

EVS 32
A world of E MOTION
2019 MAY 19-22

INTERNATIONAL ELECTRIC VEHICLE SYMPOSIUM & EXHIBITION

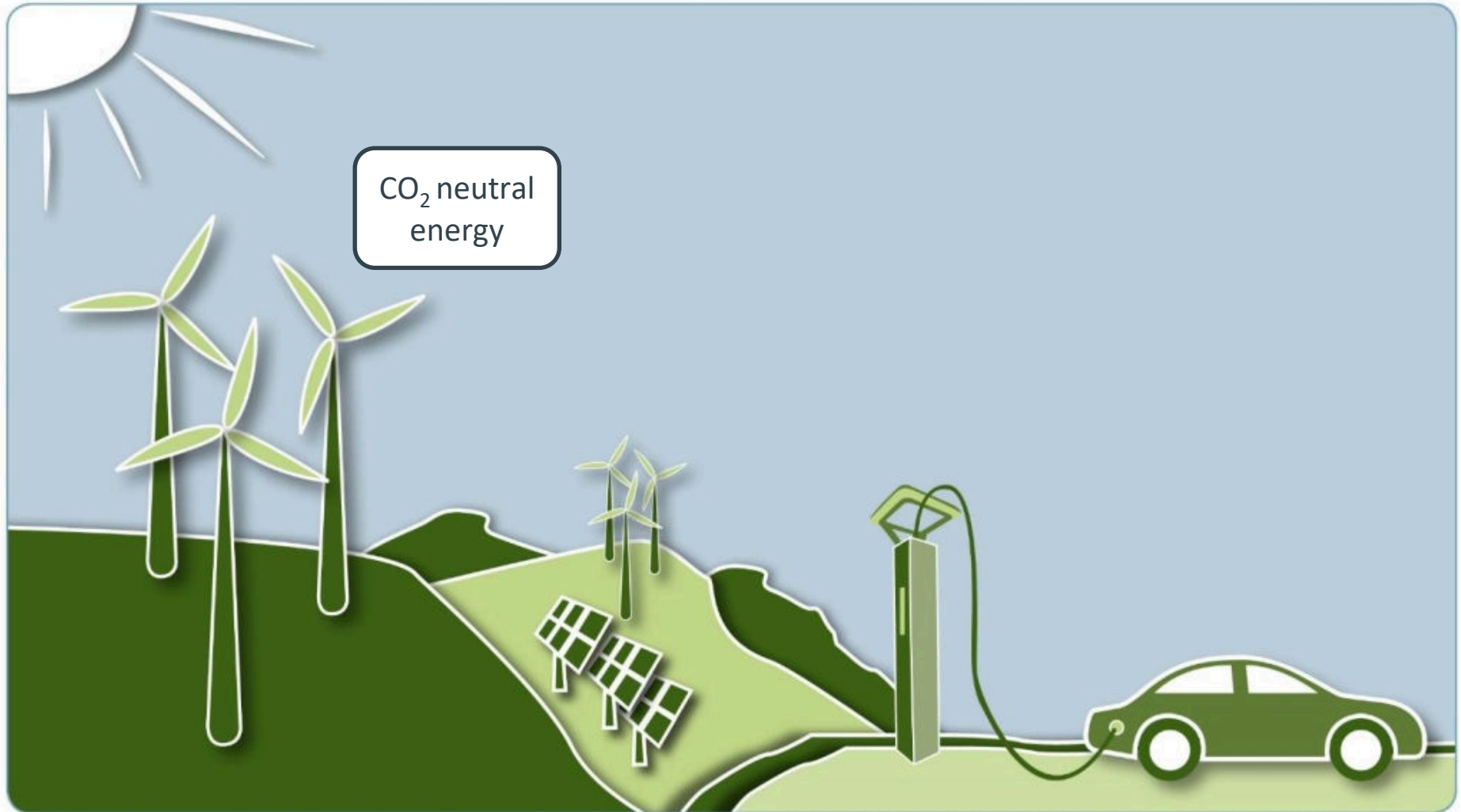


CharIN e.V.

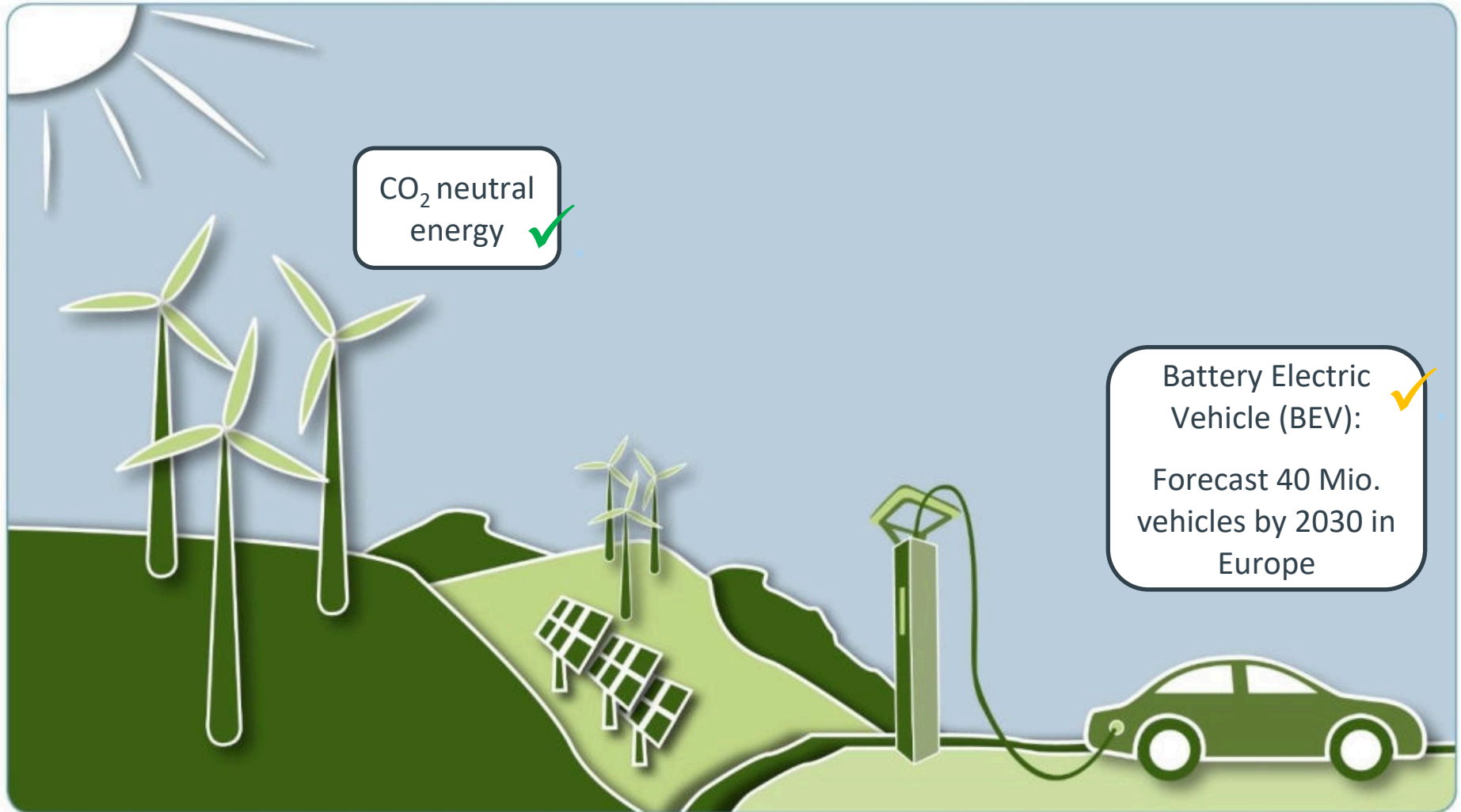
The path to a global EV Charging System



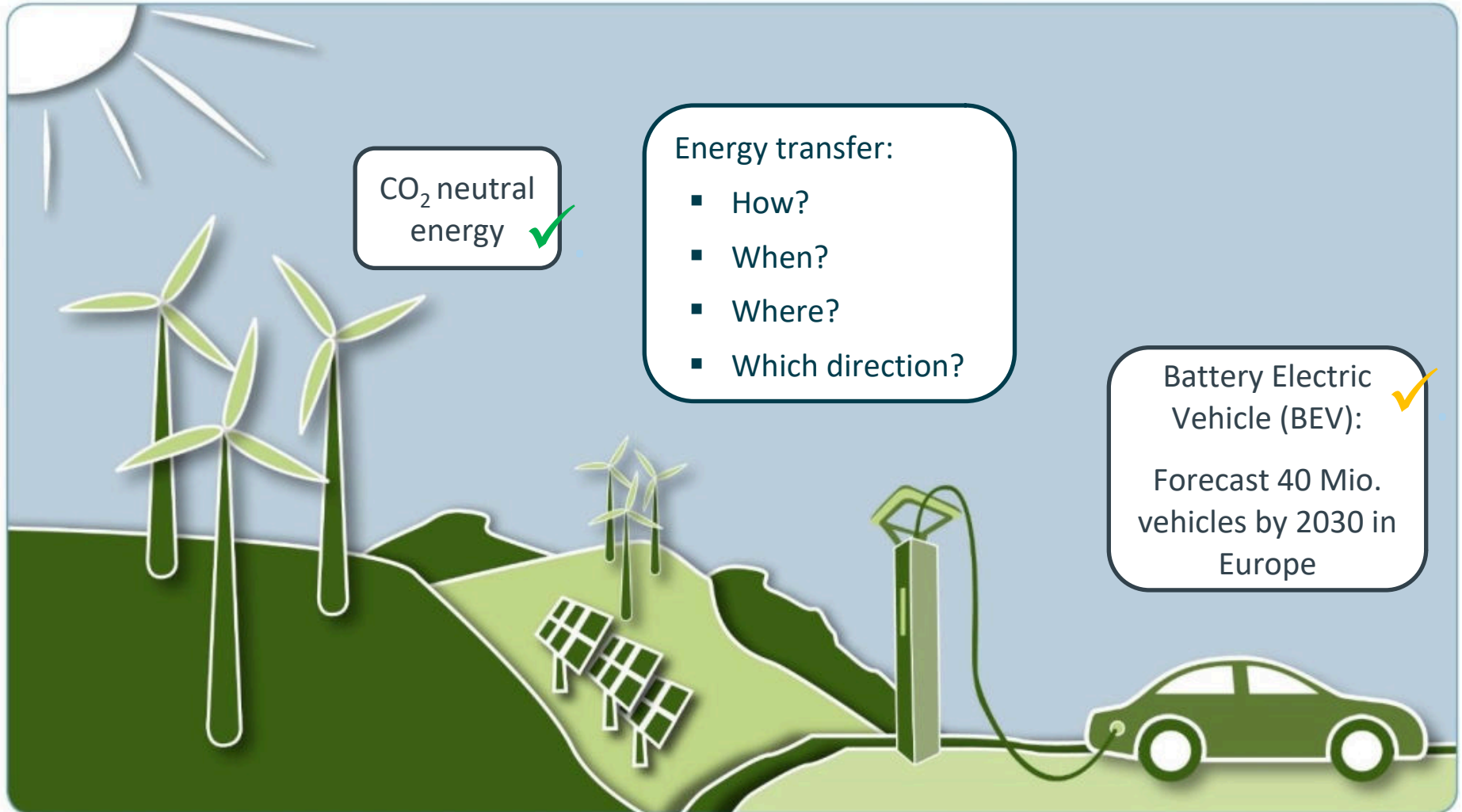
General Goal: CO₂ neutral Mobility



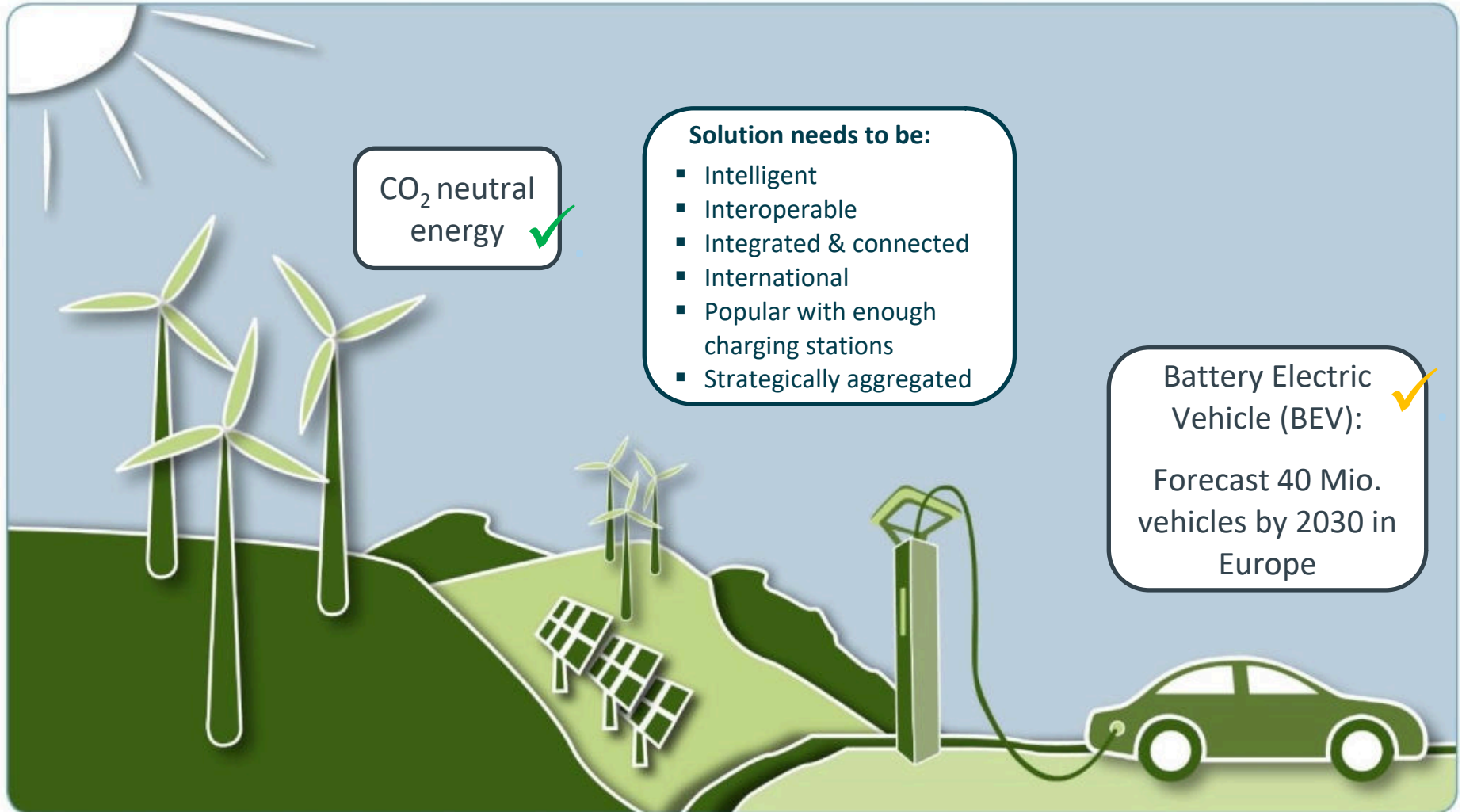
General Goal: CO₂ neutral Mobility



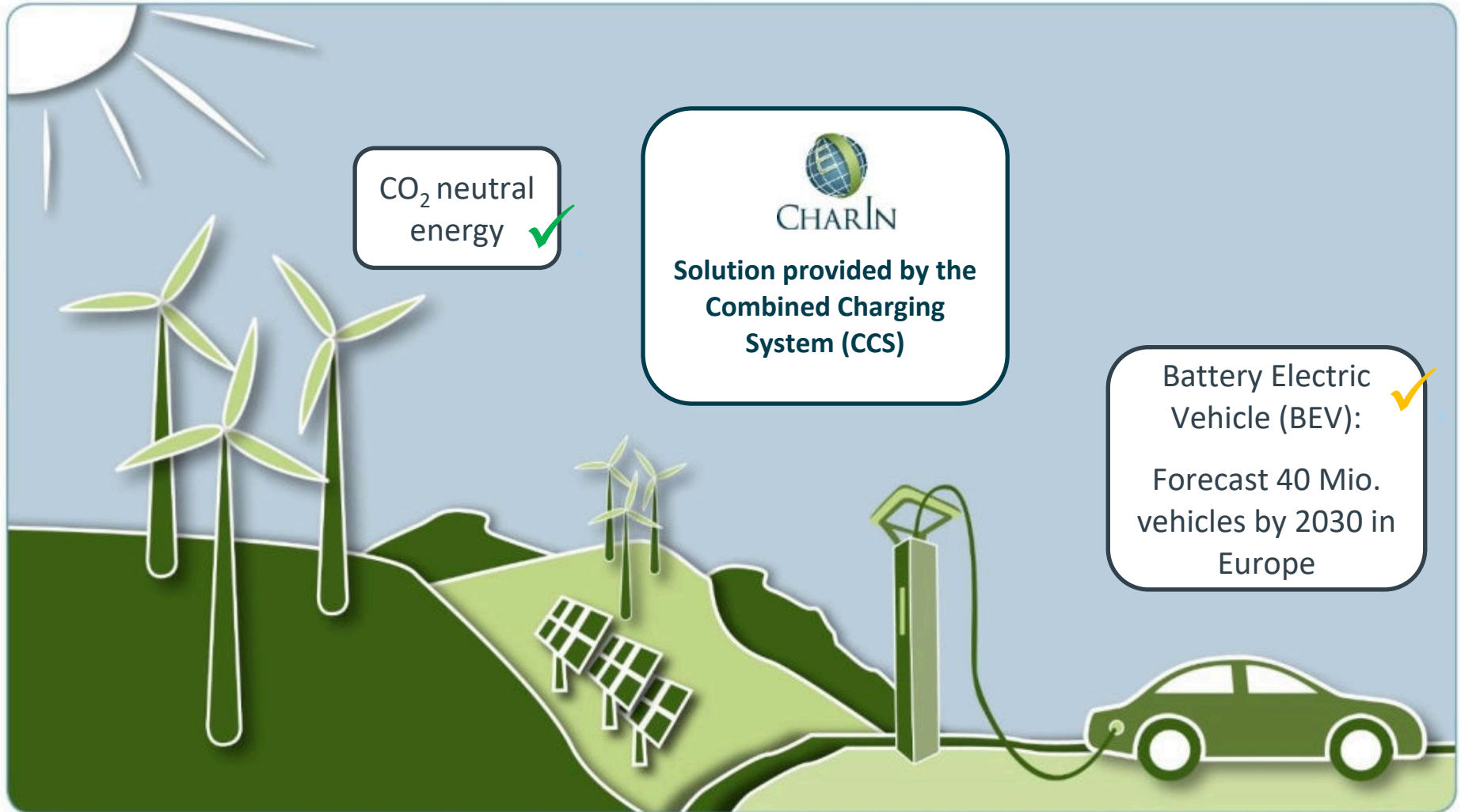
General Goal: CO₂ neutral Mobility



General Goal: CO₂ neutral Mobility



General Goal: CO₂ neutral Mobility



Charging System Standard

Combined Charging System (CCS)

- **Single System in one connector**
- **One communication module**
- **High Charging Power up to 450 kW**



©Phoenix Contact



- **State of the art communication technology (PLC)**
- **Enabling of grid integration services (V2H, V2G)**
- **Enabling of automated charging and billing (PnC)**

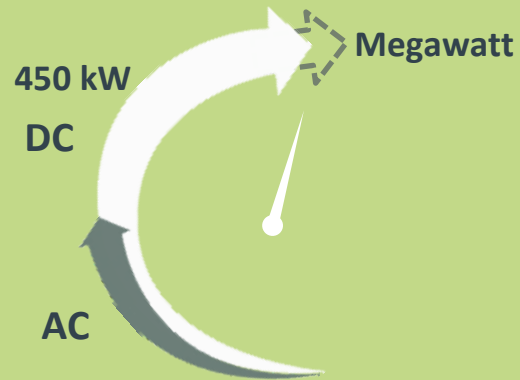
Charging System Standard

CCS Scope



Performance
up to

450 kW



Added Value

Extended
Functionality
Vehicle to grid &
Vehicle to home

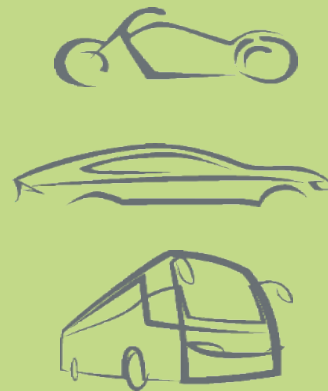


Worldwide

Asia

Europe

North America



Scope of application

Motorbike

Car

Bus | Truck



High Power Charging





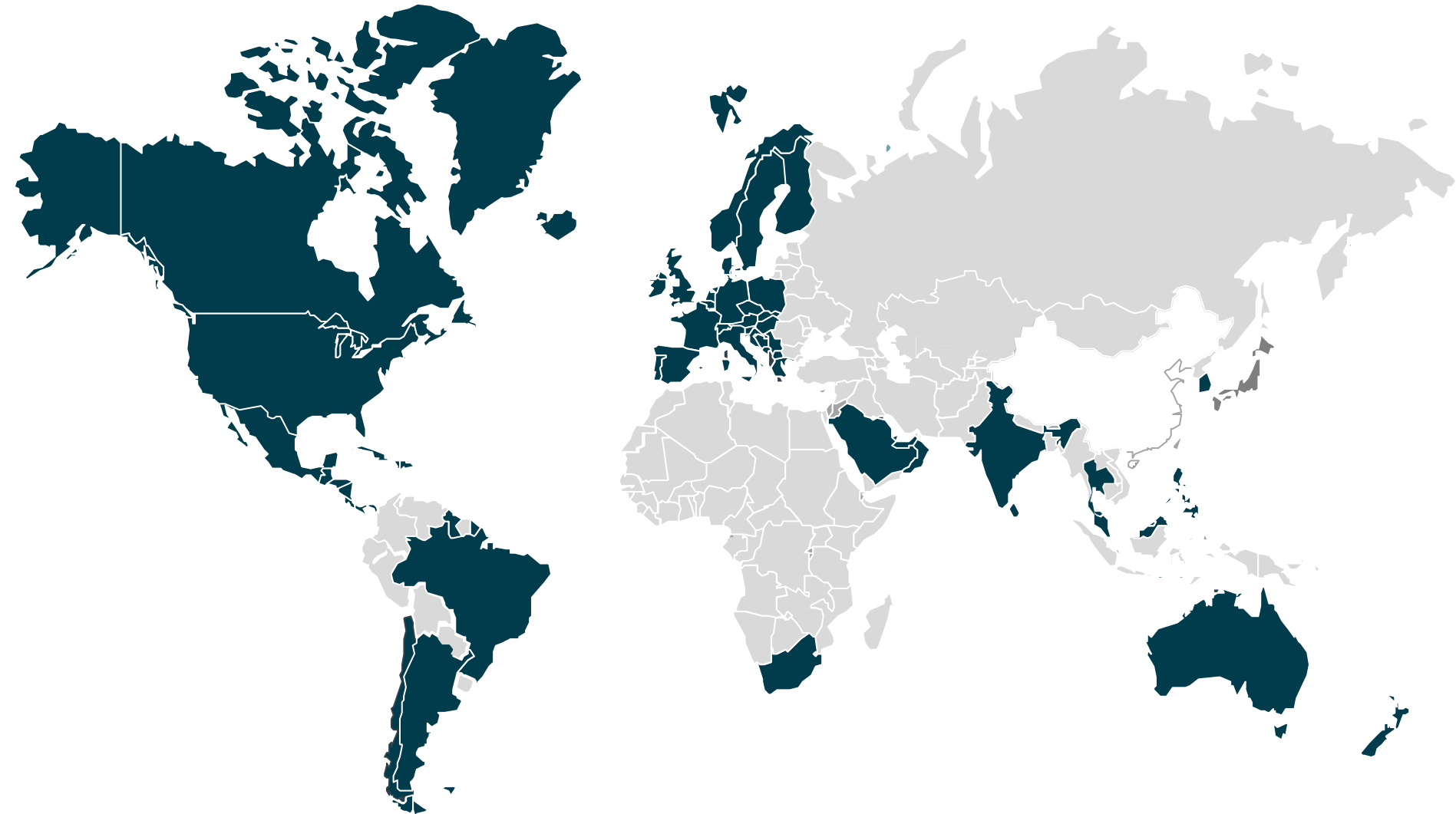
Automated Wireless Charging

Automated Conductive Charging



Plug & Charge

World Map of the Combined Charging System CCS



Battery Electric Vehicle market share of charging standards

BEV sales 2018 in the US

[RUBRIKENNAME]

[WERT]



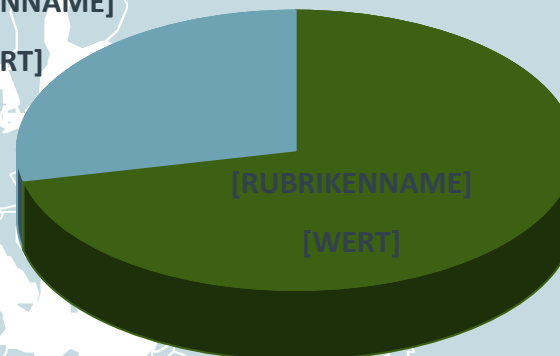
Source:

<https://insideevs.com/news/341824/december-2018-us-plug-in-ev-sales-report-card/>

BEV registrations 2018 in Germany

[RUBRIKENNAME]

[WERT]



Source: VDIK, VDA, KBA

Charging System Standards worldwide

CCS and ChaoJI

✓ Interoperable
✗ Not interoperable

Global

DC-Connector

Communication

Fast Charging
(FC)

High Power
Charging (HPC)

HPC
> 1MW

CCS



ISO 15118
PLC

CCS



ISO 15118
PLC

CCS



ISO 15118
PLC

one
system
for all



Japan

DC-Connector

Communication

CHAdeMO



11 bit
CAN

ChaoJI



11 bit
CAN

Communication ✗

?



China

DC-Connector

Communication

GB/T



29 bit
CAN

ChaoJI

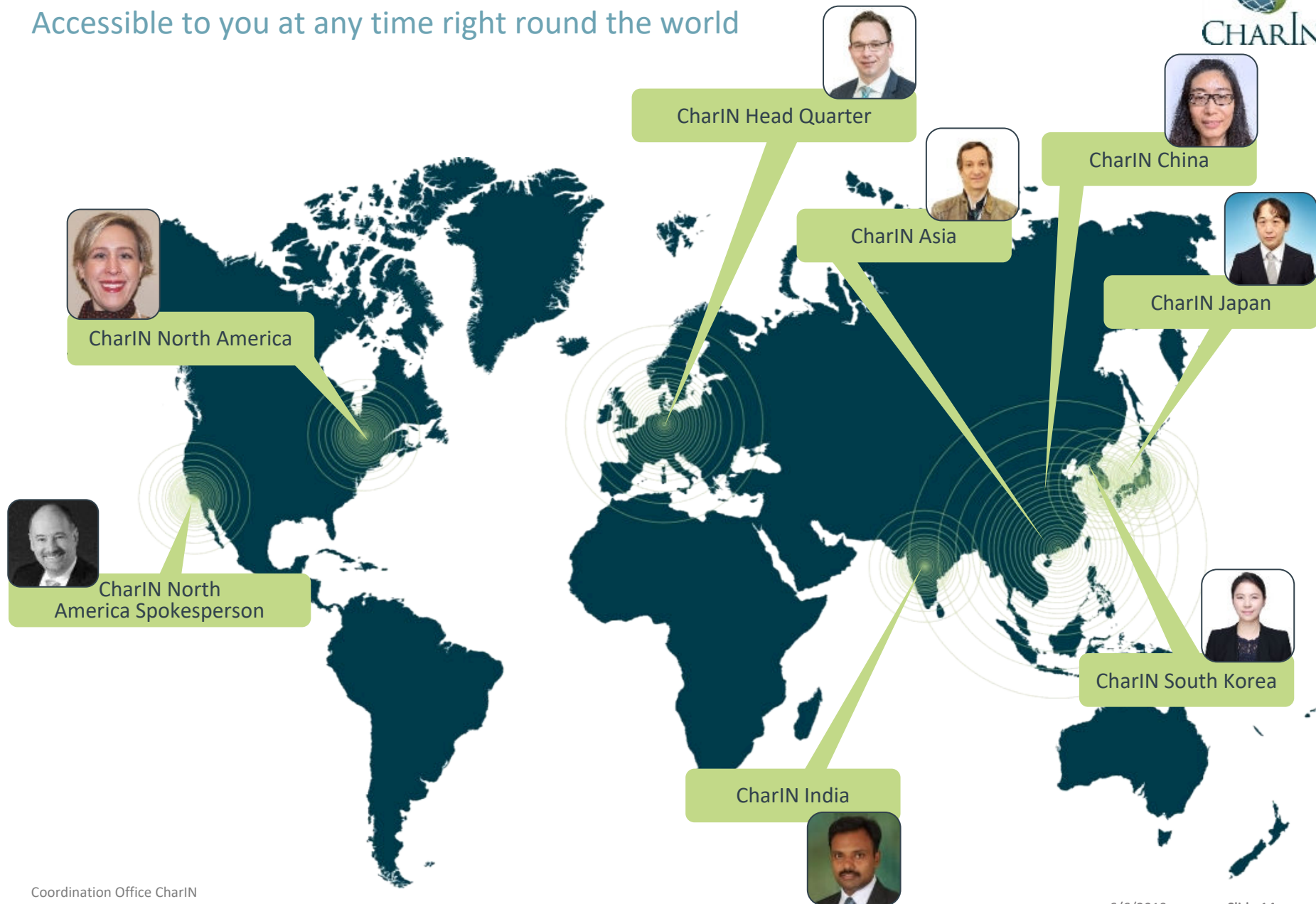


29 bit
CAN

?

CharIN association

Accessible to you at any time right round the world



CharIN association

Our members – currently 161 (total) 1/2



Core Members



Core members: 91

CharIN association

Our members – currently **161** (total) 2/2



Regular Members



Associated Members



Supporters of CharIN



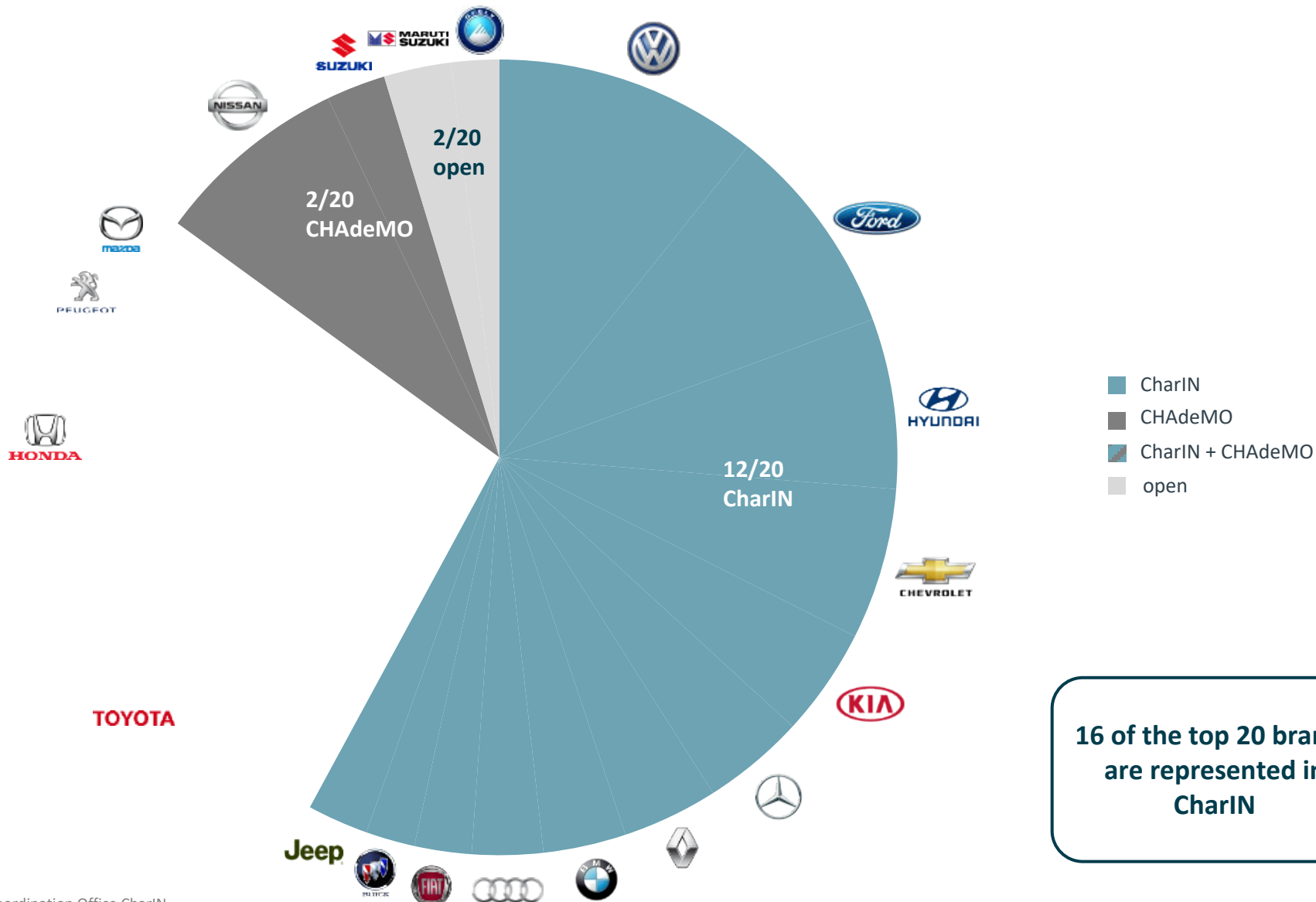
Regular members: 68



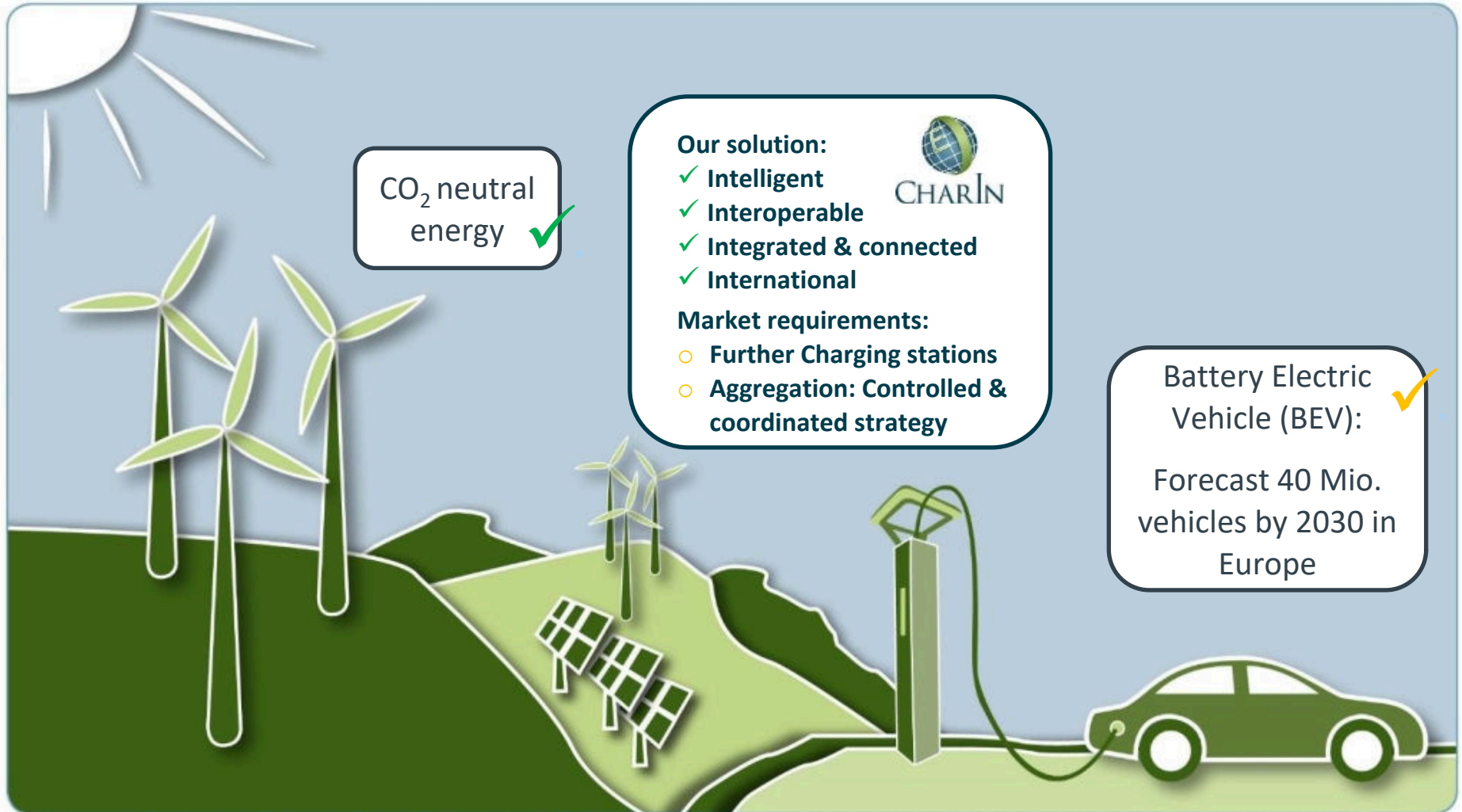
Supporters of CharIN: 12

Membership Share

Top 20 brands 2018 by volume



General Goal: CO₂ neutral Mobility



Thank you for your kind attention!

Visit us in Hall 6 | Booth E21!



CharIN e.V.

Phone +49 30 288 8388 0

Fax +49 30 288 8388 19

E-Mail coordination@charinev.org

rg

 www.charinev.org
[@charginginterfac](https://www.charinev.org)

 [@worldwideccs](https://www.instagram.com/worldwideccs)

 [@CharIN e.V.](https://www.linkedin.com/company/CharIN-e.V.)

