



PLUGIT<sup>TM</sup>

Plugit MOVE

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26.9.2019

# PLUGIT journey



**HW importer and Electric Service Provider**



**Technology Company**

2012

2013

2014

2015

2016

2017

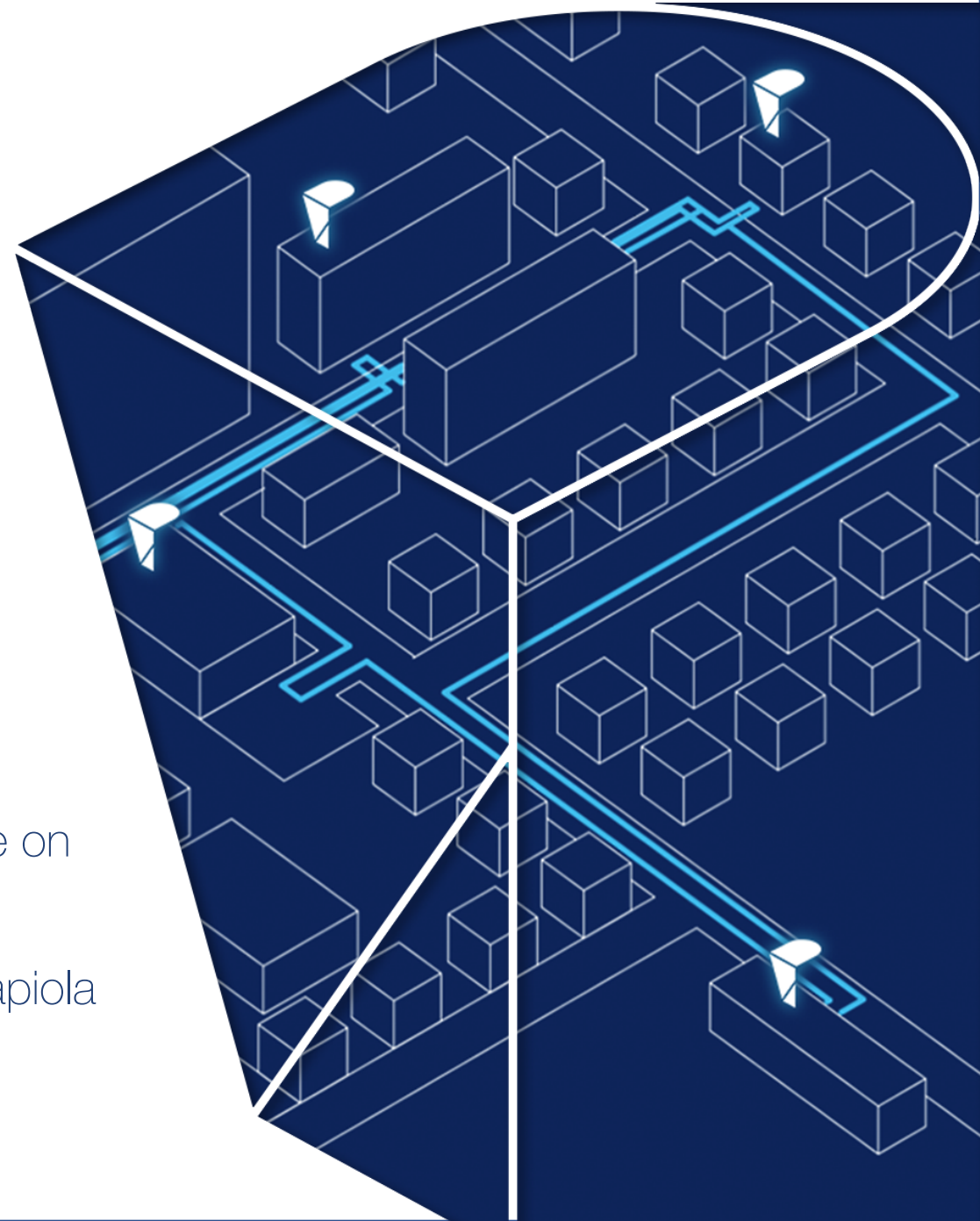
2018

2019

- New strategy 2016
  - Business transformation to High Tech company
  - Own SW & HW development
  - New Brand
  - New People
  - New ownership structure
  - Business from the Concepts

# Plugit is

- Charging technology, software and service company
- EV industry pioneer with 7 years of experience
- Leading white label charging solution provider in Nordics
- Global footprint: Europe, SEA, Japan
- Tested own DC technology by major automotive OEMs
- Experience working with ALL STANDARDS
- Running Google global platform and partnering with Google on AI and ML
- Owned by management, North European Invest and LähiTapiola



# PLUGIT FACTS



FOUNDED

**2012**

FI-MARKET SHARE  
B2C

**65%**

TURN OVER 2018

**5,85m€**

PROFITABLE

PERSONNEL

**48**

FI-MARKET SHARE  
B2B

**60%**

TRACK RECORD OF BUILDING

**2000+**

REMOTELY MANAGED CHARGING STATIONS

**2'000.000** CO2 FREE KM PER MONTH

# DATA Approved!

160+

operator (CPO) customers

640+

charging locations

2000+

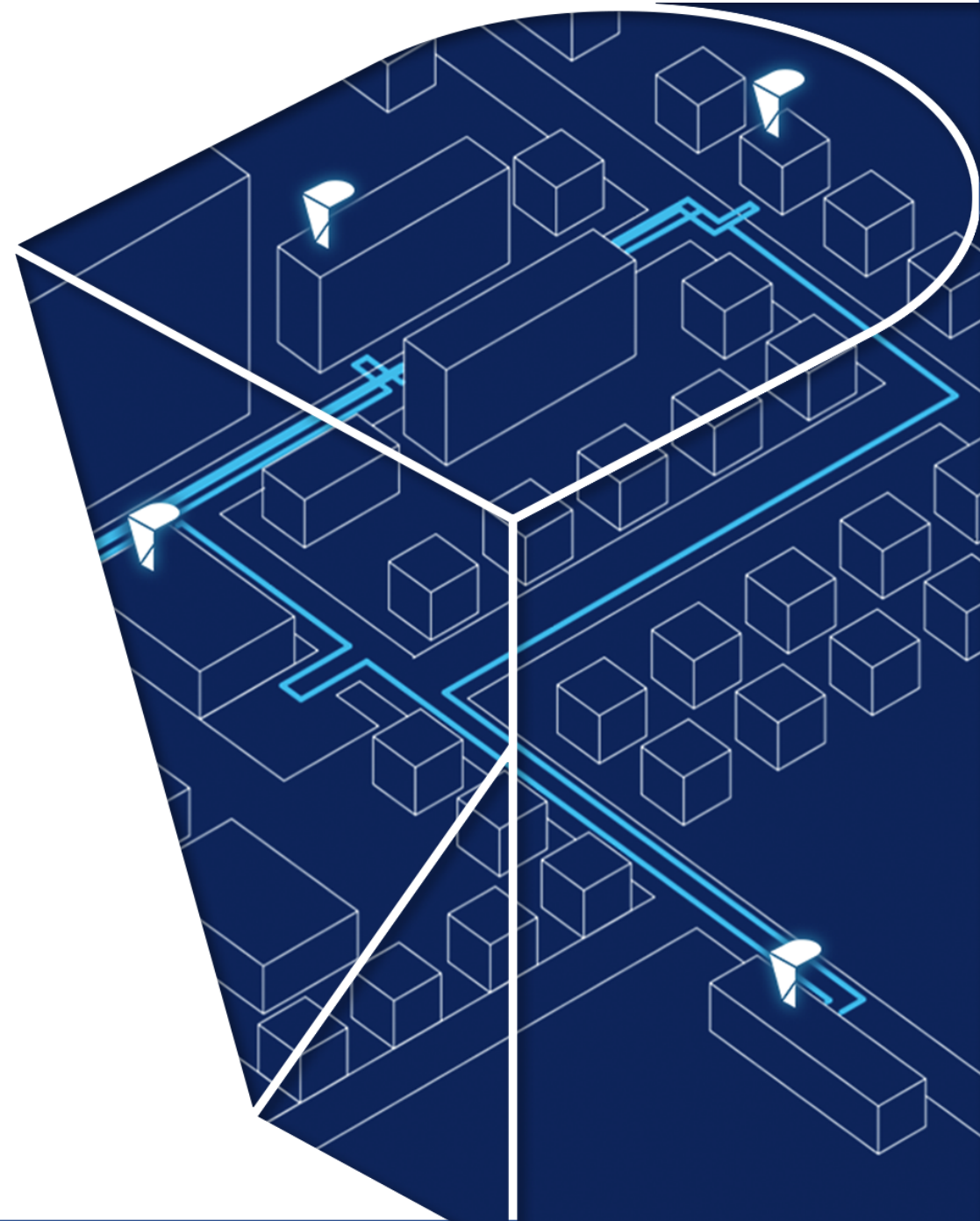
remotely managed chargers

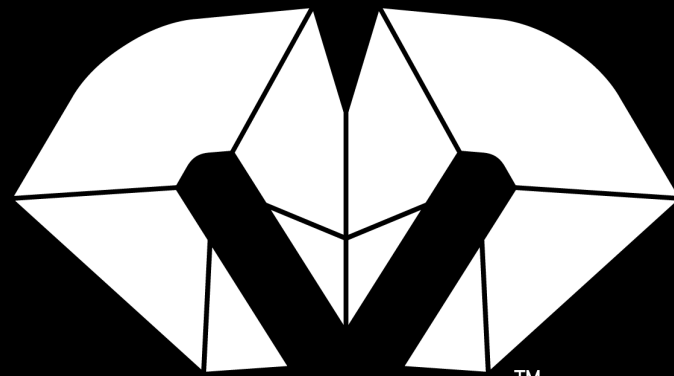
420 000

transactions successfully  
executed 2018 alone

400 000+

daily OCPP messages

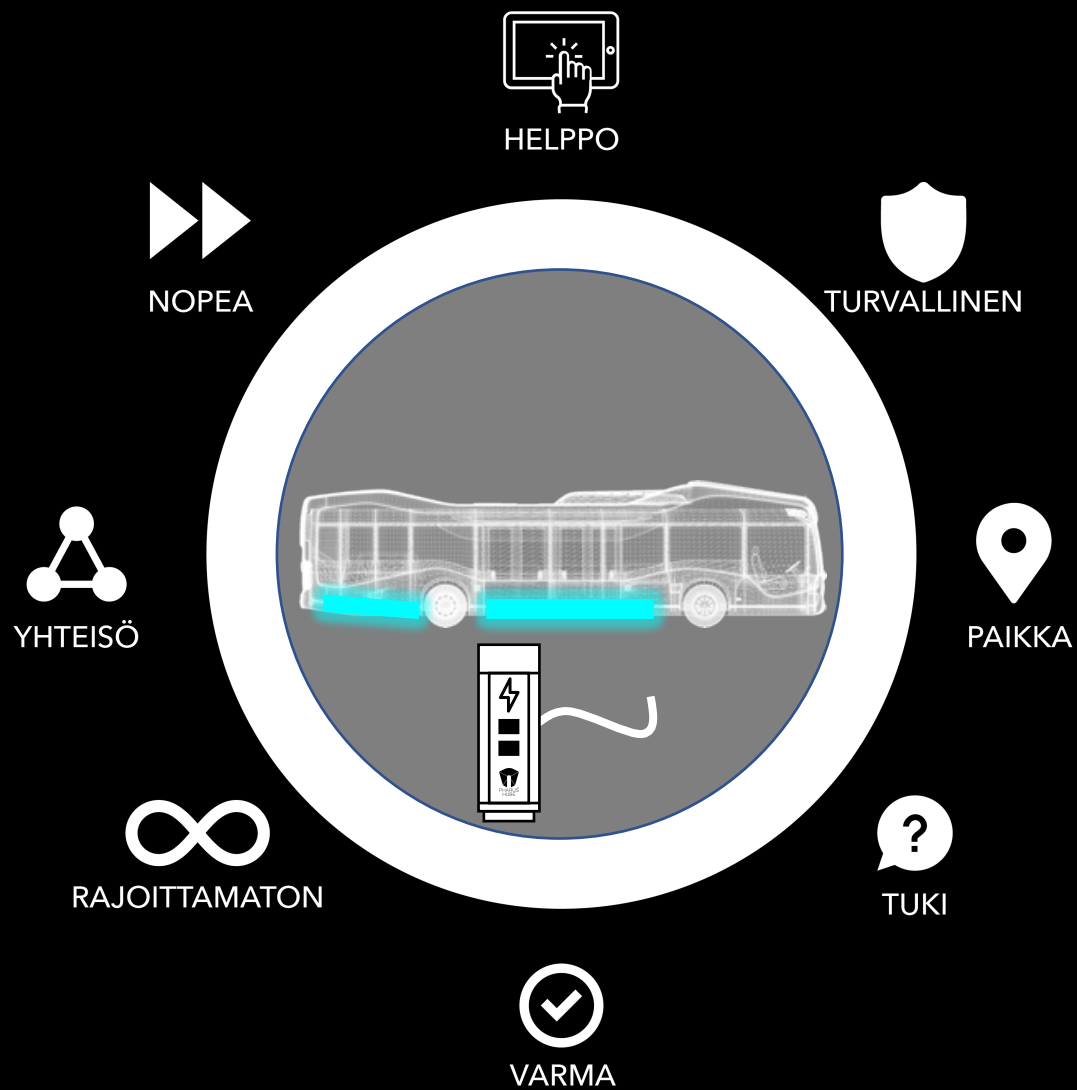




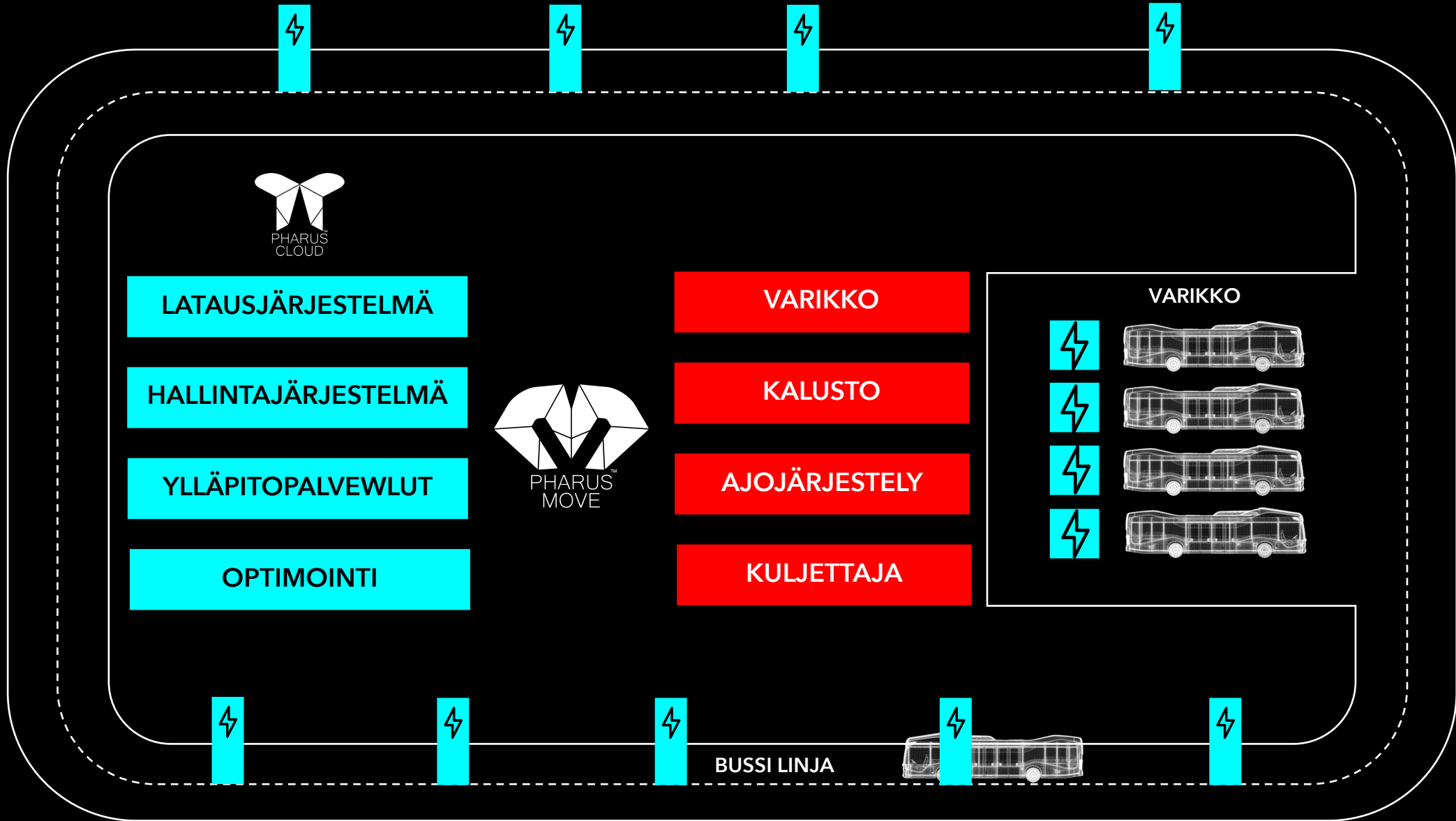
PHARUS<sup>TM</sup>  
MOVE

**KOKONAISVALTAINEN KALUSTON  
LAATAAMISEN PALVELU**

# ASIAKAS KESKIÖSSÄ



# TOIMINTAYMPÄRISTÖ







LATAUSJÄRJESTELMÄ



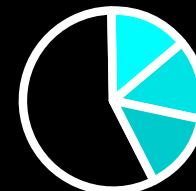
HALLINTAJÄRJESTELMÄ  
(PHARUS CLOUD)



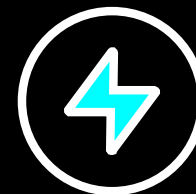
LATAUSJÄRJESTELMÄ



HALLINTAJÄRJESTELMÄ  
(PHARUS CLOUD)



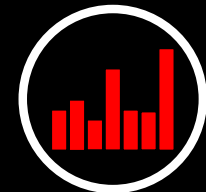
OPTIMOINTI  
(DLM)



LATAUSJÄRJESTELMÄ



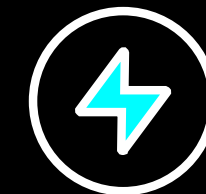
HALLINTAJÄRJESTELMÄ  
(PHARUS CLOUD)



ANALYTIikka & AI



OPTIMOINTI  
(DLM)

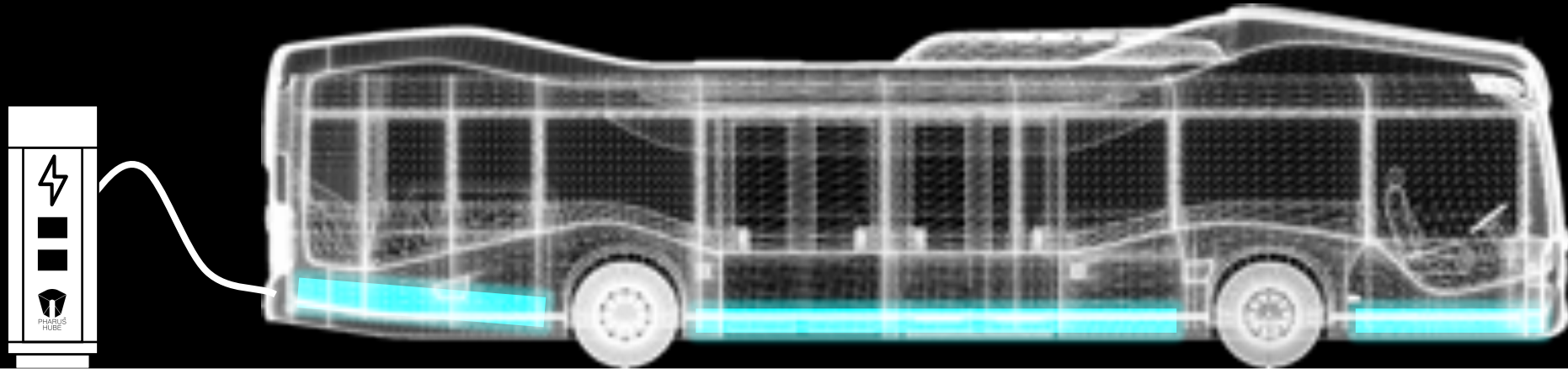


LATAUSJÄRJESTELMÄ



# **YHTEENSOPIVAT RATKAISUT ERI KALUSTOON**

# HIGH CAPACITY BATTERY



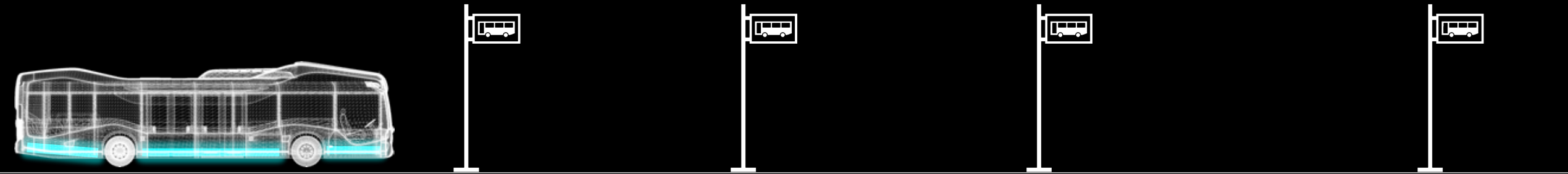
## Charging principle:

- **Battery capacity starting from 250kW**
- **DC, Fast charging (20-30 min) in depots or terminals during operational hours**
- **DC, Slower charging (>60 min) in depots during service break**
- **Type: Cable**

# HIGH CAPACITY BATTERY



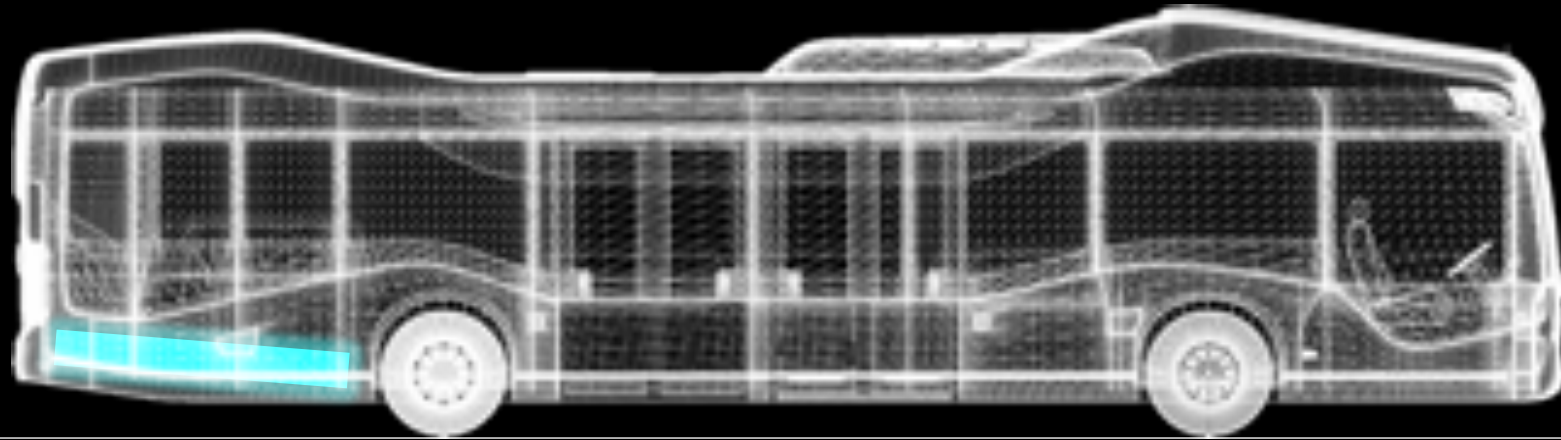
FOR LONG DISTANCE COMMUTING



## On route:

- **Daily routines can be performed within 1 or 2 charging stops**
- **Charging during operational hours will increase daily commuting distance and enhance operational efficiency (lower OPEX)**
- **Number of chargers and their locations can be easily optimized and scaled**

# LOW CAPACITY BATTERY



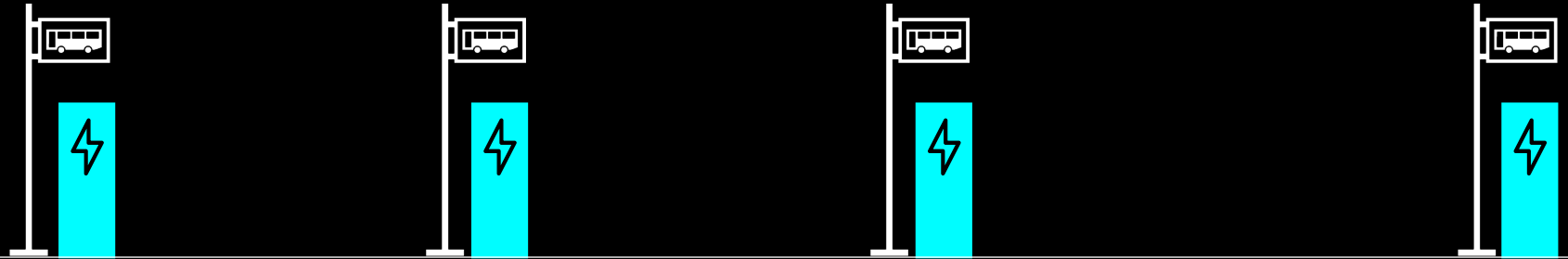
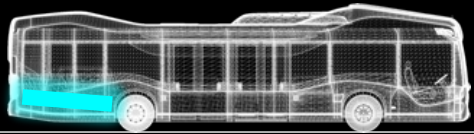
## Charging principle:

- **Smaller battery capacity**
- **Calculated for approx. 80-100 km distance**
- **DC Fast charging (2-6 min)**
- **Type: Pantograph**

# LOW CAPACITY BATTERY



## SHORT DISTANCE COMMUTING

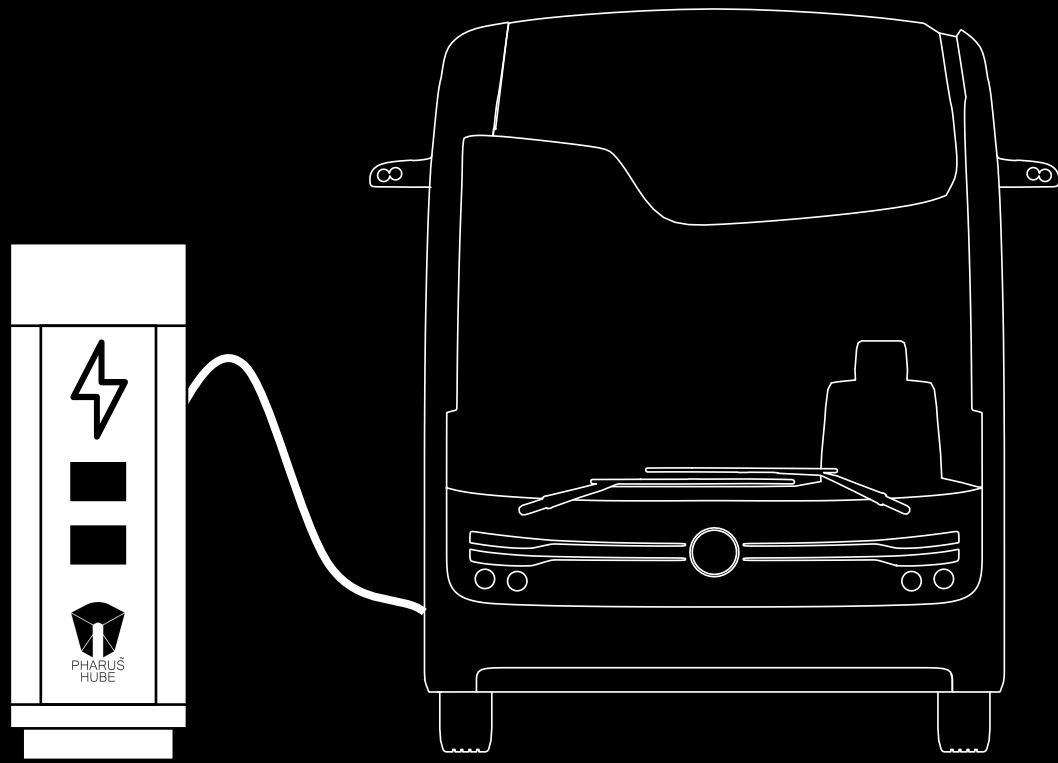


### On route:

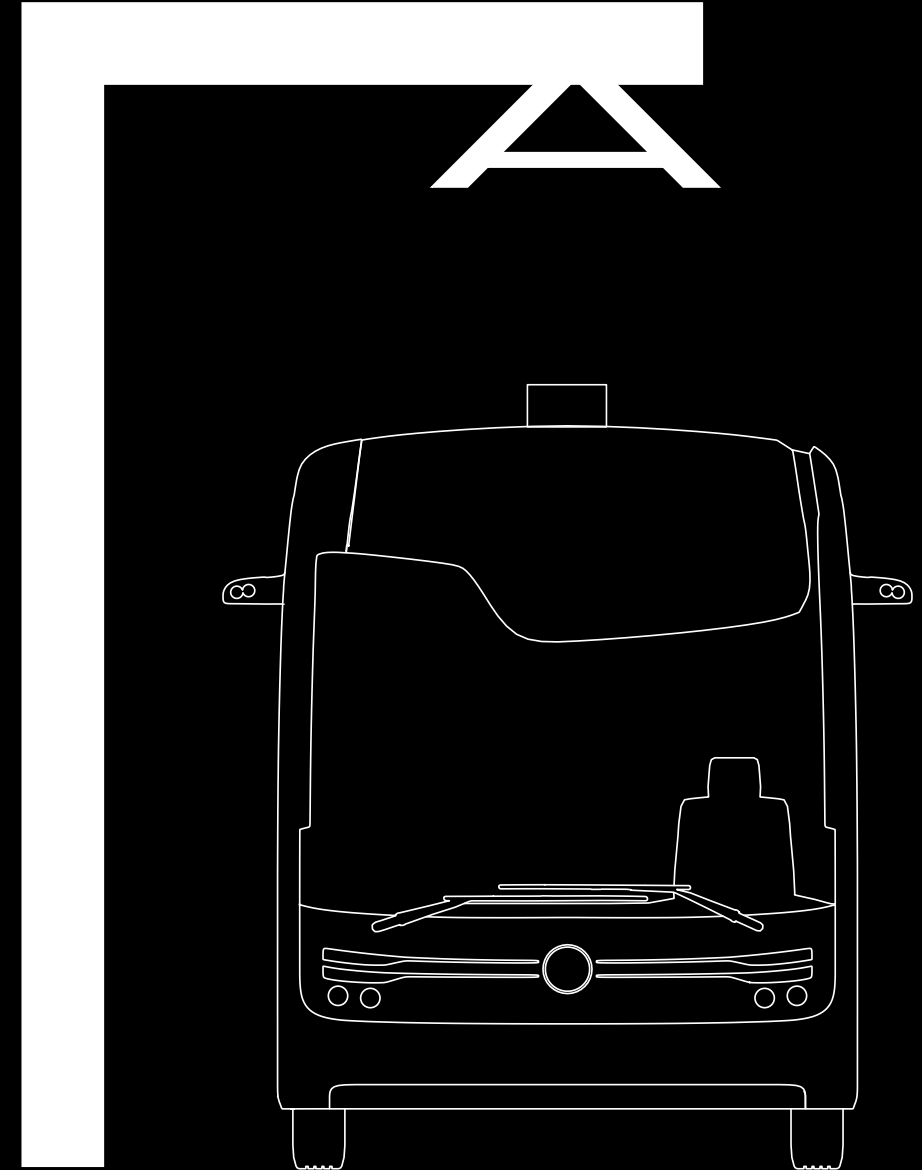
- Frequent charging required (opportunity charging)
- Charging on bus stops, during onboarding or on route ends

# HW VAIHTOEHDOT

## KAAPELILATAUS



## PANTOGRAFILATAUS





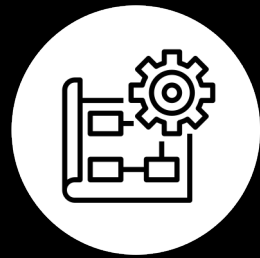
# **KOKONAISVALTAINEN TOIMITUS**



# TOIMINTATAPA



KARTOITUS &  
SUUNNITTELU



TOTEUTUS



SEURANTA



ELINKAARIPALVELUT

## Charging For Life!



# **JOUSTAVA RAHOITUSMALLI**

# RAHOITUSMALLI / INVESTOINTI



JOUSTAVA MALLI

CAPEX

OPEX

20%

80%

INVESTOINTI

KUUKAUSIMAKSU

VASTAA TÄMÄ  
HETKEN TARPEISIIN

SKAALAUTUVA  
ELINKAARIRATKAISU

VASTUU

VAHVA SITOUTUMINEN FUTURE PROOF TEKNOLOGIAN KEHITTÄMISEEN!

# RAHOITUSMALLI / INVESTOINTI



JOUSTAVA MALLI

CAPEX

OPEX

75%

25%

INVESTOINTI

KUUKAUSIMAKSU

VASTAA TÄMÄ  
HETKEN TARPEISIIN

SKAALAUTUVA  
ELINKAARIRATKAISU

VASTUU

# CASE LEPPÄVAARA



## Liittymä

- Caruna antanut tarjouksen liittymän rakentamisesta
- Suurjännitekojeiston sijoitus kannelle vai halliin
- Carunan kanssa sovittu ylläpito- ja huoltovastuu verkkoyhtiölle

## Muuntamo ja PK

- Teknisen tilan mitoitus parkkihalliin
- Muuntamo toimitusaikataulut vrs. liikennöinnin aloittaminen
- Keskukset toteutetaan todennäköisesti 1600 A yksiköissä

## Latauslaitteet

- 5 kpl 350 kW Pantografilataus
- 8 kpl 150 kW Kaapelilataus

**Plugit projektinjohto- ja suunnittelupalvelut**

# Summary

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- Experience = dedicated service team with large network of e-mobility specialists
- Plugit Cloud SW = SMART CHARGING platform designed for e-mobility with OPEN interfaces (HW agnostic)
- Pharus MOVE concept



HI THERE, I AM  
PHARUS  
HUBE 2.0

