

**electricity**  
**north west**

Bringing energy to your door



# Electric vehicles, renewables and energy efficiency for business

Thursday 27 October 2022

#NetZeroLancs

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**Introduction to the day**  
Jonny Sadler  
9.30-9.35



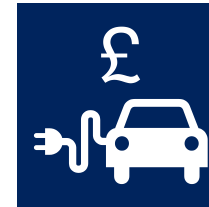
**Welcome to AMRC**  
Melissa Conlon  
9.35-9.40



**Lancashire's net zero commitments**  
Councillor Shaun Turner  
9.40-9.50



**The role of the Chamber Low Carbon**  
Miranda Barker, OBE  
9.50-10.00



**Setting your electrification strategy**  
Paul George  
10.00-10.10



**Sustainability in industry**  
Ben Smith  
10.10 – 10.20



**Case studies and Q&A with the panel**  
Jonny Sadler  
10.20-11.00



**Exhibition, networking and test drives**  
11.00 – 12.30



The University Of Sheffield. **AMRC North West**





## Introduction

**Jonny Sadler**

Strategic Decarbonisation Manager

Electricity North West

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The  
University  
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Sheffield.

**AMRC**  
Advanced Manufacturing  
Research Centre

**20**  
in **21**  Twenty years  
of making  
things better

# Welcome to The AMRC NW

**Melissa Conlon – Commercial Director AMRC NW**

27<sup>th</sup> October 2022

**CATAPULT**  
High Value Manufacturing



# A world class research centre for Advanced Manufacturing

- Established in 2001 as a collaboration between Boeing and the University of Sheffield
- High Value Manufacturing Catapult
- Help manufacturers of any size to become more competitive by introducing advanced techniques, technologies and processes
- Specialists in carrying out world-leading research into advanced machining, manufacturing and materials, which is of practical use to industry
- Centres – Sheffield, Preston, North Wales, Derby
- AMRC NW established June 2018
- Worked with over 250 Lancashire manufacturing SMEs since February 2019 in addition to our larger partners eg BAE

# Who are our industrial partners?

Our 100-plus industrial partners range from global giants like Boeing, Rolls-Royce, BAE Systems and Airbus to small companies. Businesses can work with us on a one-off project, or join us as a member for long-term collaboration.



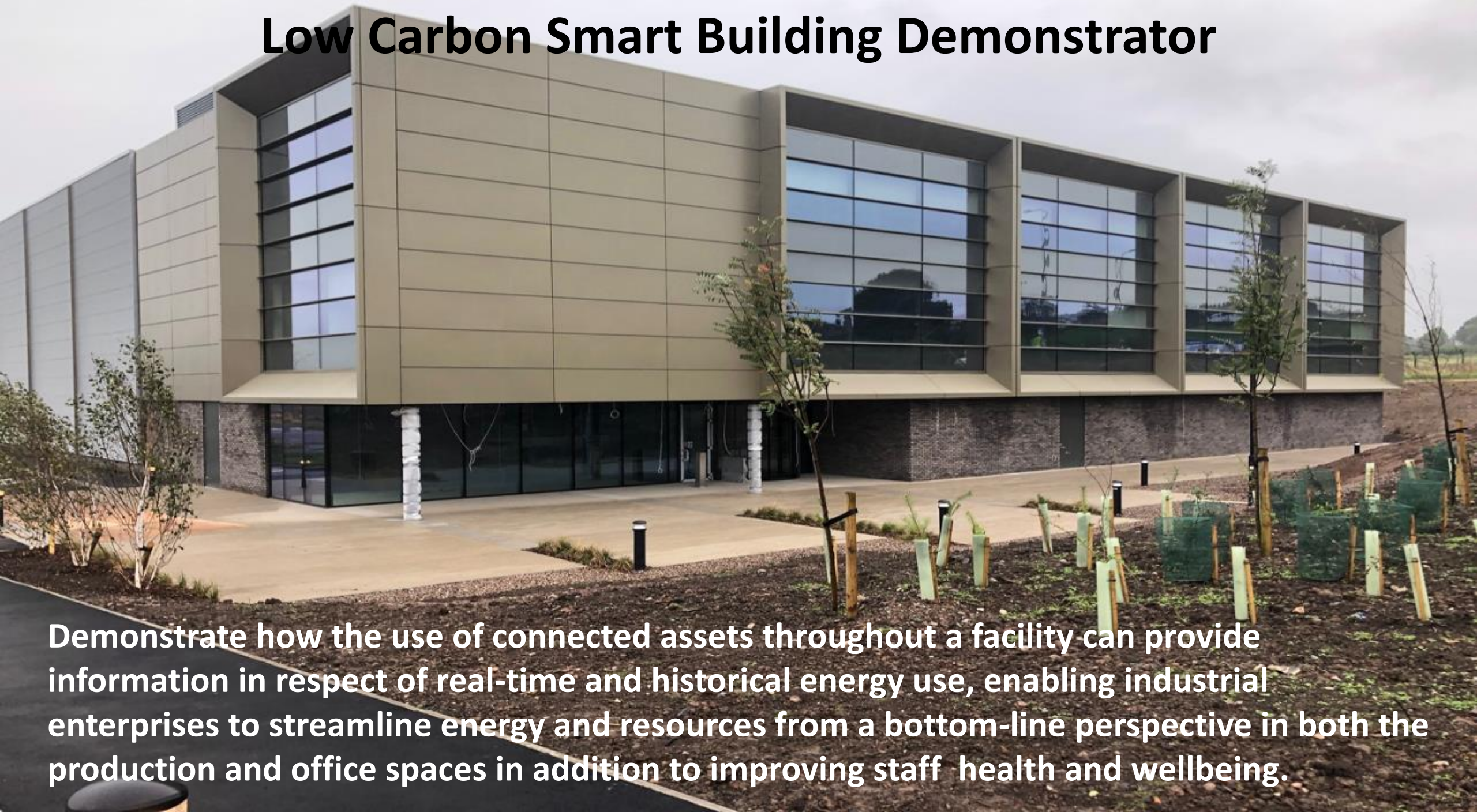
# Key Research Themes – AMRC NW

- Battery Pack Assembly
- Additive Manufacturing
- Robotics and Automation
- Machining
- All aspects of Digitalisation of Manufacturing Processes including AI, VR and AR
- 5G Applications in Manufacturing / 5G Testbed
- Net Zero Manufacturing and Smart Building Technologies
- Cyber Security



**CATAPULT**  
High Value Manufacturing

# Low Carbon Smart Building Demonstrator



**Demonstrate how the use of connected assets throughout a facility can provide information in respect of real-time and historical energy use, enabling industrial enterprises to streamline energy and resources from a bottom-line perspective in both the production and office spaces in addition to improving staff health and wellbeing.**





# Our net zero commitments

County Councillor Shaun Turner

Cabinet Member for Environment & Climate Change



# Our net zero commitments

“to transition Lancashire away from carbon”

- We need collective, county-wide action, by all sectors
- Lancashire businesses are already playing their part and realising the benefits
  - Reducing their own direct emissions
  - Educating and supporting their employees
  - Influencing and asking their supply chains to act
  - Promoting action to their wider networks



# The challenge

- New estimates by consultancy Cornwall Insight show that businesses looking for a new contract this autumn will have to pay more than four times the price they paid for their electricity in 2020
- Cornwall Insight calculated that a business would have to pay £634 per megawatt hour for electricity this autumn, more than four times the price in 2020 and more than twice the price of last year
- The Federation of Small Businesses estimates that the annual electricity bill for a typical company with 30MWh annual consumption will surge from just over £4,700 in February 2021 to more than £21,200 in October 2022



# A recent Electricity North West survey of SMEs showed ...

- 30% of Lancashire businesses surveyed consider 'reducing carbon emissions' to be a priority – compared to the regional average of 36%
- 21% said reducing their carbon emissions was more of a priority than 12 months ago – compared to the regional average of 28%
- 72% of Lancashire businesses surveyed have already installed an energy efficiency measure – compared to the regional average of 69%
- 14% of Lancashire businesses in rented or leased premises say their landlords have installed EV chargers – which is higher than the regional average

**We now need all Lancashire businesses to take action**



# Role of the council and Boost – Lancashire’s business growth hub

Our role is to work with our partners  
to support businesses in Lancashire



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**CHAMBER  
LOW CARBON**  
HELPING BUSINESSES GO GREEN



East Lancashire  
Chamber of  
Commerce  
Making Your Business Successful



# My electric vehicle





Thank you.

[shaun.turner@lancashire.gov.uk](mailto:shaun.turner@lancashire.gov.uk)





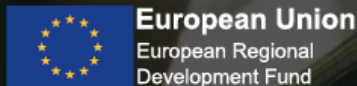
# CHAMBER LOW CARBON

HELPING BUSINESSES GO GREEN & ACHIEVE NET ZERO

## Low Carbon Support For Your Business

Miranda Barker OBE

Chief Executive East Lancashire Chamber of Commerce & Industry





# Who is the support for and why?

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- Small to Medium Enterprises (SMEs)
- Charities/Social Enterprises/Community Interest Companies
- Large companies – over 250 employees (Commercial basis)
  
- Save money - reduce energy bills
- Increase energy efficiency, encourage on site generation
- Develop Carbon Reduction Plans to access Govt supply chains
- Meet stakeholders', employees' and investors' needs



# Supporting your business and building

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- Carbon Footprint Calculation
  - Identifying your building's / transport / operational energy use & impact
  - Highlighting areas for energy, impact & cost reduction
- On-Site Review & Report
  - Assessment of your operational energy practices
  - Renewable energy technology feasibility
  - Waste & resource management
  - Training and skills requirements
  - Carbon Reduction Plan
- Chamber Green Rose
  - Masterclass to develop EMS (environmental management system) to ISO14001 Standard
- RedCAT
  - Low carbon technology innovation, commercialisation and manufacturing in Lancashire support – stimulation of uptake, adoption & export

# GET SOCIAL WITH CHAMBER LOW CARBON



**@CHAMBERLOWCARB | SEARCH: CHAMBER LOW CARBON**

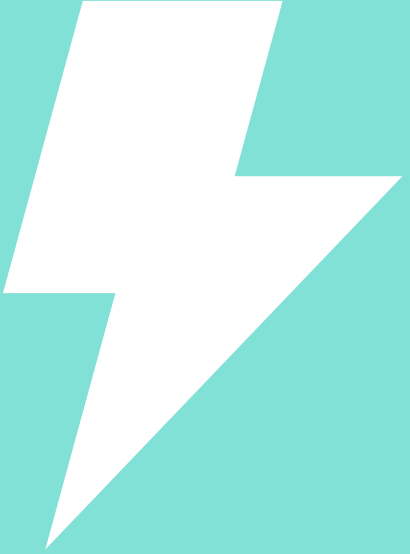
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**EMAIL: INFO@CHAMBERLOWCARBON.CO.UK**

**PHONE: 01282 356482**

**WWW.CHAMBERLOWCARBON.CO.UK**

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# Setting Your Electrification Strategy

27<sup>th</sup> October 2022

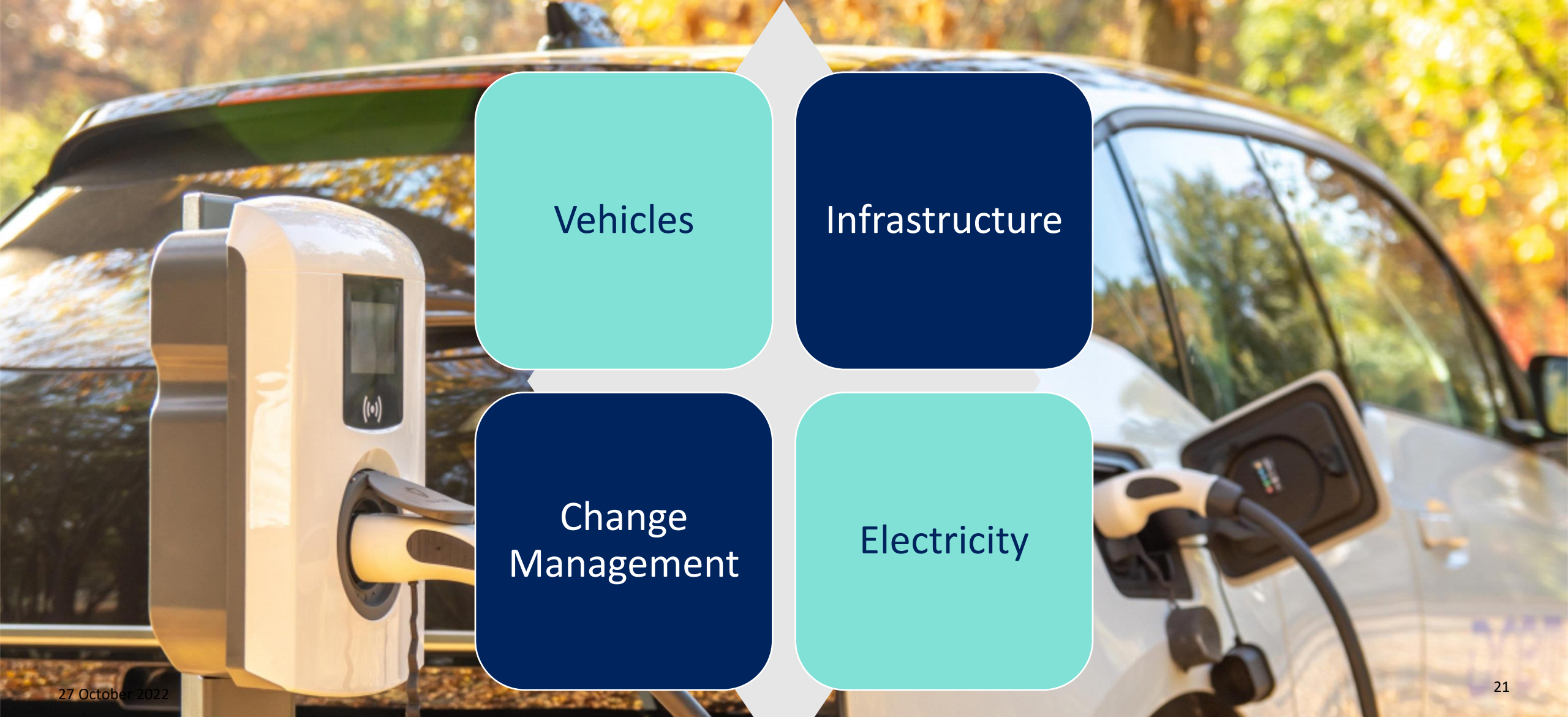
Paul George - Commercial Manager Drax Electric Vehicles



drax

Electric  
Vehicles

# Setting the strategy



Vehicles

Infrastructure

Change  
Management

Electricity

# Key considerations

## Vehicles

Business operations need to be centric to EV deployment  
Driver/vehicle suitability assessment  
How will they be financed?

## Infrastructure

Will current infrastructure support increased power demand?  
Will you need to make any investment over the short/medium/long term  
Future proof requirements

## Change Management

Vehicle/ driver activity  
Changes in operational activity  
Employee /Departmental 'Buy-In'

## Electricity

Impact assessment (short/medium/long term)  
Optimising energy consumption  
ESG & Net Zero ambitions

# Shifting the mindset

*'energy as a cost centre into energy as an asset'*



### Install Charge Points

For staff, visitors and any fleet vehicles



### Smart Charging

Actively manage power needs within site capacity when number of vehicles increase



### Vehicle to Building/Grid

Increase value of large fleet through grid services and energy trading

1

2

3

4

5



### Electrify the Fleet

A gradual process focussed on electric vehicles that make sense today



### Behind the Meter

Power your vehicles with onsite generation

# Your Electrification Partner

**Paul George**

Commercial Manager- EV Charging  
Infrastructure-Drax Group

07843324984

[p.george@drax.com](mailto:p.george@drax.com)







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# Sustainability in Industry

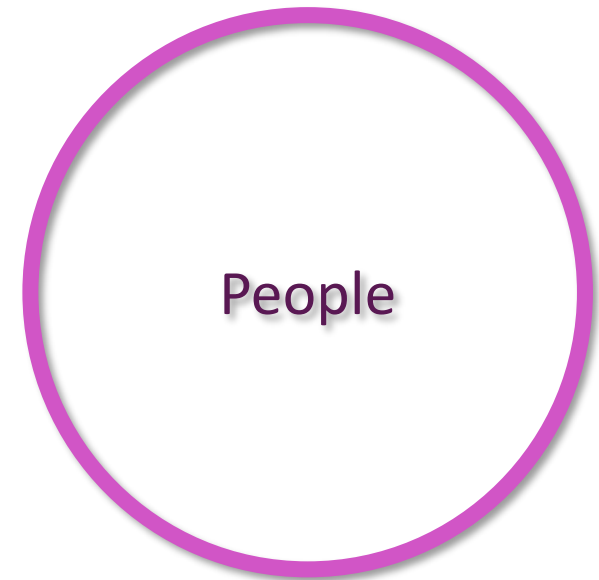
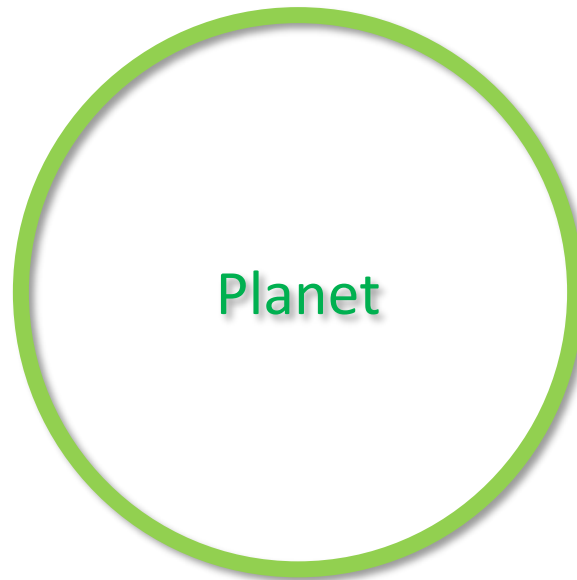
Ben Smith

Low Carbon Smart Factory Specialist

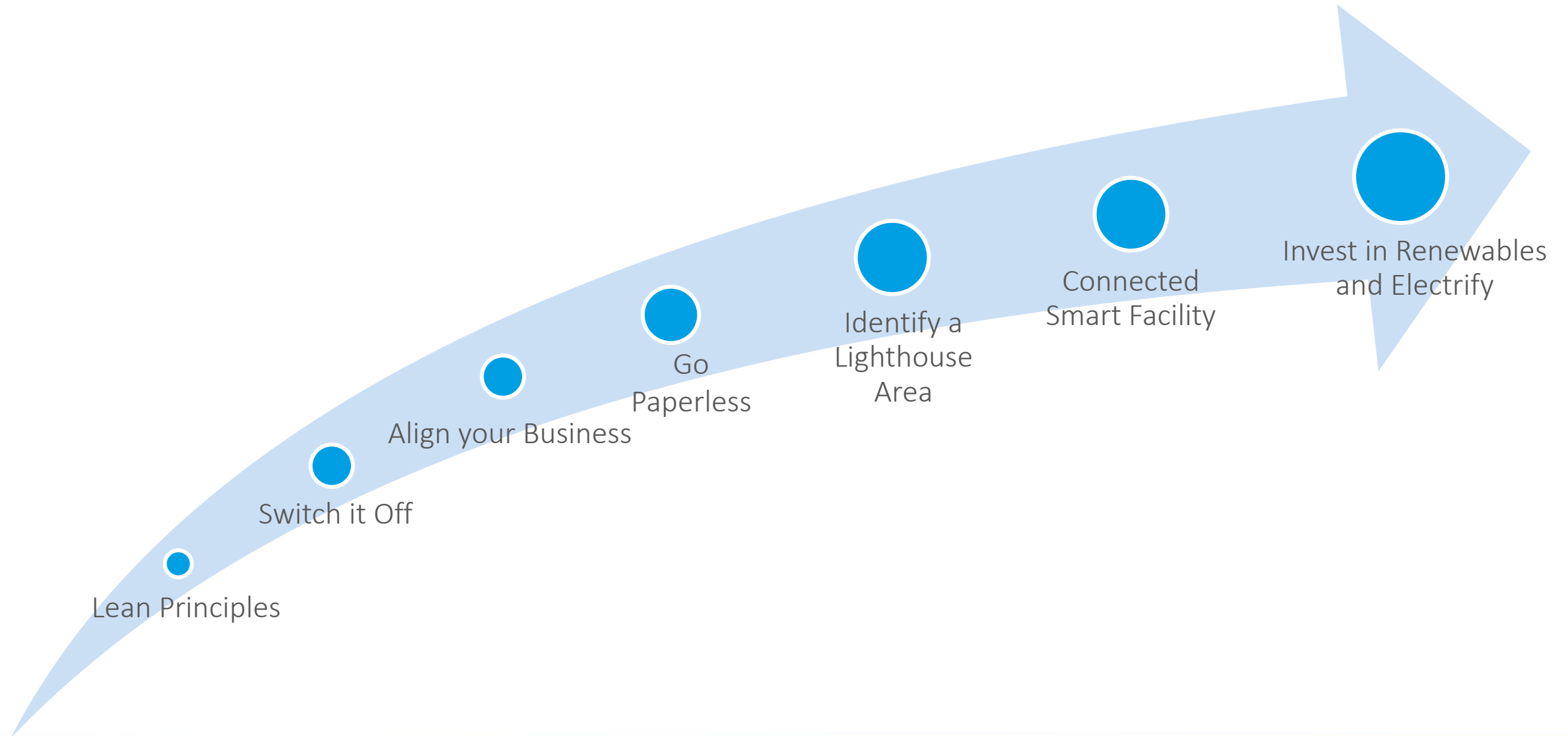


# The 3P's of Sustainability

- Net Zero is the objective, but sustainability is the approach.

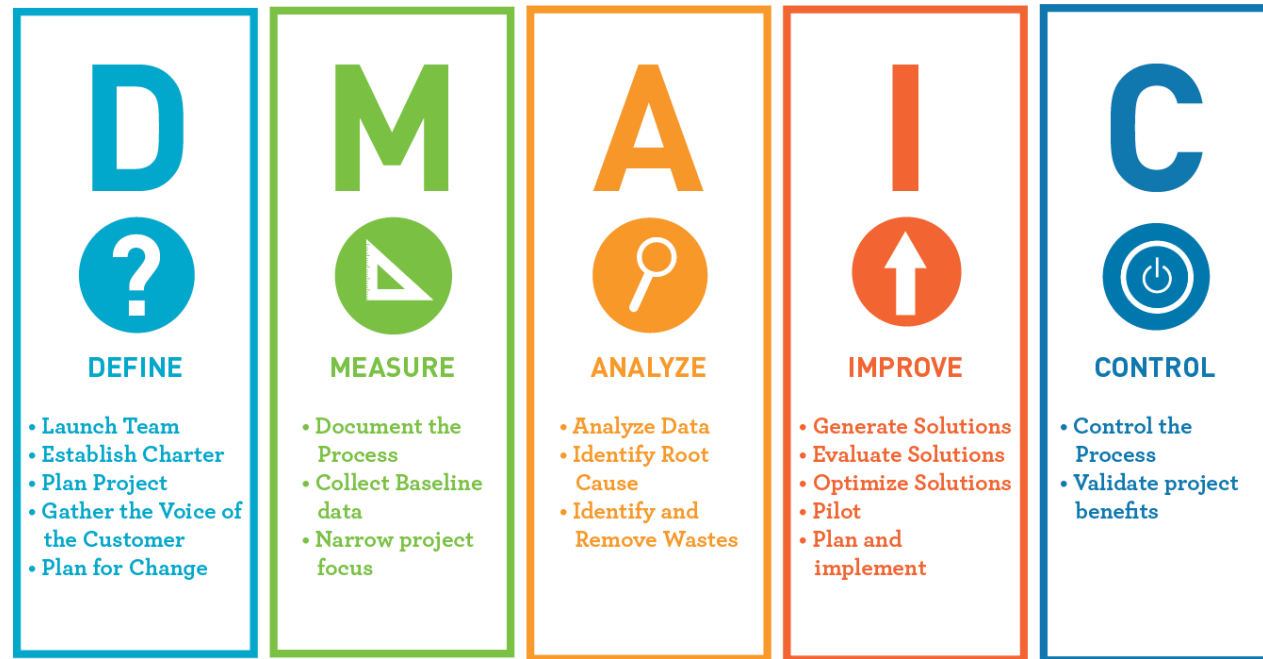


# AMRC NW's roadmap to Sustainability



# Where does a Smart Factory fit?

Einstein said he would spend 95% of his time understanding a problem and only 5% solving it. Using traditional problem solving methods, such as DMAIC, a smart factory can collate the information you cannot see and identify where your businesses biggest opportunities are.



# How do you get involved?

**ERDF** – SMEs can access support through our ERDF program.

**Sustainability Program** – Businesses can attend our training courses or get an assessment carried out against the Sustainability Roadmap.

**Commercial Projects** – Long term projects can be funded through commercial means.

**Collaborative Projects** – For innovative new technologies the AMRC can collaborate on joint bids for the many grants and funds available. And the AMRC often will be fully funded by the grt.



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# AMRC North West

Thank you. For further information please contact or visit:

Email: [b.smith@amrc.co.uk](mailto:b.smith@amrc.co.uk)

Tel: 07896368378

Web: [amrc.co.uk](http://amrc.co.uk)



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## Case study Q&A

- Chris Stevenson, Customer Relationship Director, Rapid IT
- Julie Jackson, Data Hub Manager, Electricity North West
- Paul Fox, Managing Director, Fox Brothers

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## Questions with the panel

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## Net zero support for business

Our net zero business support team provides free advice and support to help North West businesses reduce their energy bills and carbon emissions

Find out more: [enwl.co.uk/net-zero-for-business](https://enwl.co.uk/net-zero-for-business)

Contact us: [gonetzero@enwl.co.uk](mailto:gonetzero@enwl.co.uk)

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