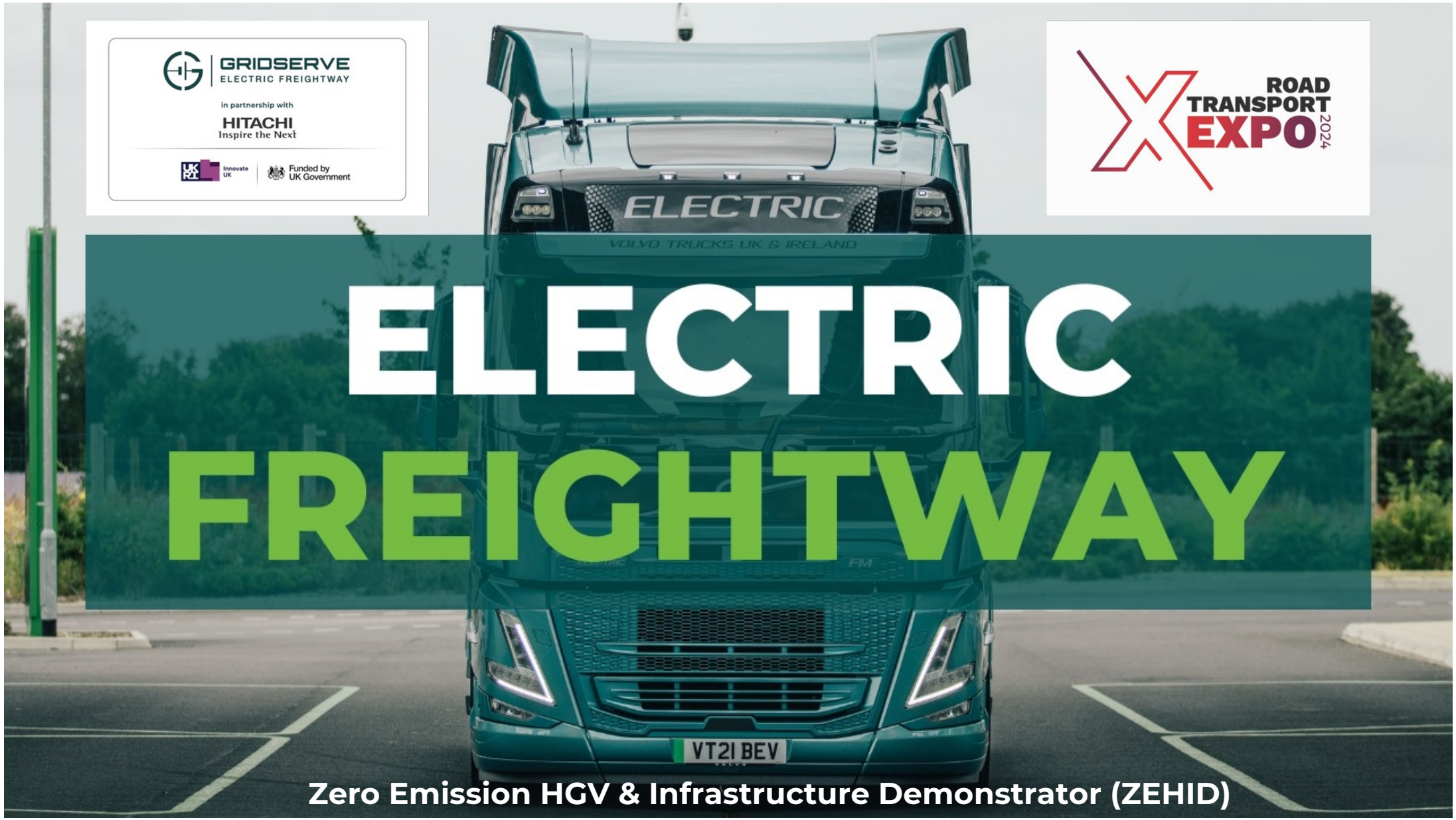


ELECTRIC FREIGHTWAY

Zero Emission HGV & Infrastructure Demonstrator (ZEHID)

GRIDSERVE Electric Highway - overview

- Motorway Electric Hubs

Backbone of the GRIDSERVE Electric Highway, serving the UK's motorways and Strategic Road Network (SRN)

- GRIDSERVE now has over 190 locations with more than 1,400 charging bays (May2024)
  - Contactless payment, open easy access for all
  - Convenient, dependable, reliable
- High Power DC charging: all chargers 50kW to 350kW.
  - c.200,000 charging sessions a month
- **UK's first High Powered commercial charging bay...**

GRIDSERVE Electric Forecourts ™

Commercial charging

The problem being addressed

Transport accounts for **26%** of the UK's domestic greenhouse gas emissions

HGVs account for only **6%** of vehicle mileage on UK roads

They contribute **19%** of transport emissions.

Over **98%** of UK HGVs are currently powered by **DIESEL**

Diesel HGV efficiency has improved significantly over recent years

Whilst vehicle mileage and load has resulted in
total emissions **reducing** between 1990 and 2021 by **1%**

Ban on new diesel trucks:
2035 for vehicles less than 26T
2040 for vehicles above 26T

The challenge

Norwich – Electric Forecourt

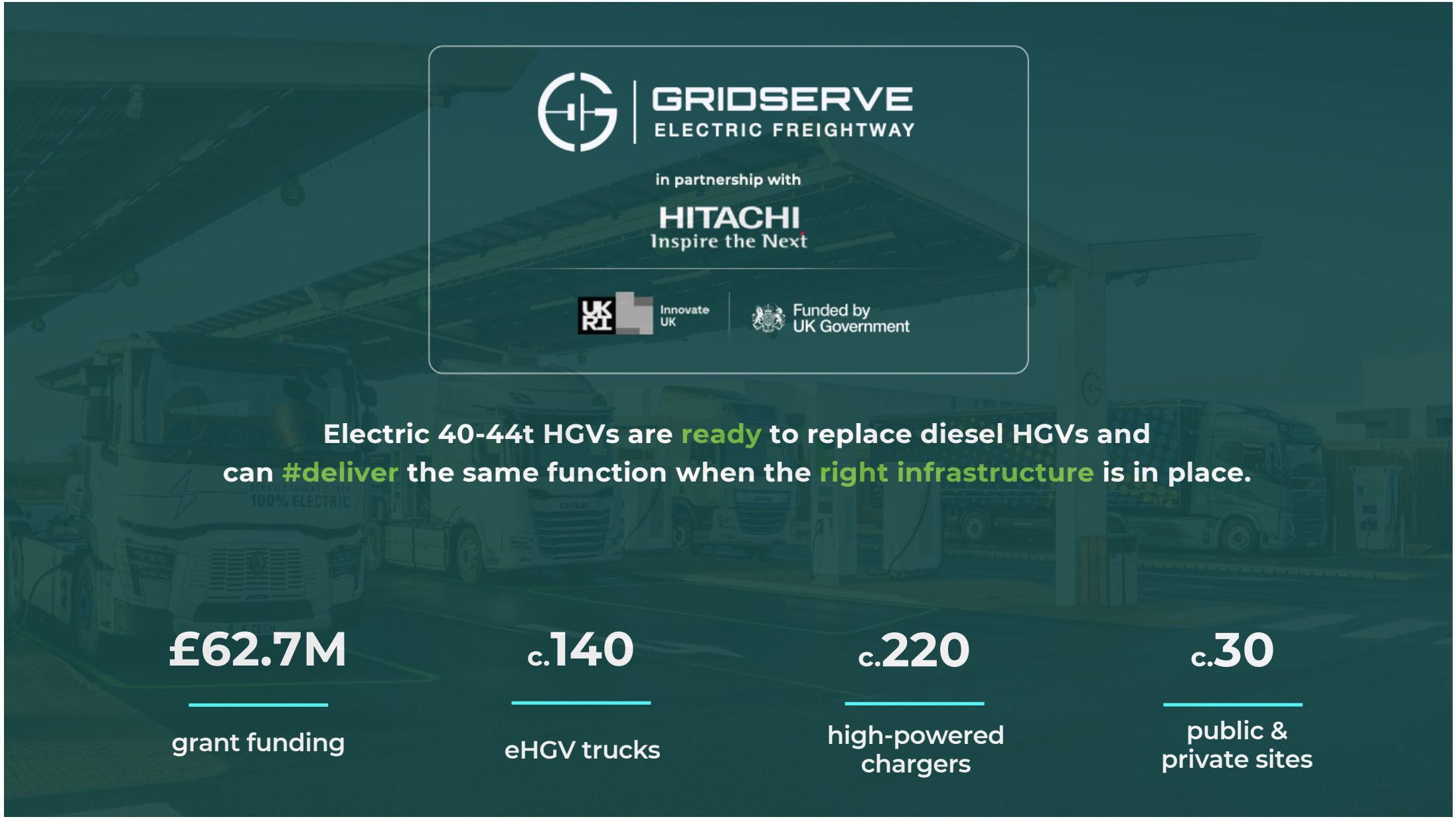

Rugby Motorway Service Area


Rugby Motorway Service Area


Norwich – Electric Forecourt

Beaconsfield Motorway Service Area

Braintree – Electric Forecourt


GRIDSERVE
ELECTRIC FREIGHTWAY
in partnership with
HITACHI
Inspire the Next
UKRI Innovate UK
Funded by UK Government
Electric 40-44t HGVs are ready to replace diesel HGVs and
can #deliver the same function when the right infrastructure is in place.
£62.7M
grant funding
c.140
eHGV trucks
c.220
high-powered chargers
c.30
public & private sites

Project Consortium

Lead Partner

GRIDSERVE SUSTAINABLE ENERGY

Principal Partner

HITACHI
Inspire the Next

OEM Partners

DAF
RENAULT TRUCKS
VOLVO

Leasing Partners

Novuna
PACCAR FINANCIAL
VOLVO Financial Services

Charging location Partners

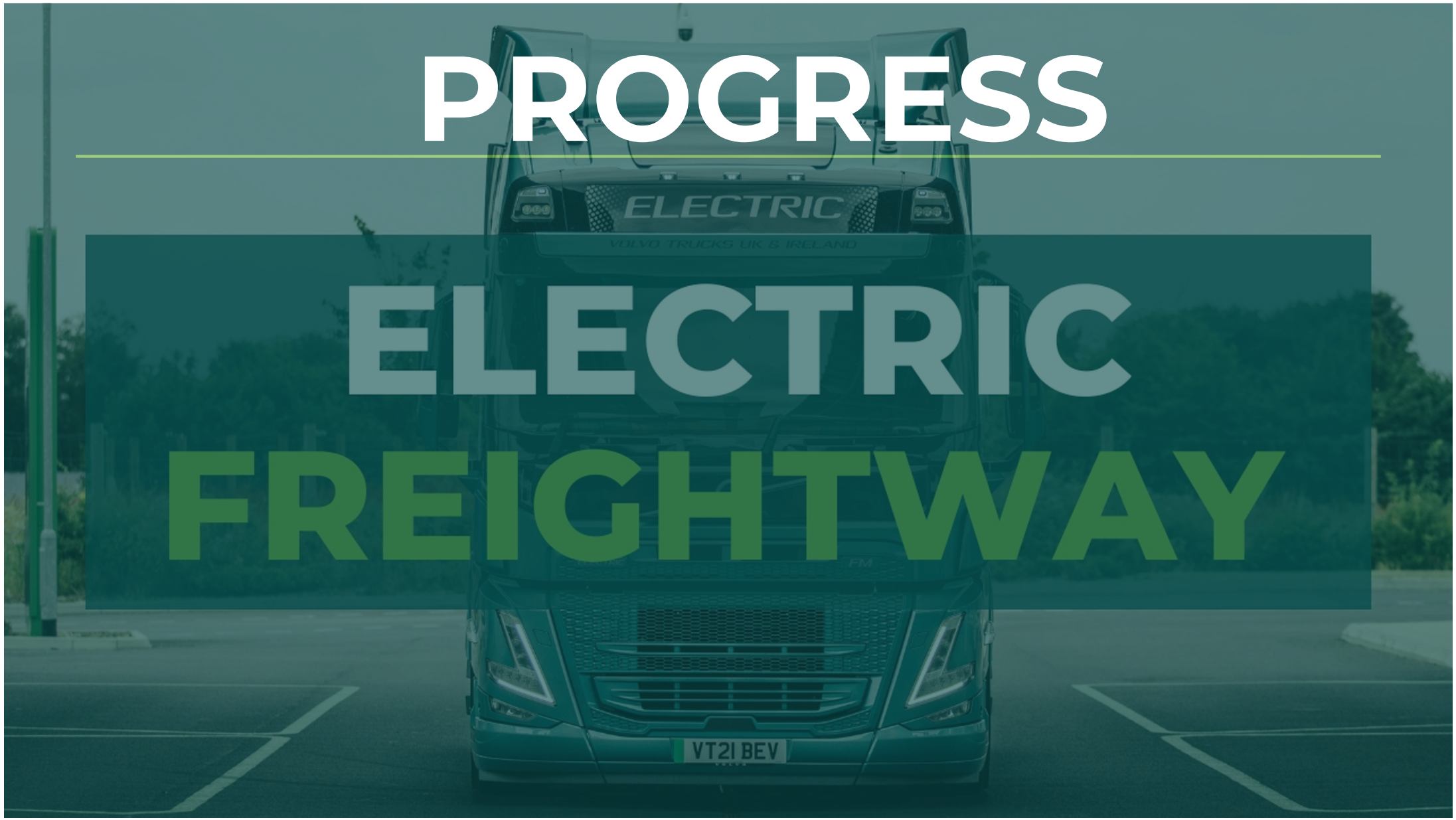
British Land
DCC
moto
NISSAN

Haulier Partners Members

a.f. blakemore & son ltd
amazon
ASDA
boughey
Fergusons Transport
KUEHNE+NAGEL
Samworth Brothers QUALITY FOODS
MARITIME
Royal Mail
Wincanton
XPOLogistics
United Utilities Water for the North West
Yusen Logistics

Third party stakeholders

Department for Transport
UKRI Innovate UK
bsi.
CATAPULT Connected Places
nationalgrid
national highways
RICARDO
Zemo Partnership



PROGRESS

ELECTRIC FREIGHTWAY

GRIDSERVE
ELECTRIC FREIGHTWAY

First trucks on the road and trucks on charge at depots

What else has been achieved so far?

HITACHI
Inspire the Next

Examples of different types of HGV operations

Trunking / Line Haul
Regular routes between distribution centres

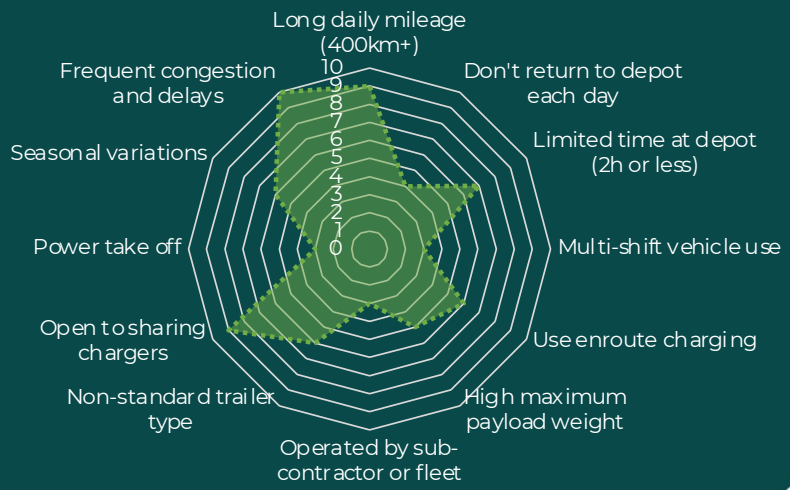
Distribution / Delivery
From a distribution centre to customers

Milk Run
Regular collection from multiple suppliers and delivering to a customer

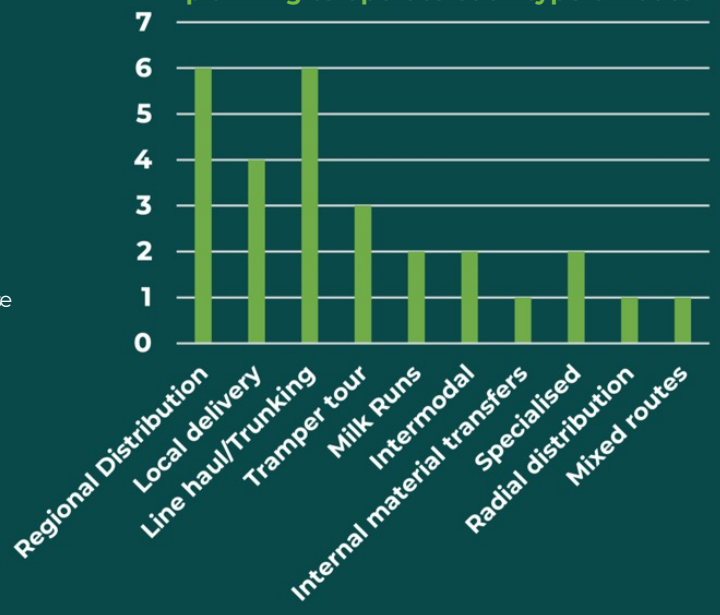
Tramping
A multi-day route where drivers overnight away from home

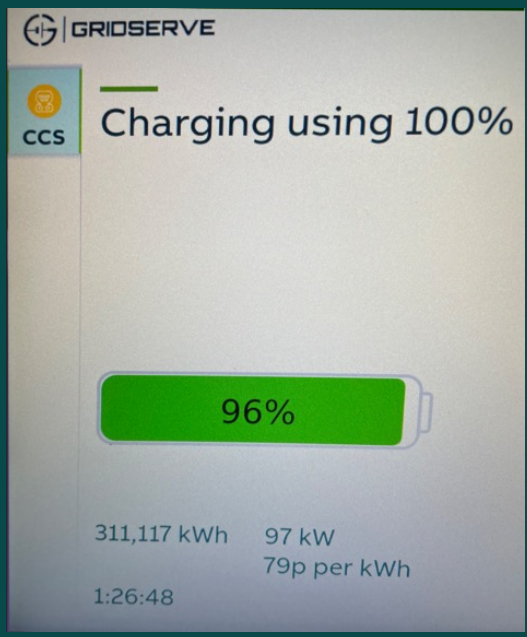
Specialised
Delivering loads such as bulk goods, vehicles or chilled products

Expected use cases in the demonstrations



Number of hauliers provisionally planning to operate each type of route



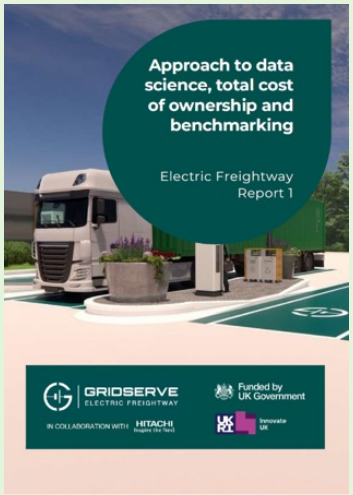


Electric Freightway Programme Summary: Reports progress and plan

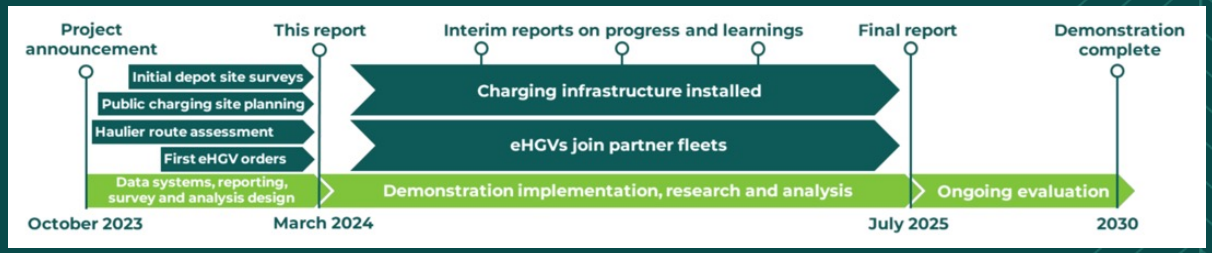
HITACHI
Inspire the Next

Report 1
Approach to data science, total cost of ownership and benchmarking

- Introduction to the project and its objectives
- Data science approach
- Approach to TCO modelling and benchmarking
- Project, hypotheses and next steps



Out now!



Report 2
Commissioning Report

- What we've implemented/are implementing
- Lessons learnt charging infrastructure,
- Lessons learnt eHGV introduction
- Lessons learnt IT

Summer 2024

Report 3
Initial Findings

- Progress on trial
- Perceptions
- Initial TCO

Learnings from

- HGV performance
- Integration of eHGVs into fleets
- Charging eHGVs

Autumn 2024

Report 4
Further Findings and Proposed Scalable Business Model

- Key findings (practical, economic, environmental)
- Business Model considerations
- Proposed scalable business model for eHGV fleets and charging
- Recommendations

Revise and update

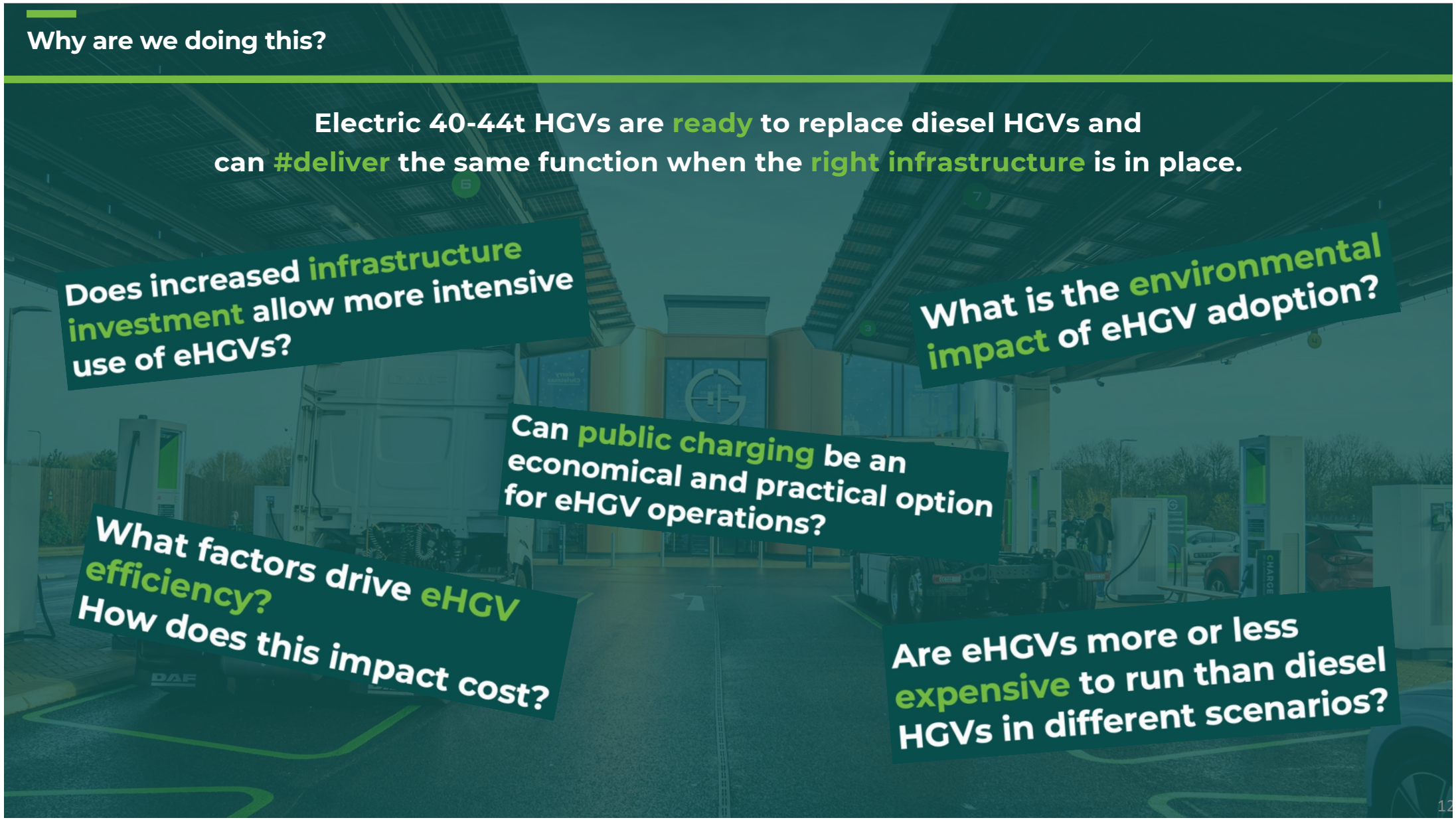
Spring 2025

Report 5
Final Report

- Key findings (practical, economic, environmental)
- Business Model considerations
- Proposed scalable business model for eHGV fleets and charging
- Recommendations

Summer 2025

Why are we doing this?



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Thank you