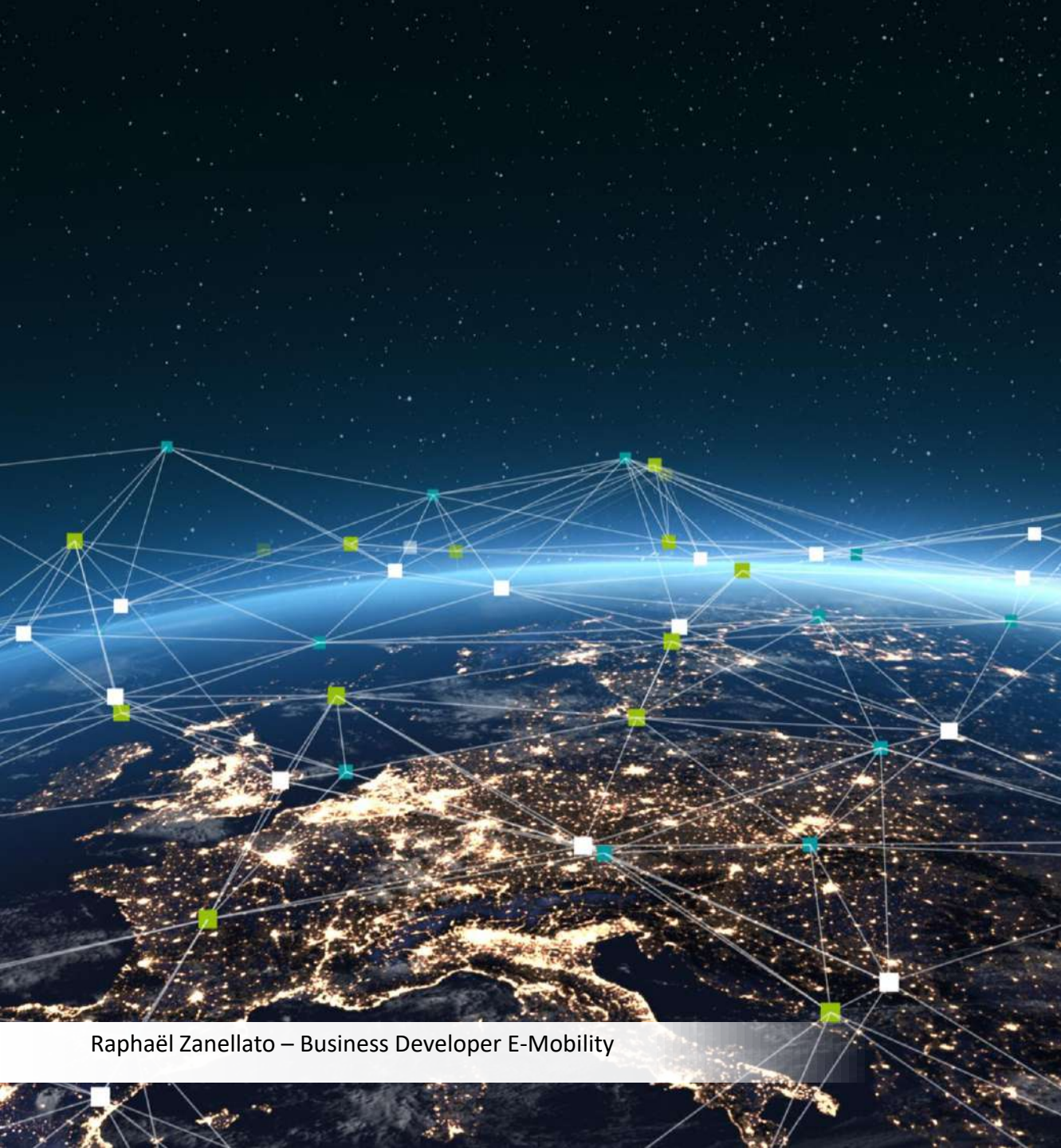




Welcome

Empowering the
All Electric Society

*Sustainable solutions for sustainable
success*

Raphaël Zanellato – Business Developer E-Mobility

Overview of the presentation

- Introduction to Phoenix Contact & CHARX;
- Powerdale retrofit solution;

- Our EMS:



Phoenix Contact

Headquarters of the Phoenix Contact Group



Headquarters
Blomberg, Germany

3.6 billion €
in sales in 2022

22,000
employees worldwide

1923
founded



Over
100,000
innovative
products



Phoenix Contact

Intelligent solutions for all sectors



Buildings



Industry



Infrastructure



Power

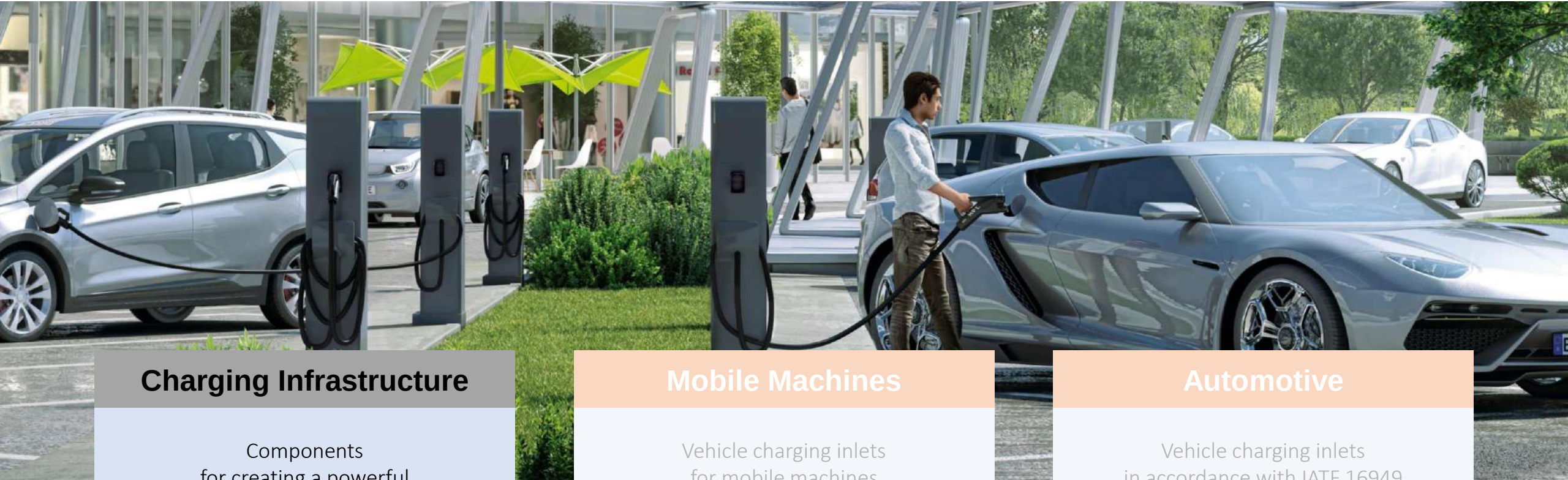


Mobility



We accelerate the world's
transformation to sustainable
mobility

Our market segments



Charging Infrastructure

Components
for creating a powerful
charging infrastructure

Mobile Machines

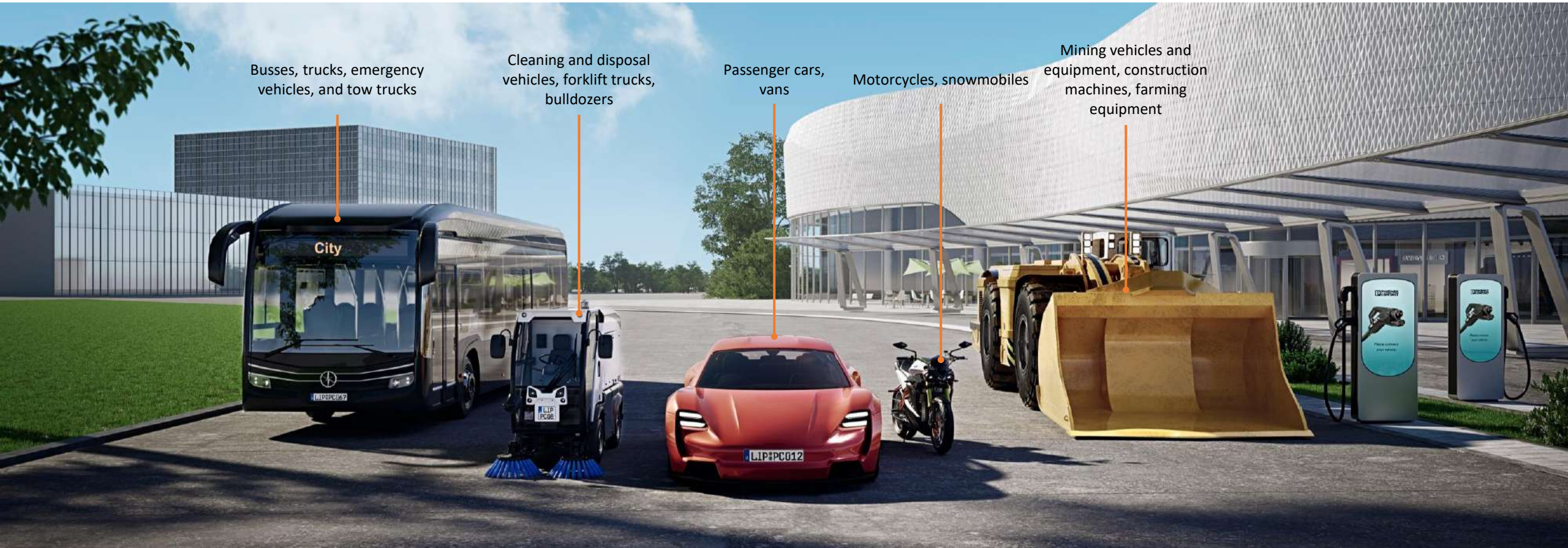
Vehicle charging inlets
for mobile machines
and utility vehicles

Automotive

Vehicle charging inlets
in accordance with IATF 16949
for the automotive industry

Phoenix Contact E-Mobility – Automotive and Mobile Machines

One charging inlet for all vehicle types



Phoenix Contact E-Mobility – Automotive and Mobile Machines

Complete portfolio for all charging standards and charging types



CHaRX connect 
E-Mobility empowered by Phoenix Contact



phoenixcontact.com/charx-connect-inlets

Phoenix Contact E-Mobility – Automotive and Mobile Machines

Examples of satisfied customers



VW Audi group



BMW / Mini



Ebusco



Energica



Vanhool



EVUM Motors

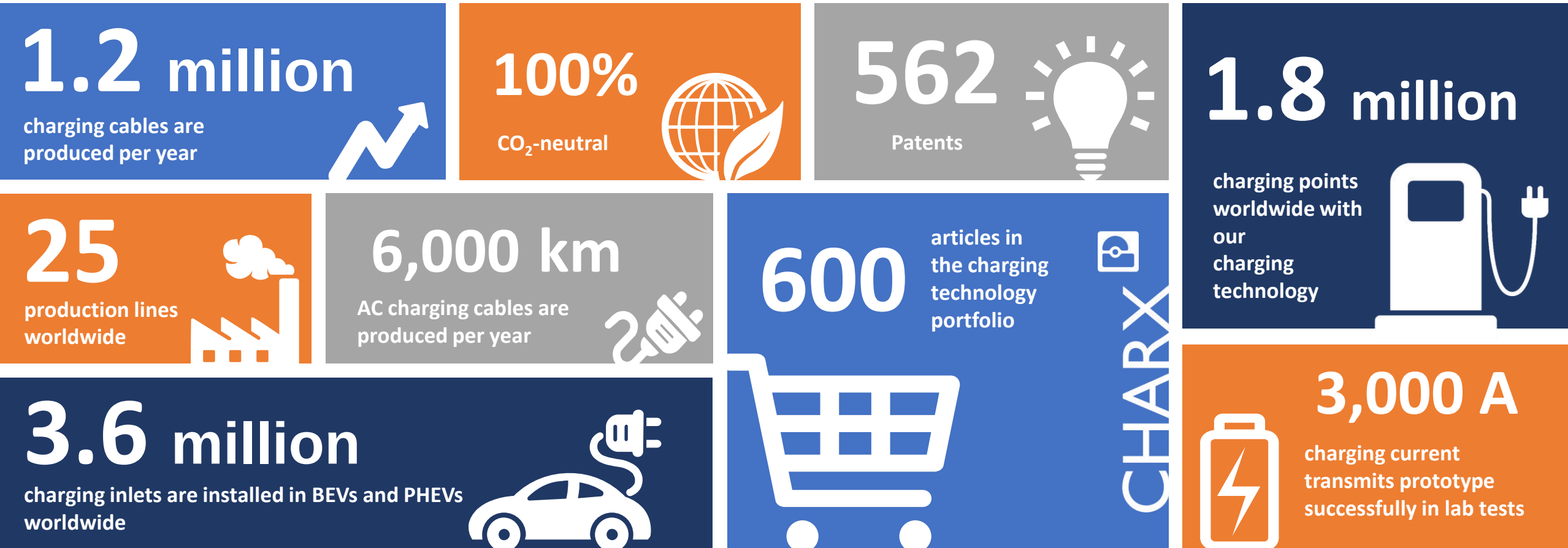


Normet



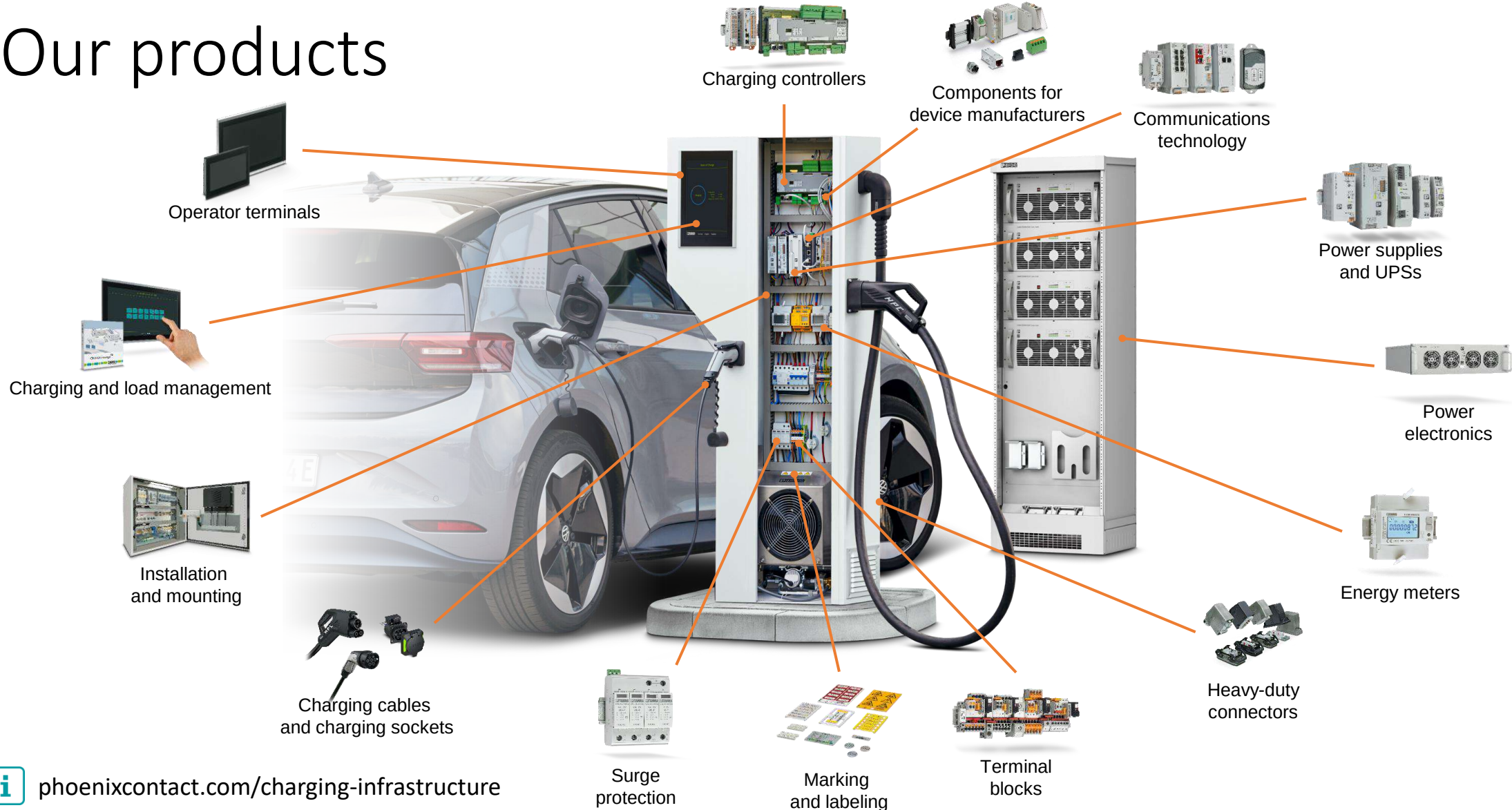
VDL Bus

Numbers, data, facts



Phoenix Contact E-Mobility – Charging Infrastructure

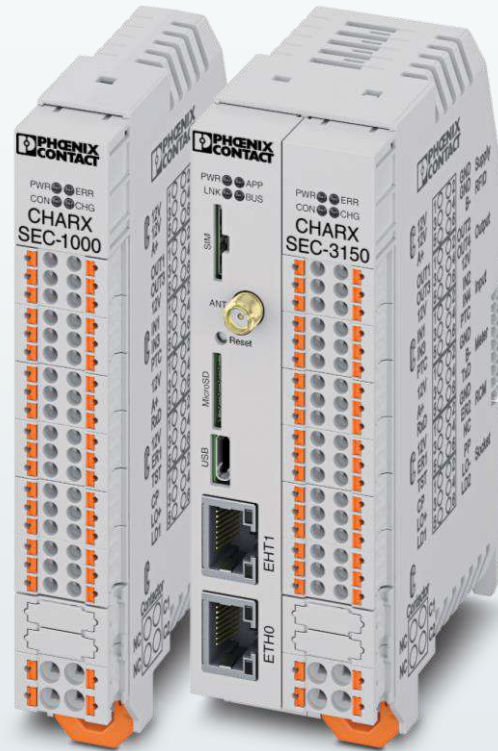
Our products



phoenixcontact.com/charging-infrastructure

Phoenix Contact E-Mobility – Charging Infrastructure

The controller for a smart charging infrastructure



CHARX control 
E-Mobility empowered by Phoenix Contact



Phoenix Contact E-Mobility – Charging Infrastructure

The compact 1000 class and the intelligent 3000 class



Choix du CHARX: Ethernet ou 4G ? ISO 15 118 ?

Modularity and Scalable – Article Overview

					
Article	CHARX SEC-1000	CHARX SEC-3000	CHARX SEC-3050	CHARX SEC-3100	CHARX SEC-3150
Article-#	1139034	1139022	1139018	1139012	1138965
Programmable	---	☒	☒	☒	☒
Ethernet	---	☒	☒	☒	☒
4G/2G	---	---	---	☒	☒
ISO 15118	---	---	☒	---	☒

ISO 15118

- Plug & Charge
- State of Charge of the vehicle can be communicated
- Secure communication
- Bidirectional charging (V2G, V2H,...)



Retrofit Powerdale

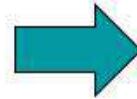
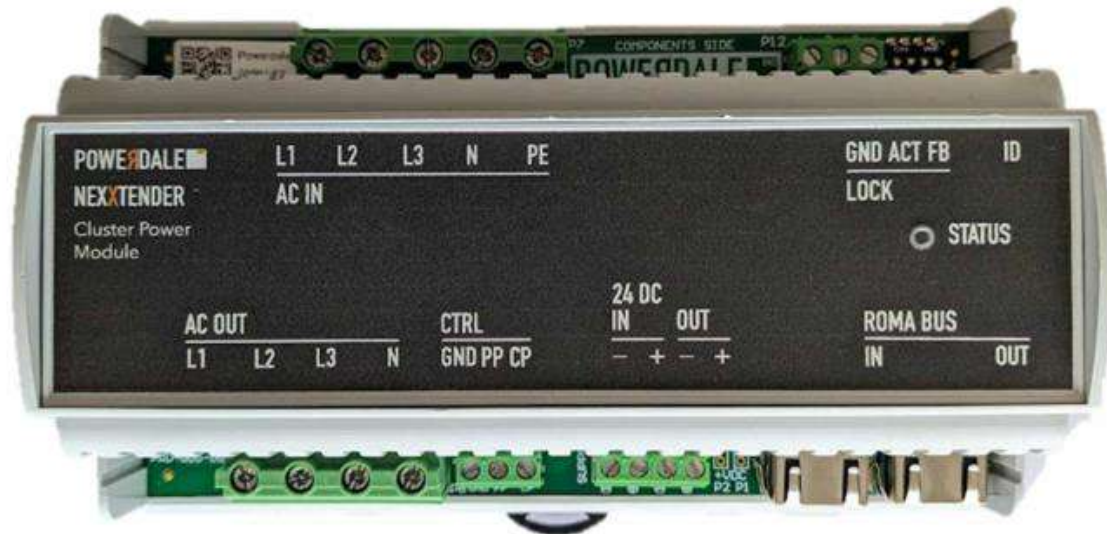
Retrofit des solutions Powerdale Power Module

Système centralisé dans l'armoire électrique avec câble type 2 déporté au niveau du point de charge



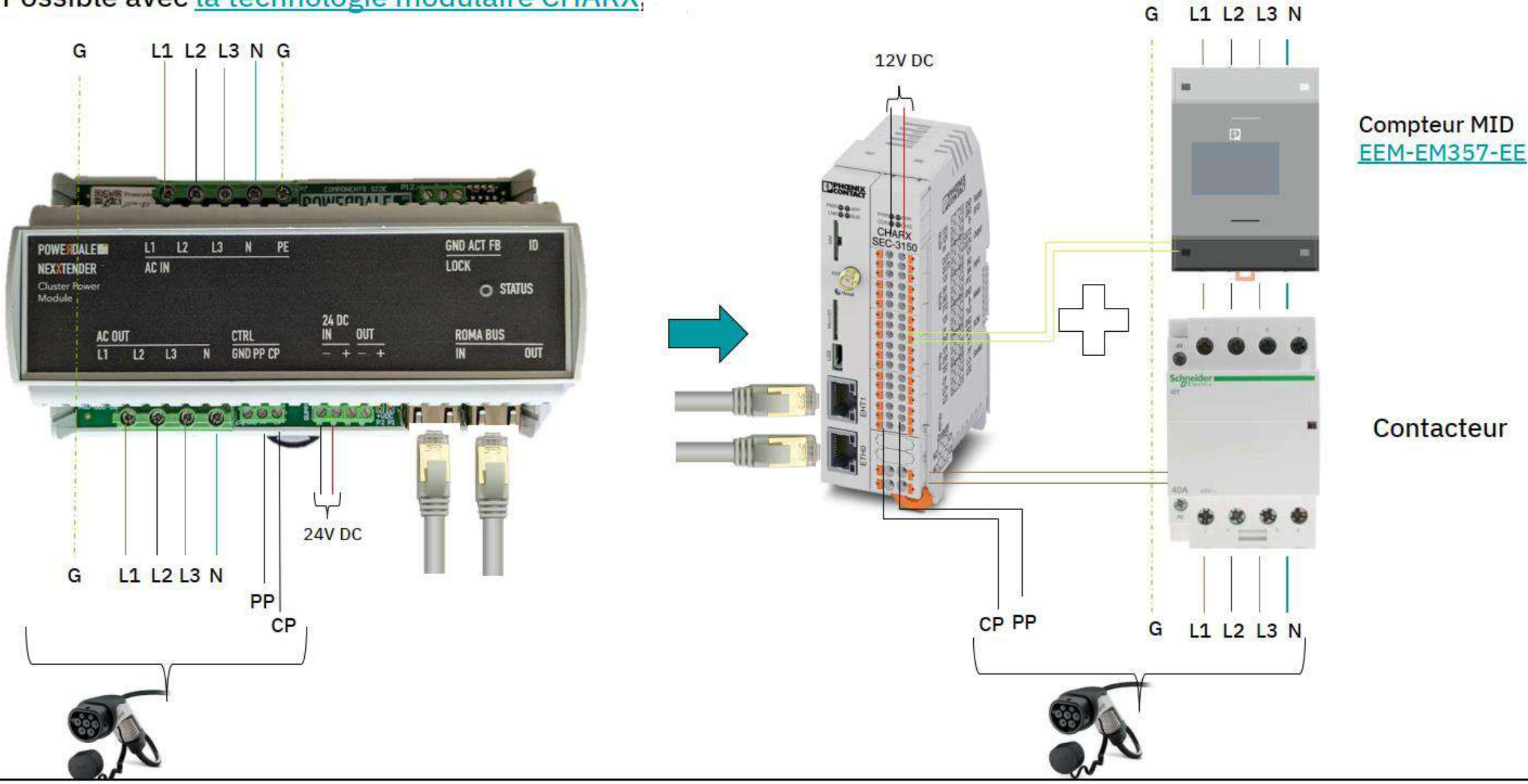
Garder le système en place et ne changer que le contrôleur ?

Possible avec [la technologie modulaire CHARX](#);

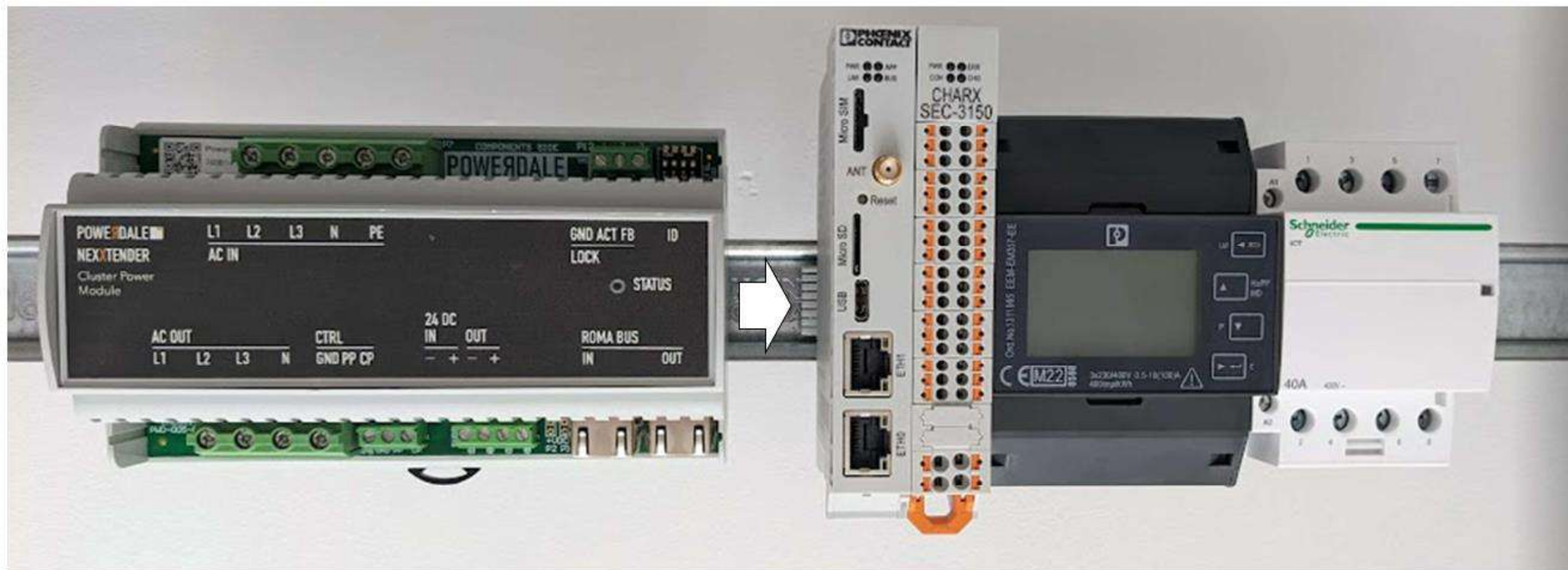


Garder le système en place et ne changer que le contrôleur ?

Possible avec [la technologie modulaire CHARX.](#)



Similar size (+0,5 cm)



Garder le système en place et ne changer que le contrôleur ?

Possible avec [la technologie modulaire CHARX](#);

- Solution modulaire et évolutive
- Certifiée OCPP 1.6J
- Compatible avec tout CPO
- Certifiée MID pour la refacturation de l'énergie
- Permet la gestion de puissance et d'énergie
- Communique en Modbus, MQTT & REST API
- Connexion 4G
- Possibilité d'ajouter un lecteur RFID



Unlocking the full potential of “The All Electric Society”



MINT

AI-enhanced Energy Management

Le load balancing est-il une solution?

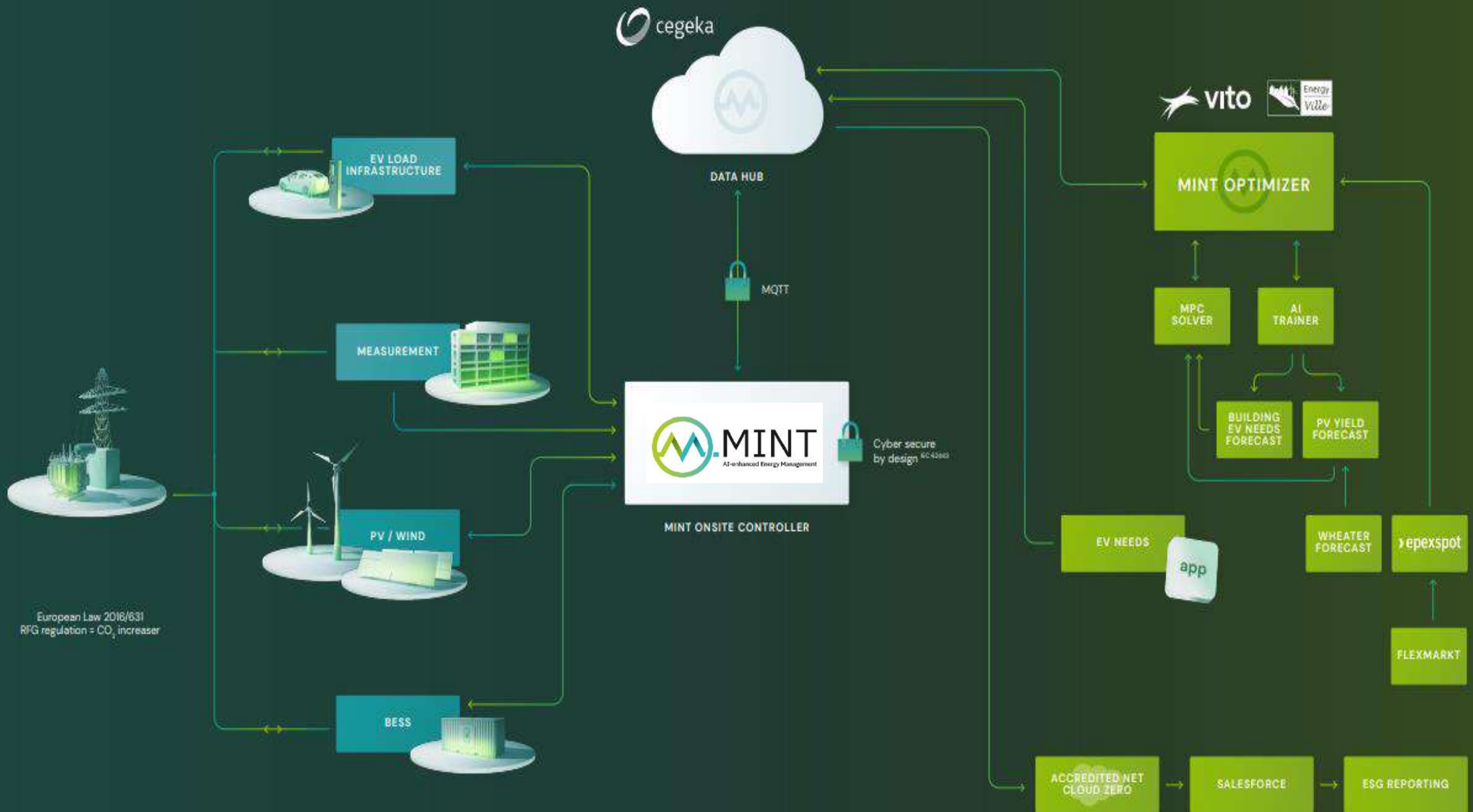
- Protéger la connexion au réseau électrique n'est pas suffisant
- Ne tient pas compte du besoin individuel de chaque conducteur de VE , **aucun confort assuré.**
- Dans beaucoup de cas un EMS est nécessaire:
 - Plusieurs marques de bornes de recharge sur un même site
 - PV
 - Batterie stationnaire
 - Potentiellement présence de tarifs d'énergie dynamique
 - Intégration avec le système de gestion du bâtiment

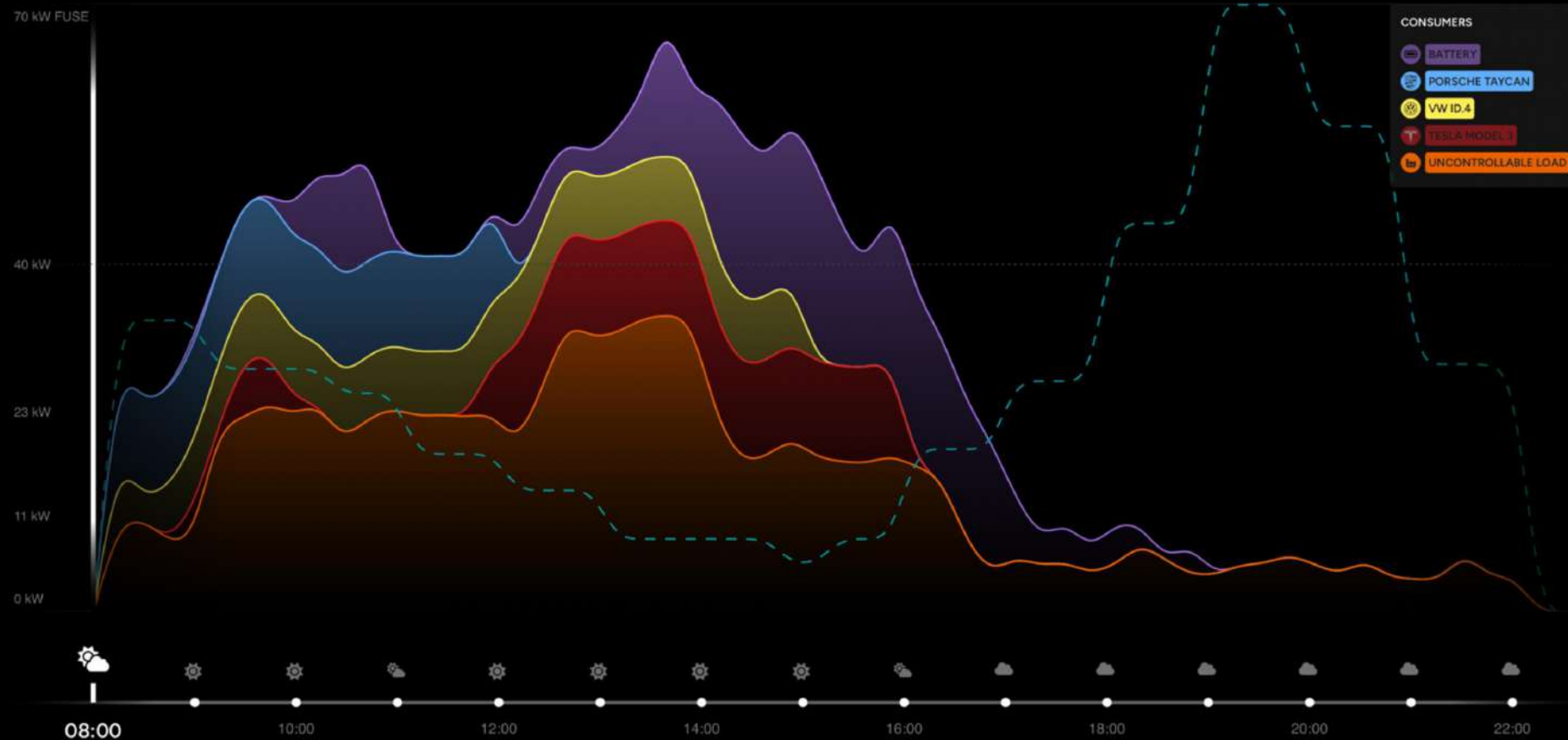
À cette fin, Phoenix Contact a développé l'EMS MINT.



Batterie 50 kW, 130kWh



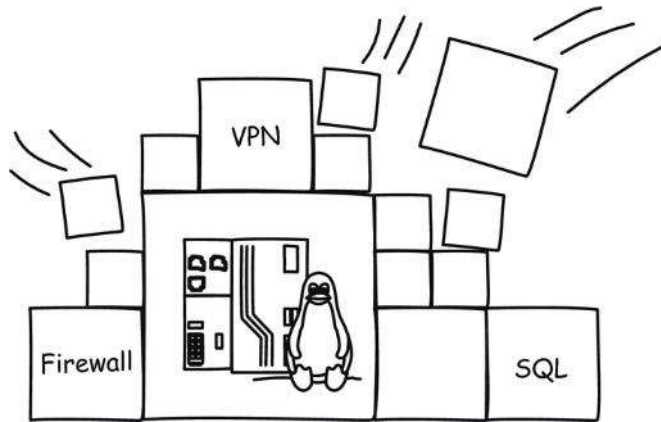




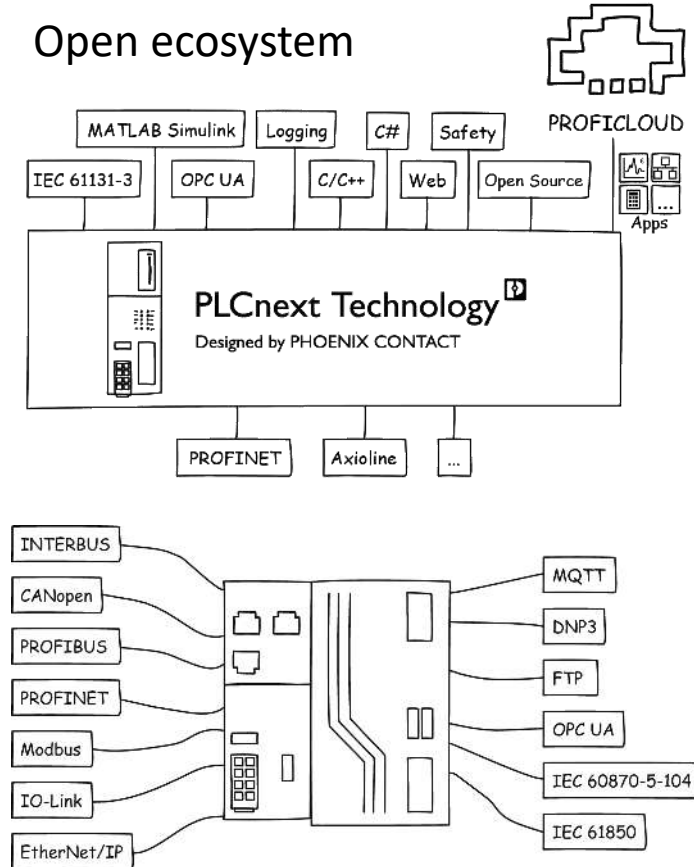
PLCnext Technology

Designed by PHOENIX CONTACT

Flexibility of Linux with the reliability of a PLC



Open ecosystem

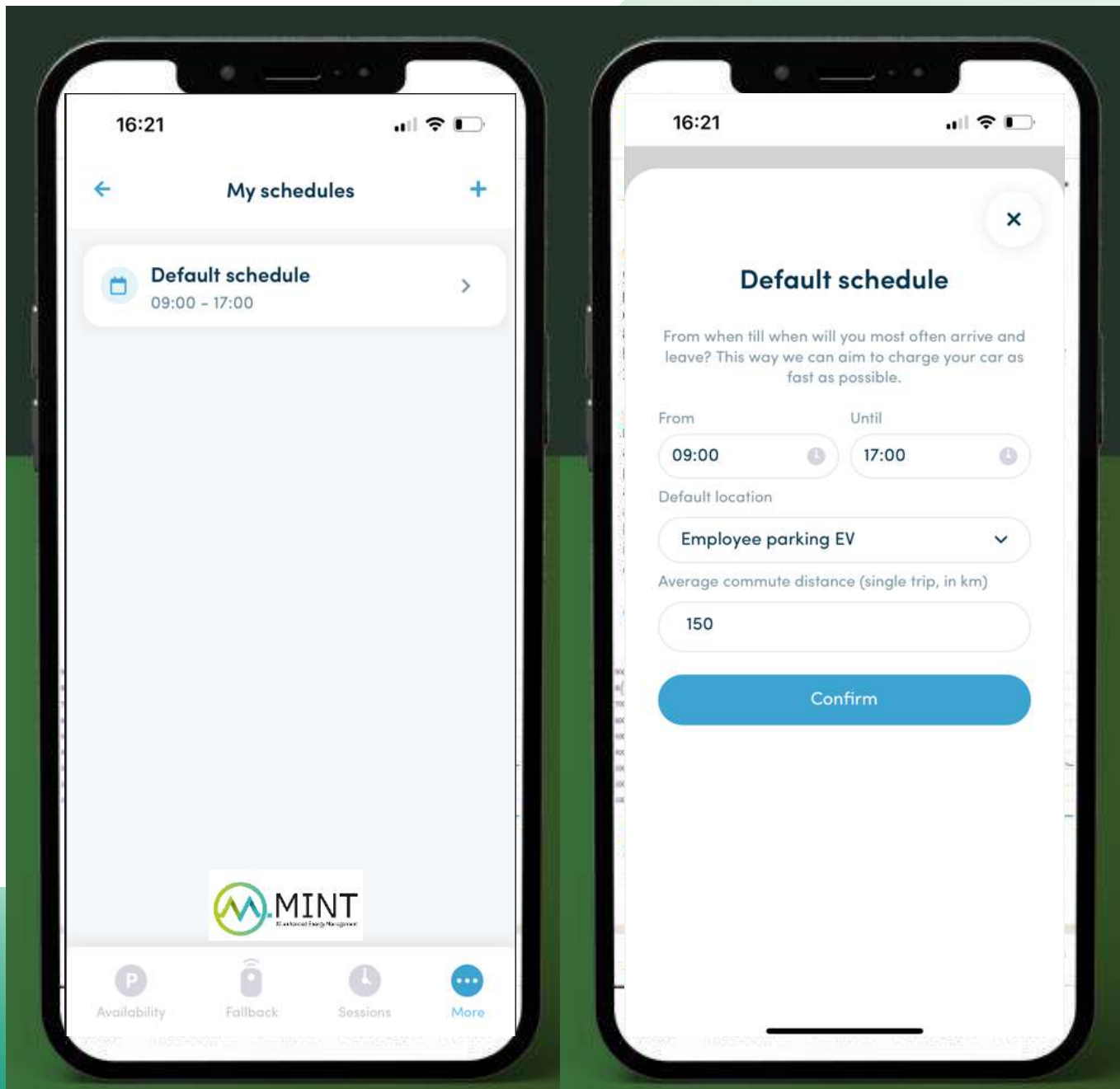


Cyber-secure platform

IEC62443



Employee Needs, Covered.



Let's connect!



Monetize your energy infrastructure

SMART EFFICIENT ECOLOGICAL



Raphaël Zanellato
Business Developer
E-Mobility