






Webinars for Cold Chain Professionals
TRANSPORT WEEK DAY 2: TRANSPORT
REFRIGERATION
STARTING AT 10:30AM

SHANE BRENNAN
CHIEF EXECUTIVE
COLD CHAIN FEDERATION




SCHEDULE


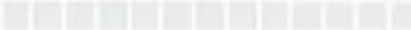
10:35 – 10:55	Fuel Policy & The Future of Transport Refrigeration	 <p>COLD CHAIN FEDERATION</p>
10:55 – 11:15	Greater efficiency & innovation in Transport Refrigeration Units	 <p>TRANE TECHNOLOGIES</p>
11:15 – 11:30	Panel Discussion	 <p>brakes a Sysco company</p>

File View Help



Audio

Sound Check  ?

Computer audio
 Phone call
 No audio

Microphone Array (Conexant SmartA... ▾

Speakers (Conexant SmartAudio HD) ▾


Talking: **Shane Brennan**

Questions

[Enter a question for staff]

Send

CCF - COVID 19 - INTELLIGENCE EXCHANGE
Webinar ID: 308-161-843





FUEL POLICY & THE FUTURE OF TRANSPORT REFRIGERATION



TOM SOUTHALL,
POLICY DIRECTOR,
COLD CHAIN FEDERATION

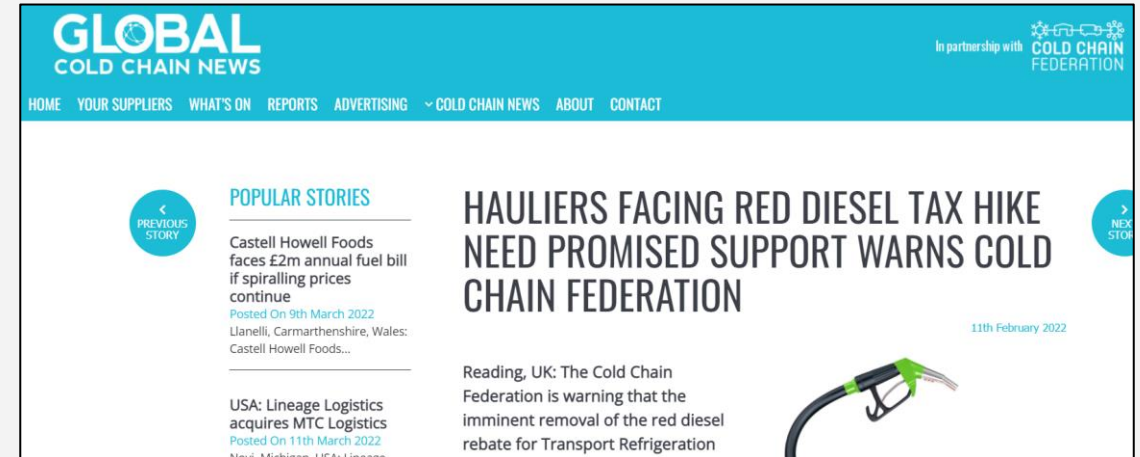
RED DIESEL & FUEL POLICY

THE END OF RED DIESEL IN THE COLD CHAIN

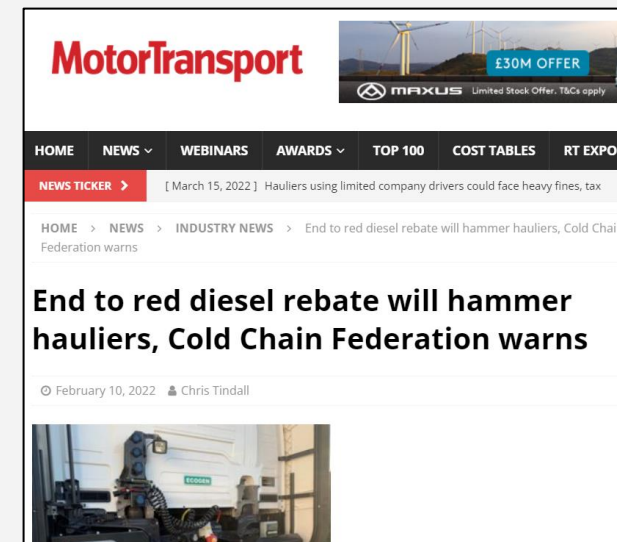
- The Government's ambition to end the subsidy for red diesel is finally being realised from April 2022.

THE IMPACT ON THE COLD CHAIN

- CCF data suggests annual TRU usage of 5095L of diesel per year
- The extra fuel duty payable from April is 46.81p per litre,
- Therefore a cost of about £2,385 per TRU per year
- £95.4m of extra cost per year (we estimated a total fleet size of 40,000 TRUs).





The screenshot shows the 'GLOBAL COLD CHAIN NEWS' website. The main article is titled 'HAULIERS FACING RED DIESEL TAX HIKE NEED PROMISED SUPPORT WARNS COLD CHAIN FEDERATION' and is dated 11th February 2022. The article text reads: 'Reading, UK: The Cold Chain Federation is warning that the imminent removal of the red diesel rebate for Transport Refrigeration'. To the left, there is a 'POPULAR STORIES' section with a link to 'Castell Howell Foods faces £2m annual fuel bill if spiralling prices continue' dated 9th March 2022. The website header includes navigation links like 'HOME', 'YOUR SUPPLIERS', and 'ABOUT CONTACT', and a partnership logo for the 'COLD CHAIN FEDERATION'.



The screenshot shows the 'MotorTransport' website. The main article is titled 'End to red diesel rebate will hammer hauliers, Cold Chain Federation warns' and is dated February 10, 2022, by Chris Tindall. The article text reads: 'Hauliers using limited company drivers could face heavy fines, tax'. The website header includes navigation links like 'HOME', 'NEWS', 'WEBINARS', 'AWARDS', 'TOP 100', 'COST TABLES', and 'RT EXPO'. There is also a 'NEWS TICKER' section at the top. A banner for 'MAXUS' with a '£30M OFFER' is visible at the top right. An image of a factory interior is shown at the bottom of the article.

KEY CONSIDERATIONS FOR BUSINESSES

- Cease usage of red diesel in your TRUs by the end of March
- Use up all bunkered stocks
- Back up generators
- Check other machinery
- Enforcement
- Purchasing red diesel from the eu
- Consider how you will manage costs, check you customers



THE END OF RED DIESEL USE IN THE COLD CHAIN

In the Budget of February 2020, the Government announced its intentions to remove the entitlement to use red diesel for most sectors, including for powering Transport Refrigeration Units (TRUs) on vehicles and generators in (sometimes used as backup power sources in cold stores). The new rules come into effect on the **1st of April 2022**.

Cold chain businesses should have already begun preparing for the changes and must now ensure they are fully compliant with the new requirements by the end of March. This note details the key changes and how businesses can check they are ready.

The Cold Chain Federation is on hand to support members through this transition. For any enquiries, please contact Policy Director [Tom Southall](#).

WHAT'S CHANGING AND WHEN?

From 1st of April 2022, the entitlement to use rebated 'red' diesel is being removed from a range of applications. For cold chain operators this mostly affects Transport Refrigeration Units (TRUs) on vehicles, some back-up generators in cold stores and food processing machinery. The government's guidance for preparing for the changes is available here: <https://www.gov.uk/government/publications/changes-to-rebated-fuels-entitlement-from-1-april-2022/how-to-prepare-for-the-changes-to-rebated-fuel-if-youre-a-fuel-user>

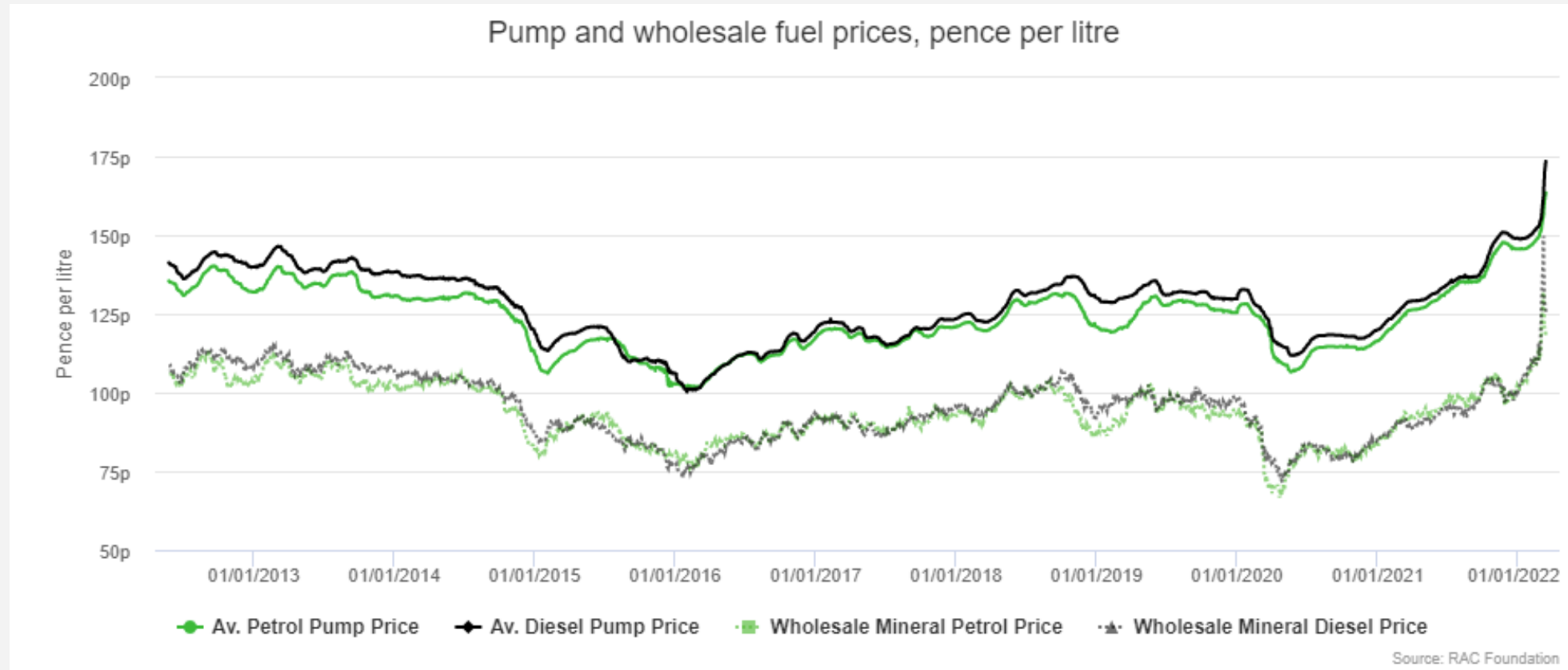
WHY IS THIS HAPPENING?

It is the Government's view that rebated diesel is slowing the take up of more sustainable technology in certain sectors. The change is part of their wider policies of making businesses pay for emissions they produce and to incentivise the development and adoption of greener alternatives. The change will also generate approximately £1.5bn in revenue for the Treasury.

HOW MUCH WILL THE CHANGE COST MY BUSINESS?

From April 2021, the tax on diesel used for Transport Refrigeration Units and other applications will increase from 11.14p/L to 57.95p/L, so an increase of 46.81p per litre. CCF data suggests on average this will mean a **£6.53 increase in fuel costs per TRU per day** (or £2,383 per year) based on average TRU usage and therefore a total impact of approximately £100m to the industry's estimated 40,000 TRUs.

SKYROCKETING FUEL COSTS



WHAT MAKES UP THE COST OF DIESEL?

	Pence per litre	% of total cost
Wholesale diesel (90%)	59.77	34%
Biofuel content (up to 10%) - B7	17.10	10%
Delivery & oil company	2.10	1%
Retailer margin	7.86	5%
Fuel duty	57.95	33%
VAT @ 20%	28.91	17%
Average retail price	173.68	
Total tax	81.20	
Tax as % of average retail price	47%	

Based on latest available data

Source: [RAC Fuel Watch](#) • [Embed](#)



COULD THE GOVERNMENT INTERVENE ON FUEL?

- Other countries are leading the way supporting all fuel users with cuts in vehicle duty.
 - Ireland: 13c on diesel excise duty
 - Netherlands: 11 c on diesel excise duty
 - France: 15c rebates
- Nothing from the UK
 - Essential user rebate of 15p per litre
 - Fuel duty cuts
 - Reduction in VAT
 - Red diesel delay?
- All eyes on the Chancellors Spring Statement 23rd March.



The Telegraph News Ukraine Sport Business Opinion Money Life Style Travel Culture

Investing Property Pensions Banking Tax Insurance Bills and utilities Financial Solutions More...

Britain is being left behind as European countries cut fuel duty and energy taxes

France and the Netherlands have cut taxes to ease pressure on drivers and households

By Jessica Beard
15 March 2022 • 6:00am

Related Topics
Consumer Affairs, Energy crisis.
Electricity bills, Gas bills

Chancellor Rishi Sunak has come under increasing pressure to cut fuel duty and take the heat out of rising energy bills, with at least 50 Tory MPs pressing for a change.

Households face the worst cost of living crisis in more than 50 years, as annual [energy bills](#) will rise by £693 on average from next month. The price of gas has soared across Europe and many governments have intervened to alleviate the strain of the cost of living crisis. The Netherlands, Ireland and France have all cut taxes on household energy bills.

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REDUCING RELIANCE ON DIESEL IN TRANSPORT REFRIGERATION

OUR NET ZERO PROJECT



Cold Chain Federation's commitment to support our members to adapt to a low carbon future:

- **Part One:** Shaping the Cold Chain of the Future: The Road to Net Zero (published)
- **Part Two:** Defining a Net Zero Cold Chain (published)
- **Part Three:** The Journey Towards emission free temperature-controlled distribution on road vehicles)
- **Part Four:** The Cold Store of the Future (2022)
- **Part Five:** The Cold Chain Ecosystem (2022/23): the connecting elements which will make up the cold chain of the future. eg. blockchain, advanced temperature monitoring etc.

<https://www.coldchainfederation.org.uk/cold-chain-net-zero-project/>

AIM & PRODUCTION

➤ DfT Commitment in Transport Decarbonisation Plan:

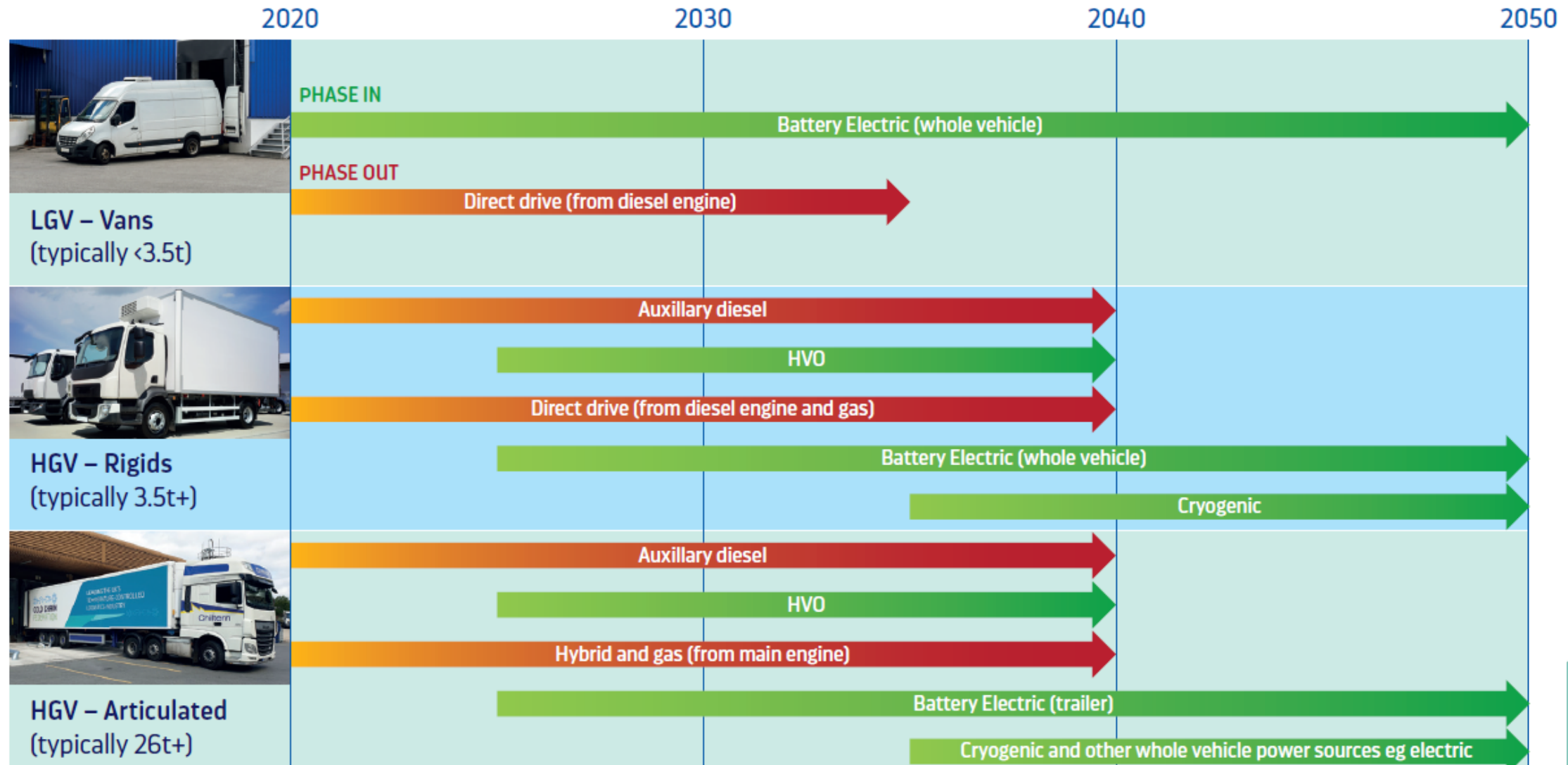
“We will build on the initial work of Zemo Partnership and others in identifying zero emission solutions for transport refrigeration units and auxiliary power units, producing an action plan for their identifying the technologies available, barriers to introduction, and opportunities”

➤ Product of 2 years of consultation across the cold chain

- CCF member companies (operators)
- TRU manufacturers
- Trailer manufacturers
- Industry experts
- Refrigeration engineers
- Refrigerant manufacturers



TRANSITIONING AWAY FROM DIESEL



Short term: by 2030 (transitioning to lower or emission free refrigeration)

Vans and small rigids

- As more vans upgrade to at least Euro VI (or later) standards, those operating 'direct drive' systems will reduce emissions significantly.
 - Increasing adoption of electric whole-vehicle solutions to achieve a fully electric refrigerated vehicle.
 - Reduction in the GWP of gases used as a refrigerant due to F Gas regulations.
-

Large rigids and articulated

- Improved efficiency in operation of refrigerated trailers to significantly reduce the overall emissions from auxiliary diesel TRUs.
- Some adoption of lower emitting fuels to reduce emissions, such as HVO and biofuels.
- Increasing adoption of hybrid technology to run systems from Euro VI (or later) engines where possible.
- Some adoption of 'smart battery' powered trailers as this technology becomes more viable.
- Reduction in the GWP of gases used as a refrigerant due to F Gas Regulations.

Long term: by 2040 (move to emission free refrigeration)

Vans and small rigids

- All vehicles will run their refrigeration systems from the main engine of the vehicle, which is likely to be electric by 2040.
 - Emission free, or ultra-low refrigerants replacing high GWP gases.
-

Large rigids and articulated

- No auxiliary diesel TRUs for large rigids, which will be able to be electrically powered by the main engine when in motion and by plug-in electric when stationary (or from batteries).
- Widespread adoption of smart battery technology to achieve mostly diesel free emissions from refrigerated trailers.
- Alternative technology such as nitrogen fully scoped and beginning to be adopted if viable.
- Emission free, or ultra-low refrigerants replacing high GWP gases.
- Decarbonisation of HGV engines could result in wider adoption of a single vehicle (truck and trailer) power source for both motion and refrigeration.



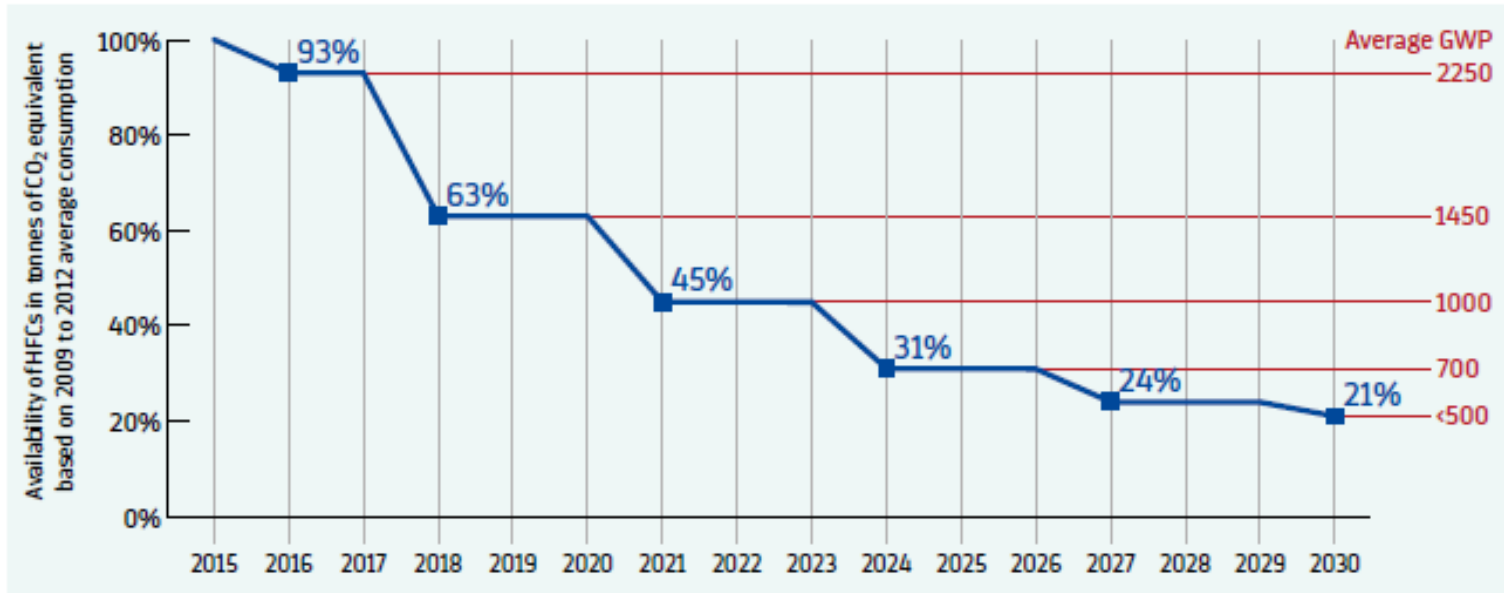
INDUSTRY LED MEASURES TO REDUCE EMISSIONS NOW

- Transparency and data reporting
- Undertaking regular and complete maintenance of refrigeration equipment
- Reducing the number of journeys and empty running
- Faster innovation in trailer and TRU design and operation
- Reshaping the supply chain



Photo: Carrier Refrigeration UK Ltd

A WORD ON REFRIGERANTS

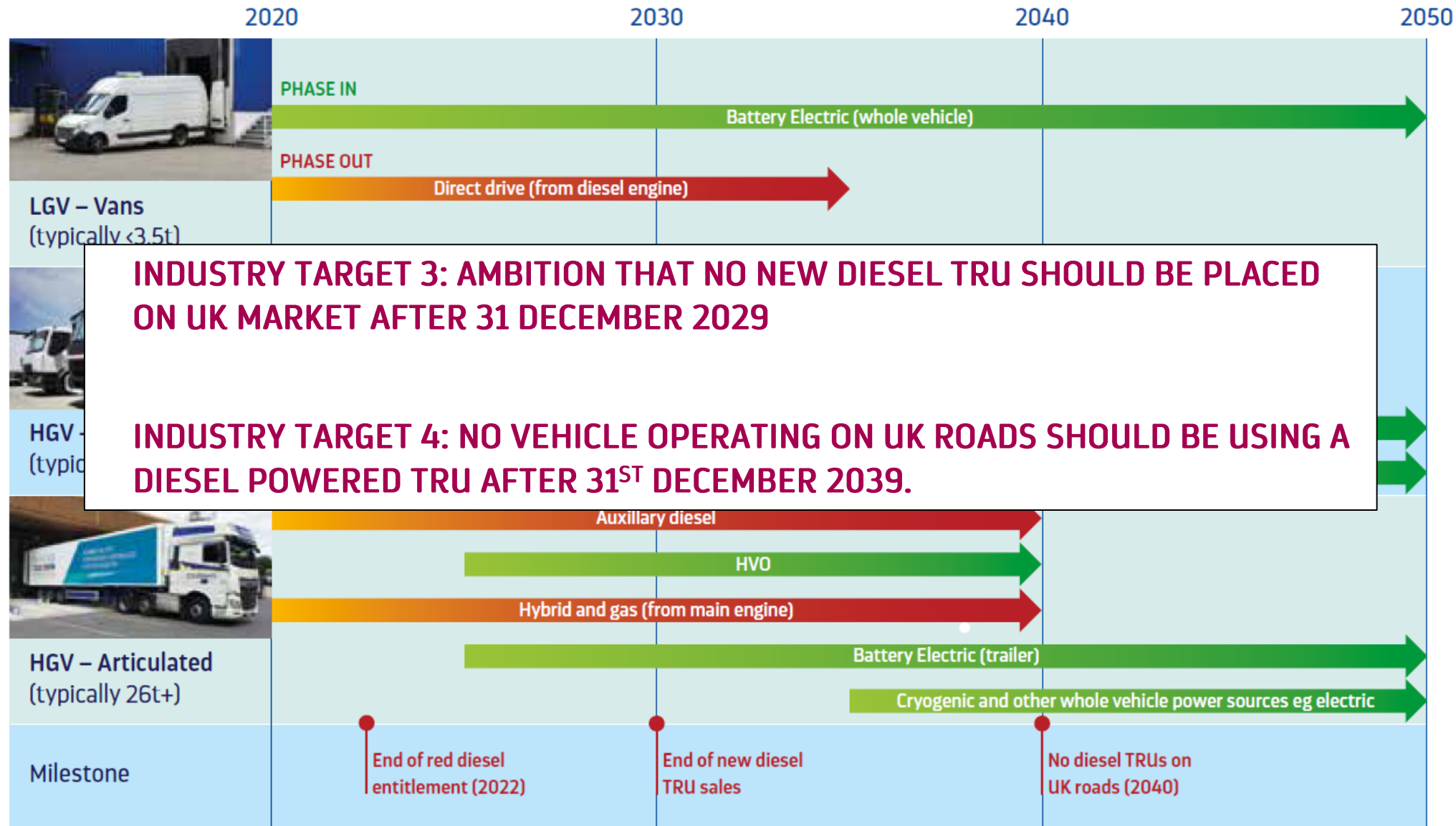


INDUSTRY TARGET 1: NO TRANSPORT REFRIGERATION UNITS (TRUs) TO BE SOLD INTO THE UK MARKET WITH A GWP OF MORE THAN 300 BY 2025

INDUSTRY TARGET 2: NO TRANSPORT REFRIGERATION UNITS (TRUs) SHOULD USE REFRIGERANTS WITH A GWP OF MORE THAN 300 BY 2035 (IN LINE WITH THE KIGALI AMENDMENT OF THE MONTREAL PROTOCOL)



WHAT WE CAN ACHIEVE



BUT.....BARRIERS TO PROGRESS

- Infrastructure
- Maintenance, reliability and operator confidence
- Affordability and case for investment



Photo: Siemens



Photo: Fleet Equipment Magazine

COLLABORATION TO OVERCOME THE BARRIERS...

MANUFACTURERS

OPERATORS

GOVERNMENT

COLD CHAIN FEDERATION



THE OPPORTUNITY

- Emission free transport refrigeration by 2040.
- A good news story for UK decarbonisation
- Decarbonising a small, but visible element of transport infrastructure ahead of HGVs and other NRMM
- Tackling carbon emissions and air quality objectives
- Minimal need for further regulation/policy aimed at TRUs
- Showcasing collaboration between Government, manufacturers and operators



SHAPING THE COLD CHAIN OF THE FUTURE:
THE ROAD TO NET ZERO

**PART THREE – THE JOURNEY TO EMISSION
FREE TEMPERATURE-CONTROLLED
REFRIGERATION ON ROAD VEHICLES**



GREATER EFFICIENCY & INNOVATION IN TRANSPORT REFRIGERATION UNITS



DAVID O'GORMAN,
REGIONAL DIRECTOR,
NORTH AND WESTERN EUROPE

An aerial photograph showing a two-lane asphalt road that curves through a dense, green forest. To the right of the road, a clear, turquoise lake is visible. The sky is a pale, clear blue. The overall scene is peaceful and scenic.

Trane Technologies

Innovation that touches people's
lives everyday

March 2022

TRANE
TECHNOLOGIES

Agenda

- Welcome
- Company intro
- Where we are today
- Where we want to be
- How to bridge the gap





COMMERCIAL HVAC

Air conditioning systems, services and solutions. Innovative solutions geared toward making high-performance buildings reliable and safe, as well as healthy, comfortable and efficient



RESIDENTIAL HVAC & SUPPLY

Heating, cooling, thermostat controls and home automation for the residential market and a complete selection of innovative parts, options and accessories for optimal performance and reliability



TRANSPORT REFRIGERATION

Manufacturing and innovation of transport temperature control systems for a variety of mobile applications, including trailers, truck bodies, buses, shipboard containers and rail cars



We take sustainability to our core



The Gigaton Challenge

Reducing our customer carbon footprint by 1 Gigaton of CO₂



Leading by Example

Achieving carbon neutral operations, zero waste to landfill and net positive water



Opportunity for All

Focusing on gender parity and diversity in the workplace; investing in STEM education and economic mobility in our communities

We take sustainability to our core

1 Gigaton
of CO₂e =

annual emissions of



+



+

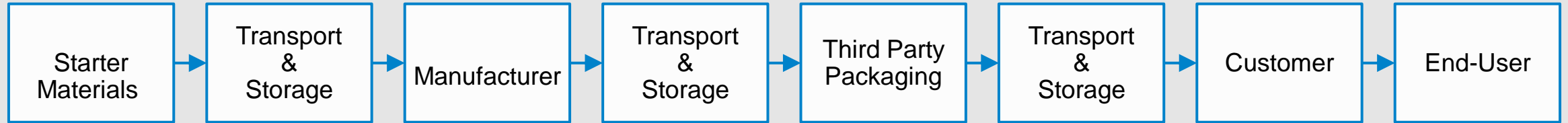


Italy

France

U.K.

Product portfolio across Road, Marine, Rail and Air



Air

Temperatures:
0°C to +25°C

Thermo King / Envirotainer Solutions

- RAP e2
- RKN e1
- RAP t2
- RKN t2



Ocean

Temperatures:
-70°C to +40°C

Thermo King Solutions

- Magnum+
- Super Freezer
- GenSets



Road

Temperatures:
-38°C to +30°C

Thermo King Solutions

- Advancer / SLXi Series
- Frigoblock Range
- T-Series
- V-Series
- E-Series



Storage

Temperatures:
-70°C to +40°C

Thermo King Solutions

- Cold Storage Solutions
- CSS Magnum+
- CSS Super Freezer



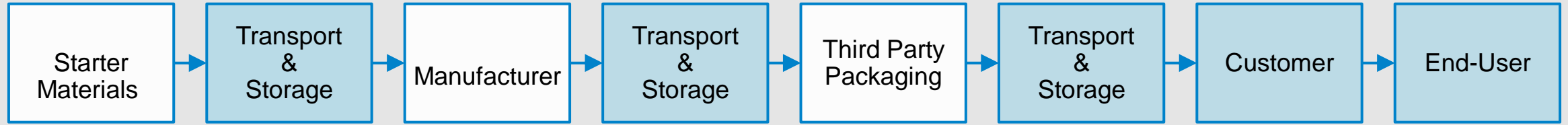
Traceability

Safety, Security &
Compliance

Thermo King Solutions

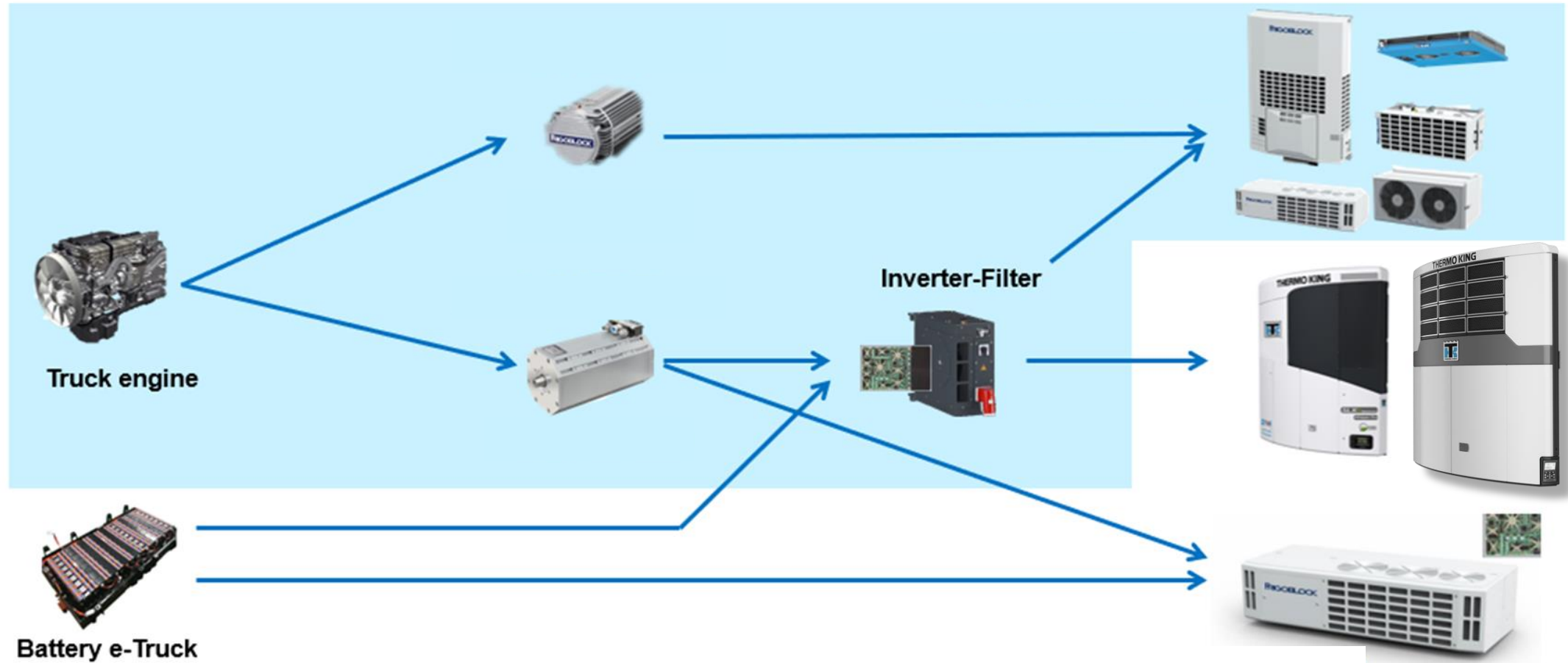
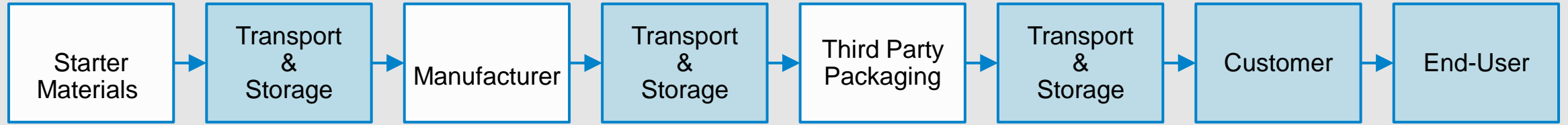
ConnectedSolutions™

Product portfolio across Road, Marine, Rail and Air



Road	Storage	Traceability
<p>Current Solutions Envirodrive / Hybrid BEV BEVans Advancer HVO</p>	<p>Current Solutions Cold Storage Solutions CSS Magnum+ CSS Super Freezer</p>	<p>Current Solutions ConnectedSolutions™</p>

Product portfolio across Road, Marine, Rail and Air



Customers need sustainability leadership



Customers need sustainability leadership



Customers need sustainability leadership



Customers need sustainability leadership



Customers need sustainability leadership



Customers need sustainability leadership

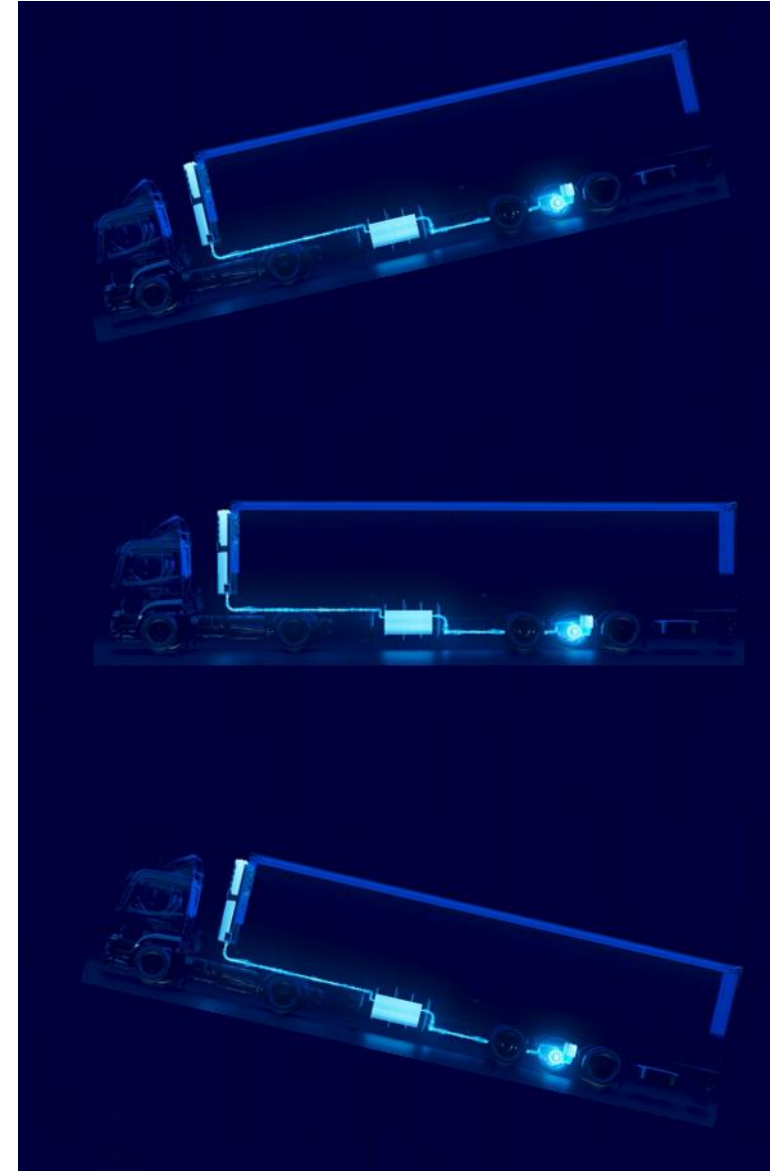
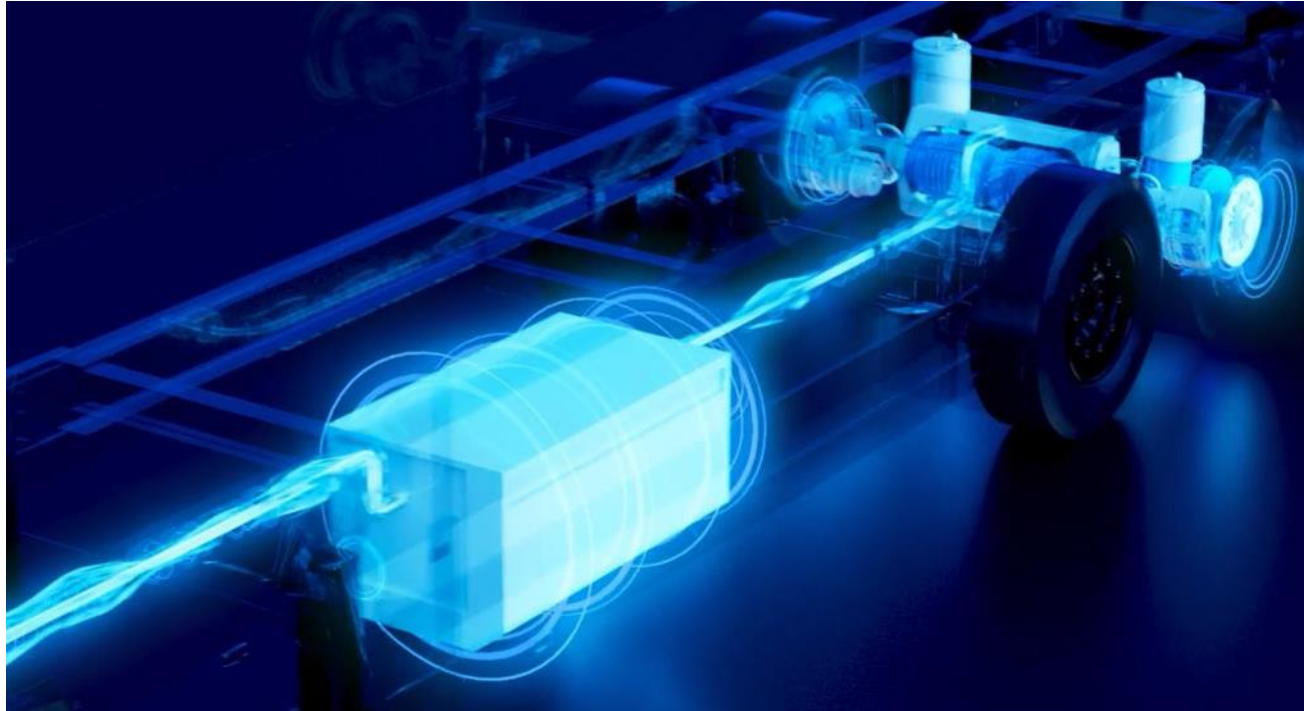
- 90% reduction in CO2
- No impact on maintenance
- Approved by Truck OEM's



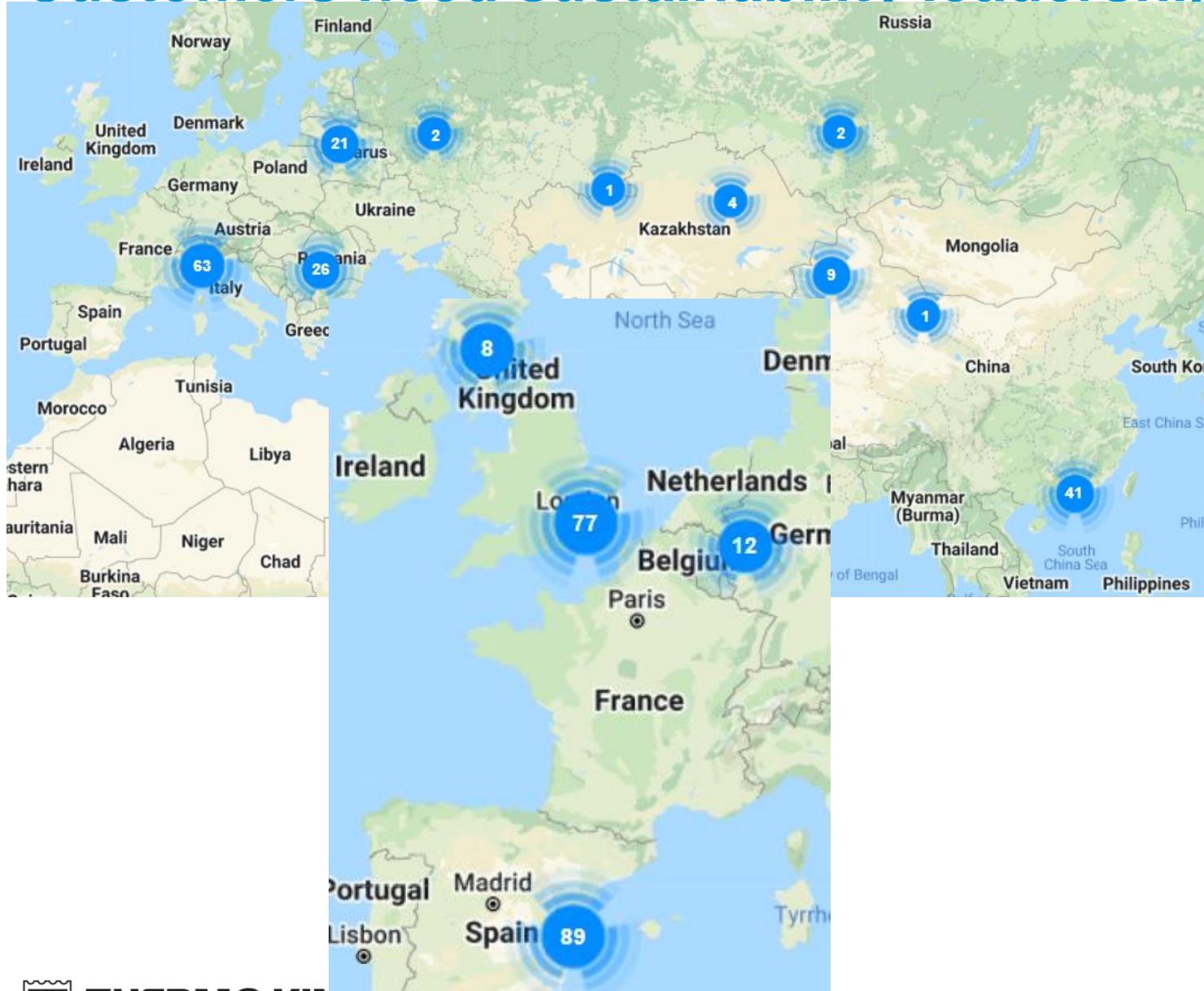
Customers need sustainability leadership



Customers need sustainability leadership



Customers need sustainability leadership



Traceability: Intelligent Connected Assets



Provides Reefer Status

Load Condition

Asset Location

Temperature Compliance

Asset Security

Cargo Traceability

Vehicle Uptime

Fuel Usage



An aerial photograph of a city at dusk. In the foreground, a bridge with a complex metal truss structure spans across a body of water. In the middle ground, a large, dark, angular sculpture resembling a triangle stands on a landscaped area. The background shows a city skyline with various buildings, including a prominent blue skyscraper on the left. The sky is a mix of orange and grey, suggesting sunset or sunrise. The overall mood is one of modern architecture and urban development.

— pushing the boundaries of what's
p o s s i b l e

TRANE
TECHNOLOGIES

DISCUSSION

