energy saving trust

How to decarbonise your transport fleet

6 February
11:30am -12:15pm

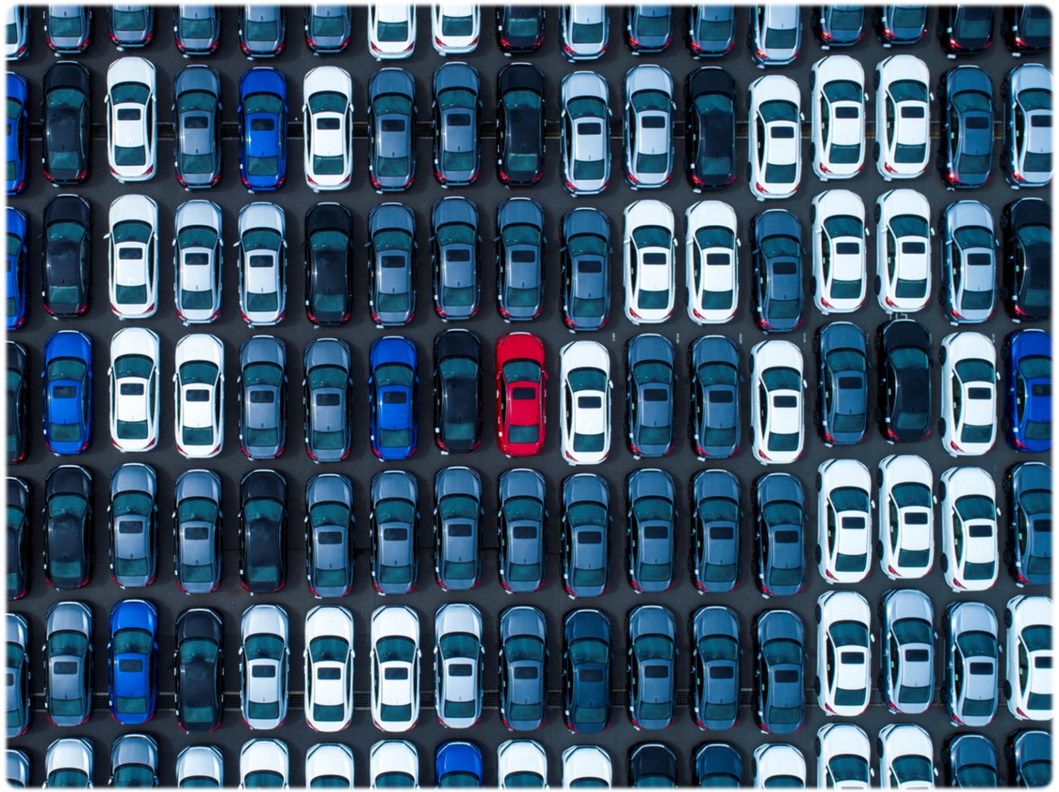
Fleet consultancy 06/02/24

Brief for today's session

The fundamentals for fleet decarbonisation

We will cover:

1. why fleet decarbonisation matters…now!
2. using data to your advantage
3. looking beyond the vehicles
4. working collaboratively
5. developing the plan
6. grey fleet and salary sacrifice



1. Why fleet decarbonisation matters....*now!*

2030 is not far away...

Why fleet decarbonisation matters...*now!*

Reason 1 – Greenhouse gas (GHG) emissions

- Fleet and transport emissions are often the biggest source, or at least one of the biggest.
- A single diesel refuse truck can emit 1t GHG a week.
- A 3.5t van travelling 25,000 miles a year will emit around 15t of GHG (well to wheel), each year.
- If you have 10 or 20 – it really adds up.

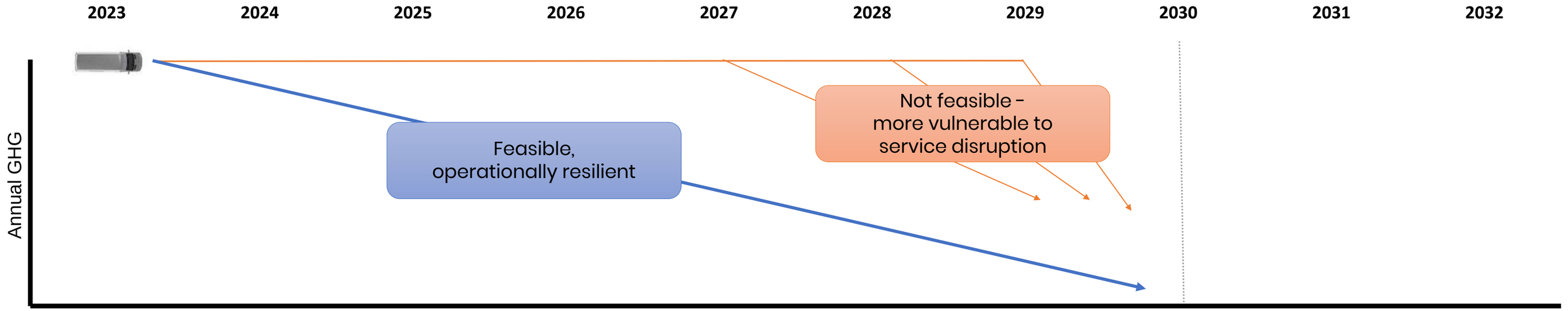
Reason 2 – viable alternatives (efficiency!!)

- Lots of vehicle use cases can now be served by battery electric vehicles – (more with some thought!).
- In many cases, whole life costs of battery electric are comparable to diesel (some are cheaper).

Why fleet decarbonisation matters...*now!*

Reason 3 – clock is ticking

- Many organisations (potential customers) now have a net zero target...
- Clear government policy environment... no new petrol/diesel from 2035
  - Drip feed battery electric or rapid, late migration?
  - Cumulative GHG emissions to one side, which is safer for operational resilience and ensuring transition hurdles are manageable?



2. Using data to your advantage

To ensure success and an optimised transition...

Using data to your advantage

Vehicle operational data – helps a successful transition

- Quality: audit data collection and quality – if not robust, improve.
- Scope: what data is collected? If incomplete, improve.
  - Vehicle utilisation:
    - miles per year
    - miles per day (average, peak, and so on)
    - fuel per day (CAN bus - telematics)
    - days per week
    - hours per day
  - vehicle requirements: load capacity, towing, etc.
  - diesel vehicle performance - MPG

Using data to your advantage

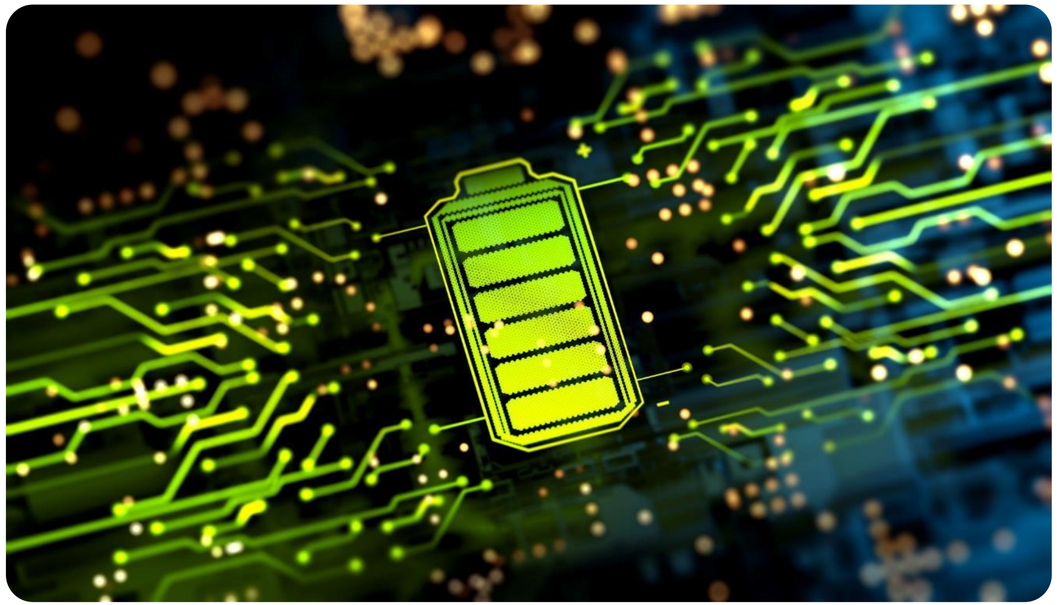
Effective data collection and analysis doesn't just enable a like-for-like transition from diesel to battery electric…

- It enables downsizing of vehicles.
- It enables removal of vehicles from fleet (current project example of minibuses).
- It enables consolidation of vehicles – through sharing, pooling or multi-shifting.
- General travel and mileage claims enables scope 3 emissions to be measured (this scope may change depending on company car/car allowance).

Using data to your advantage

Data clarity allows future battery electric energy consumption to be predicted

- Understanding daily peaks – which vehicles won't ever need any 'in-shift' charging.
- Which vehicles will need charging 'in-shift' and where and when (from telematics)? Variance between needs and perception.
- Battery size – identify future needs where products not yet available (or other low carbon solution).
- Where smaller battery models can be used (less cost, less embedded carbon).
- Understand those vehicles where embedded carbon might not be offset (probably the same ones that you might not need!).



3. Looking beyond the vehicles

You might need the egg before the chicken...

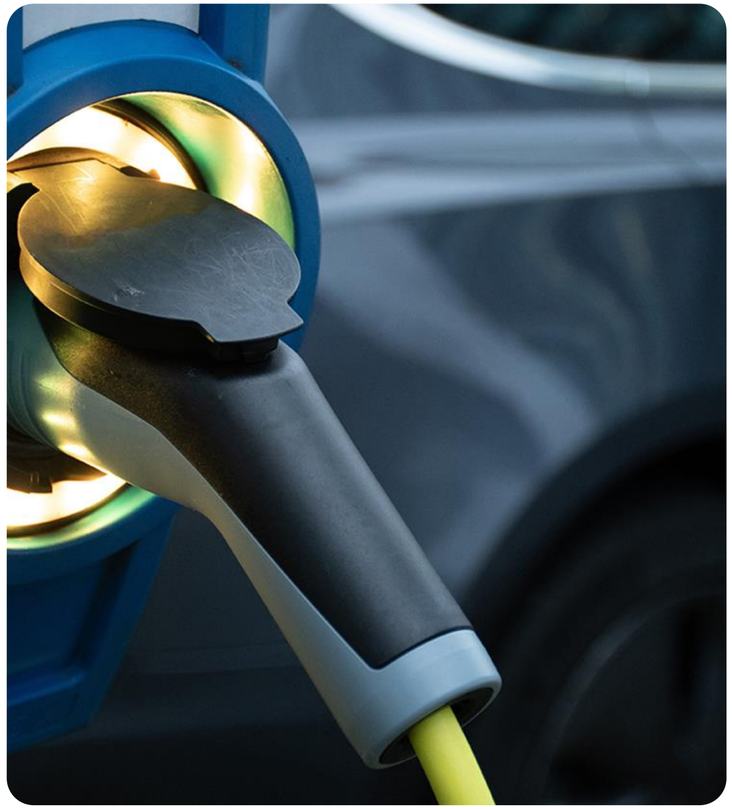
Looking beyond the vehicles

Vehicle operational data helps plan fleet infrastructure requirements

- How many vehicles stay in depots overnight?
- How many vehicles go home at night?
- How many vehicles stay on street overnight?

Allows starting with the end in mind and forming a strategy for infrastructure; not just an ad-hoc or reactive approach.

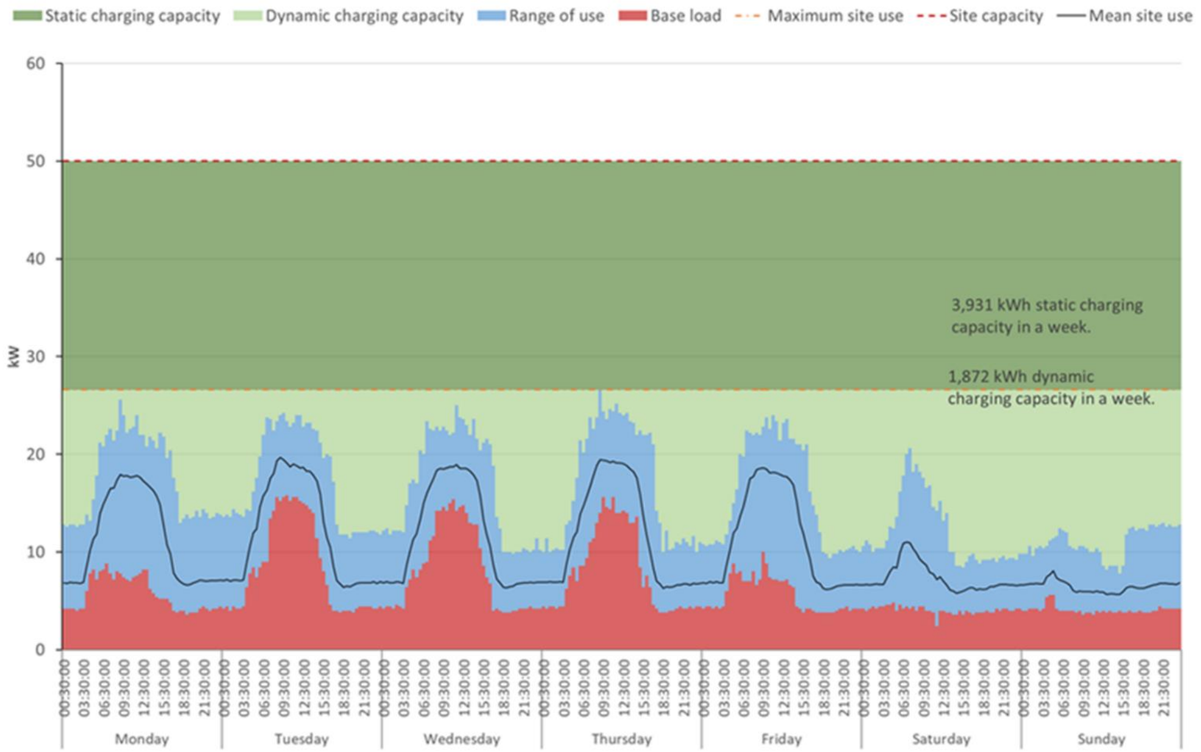
What about charging cars at work (what are the implications)?



Looking beyond the vehicles

Electrical supply and demand data – the basis for planning depot charging

- Understanding the energy capacity you will need for a fully electric fleet
- Is the connection big enough (static capacity) or can it easily be made bigger – local substation capacity?
- If it falls short - by how much?
- How much can dynamic capacity contribute – battery storage, etc?
- Can depot power generation help?
- How powerful do the chargers need to be? (I can answer that!)
- What are the other options?



4. Working collaboratively

A problem shared is a problem halved

Working collaboratively

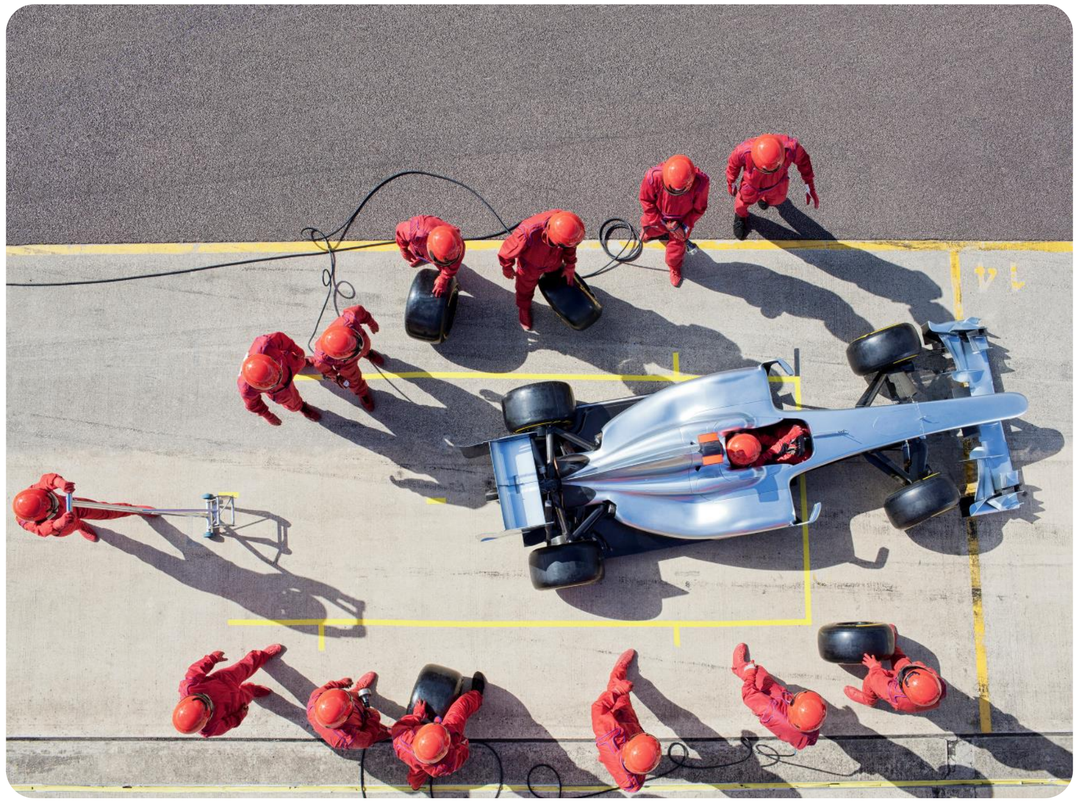
Collaboration needed at every level

- Good communication with drivers can make transition easier.
- Identify drivers who can help spread positivity for the transition.
- More energy efficient drivers of diesel vehicles will use less kWh in electric vehicles .
    - Battery electric vehicles can be more sensitive to poor driving styles.

Working collaboratively

Who needs to be in the transition team… senior support is essential!

- fleet management
- main vehicle operating departments
- estates
- energy management
- procurement
- finance
- HR (where home-based chargers and grey fleet and salary sacrifice changes are needed)



Fleet advice and consultancy at Energy Saving Trust

Thousands of fleets in the UK - many on same journey as yourself

- Energy Saving Trust has provided independent fleet support to over 200 public sector fleets in the last five years, and over 100 private sector fleets.
- Advice and assistance is available and adaptable to your needs.

Using Other Opportunities

- Try to work with peers from similar organisations – share resources, projects, learning.
- Lean on experts, where they exist – fleet decarbonisation is a huge, multi-disciplinary undertaking. A fleet manager can't know it all...
- Lease companies, manufacturers and infrastructure providers have all been developing broader support packages to support the take up of their products, **but beware of sales bias.**

5. Developing the plan

Failure to prepare, prepare to...

No panacea now or in the future – make a plan and make a start!

Failure to prepare, prepare to fail…

- Transition is capital intensive – structural changes have to happen.
- New ways to finance changes might be needed. Quantify and plan accordingly (whole life cost advantages).
- Investment and sustained attention is required to meet goals – could be more challenging to deliver in an efficient, service resilient manner by leaving too much till too late.
- Grid connection expansion will only get more competitive.
- Understanding the options and revenue opportunities may enhance your plan.

Engage with others if you need help – sometimes just being able to 'ask the right questions' can save time, money and stranded assets.

6. Grey fleet and salary sacrifice

Is salary something you want to sacrifice?

Grey fleet can be high emission

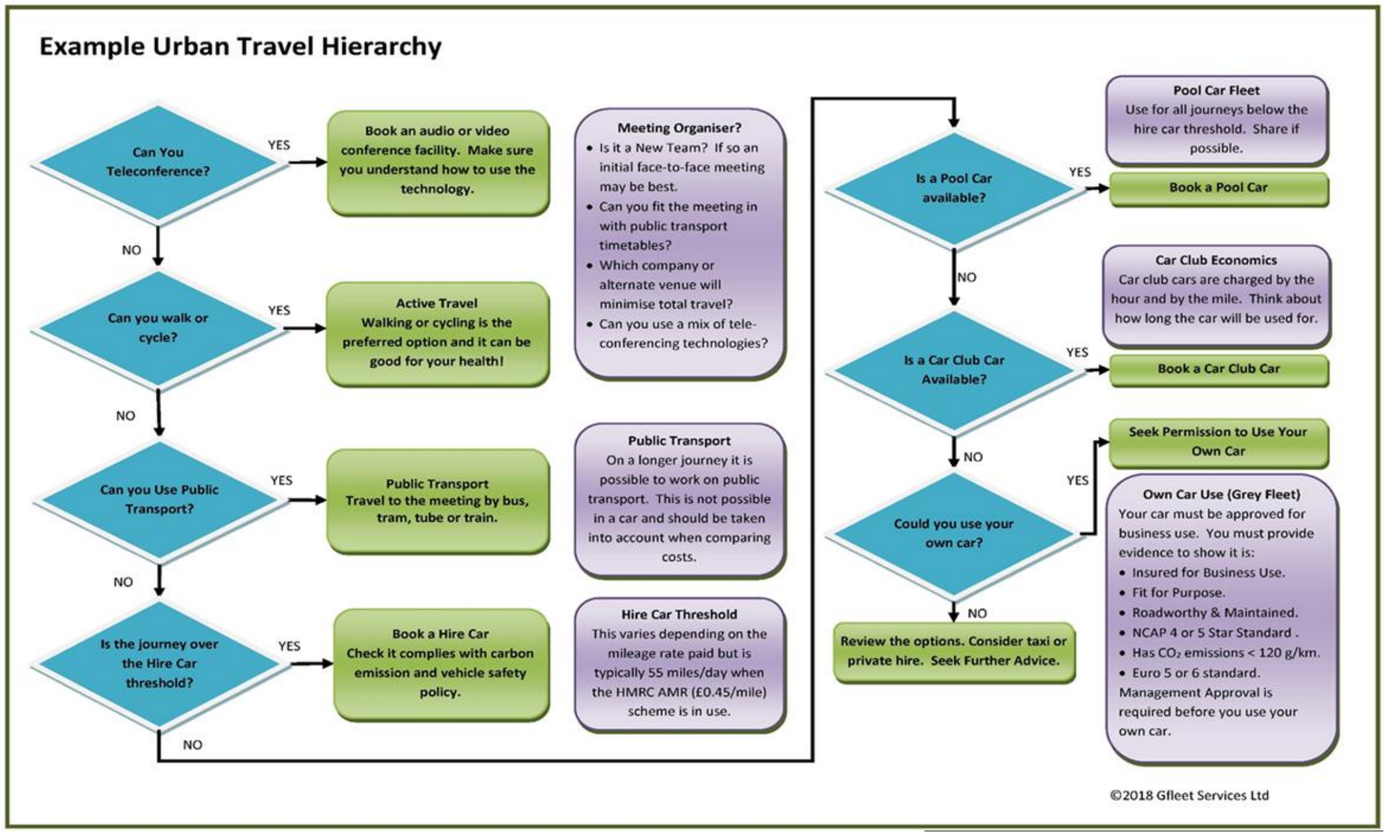
Where there are no previous grey fleet interventions (in a large organisation)

- Many (or most) will drive by default.
- Few will share lifts.
- Some will maximise journeys, especially in cars that are past the worst of their depreciation.
- There will be old and high emitting vehicles.
- There will be faulty and illegal vehicles.
- Some will be under-insured.
- Some will drive to work only because they need a car for work.

Grey fleet emission reduction

Key grey fleet interventions

- Change the order of approval for journeys.
- Implement a travel hierarchy.
- Pool vehicles – zero emission where possible – fits in the hierarchy before private car use.
- Pool vehicle management – schemes to look after bookings, keys and checks (could provide vehicles).
- When alternatives in place – apply standards to pool cars.
- Home based roles can affect these schemes.



Where does salary sacrifice fit in

Can be helpful anywhere cars are used for business or as remittance

- alongside a car allowance scheme, where a job ‘needs’ a car
- as an alternative to company cars
- anywhere private cars are used for business purposes
- as an employment perk
- cost of new cars has increased drastically - a good way of bringing things back into reach
- as an antidote to fiscal drag! (more on the next slide…)

How does it work / why would we want to?

The low tax on company cars makes this work much better for 0g/km vehicles

- Cars become part of your fleet / emissions.
- Provider should cover maintenance, tyres and insurance, some even provide charge point in monthly cost.
- Early termination insurance.
- Lower salary – no tax for that amount at 20/40%, no NI (employer saves this too, can choose who benefits).
- Reduces emissions from old employee cars.
- Duty of care benefits.
- May help with retention.

Are there any downsides?

Like anything – it won't be for everyone…

- Not everyone will want to pay for a new car.
- Vehicles become part of your 'fleet' – Scope 3 to Scope 1.
- May commit people to car use – commuting and business travel.
- Still have duty of care for sometimes very fast cars .
- Charging could be contentious for people without a drive – need for clear policies (don't over-commit if you have a small grid connection and a lot of electrification of your own assets!).
- Need to pay for early termination insurance, or left with unwanted vehicles from leavers.
- Administration (but that's just life!).

Closing remarks

- fleet decarbonisation matters…now!
- data – quality and quantity
- looking beyond the vehicles
- working collaboratively
- developing the plan
- grey fleet and salary sacrifice

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Thank you

James.Brown@est.org.uk
07818 158123