

# Nottingham City Council

## Fleet Electrification Case Study

Jack Barratt – Innovation & Change Team

# Agenda

- Background
- Journey
- Roadblocks
- Moving Forward

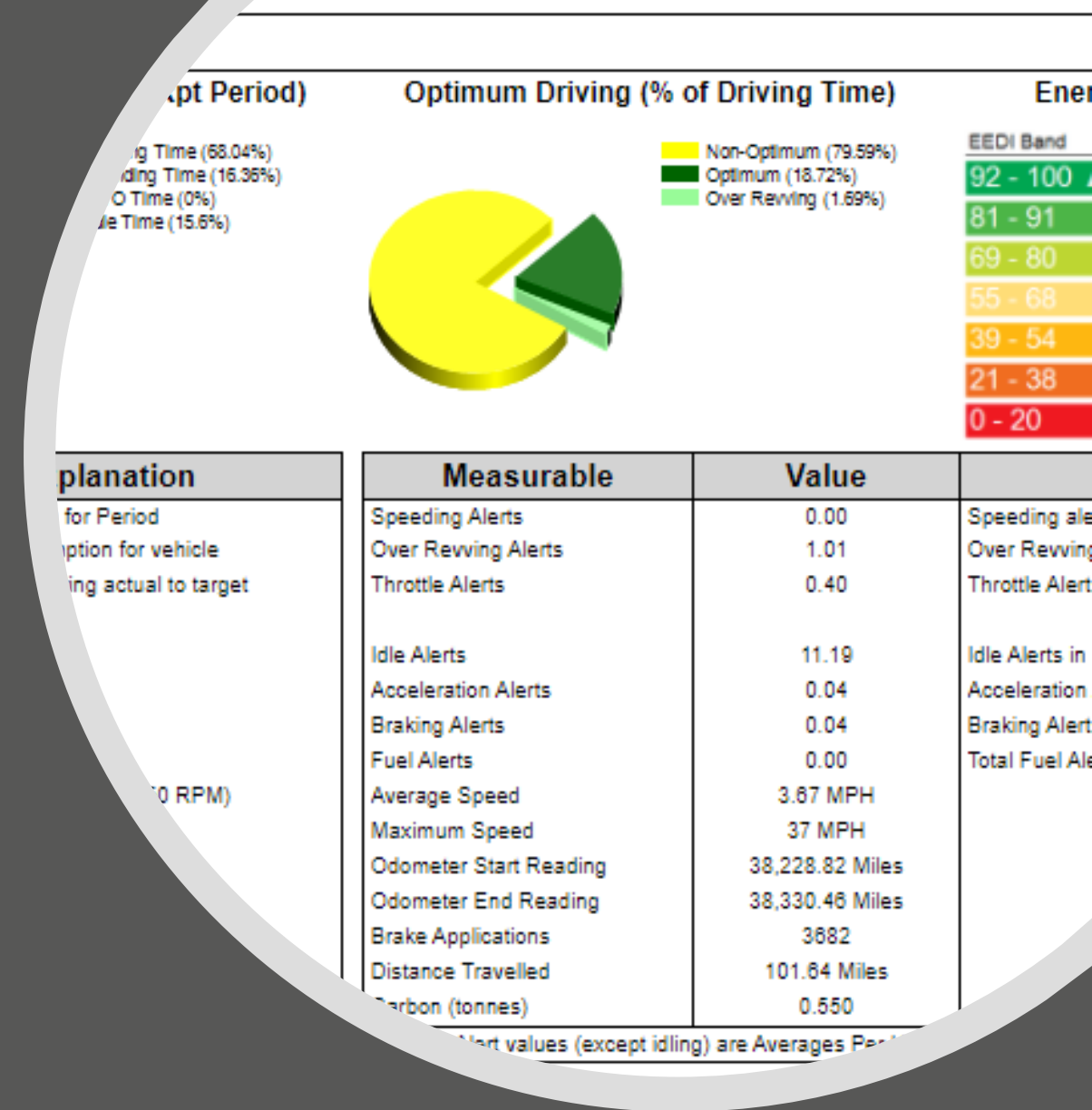


# Background

- **7.1t CO<sub>2</sub>** emissions per capita p/a
- **28,000 – 36,000 deaths** p/a in the UK from poor air quality, **400** in Nottingham
- Commitment for **100%** of our fleet to be ULEV by 2028
- Our aim is to **set an example** for local fleet operators by **tackling the roadblocks** to converting to a low emissions fleet
- Diesel inflation - **£200,000** p/a

# Reducing Emissions

- Latest emission standards on diesel
- Route optimization
- Fuel additive
- Telematics – driver behaviour
  - Dennis Connect
  - Masternaut Connect
  - TrakM8 & BookingLab



# Removing Emissions

215 ULEVs– 45% of fleet

- 132 Vans
- 53 Cars
- 14 Cage Tippers
- 8 Sweepers
- 6 Minibuses
- 2 RCVs





## Barrier: Maintenance

- Mechanic training and tools
- Exclusively ULEV garage
- Encourage potential EV buyers & mechanics



# Barrier: Infrastructure

- 140 smart chargers across 4 sites
- Load management
- Bay management
- New substation – Woolsthorpe
- InnovateUK funding partnerships



# Barrier: Driver Buy-In

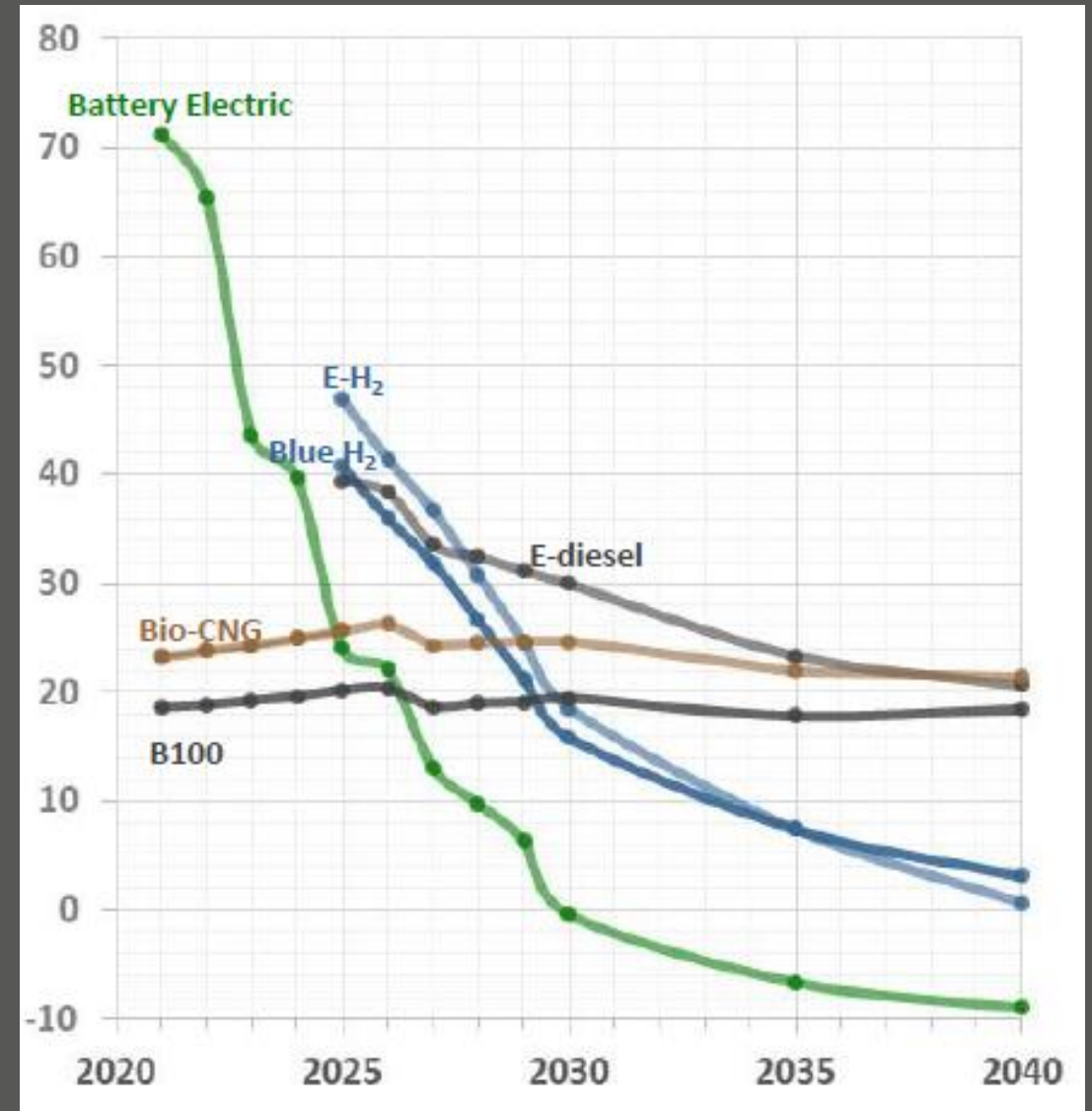
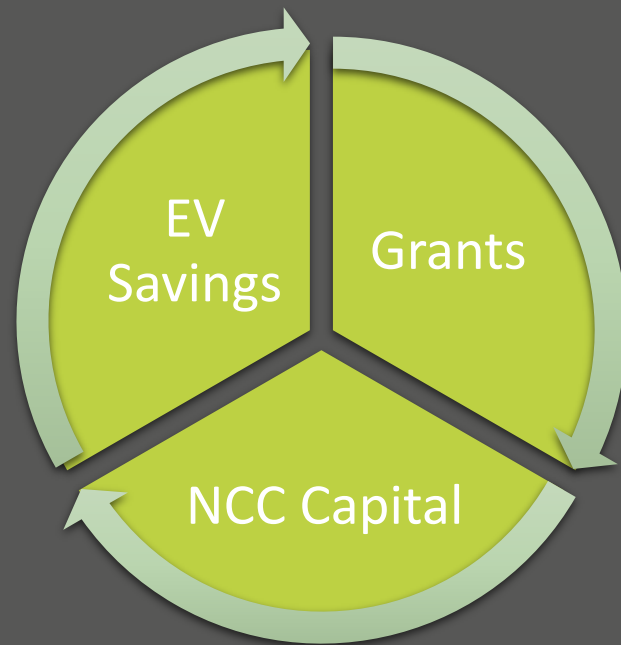
- Research
- Buy based on data
- Start small – buy in
- EV training





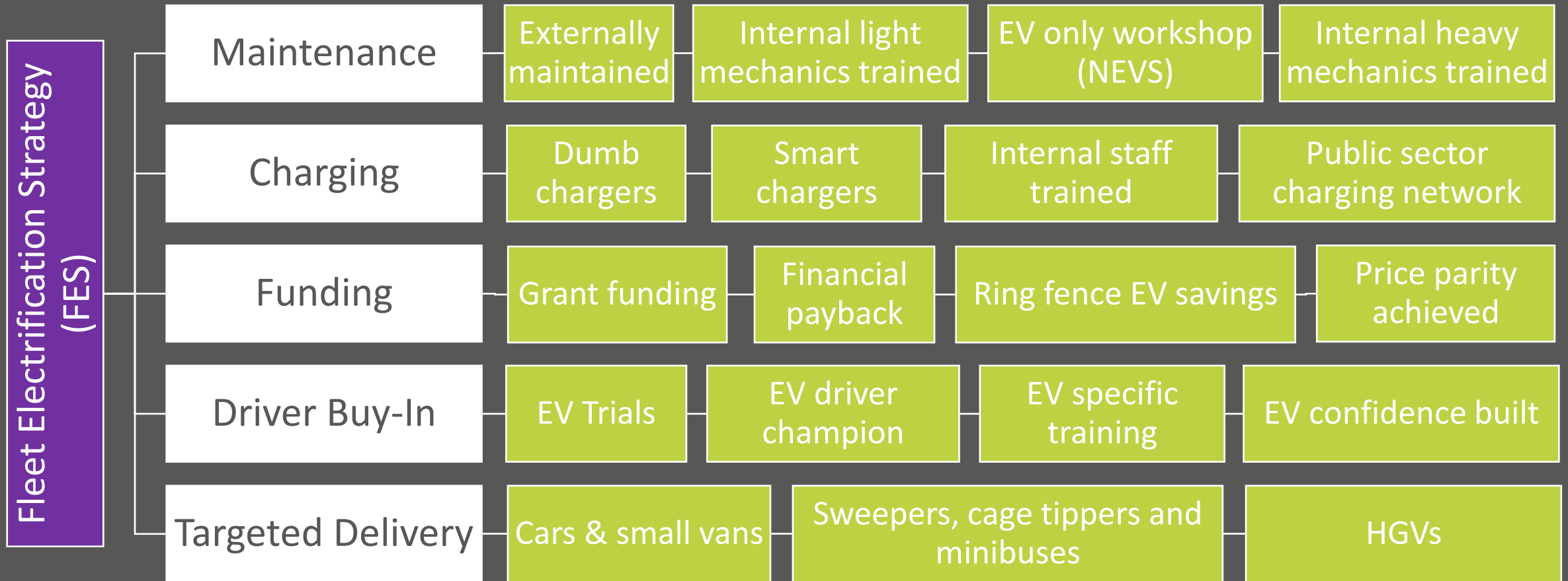
# Barrier: Funding

- Ring-fence savings
- Total Cost of Ownership
- Indirect benefits
- Political wins



Graph credit: Renault Trucks

# FES – Development

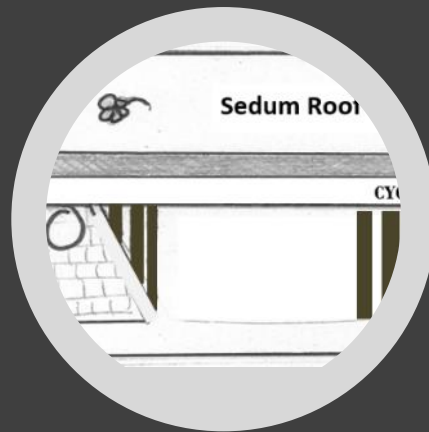


# Purchasing Plans

268 ULEVs by 2024 – 56% of fleet

- 132 -> 136 Vans
- 53 -> 56 Cars
- 14 -> 24 Cage Tippers
- 8 -> 15 Sweepers
- 6 Minibuses
- 2 -> 21 RCVs
- 0 -> 10 Tractors





# Moving Forward

- Battery storage
- Micro grid
- PV canopies
- ULEV Grey Fleet
- Electric handheld kit
- Emobility Centre
- Autonomous scrubber

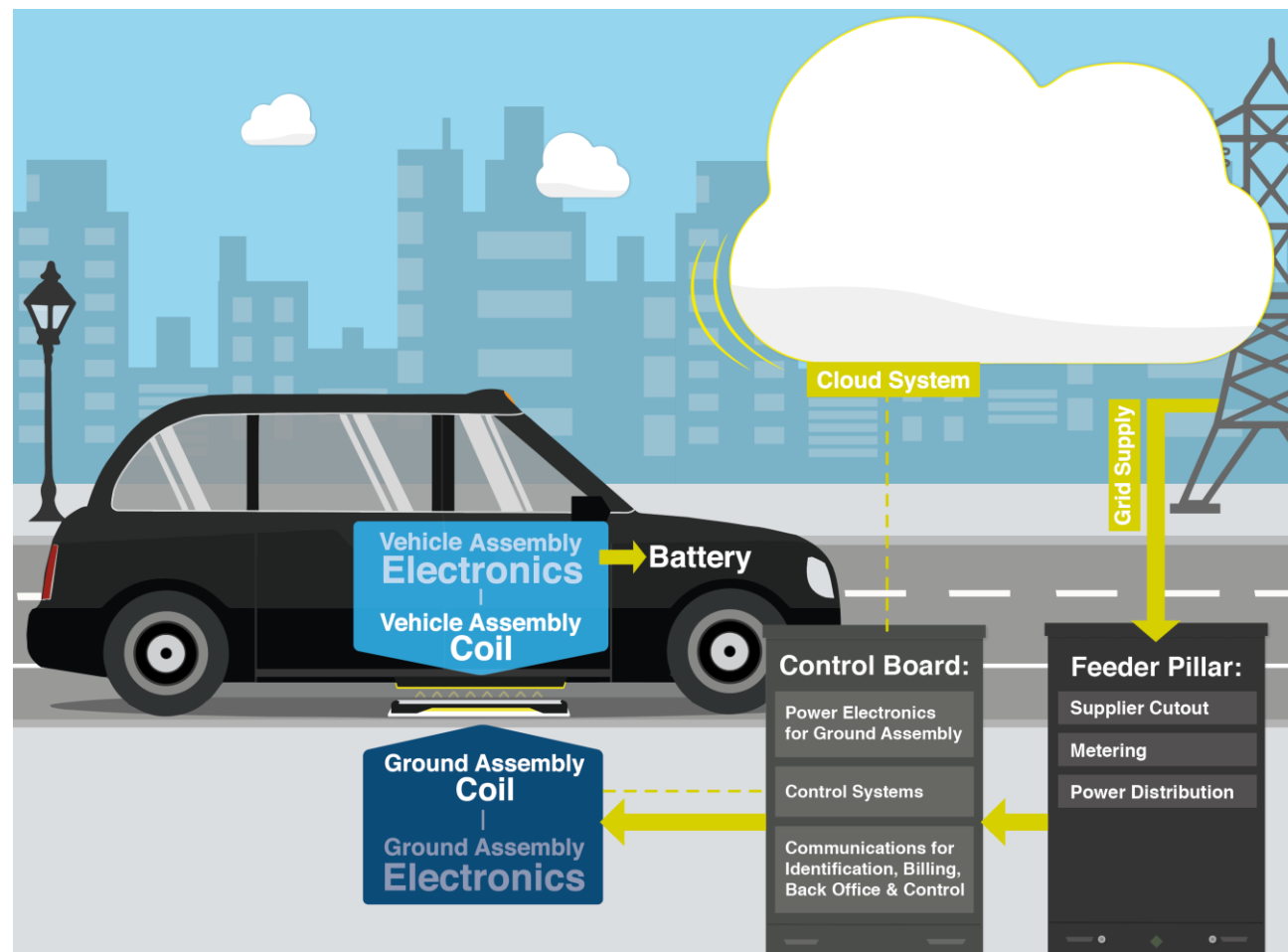
# D2N2 Charging Network

- Improve local infrastructure and encourage uptake of ULEVs
- **400+ chargepoints** across DE and NG postcodes
- Chargepoints available to commercial, personal and public fleets
- **Reduced tariffs** for D2N2 residents
- Public Sector Charging Network



# Wireless Charging

- Reduces physical on-street infrastructure
- £761,000 in grant funding
- 5 wireless charging plates and 9 taxis to be trialled
- 6-month trial available to taxi drivers in 2022



# ULEV Framework



## The **benefits** of using our framework

- ✓ Expert, independent advice from a public sector body who are already well on their way to having an electric fleet
- ✓ Get a free consultation from us before you start on electrification – we have a multi-award winning fleet electrification strategy
- ✓ Initial help in getting the business cases completed including addressing political, financial and operational concerns by using our own, real-world data
- ✓ Reduced lead times and purchase prices
- ✓ Security that you are going to get a vehicle which is right for the job
- ✓ Increase local authority buying power
- ✓ Specifications which have been tested in a local authority environment
- ✓ Aftercare including advice on integrating the EV in to your operation
- ✓ Advice and even install of electric vehicle charge points
- ✓ Creates a network of EV authorities with shared lessons learned
- ✓ Allows a direct order to be placed or run a mini-competition to ensure the buyer gets the right vehicle for their locality's needs
- ✓ Maintenance advice from our experienced, IMI Level 4 qualified EV Mechanics

## Our suppliers include



**Thank you for listening – questions?**

**Email: [jack.barratt@nottinghamcity.gov.uk](mailto:jack.barratt@nottinghamcity.gov.uk)**

**LinkedIn: Jack Barratt**