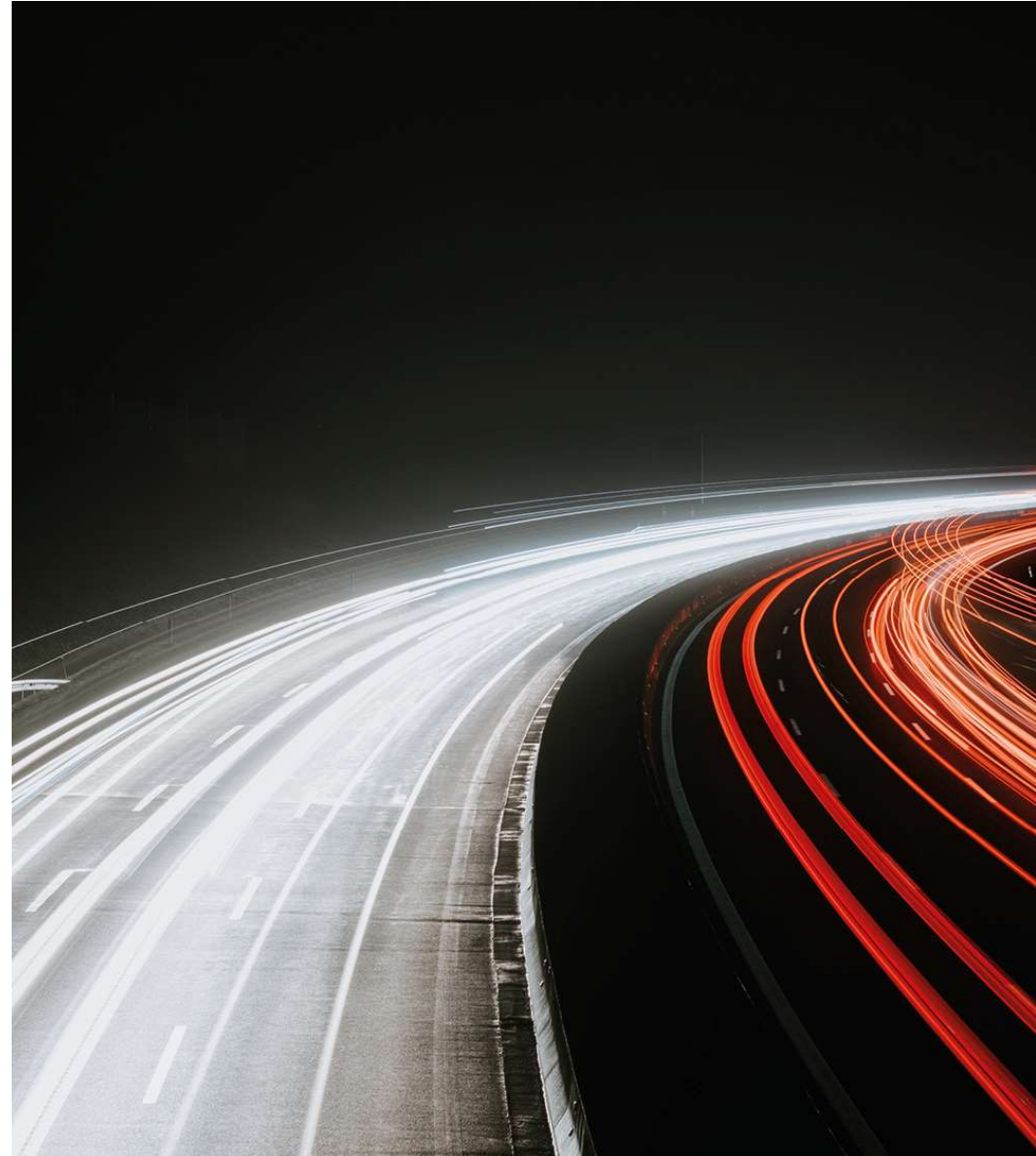




## Delivering Vehicles Fully Charged

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*November 2023*



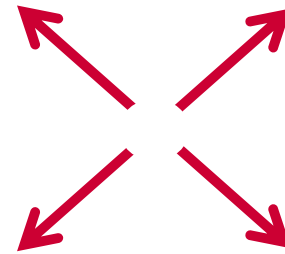
# Delivering Vehicles Fully Charged



Where were we a few years ago



The National Picture



Challenges



What's coming?



# Where were we ?

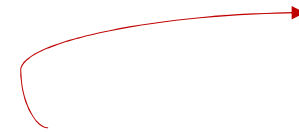
**2021**

EV's gaining traction in both public and trade networks

Electric Commercial Vehicles emerging as a realistic choice

Rapid Charging networks beginning to evolve

*Link to full article*



## **Electric Vehicle Logistics: A challenge or an opportunity?**

The traditional road-driven, single vehicle delivery (trade plate logistics) is a well established sector within the automotive industry. Largely unchanged for a long period, it has in recent years evolved to include data capture at the point of collection and delivery, developing a skilled workforce carrying out in-depth roadside inspections to BVRLA standards, supporting the end of contract return of assets.

With the automotive landscape as a whole undergoing a revolution as electric vehicles become increasingly commonplace, DMN Logistics asks: what's next for the logistics sector?



## Why not just transport all EV's?

- **Capacity in the Market**

Are there enough 1 & 2 car transporters to meet the demand?  
Large loads not suitable for home/corporate delivery

- **Capability in the Market**

EV's weigh more  
Small fleets of 3500kg trucks do not have the load capacity

- **Price / lead time**

Transported service is a higher price point than driven  
Driven often has shorter lead times

# Challenges





# Barriers

- **Range**

Much better range now standard, but weather and equipment still have a big effect on usable range

- **Storage**

EV's like being driven, not so much being stationary  
More in-storage maintenance required to keep them operationally ready

- **Software**

Updates available over the air, but can create down-time

- **Cost**

Rapid charging in the public network can be up to 10 times more expensive than a home tariff



# Unexpected factor

Caffeine Increase





## Poll

At an EV handover what would you like most?

- 100% charge
- 80% charge
- Hand over EV training
- Driving advice
- Familiarisation of vehicle controls

# What's changing

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## Charging Network

Growing network and speed is increasing  
Gigahubs – e.g. NEC

## Training & Development

Driving styles are changing to derive better range  
Route planning tools becoming better

## Syndication

Allstar One Electric Card  
Zap Pay

## Expectation

What's possible with final charge and EV's  
Handover quality / familiarisation more important than a full charge



# 20-80 rule

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20-80 rule is more important than ever

Charging from 0%-20% can take as long as

Charging from 20%-80%

Charging from 80%-100% can take longer than charging from 20%-80%





## The Future

Ultra-Rapid Charging

Charger-knows-the-car

Simplification / syndication of payments at public chargers

Real-Time visibility of charging locations, availability, faults baked into the car UI

Power Mobile

Battery swap technology

# Nio

## NIO Power Swap

Only 3 minutes to swap a fully charged battery.

Upgrade or downgrade battery capacity i.e. borrow a bigger battery for that longer journey

Is one manufacturer enough ?





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