Jackie Homan

Head of Environment

West Midlands Combined Authority | Greener Together

What is a Combined Authority?

Combined authorities are set up by groups of local authorities working together on shared issues: we are stronger together.

It is not obligatory for a combined authority to be led by an elected mayor, but the Government prefers this model as it makes it easier to agree 'deals' for more local powers and investment.

There are currently ten combined authorities led by elected mayors, including us in the West Midlands. (The M10 group)

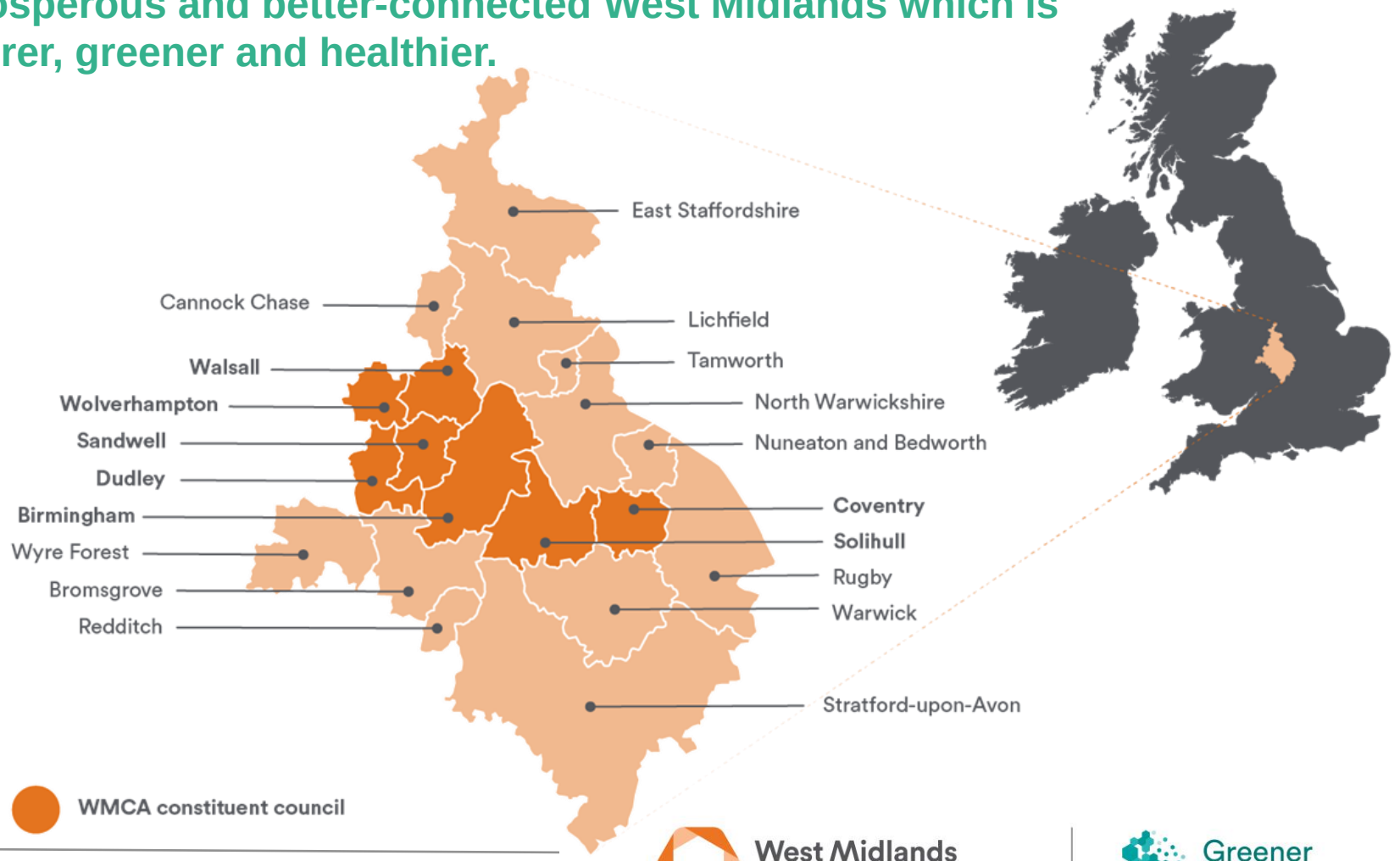
The West Midlands Combined Authority (WMCA) was set up in 2016 and elected its first Mayor in 2017. It was grown out of Transport for West Midlands.

The West Midlands Combined Authority

Our role is to deliver a more prosperous and better-connected West Midlands which is fairer, greener and healthier.

We were formed by our seven constituent local authorities that make up the WMCA: Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton.

In 2017, Andy Street was elected as the first Mayor of the West Midlands and re-elected in 2021. After the election in May 2024, elections will take place every four years.



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Our role

West Midlands Combined Authority

The West Midlands Combined Authority takes on a range of different roles to deliver on our shared regional ambitions. We always ensure that our activity builds on work at a local level, led by local authorities and other partners.

Deliver

In some areas we are responsible for delivering and commissioning services, such as the regional public transport system and the provision of adult skills

Enable

In other areas we convene and guide the work of partners, including developing economic strategy to support regional businesses and unlocking sites for housing and regeneration schemes

Influence

We also play an advocacy role, amplifying the voice of partners in the region to solve shared challenges and secure new resources or powers

Our Six Aims

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Recent achievements

Employment & Skills

- Supported more than **70,000 adults** across the region to train and develop new skills;
- Supported more than **3,000 apprentices to begin a new career**, and 1,000 SMEs to develop talent within their business;
- Supported more than 2,000 adults who were unemployed or looking to upskill to get a better paid job through skills bootcamps;

Housing & Land

- **Secured £200 - £400 million Affordable Housing Programme,** unlocking greater regional influence over affordable housing;
- Launching the West Midlands Public Land Charter that brings together shared principles for public sector landowners to drive placemaking and growth, encourage private sector investment, and repurpose public land for new homes and jobs;

Strategy & Economy

- Launched Plan for Growth, the ambitious strategy for boosting growth, spreading opportunity and jobs, to help level up the region;
- **Launched the innovation accelerator project** worth around £33m, a portfolio of projects to turbocharge promising businesses;
- Securing the deeper devolution deal – one of only two such deals in England;

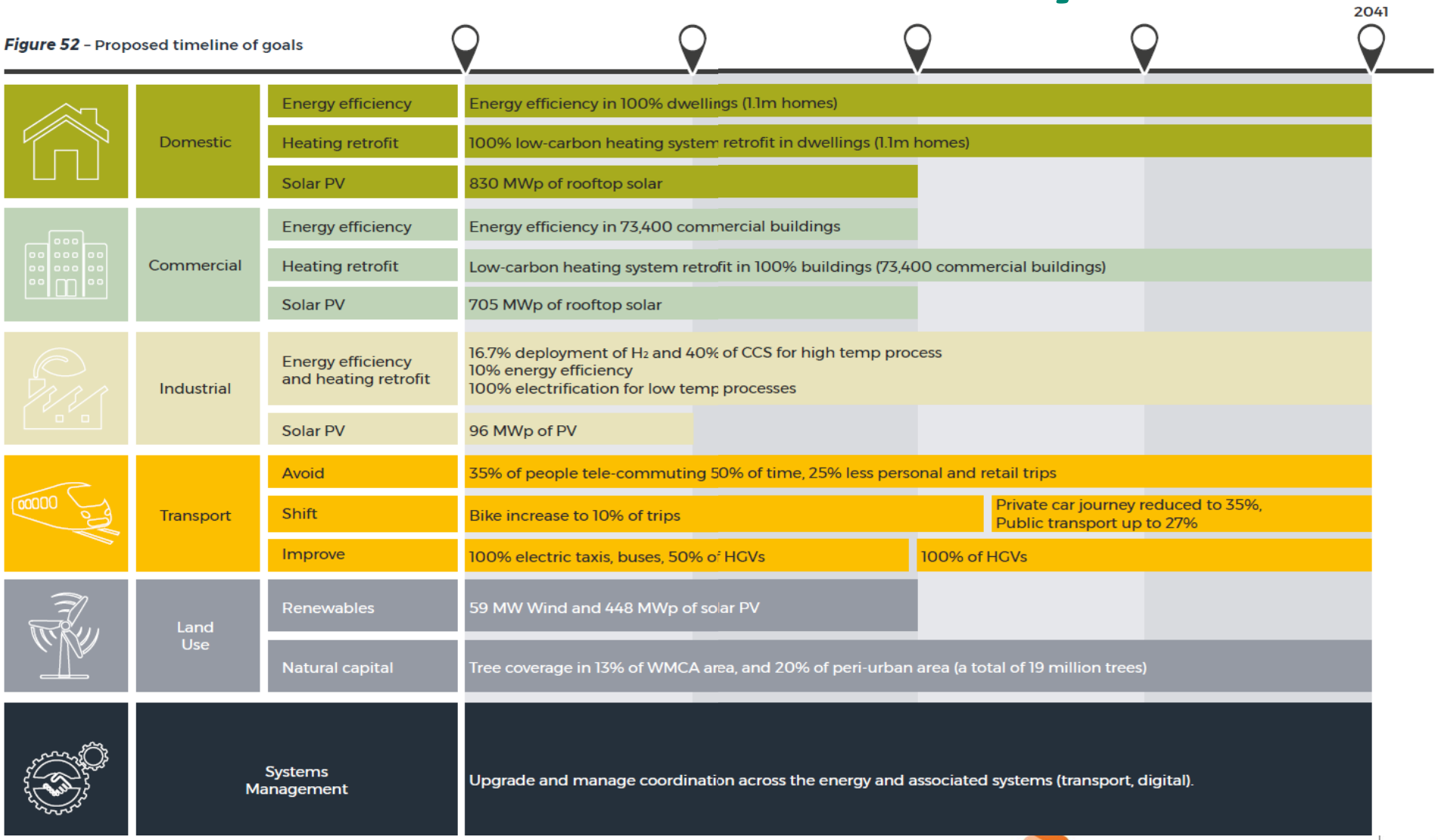
Our Environment & Energy Background

- The WMCA declared a climate emergency in June 2019, leading to the development of the regional target of achieving Net Zero as a region by 2041.
- Our work focuses on;
    - Climate change
    - Energy systems
    - Natural environment
    - Circular economy
    - Air Quality
    - Climate Adaptation
    - Home energy efficiency
- The programme includes cross-cutting areas of the behaviour change and the green economy.
- Transport is led by Transport for West Midlands.

Transport for West Midlands

What we want to have achieved by 2041

Figure 52 – Proposed timeline of goals



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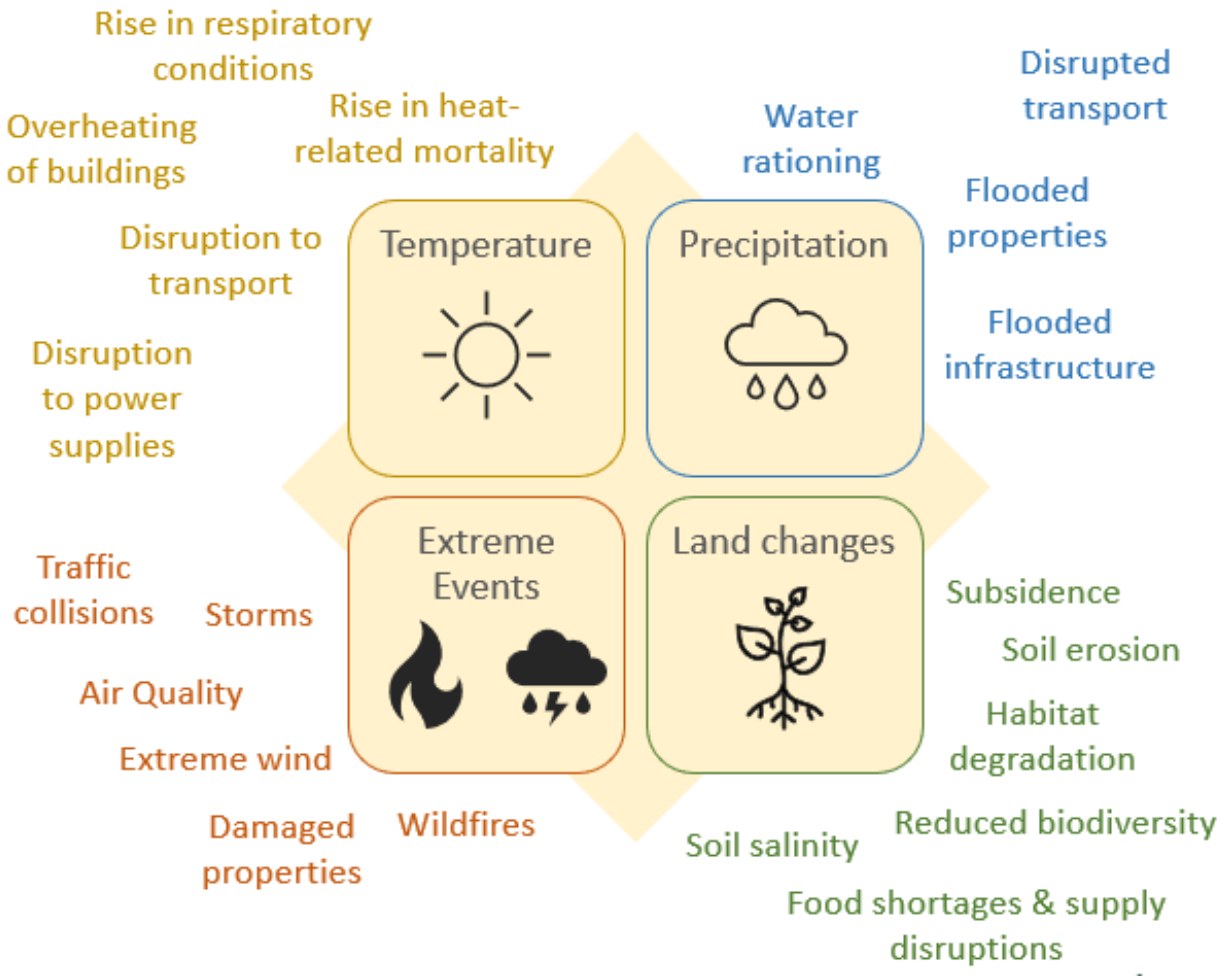
Climate Impacts in the West Midlands

We are set to experience increasingly hotter, drier summers & warmer, wetter winters + more extreme weather events.

It's important as a regional authority for us ensure our region is fit for a future climate.

We're working with partners to collectively adapt to climate change.



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What is Climate Adaptation

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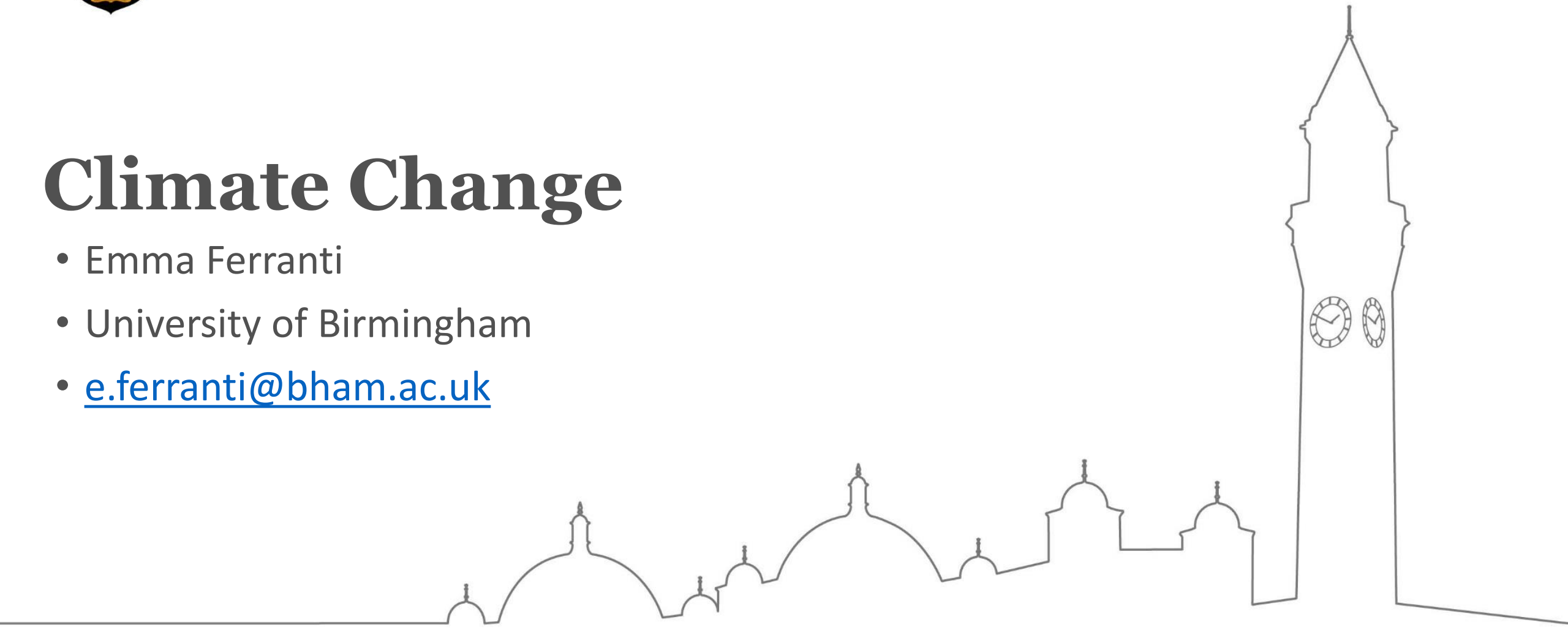
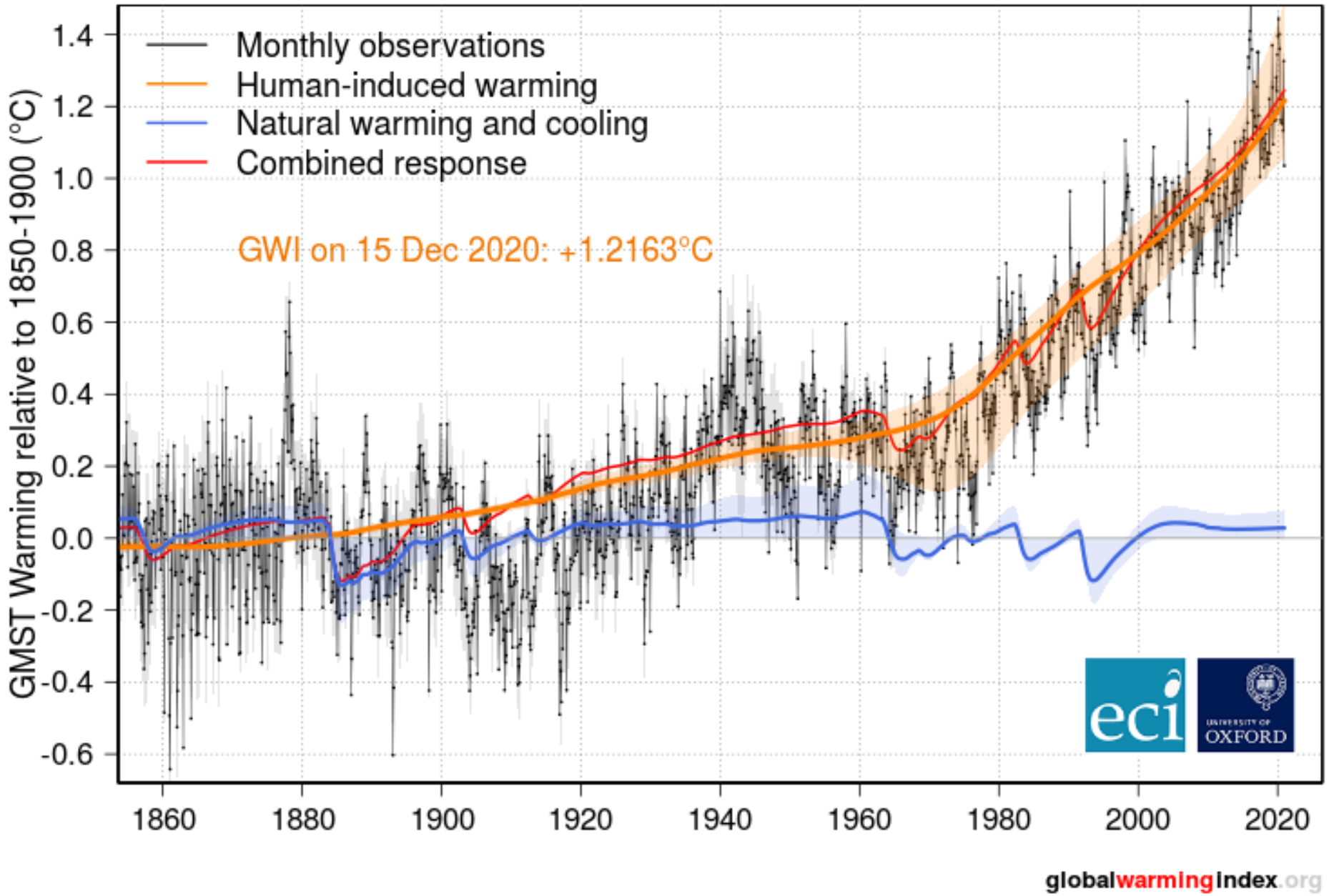
Climate Change

- Emma Ferranti
- University of Birmingham
- e.ferranti@bham.ac.uk



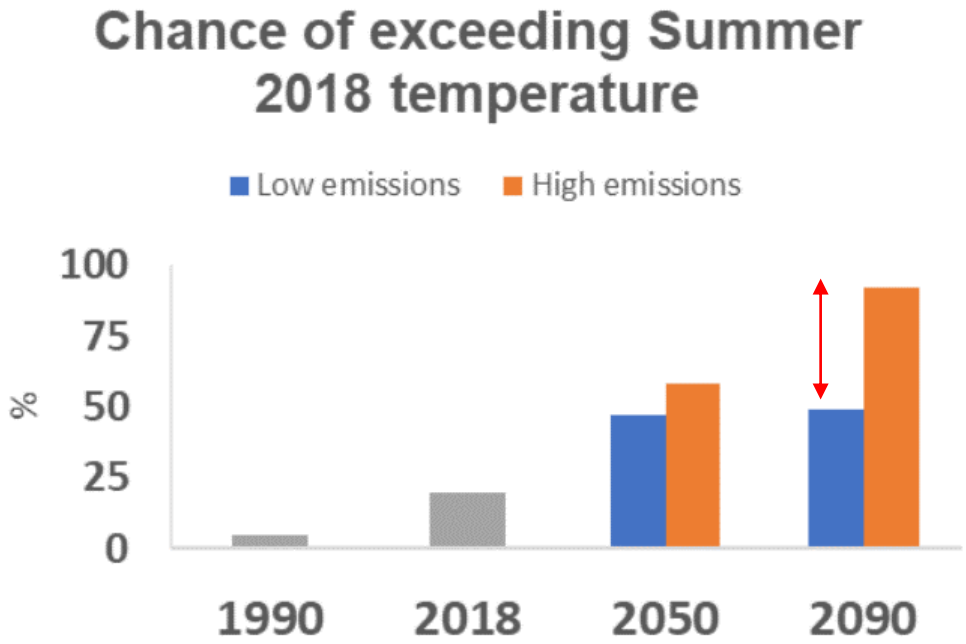
Global Warming Index (aggregate observations) - updated to Dec 2020



Climate projections in the UK

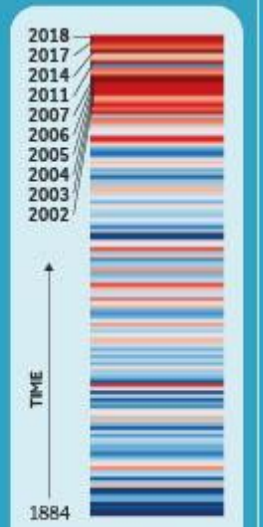
"a greater chance of warmer, wetter winters and hotter, drier summers"

- More frequent heavy rainfall events, more rain in shorter period of time
- Hotter summers and more heat waves
- Sea level rise (e.g. 70-115 cm (low vs high emissions) by 2100
- **We can influence the future!**



Source Met Office: https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18-overview-slidepack-march21.pdf

Met Office State of the UK Climate in 2019

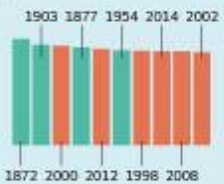


All of the top 10 warmest years for the UK have occurred since 2002*

Winter and Spring have seen 13% more sunshine***

Temperatures have been warmer by 0.9 °C***

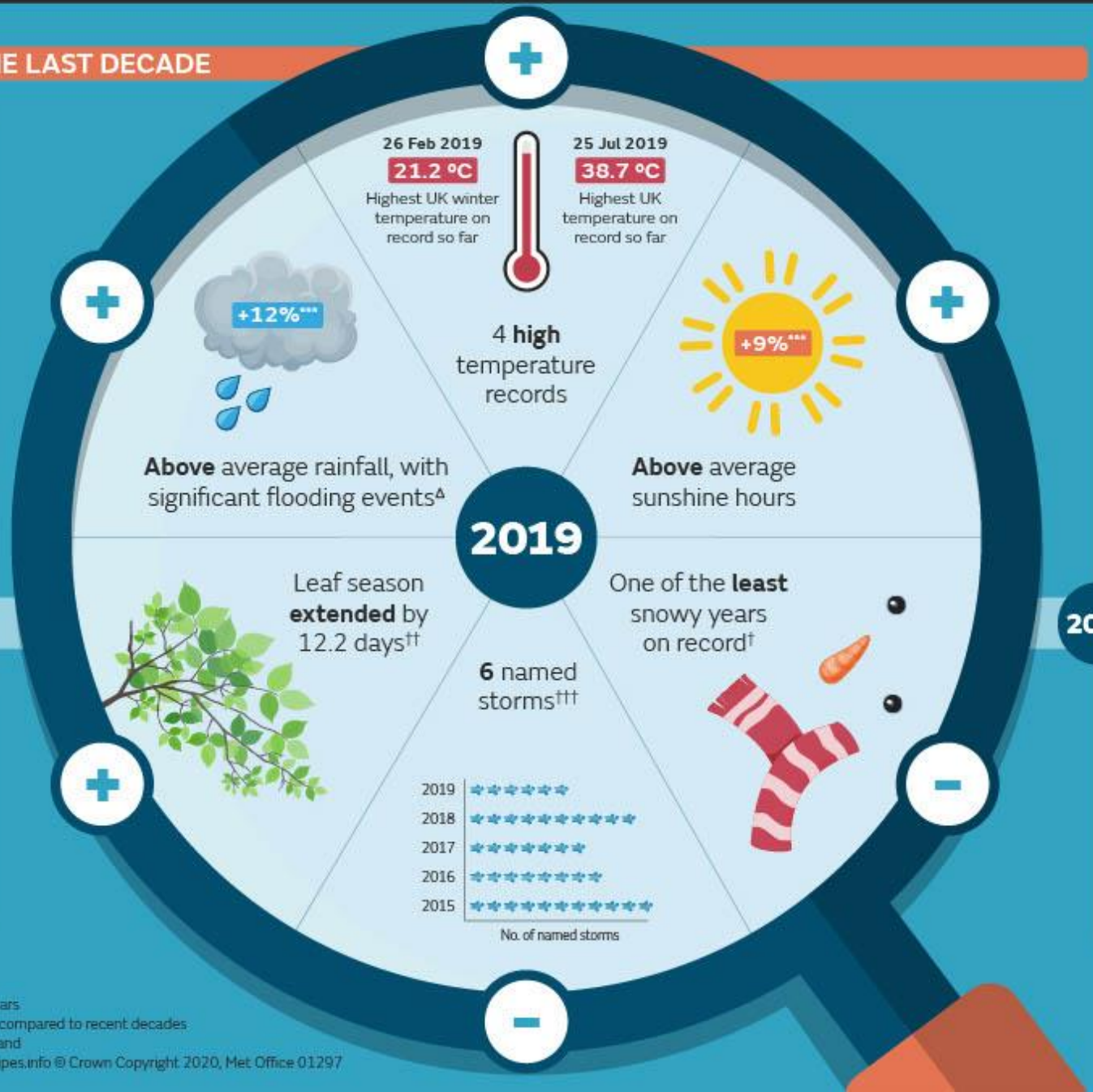
2010



6 of the 10 wettest years for the UK have occurred since 1998**

Summers have been 13% wetter and Winters have been 12% wetter***

OVER THE LAST DECADE



2020

* In a series starting in 1884 ** In a series starting in 1862
*** Compared to the 1961-1990 average † Compared to the last 60 years
†† Compared to the 1999-2018 average ††† This was not a stormy year compared to recent decades
^Δ Including severe flooding in November 2019 in parts of northern England

Impact of extreme weather on the railways

Waves can damage coastal infrastructure

Heavy rain can cause embankment failure and landslides

Rivers and heavy rain can flood the track

Flooding can cause erosion, destabilising bridges

Heatwaves can cause track to buckle

Snow can block tracks and affect electrical connectivity

Wind can blow objects onto the track

Wind can blow trees onto overhead lines and the track

Leaves on the line make tracks slippery and affect connectivity

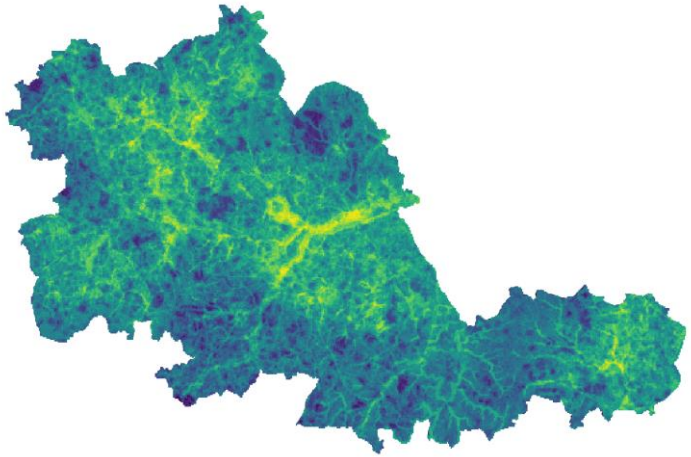
Lightning can damage signalling and electrical equipment

Source: Network Rail.

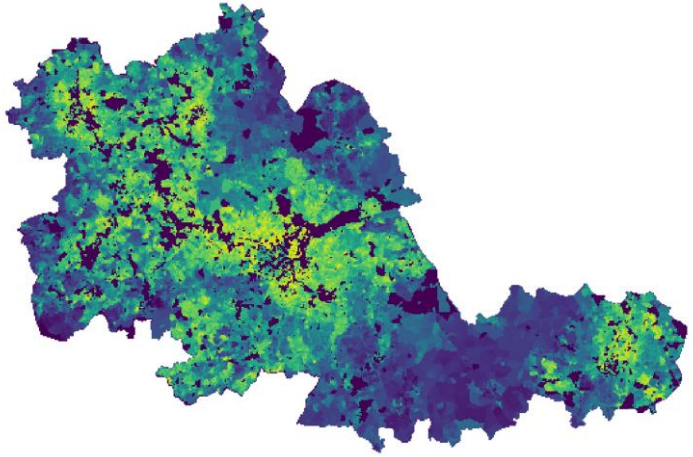
How can we map climate risk and vulnerability in the West Midlands?

RISK =

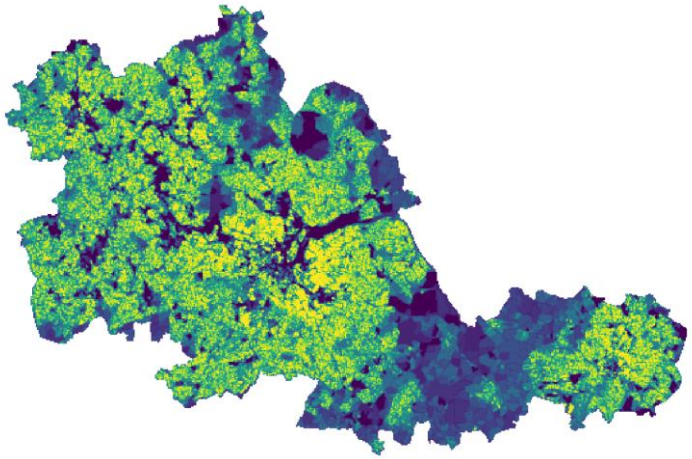
Hazard x Vulnerability x Exposure



Air pollution; flood risk; temperature; lack of green spaces, lack of cover and shading from trees; building form, height and density



Education, employment, health and housing deprivation; ethnicity; main language spoken not English; dependents in households under 15 years old; single occupancy households over 65 years old; no access to a car or van; income; amount of income spend on travel



Population density

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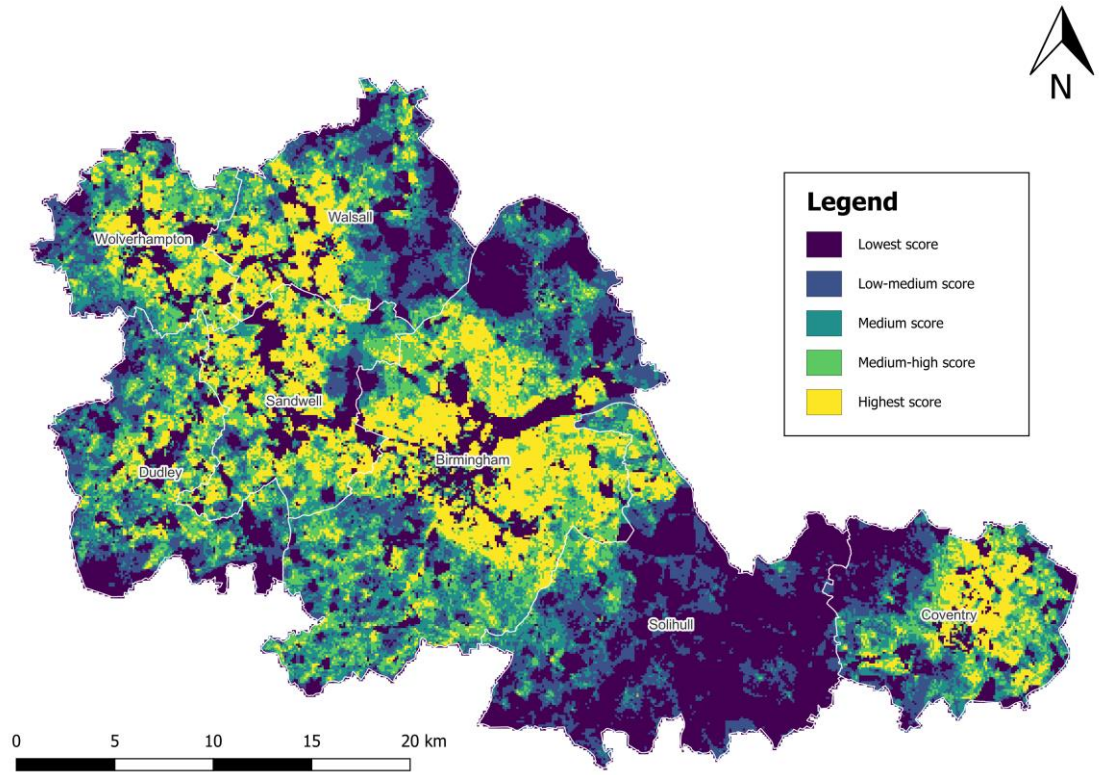
Why use all these datasets?

Hazard, vulnerability and exposure factors are often connected!

Higher temperatures? Less green space or tree shade, more densely built environment, higher population density, less attractive environment, could be poorer housing stock.

More flooding? Less green space, more densely built environment (leading to more impervious surfaces), could affect house prices/insurance, more income spent on insurance, decreasing disposable income.

High travel expenses? Harder to travel to work or school, affecting employment and education. Any weather issue making it significantly more challenging, less likely to be able to afford a vehicle, and more difficult to escape in a heatwave or flood emergency.



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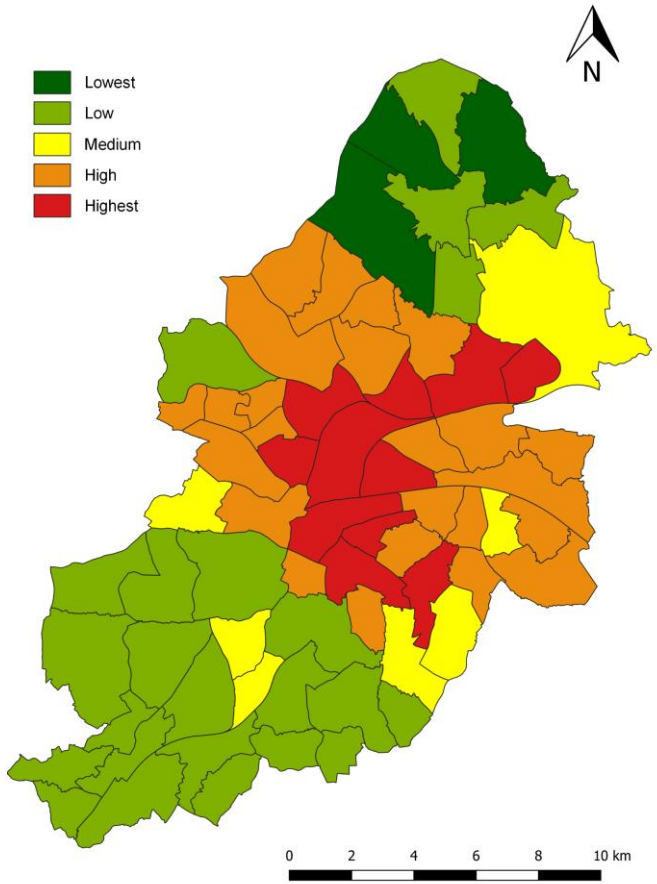
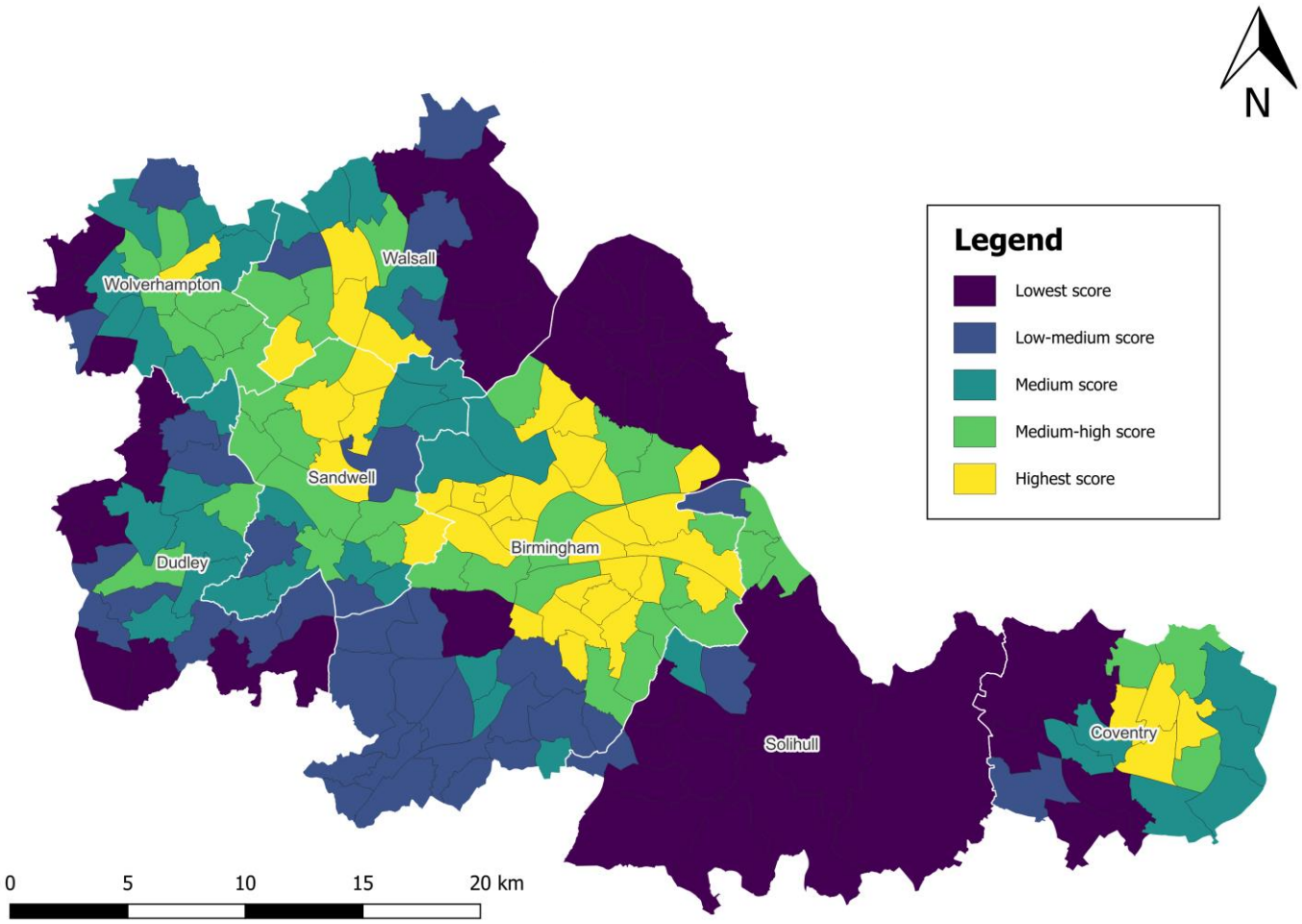
Climate Risk and Vulnerability Assessment

We started with Birmingham, and have now expanded to the West Midlands…





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Climate Adaptation Scenario

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It’s August 2025. The Met Office have issued an amber weather warning with temperatures expected to peak at 37C each day, across a 6- day period and are not expected to drop below the 25C heatwave threshold – even during the night. The UK Health Security Agency have issued an amber heat health alert which is expected to become a red alert as the heat period continues. There is a water shortage and sporadic power outages across the region. A number of wildfires have started – one near Dudley Castle and a second in in on an estate in East Birmingham. Residents need to keep cool and want to stay outside.

A period of drought is declared.

BBC

NEWS

Met Office

WARNINGS

Flood warnings

1 week after the extreme heatwave the Met Office issue a weather warning for thunderstorms and flash floods. The drought has hardened the ground and will prevent the rainwater from draining naturally; drainage systems are likely to be overwhelmed.

2019 – Flooding in Alum Rock, Birmingham