



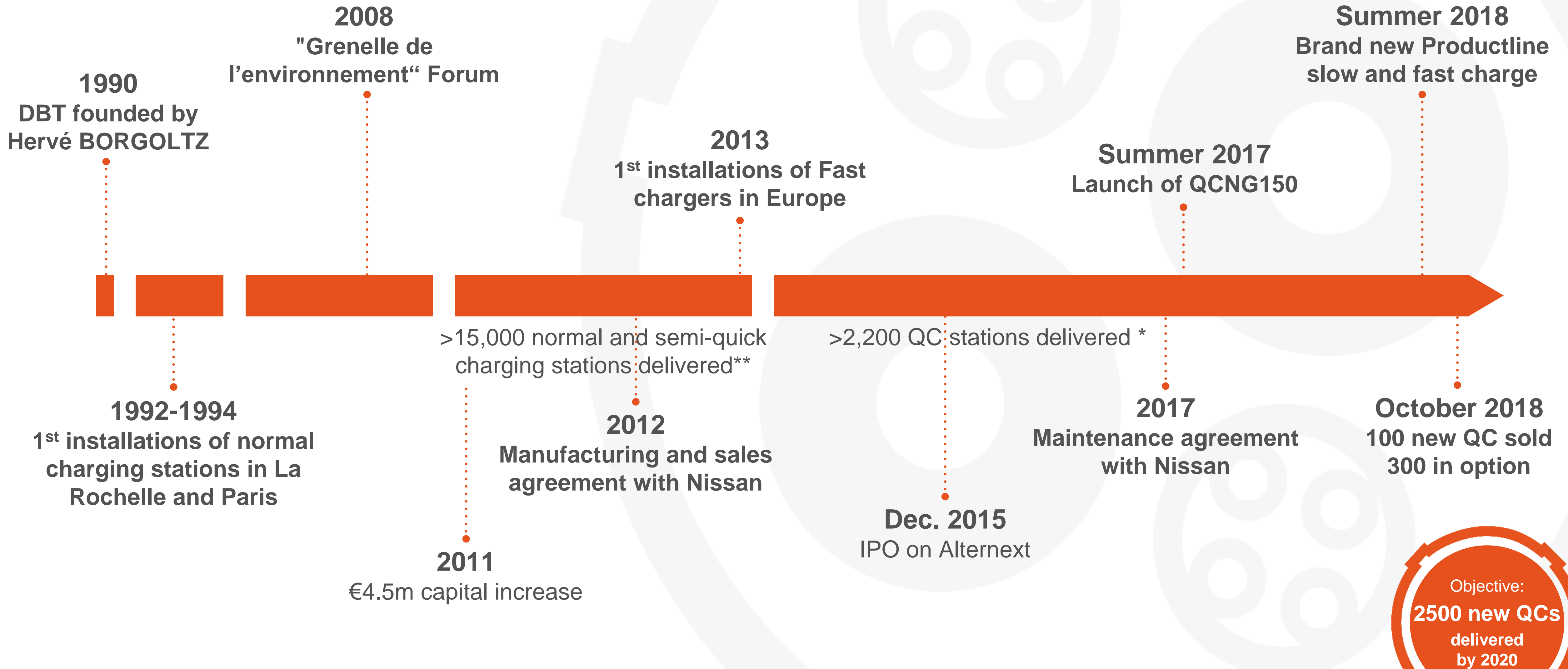
DBT CHARGING ELECTRIC VEHICLES

ASSEMBLÉE GÉNÉRALE DBT – 13/12/2018



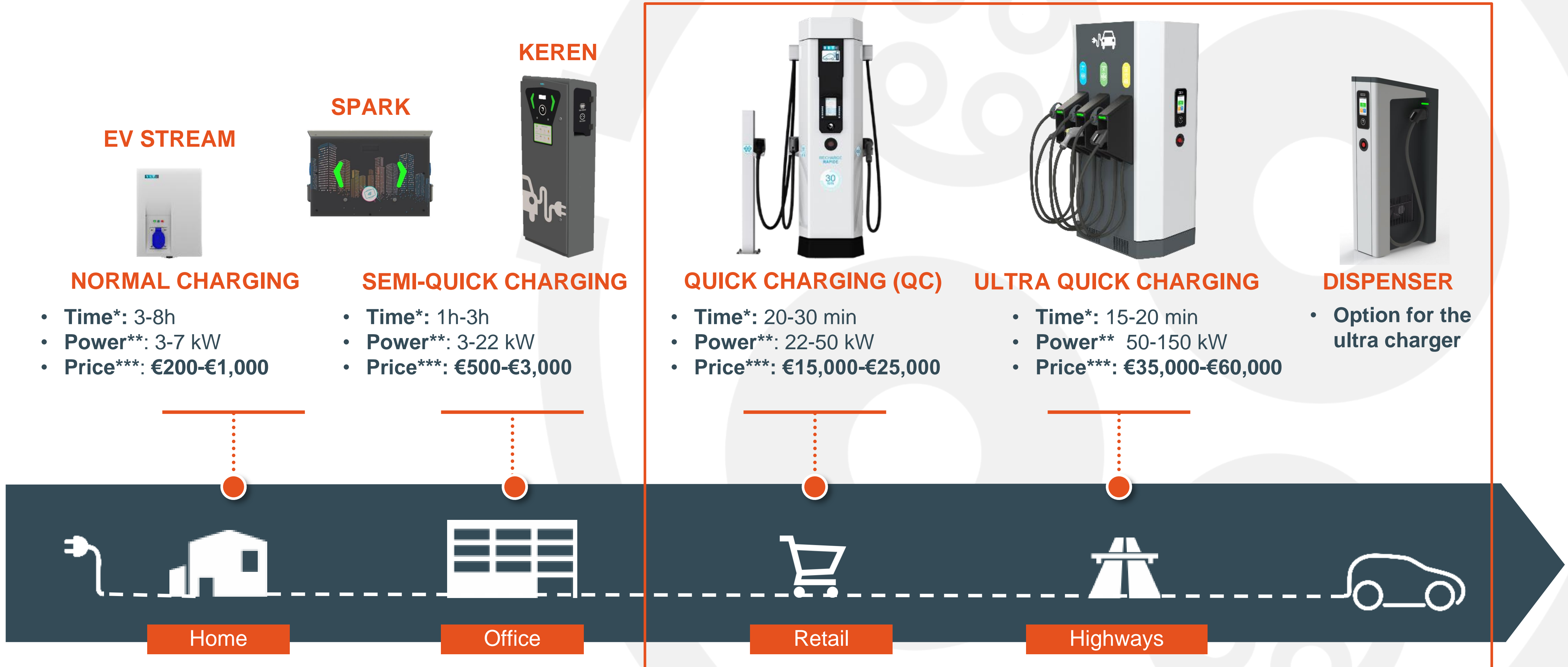
Who are we ?

EUROPEAN LEADER : HISTORY



* As of 2017

Core Business of DBT



* Average charging time

** Average power output

*** Indicative market price range excluding installation

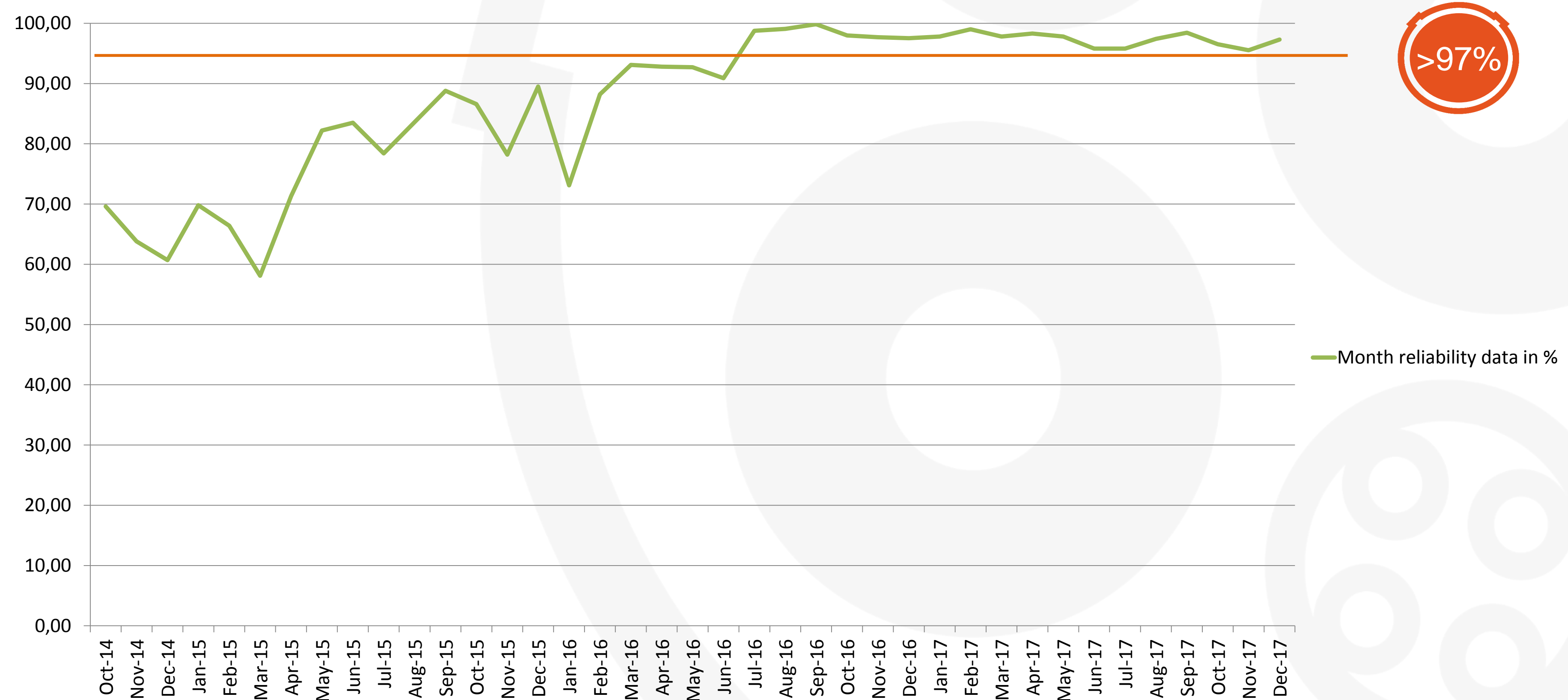
Source: Navigant Research (quick charging) and DBT (other)

- 51% Market share
- From January 2013 to May 2018 : **2,200 QCs installed in 37 countries**
- Average 20 min charge time
- DC/DC or AC/DC/DC – 50kW
- **Fully operational SLA network with 23 partners in Europe** (installation, maintenance and supervision)

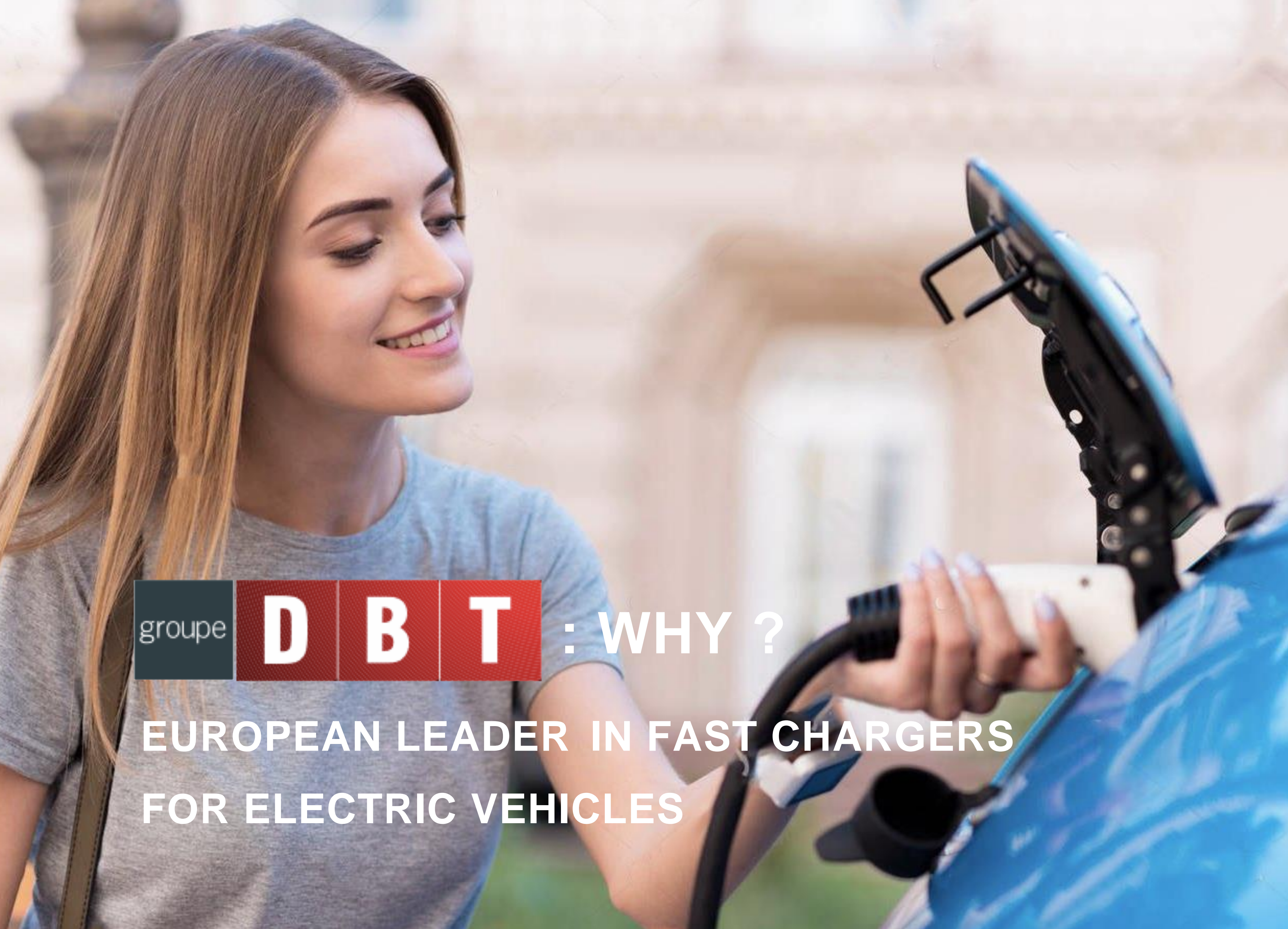


EUROPEAN LEADER : 97% RELIABILITY

- **Stations availability** has structurally increased over the past 2 years to **best-in-class levels**
- **Operating experience** from the **largest installed charger base** in Europe becoming a strong **competitive advantage**
- EV manufacturers and clients such as retailers very keen on developing highly reliable fast charging stations
- Total amount in the UK: 620 Quick Chargers



UK Network, 620 DBT Fast chargers, monthly reliability data



groupe **DBT** : WHY ?

EUROPEAN LEADER IN FAST CHARGERS
FOR ELECTRIC VEHICLES



Projects	Number of chargers and/or charging points	Countries	Operators and participants
FAST-E*	265 chargers	Germany : 199 Belgium : 37 Czech republic : 15 Slovakia : 14	Allego (operator) RWE Effizienz, enviaM Volkswagen, BMW, Renault, Nissan
GREAT	70 chargers	Sweden : 50 Denmark : 20	N/C
UNIT-E*	29 chargers	Belgium : 23 UK : 6	EDF (FR) / ZCF (UK) (opérateurs) Renault, Nissan, BMW
EVA+*	200 chargers	Italy : 180 Austria: 20	Enel (operator) Renault, Nissan, BMW, Volkswagen Groupe Italia (Volkswagen & Audi)
EAST-E*	57 chargers	Croatia: 27 Czech republic : 15 Slovakia : 15	N/C
URBAN-E*	23 chargers	Slovenia: 9 Croatia: 9 Slovakia: 5	N/C
NEXT-E*	222 chargers 50kW 30 chargers 150-350kW	Hungria: 54 Croatia: 51 Romania: 40	E.ON (operator) Mol Group, Hrvatska elektroprivreda of Croatia, PETROL Nissan, BMW
NCE Advanced EV Net	60 charging points	Pologne : 60	N/C
FLEX-E	28 CHAdeMO / CCS charging points 14 chargers	Italy: 8 Spain : 4 France : 2	Nissan, Renault EDF, Enedis, Enel, Ibil, Verbund
High Speed Electric Mobility*	316 chargers	Germany : 150 France: 70 Sweden : 40 UK : 20 Italy : 20 Denmark : 16	Nissan, Renault E.ON and Clever (Operators)
Ionity	400 stations 6 CCS charging points per station	France, Belgium, Netherlands, UK, Germany, Poland, Austria, Hungria, Slovakia, Slovenia, Czech republic	BMW group, mini, Rolls-Royce, Ford, Daimler, VW, Audi, Porsche, Shell
Ultra-E	25 chargers Up to 350kW for CCS	Netherlands, Belgium, Germany, Austria	Allego (opérateur) Audi, BMW, Ford, Renault... Magna, Bayern Innovativ, Hubject
Mega-E	322 chargers	Germany, Denmark, Belgium, France, Netherlands, UK, Luxembourg, Sweden, Norway, Poland, Estonia, Latvia, Lituania	Allego, Fortum Charge & Drive

*Projects in which DBT is involved

NEW PARADIGM: NEW EVS, NEW NEEDS AND MORE CHARGING POWER REQUIRED



Volkswagen I.D Buzz

2022
Battery 111 kWh
Ultra fast charging of 150 kW
with CCS standard
Autonomy of 600 km
I.D Pilot



Skoda vision E

Double motorisation of 306 CV
Theoretical autonomy of 500km
Induction charger (11 kW)
& ultra fast charging of 150 kW
with CCS standard



Audi e-tron Sportback

2019
503 CV
Max power of 307 kW
Theoretical autonomy of 500 km
Ultra fast charging with
CCS standard



Porsche Mission E

Before 2020
Double motorisation for 600 CV
Theoretical autonomy of 500 km
Ultra fast charging for CCS



Volkswagen I.D concept

2020
125 kW electric motor ie 170 CV
Autonomy from 400 to 600 km
I.D Pilot



Volkswagen I.D Crozz

2020
lithium-ion 83 kWh battery
Autonomy of 500 km



Opel Ampera-E

2018

60 kWh battery

Autonomy of 520 km

CCS fast charge (optional)



Jaguar I-PACE

2018

90 kWh battery

Autonomy of 500 km

CCS fast charge



Tesla model P

2019

Pick-up

Battery > 100 kWh



Ford model E

2019

Autonomy of 500 km



Tesla model Y

2019 / 2020

Based on model 3



Mini Electric Concept

2019

Autonomy of 300 km



Citroën C5 Aircross

2019

≈ 60 km in full electric mode

2 electric 80 kW motors



Range Rover Sport PHEV

2018

Autonomy of 51 km in full electric mode



Jeep Yuntu

2019

65 km in full electric mode



Opel Grandland X

2020

≈ 60 km in full electric mode



Panamera Turbo SE-Hybrid

2018

Autonomy of 49 km with 140km/h speed



Ford Transit Custom

2019

Autonomy of 50 km in full electric mode

20 prototypes in London



groupe

D B T

D B T

Charging
Electric
Vehicles

EUROPEAN LEADER IN FAST CHARGE FOR ELECTRIC VEHICLES

How : Key to success

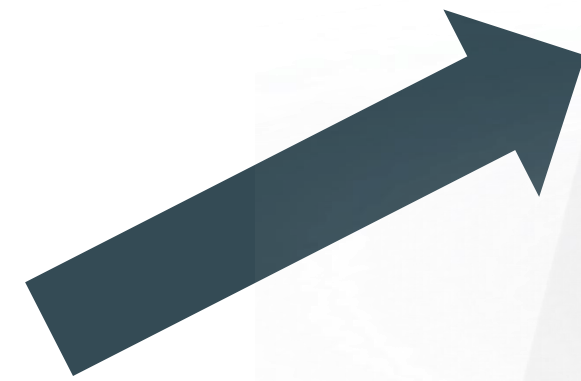
FROM FAST CHARGE
TO ULTRA FAST CHARGE





Quick Charger NQC
The European blockbuster

- Since 2013, 2,200 units
- 50kW delivered
- 3 standards since 2013
- Available in 37 countries
- Unique worldwide experience



Quick Charger Compact 50

- 2018-2022 generation
- 3 connectors (CHAdeMO, CCS/COMBO, AC Type 2)
- Upgradable power in DC Version 25 kW → 50 kW
- **Simultaneous charge in DC**
- Simultaneous charge up to **3 vehicles**
- Connected: Wifi, OCCP 2.0



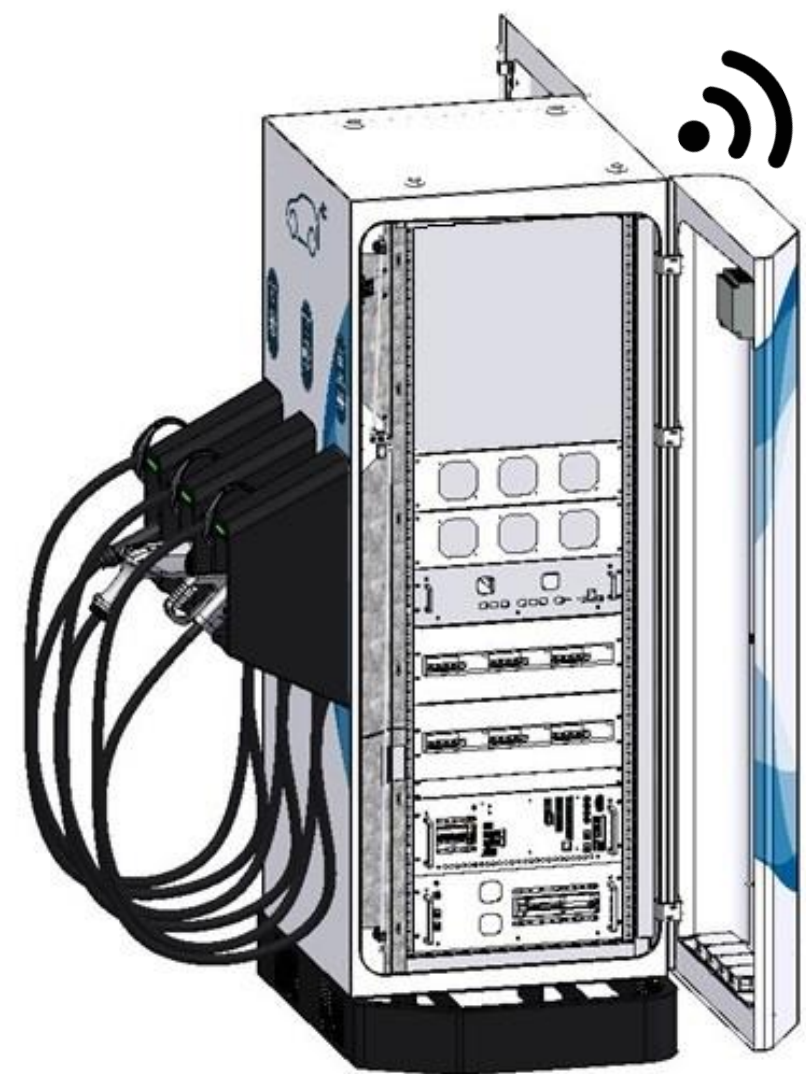
Ultra Charger 150

- 2020 and after
- 3 connectors (CHAdeMO, CCS/COMBO, AC Type 2)
- Upgradable power in DC 50 kW → 150 kW
- **Simultaneous charge in DC**
- Simultaneous charge up to **3 vehicles**
- Can deliver power up to 150 kW in DC
- Connected: Wifi, OCCP 2.0
- Charge: 3 x 50kW / 1 x 100kW + 2 x 50kW / 1 x 150kW



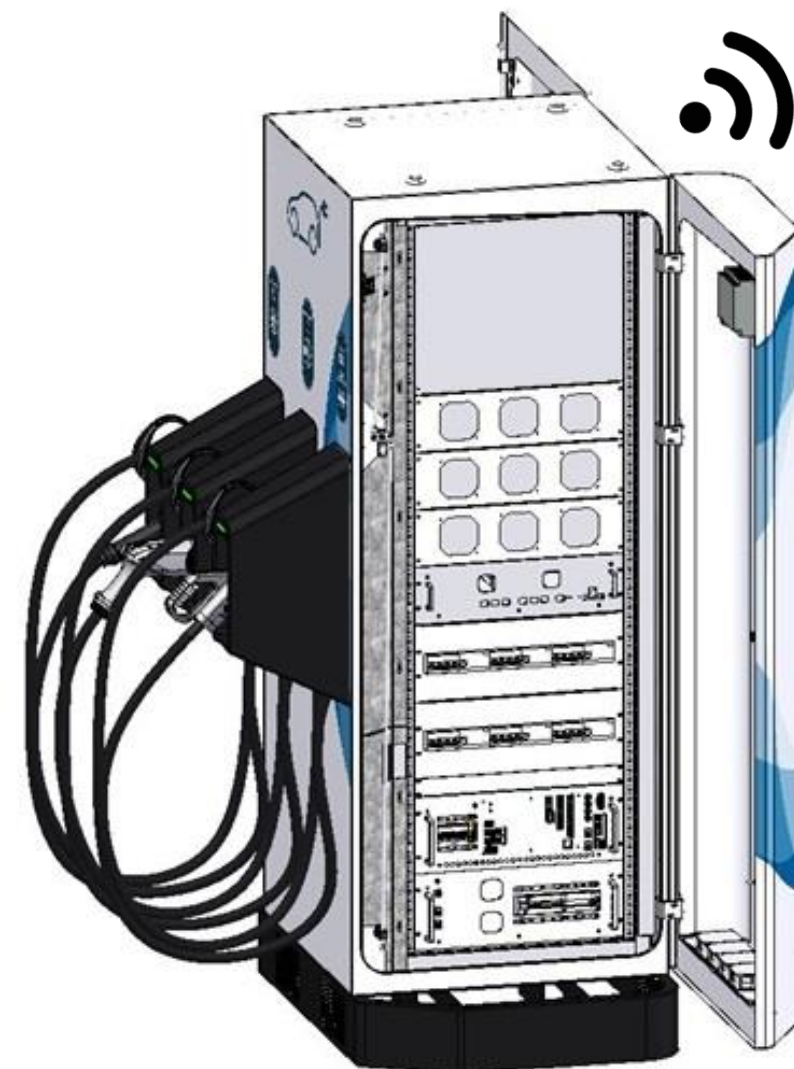
THE NEW NG RANGE

- On the way to 350kW if needed
- Same electrical basement and electrical connection
- Same upgradable power modules
- Charge 100% of EVs



GRID

50 kW



75 kW



GRID

100 kW



GRID

150 kW



GRID

175kW



- Dispenser 100 to 150kW
- Up to 920 volts
- Can be used in 350kW configuration

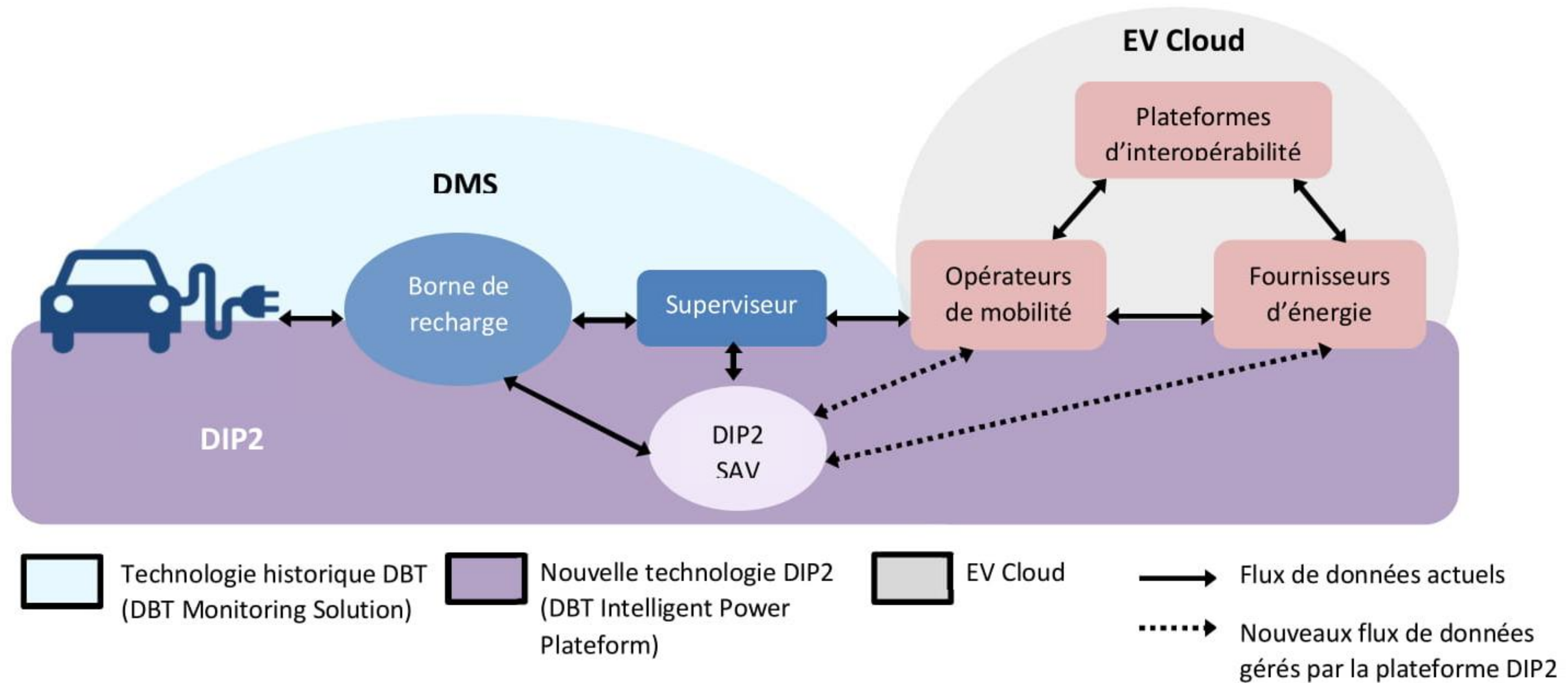


Crédits: JP. Glatigny, Renault Trucks, Avere France

- Renault Truck – Maxity (electric version)
- Autonomy: 70 à 100 km
- Payload: 2100 kg
- Maximum speed: 90km/h

DBT LANCE SA PLATEFORME DE SUPERVISION DÉMATÉRIALISÉE POUR LE « SMART CHARGING » DES VÉHICULES ÉLECTRIQUES

La plateforme de gestion dématérialisée de DBT



FUTURE MULTIFUNCTION ELECTRICAL STATION CONCEPT



- 1 to 2 parking spaces served
- Many implantation possibilities

THANK YOU FOR YOUR ATTENTION



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