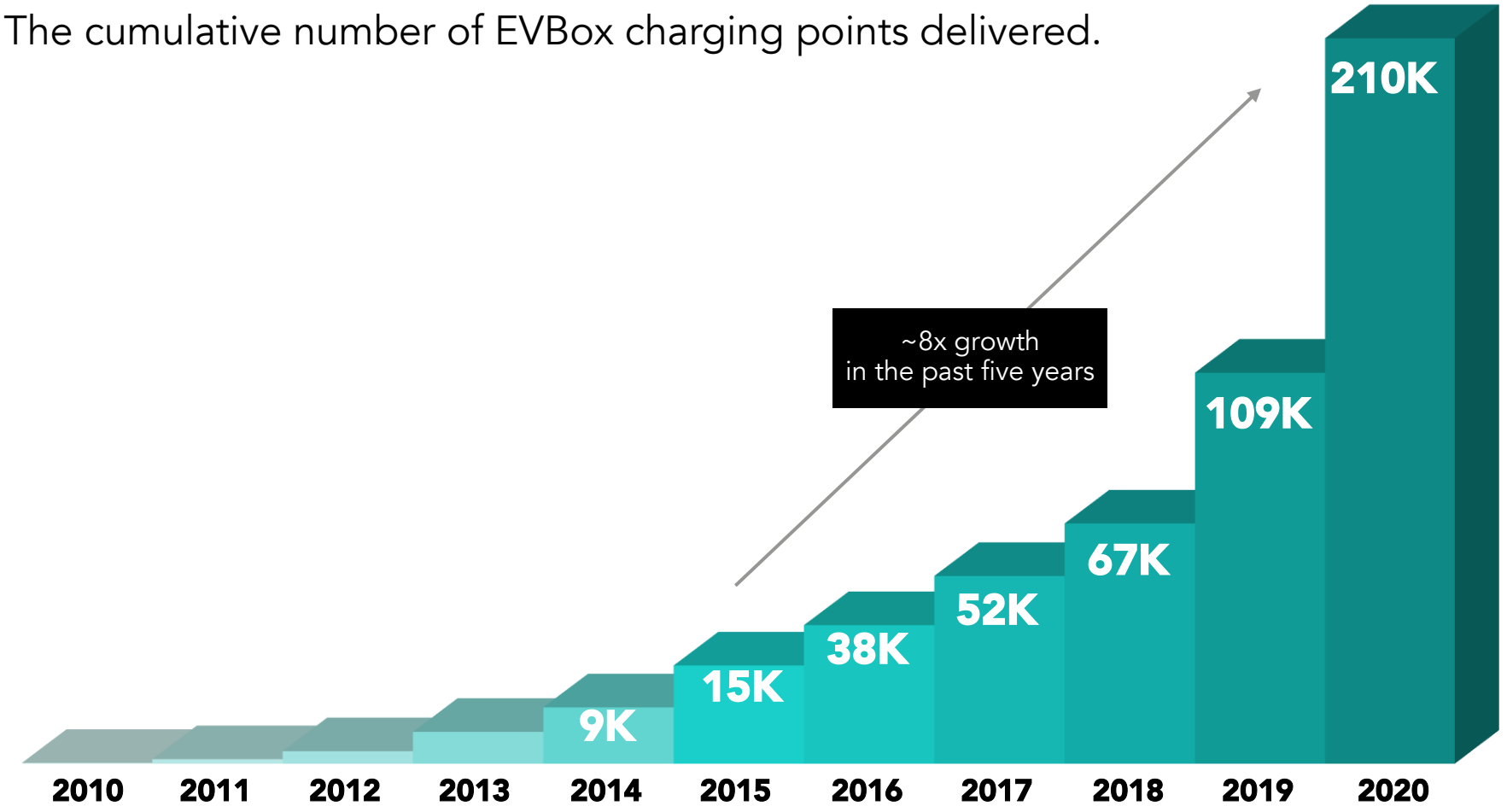
EVBox Elvi for multi-family units/apartments with billing capabilities for tenants

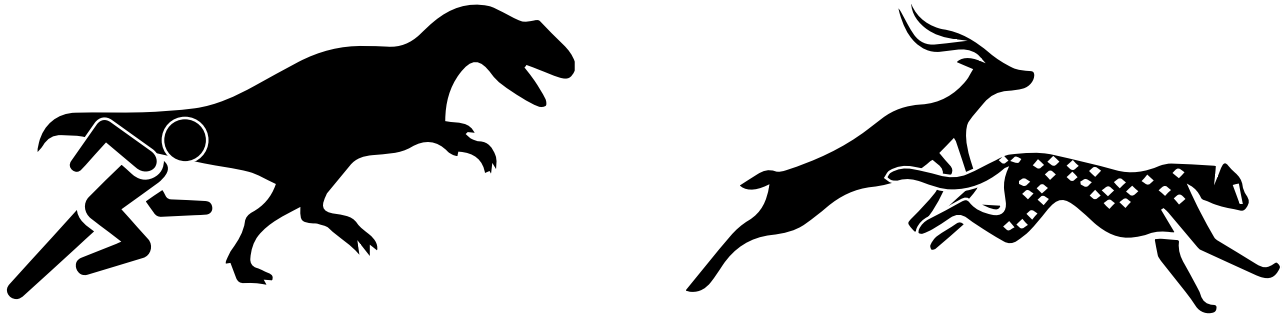
Branded residential charging for mass production by specific charging players (Automotive)

Mobile app for drivers

Exponential shipment and usage growth

The cumulative number of EVBox charging points delivered.

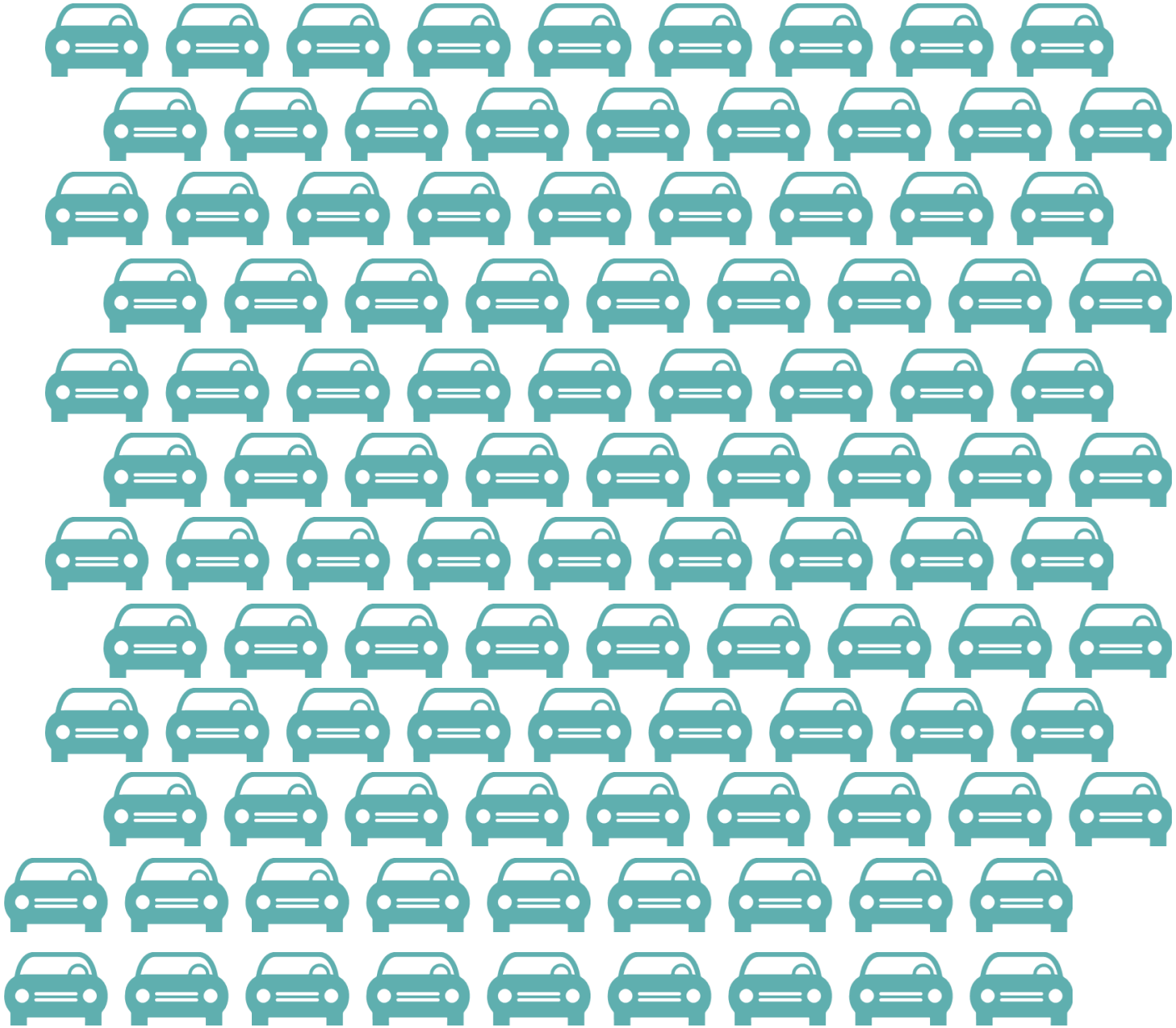




5 YEARS AGO	17 MONTHS AGO	10 MONTHS AGO	END OF 2019	END OF 2020
1 million EVs	2 million EVs	3 million EVs	7 million EVs	10 million EVs

30M

EVs on the road
by 2025



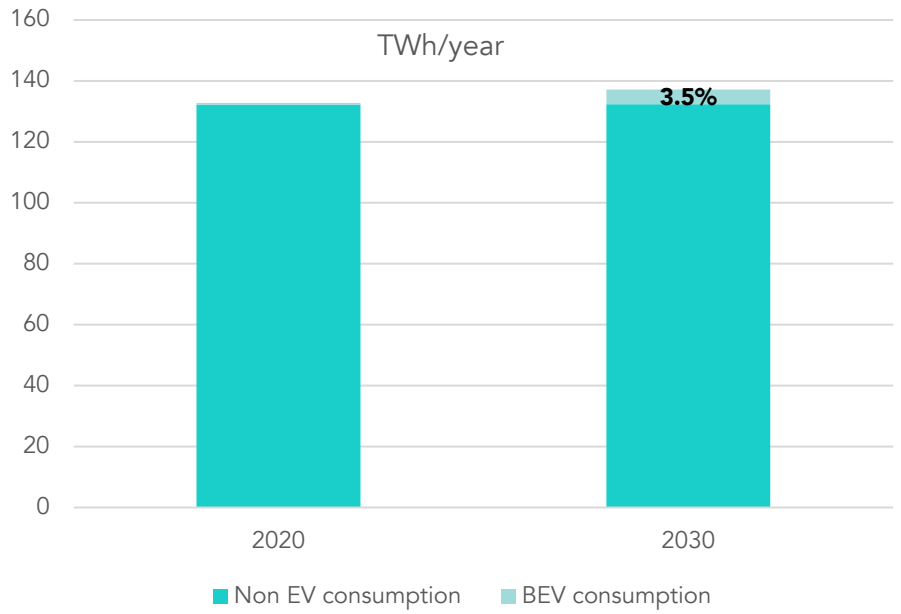
Smart charging is key for residential charging

	GERMANY	FRANCE	UK	NETHERLANDS	NORWAY	ITALY
AVERAGE RESIDENTIAL CONNECTION	43 kVA	10 kVA	23 kVA	9 kVA	35 kVA	3 kVA
AVERAGE PEAK	14,5 kVA (34%)	9 kVA (90%)	7 kVA (30%)	7 kVA (78%)	9 kVA (25%)	3 kVA (100 %)
AVERAGE ANNUAL HOUSEHOLD CONSUMPTION	3.100 kWh	5.500 kWh → electric heating	3.900 kWh	3.500 kWh	15.000 kWh → electric heating & heat pump	2.400 kWh → cooking with gas

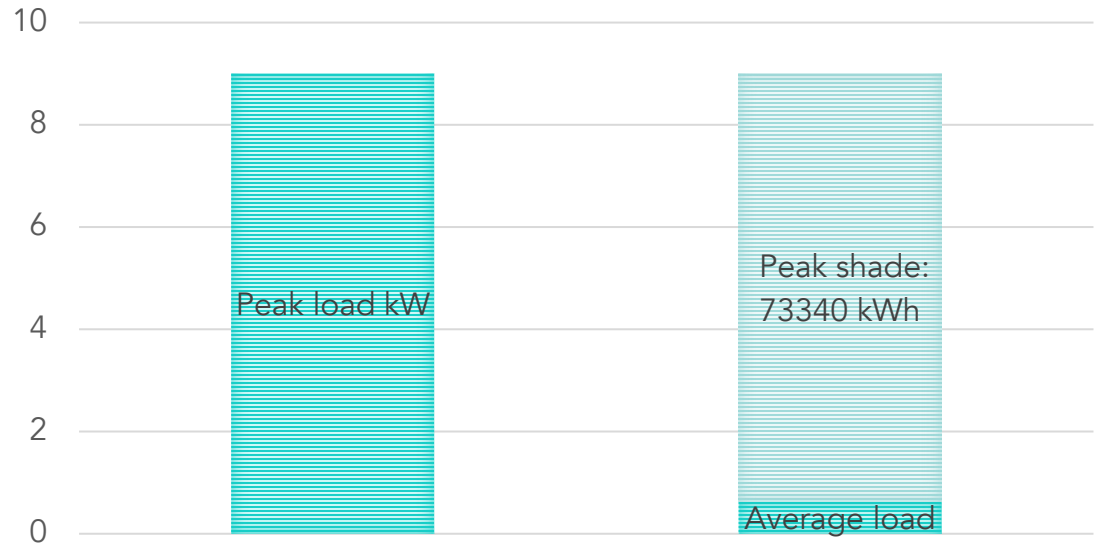
Source: P3

Residential EV charging: Lots of peak shade available!

Example: Norwegian energy system
Even with 100% EV car fleet, only 3.5% increase in energy demand



Example: French home
Average load is just 7% of peak load



EVBOX GROUP

Charging an electric car requires <5% of the available time

Huge flexibility of timing

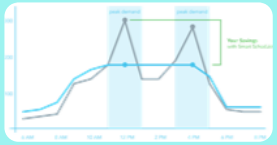
Annual km	15 000
Consumption, kWh/km	0.2
Annual consumption, kWh	3 000
Charging power, kW	11
Hours required for charging	273
Days required	11.4
Commuter (away during the day)	<5% of time
Non-commuter	<4% of time

Charging flexibility

Mapping flexibility by use case

	Residential commuter	Residential non-commuter	Office – commuters
Energy required, kWh/vehicle/year	5000	3000	5000
Sessions required per vehicle per week	2-3	1-2	2
Energy per session, kWh	33-50	30-60	50
Time of day	Evening – Night	Night and daytime	Daytime;
Charging flexibility	Weekly	Weekly	Weekdays
Time available when charging, h	12	20	8
Minimum power, kW	2.8-4.2	1.5-3	6.25
Max power, kW	11	11	22
Min time required, h	3-4.5	3-5.5	6
Flexibility score; time	3-4	4-6	1.3

EVBox Smart Charging capabilities

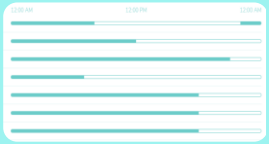


Circuit power limitation

- Limit the charging power to avoid overloading the electric circuit
- Single station or a cluster of stations

Share power among multiple stations

- Clustering stations; Hub keeps total cluster demand below circuit power limitation, while managing phase rotation



Smart charging profiles

- Smart Charging Profiles via OCPP
- Take advantage of Time of Use tariffs

Dynamic load balancing

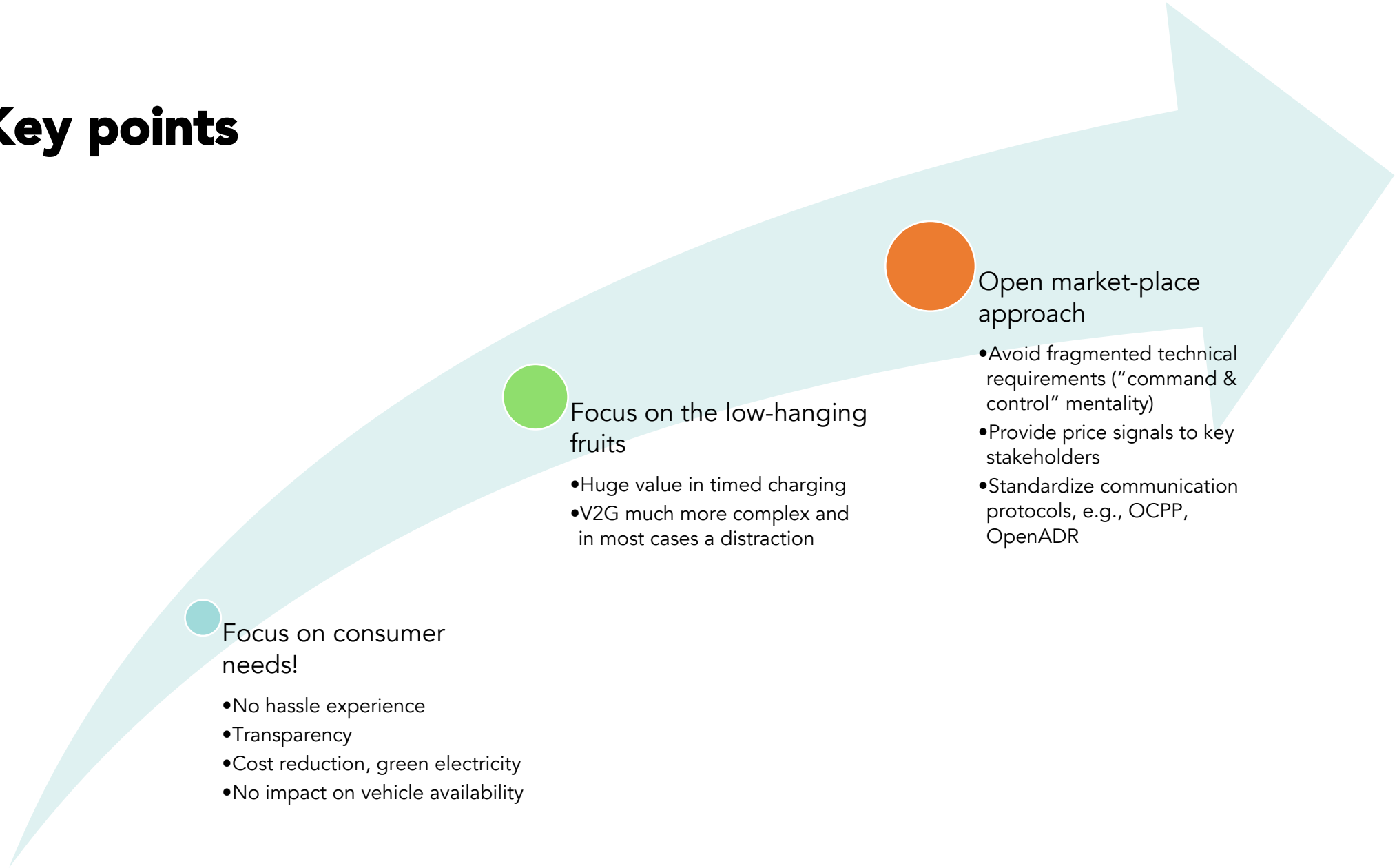
- Integrated load balancing by means of accessory CT clamps
- Integrated with home energy management systems

Advanced energy integration

- Optimizing charging for energy source (renewables!), energy price, demand response, ancillary grid services, etc.

EVBOX GROUP

Key points



Focus on consumer needs!

- No hassle experience
- Transparency
- Cost reduction, green electricity
- No impact on vehicle availability

Focus on the low-hanging fruits

- Huge value in timed charging
- V2G much more complex and in most cases a distraction

Open market-place approach

- Avoid fragmented technical requirements ("command & control" mentality)
- Provide price signals to key stakeholders
- Standardize communication protocols, e.g., OCPP, OpenADR

EVBOX
GROUP