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#IDEALNetZero



# Accelerating Net Zero – Investing in the Electric Vehicle Ecosystem

29 April 2021



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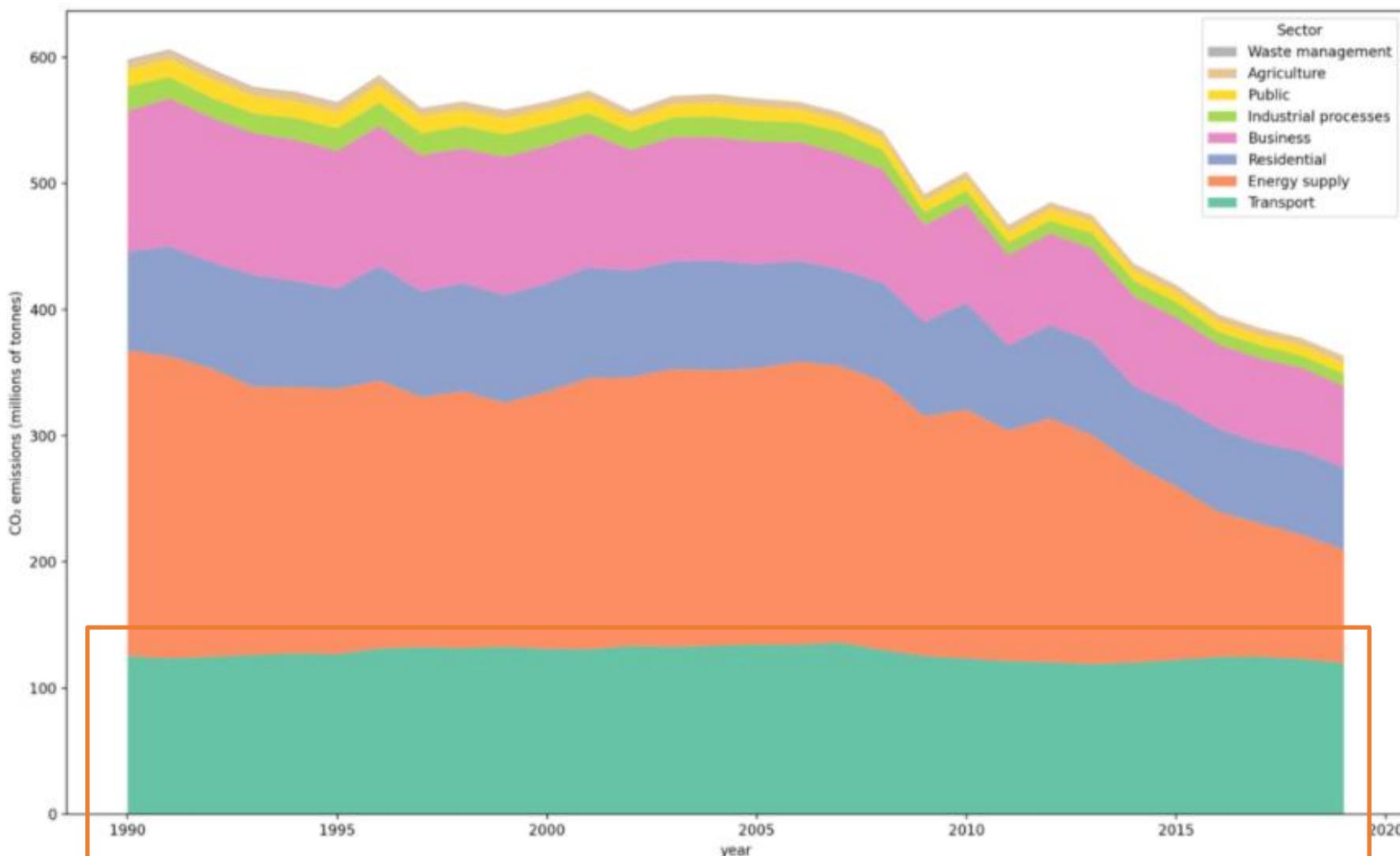


# Accelerating Net Zero

A series of monthly events exploring how innovation can accelerate the transition to net zero carbon emissions



# Transportation remains a high contributor to GHG



## EV UK stats:

Aug 2019 to Aug 2020:

Total BEV registrations: 68,312  
Total PHEV registrations: 47,926

## Global Charging stats:

8.2M charging points worldwide today (1.2M public) , 290M are needed by 2040



# Investing in the EV Ecosystem

- Chicken-and-egg problem relating EV charging infrastructure to EV sales
- Interoperability and potential solutions
- Fleet electrification
- Emergence of micro-mobility and multi-mode
- Smart charging and vehicle to grid (V2G), wireless charging

Today



Tomorrow



# In today's event we shall explore...

- Emerging business models
- Investment focus
- Energy suppliers role
- Impact of these activities to accelerate the transition to Net Zero?
- Lessons that can be learned from leading countries

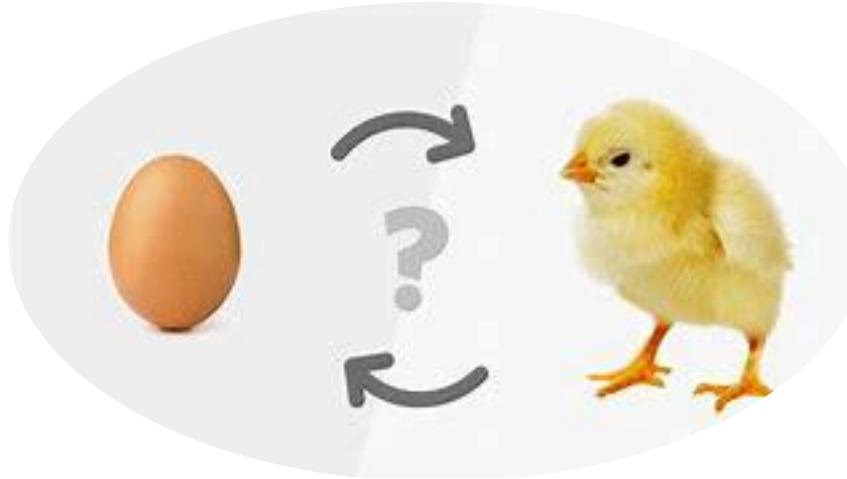
# Agenda

10:00	Welcome – Chris Gruen, MD, NovAzure Consulting
10:10	Expert Overview – William van der Byl, Senior Analyst, Delta-EE
10:20	Business Showcase <ul style="list-style-type: none"><li>Theodore Zannakis, CEO, Evotiv</li><li>Daniel Reilly, Business Development Director, Horizon Energy Infrastructure</li></ul>
10:40	Panel Discussion and Q&A – led by Chris Gruen, MD, NovAzure Consulting <ul style="list-style-type: none"><li>Phil Valarino, Interim Head of EV Projects, EDF</li><li>Emilie Hannezo, Associate, InMotion Ventures</li><li>Mandy Nyarko, MD &amp; Advance Programme Manager, Exeter Velocities</li><li>Matthias Schanze, General Partner, Rethink Mobility</li><li>William van der Byl, Senior Analyst, Delta-EE</li><li>Theodore Zannakis, CEO, Evotiv</li><li>Daniel Reilly, Business Development Director, Horizon Energy Infrastructure</li></ul>
11:20	Closing Messages – Chris Gruen, MD, NovAzure Consulting
11:30	Close

# A poll to start with...

Egg

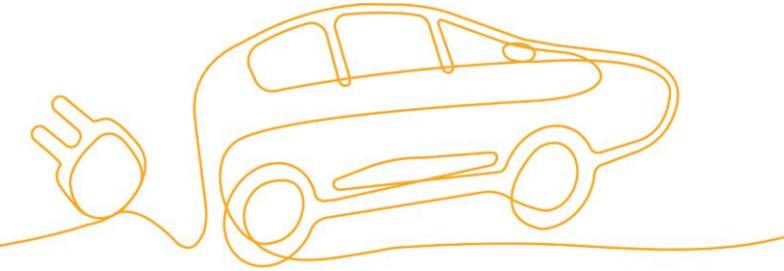
EV OEMs



Chicken

Charging  
Infrastructure  
Providers

A lack of EV chargers: Who  
can make a larger  
contribution to close the  
gap?



# IDEALONDON FUTURE MOBILITY INVESTING IN THE ELECTRIC VEHICLE ECOSYSTEM

**CONTACT:**

William van der Byl – [William.vanderbyl@delta-ee.com](mailto:William.vanderbyl@delta-ee.com)

# Presentation overview

- 1 Overview of Delta-EE
- 2 Emerging business models in the EV ecosystem
- 3 An overview of investment in the EV sector
- 4 Key lessons learnt

# Delta-EE helps companies navigate the energy transition

We do this by enabling organisations to develop the best strategies, business models and customer propositions for the energy transition

## 'New Energy' Business Models

Identify and understand the alternative and new business models for the energy transition



### EVs & Electricity

Understand the opportunities and challenges from sector coupling between electricity and transport



### Flexibility & Energy Storage

Take advantage of the opportunities emerging from an active demand side



### Heat

How channel disruption, sector coupling and new technologies are changing the heat sector



### Distributed Power

Global market insight & expertise into the growing role of decentralised generation



### Digital Energy

Opportunities in the connected home market and how digitalisation is changing the energy customer relationship

## Delta-EE provides:

- Subscription Research Services
- Consultancy

### Delta-EE Clients



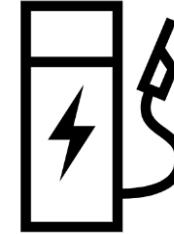
# Innovative business models in the EV ecosystem

1



Residential  
charging

2



Public  
charging

3



EV as a  
Service

4



Mobility

# Tibber: subscription-based, rather than volume-based, energy

## KPI snapshot (end of 2019)

**Employees**  
~20

**Financials**  
\$17M

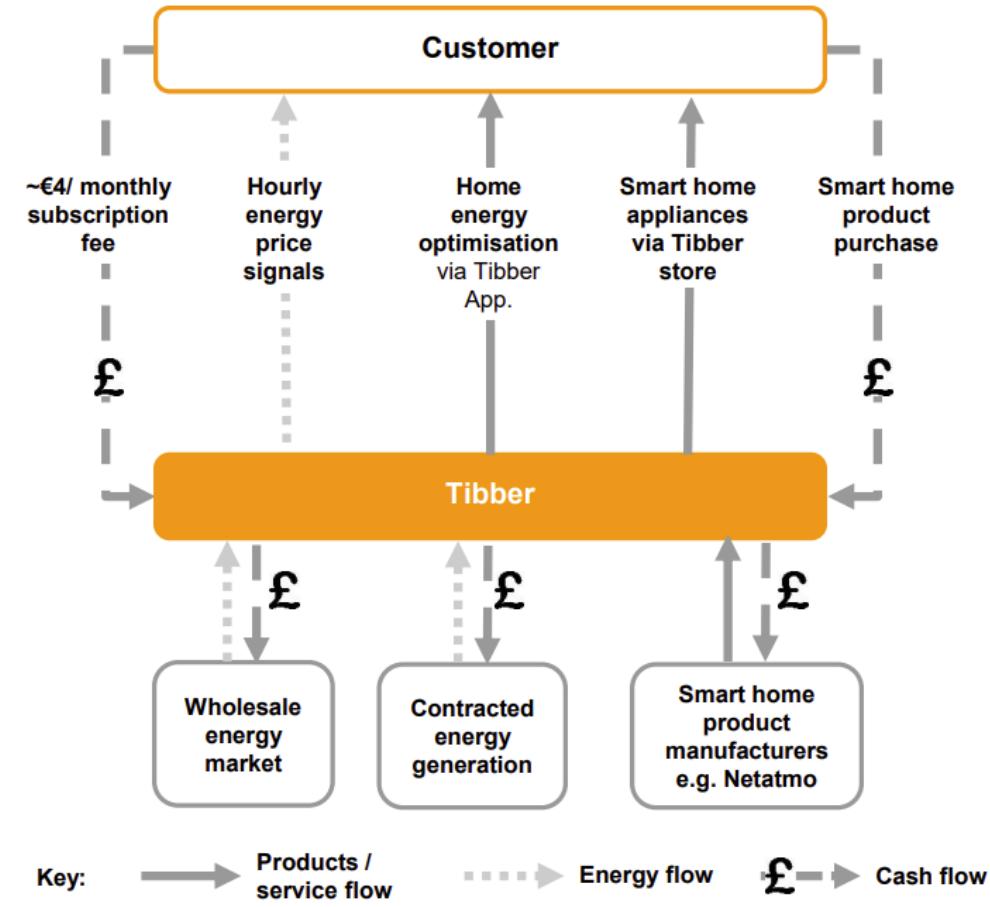
Funding raised to date  
(some high profile investors)

**Customer base**  
40,000  
~25%  
Smart enabled



- Provide customers with a zero-margin dynamic ToU tariff.
- Optimise the customer's energy use to best match the varying energy prices.
- Provide ancillary services to the TSO through managing the customer's energy loads.

## Business model overview



# GRIDSERVE: managing the financial risk in public charging

## GRIDSERVE®



**Energy generation** - this is achieved through a solar PV canopy supplemented by an off-site solar farm



**Grid services** - this is achieved by having 5MW of battery storage on site



**Public charging** - there is a mix of high powered (12 150kW and 12 350kW CPs) and low powered CPs



**Retail** - the Electric Forecourt provides a both convenience retail (think groceries plus food and drink) and Airport Lounge style rest area

# Nuvve: providing EV as a Service to heavy-duty fleets

## Focus on Nuvve's activities in North America



x

Newborn Acquisition Corp  
**NBAC**



x

⚡ **LION ELECTRIC**

### Target market



### Customer proposition

Charging as a Service



Provided at the lowest cost via managed charging:

- Peak shaving
- Tariff optimisation
- Ancillary services
- Etc.

# Onto: all in one, 'pay and go' mobility

## KPI snapshot

**Employees**

~50

**Financial**

~£78m

Funding raised to date  
 (£8M equity + £50M debt.  
 Further £20M equity round  
 due by end Feb20)

**Sales**

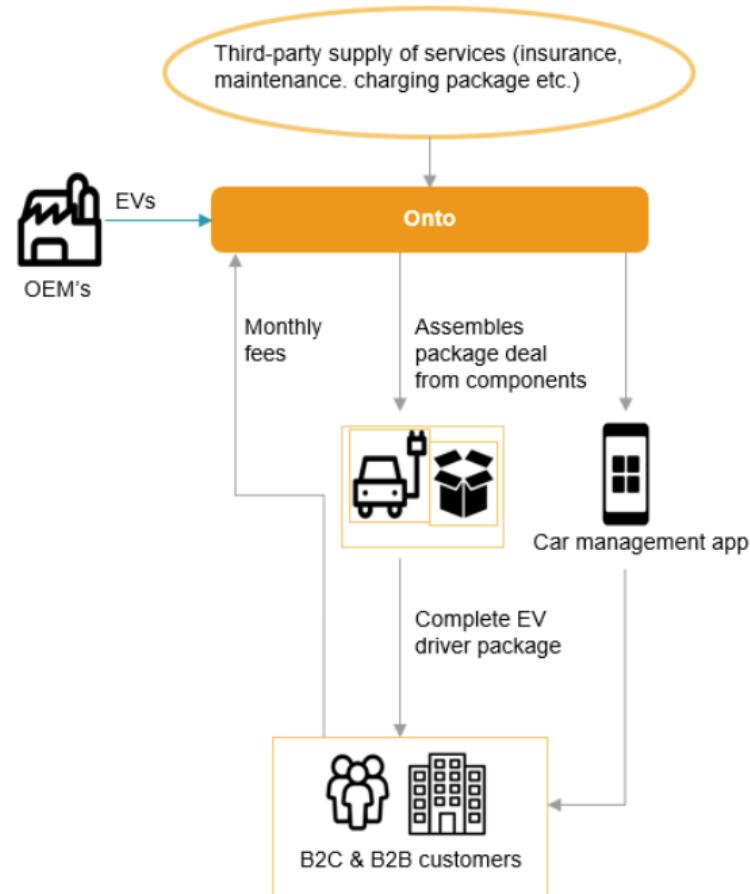
~2000

Number of subscribers

# ONTO

- Customer is offered an EV complete with add-ons for a simple, monthly fee
- No long-term commitment required by the customer
- Public charging is included in the monthly price but not home charging (yet)

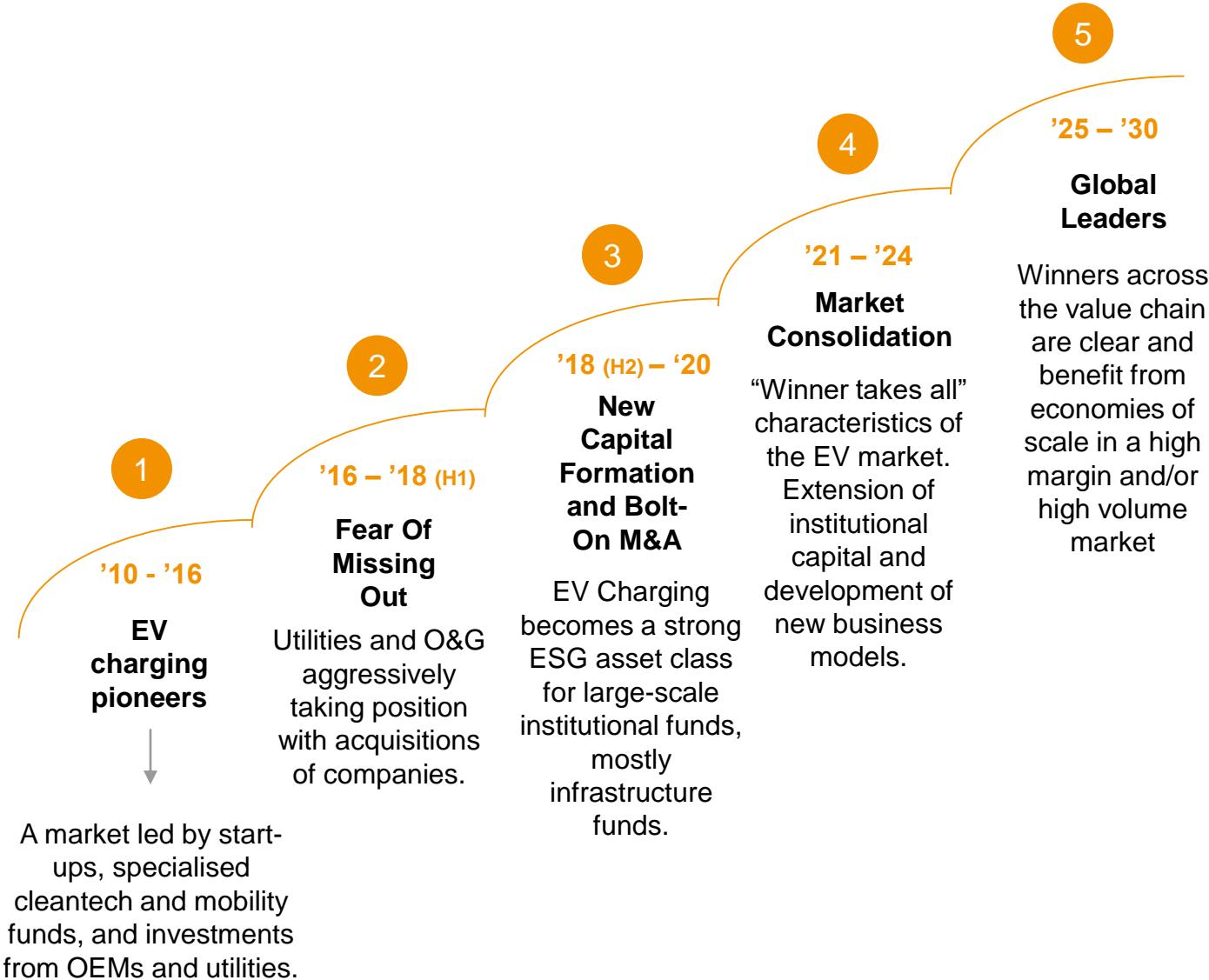
## Business model overview



# Presentation overview

- 1 Overview of Delta-EE
- 2 Emerging business models in the EV ecosystem
- 3 **An overview of investment in the EV sector**
- 4 Key lessons learnt

# The EV charging market has proven to be an active M&A environment with five stages of market development



\*Insight from: EV Charging at the Crossroads. Delta-EE & Drakestar Partners collaboration whitepaper

# There have been 4 key groups of investors to date

1

Growth investors



Return on investment opportunities

2

Vehicle OEMs



Lower risk, watch and learn approach

3

Utilities



Top-line synergy play

4

Oil and Gas majors



Largely a defensive play

5

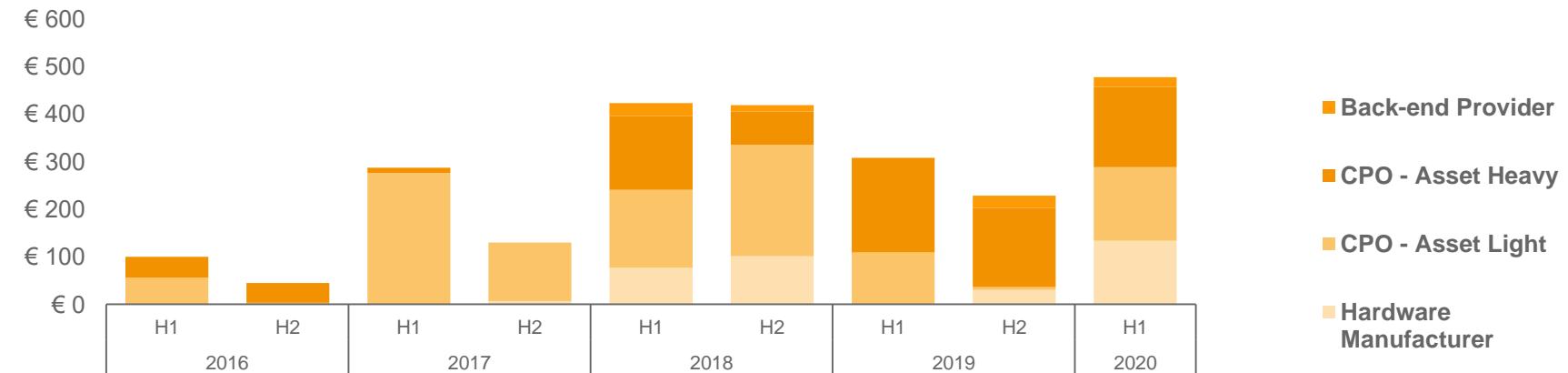
Infrastructure and energy transition funds



Emerging investor group

# Investments in the EV charging sector have typically focussed on four key roles in the value chain

- 1 Hardware manufacturers
- 2 Back-end providers
- 3 CPO asset-heavy
- 4 CPO asset-light



Sources: Pitchbook, press releases, annual statements and Drake Star estimates

# What lessons have been learnt to date?

1



To be successful in the EV ecosystem, it helps if your customer proposition is as simple as possible.

**ONTO**

2



EVs are part of the solution and the problem. Use their inherent flexibility to improve your customer proposition.



3



The winners in the EV charging ecosystem are still to be defined

**Utilities?****Vehicle OEMs?****Oil & Gas Majors?**

# **THANK YOU**

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# horizon

ENERGY INFRASTRUCTURE



**Innovative funding and  
partnership solutions for  
the UK energy revolution**

Supporting energy suppliers on the  
path to Net Zero

# Who we are

**Horizon Energy Infrastructure specialises in asset finance in the new energy world, investing in energy systems that enable the transition to Net Zero.**

We have built our business over the last decade specialising in the provision of smart meter financing. We currently work with over 40 energy suppliers funding AMR, SMETS1 and SMETS2 meters.

HEI is a wholly owned subsidiary of Arcus Infrastructure, an independent fund management company focused on telecoms, transport and energy sectors exclusively in the European market.

Energy partners we work with include:



# Our approach to EV infrastructure funding

We have developed partnerships with a portfolio of resellers across different markets to offer funded installation of EV charging assets

Energy suppliers

CPOs

Specialist installers

Vehicle leasing

Initial focus on B2B market (considering mixed fleet, workplace and destination charging funded propositions).....

..... with a longer term eye on domestic market potential

We are currently exploring a range of financing models – operating lease/ finance lease/ CaaS (risk/ reward)

# What we have learnt

B2B customers keen to find funding solutions that include the cost of capacity

Certain sectors are more open to the idea of leasing infrastructure than others

Desire for concession models from sectors with unproven utilisation rates or price stability

Lots of uncertainty still within even large businesses around how to plan future charging infrastructure for their fleets and how they can fund it



# Panel Discussion and Q&A



**Chris Gruen**  
MD, NovAzure  
Consulting



**Phil Valarino**  
Interim Head of EV  
Projects, EDF



**Emilie Hannezo**  
Associate, InMotion  
Ventures



**Mandy Nyarko**  
MD & Advance  
Programme Manager,  
Exeter Velocities



**Matthias Schanze**  
General Partner,  
Rethink Mobility



**Theodore Zannakis**  
CEO, Evotiv



**Daniel Reilly**  
Business Development  
Director, Horizon  
Energy Infrastructure



**William van de Byl**  
Senior Analyst,  
Delta-EE



# Accelerating Net Zero: Upcoming Events

- Hydrogen – May 2021
- Storage, Batteries & Flexibility – June 2021
- Climathon – coming soon!

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# Closing Messages

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- Feedback form and recording via email
- Tell us about your solution of how to accelerate the net zero journey
- 'IDEALondon Accelerating Net Zero' LinkedIn group
- IDEALondon membership for startups – virtual and physical – [www.idealondon.co.uk/membership/](http://www.idealondon.co.uk/membership/)
- Contact NovAzure for support to grow your startup or for your investors to gain further insights across the EV investment space

Contact: [Shirin.Shah@edfenergy.com](mailto:Shirin.Shah@edfenergy.com), [Justine@capitalenterprise.org](mailto:Justine@capitalenterprise.org), [F.Rayner@ucl.ac.uk](mailto:F.Rayner@ucl.ac.uk), [Info@novazure.com](mailto:Info@novazure.com)



# The Next Session: Hydrogen in the Energy Mix

May 2021

Registration open!

[www.idealondon.co.uk/upcoming-events/](http://www.idealondon.co.uk/upcoming-events/)

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