

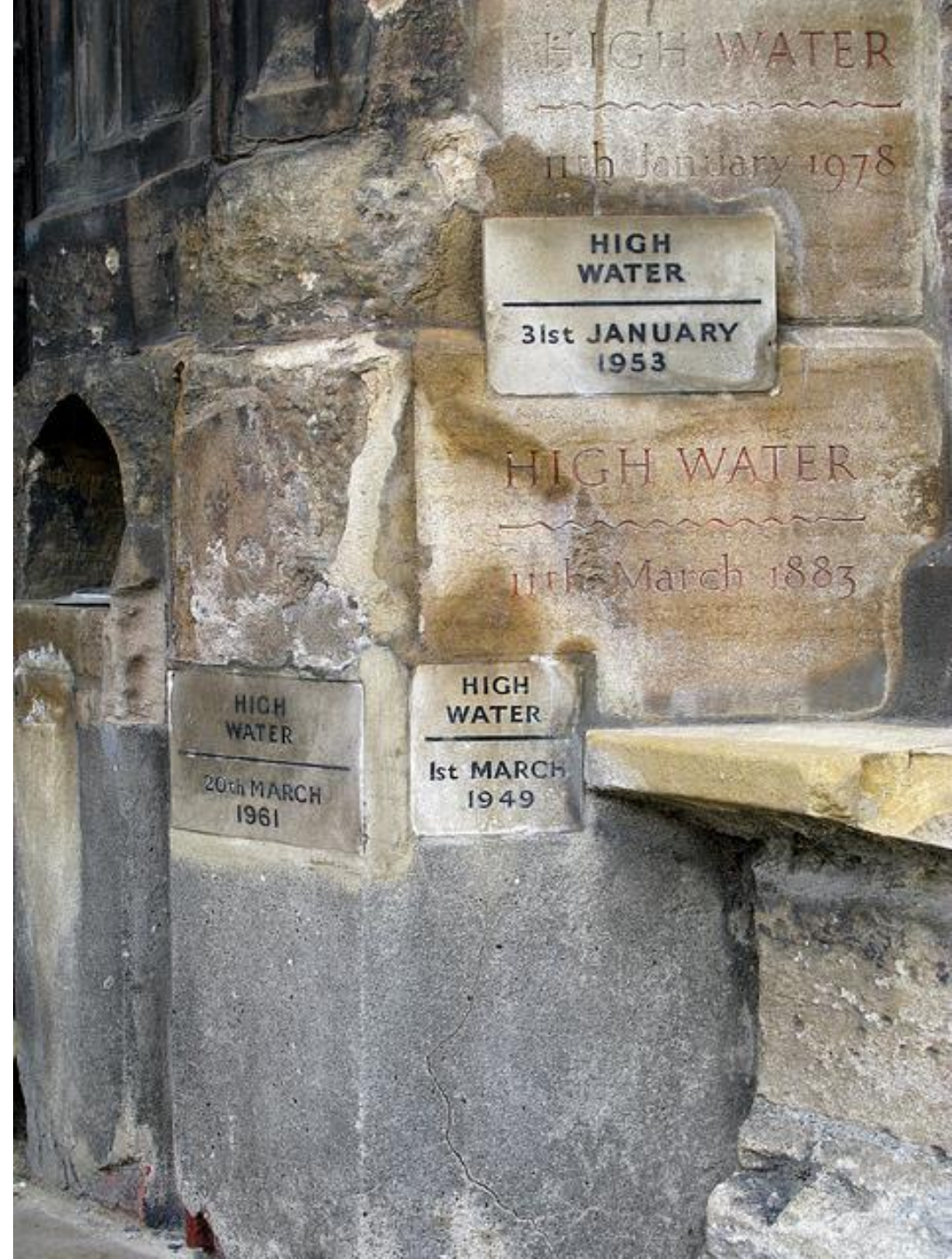
# Climate Action

## Low Carb and Fit for the Future



**Claire Hedley**  
**Head of Climate Change**

- **Why the climate emergency?**
- **How can we fight climate change?**
- **What is Historic England doing?**

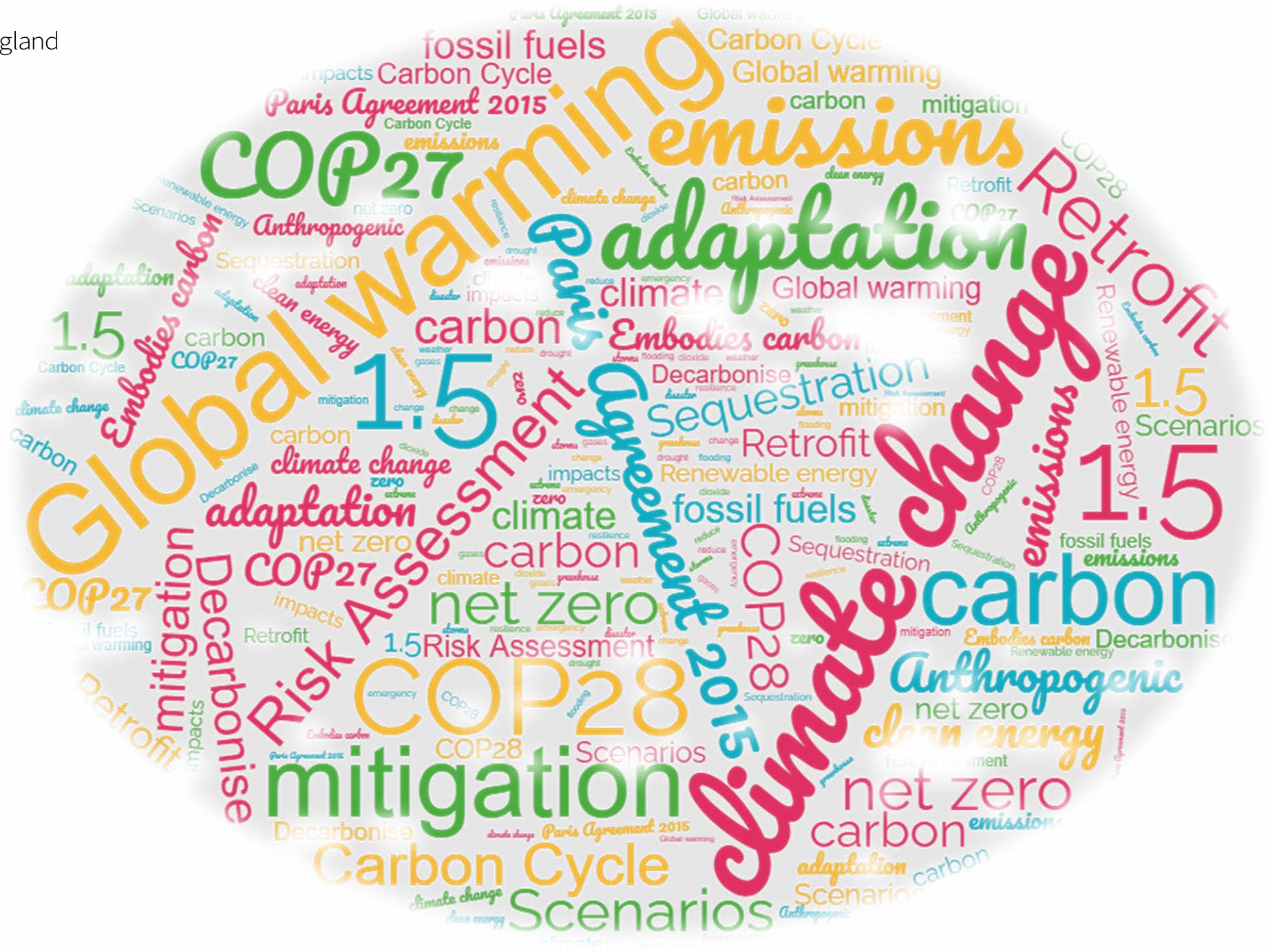




## Key Messages

- **We have the tools to fight climate change: heritage is part of the solution**
- **Heritage can and must adapt: it's not a matter of if, but how**
- **Climate action today protects and creates the heritage of tomorrow**
- **Think global, act local**





# EUROPEAN HEAT WAVE

**BLAST FURNACE** Paris to hit hottest temperature in history at 42C today as Europe sizzles in new heatwave



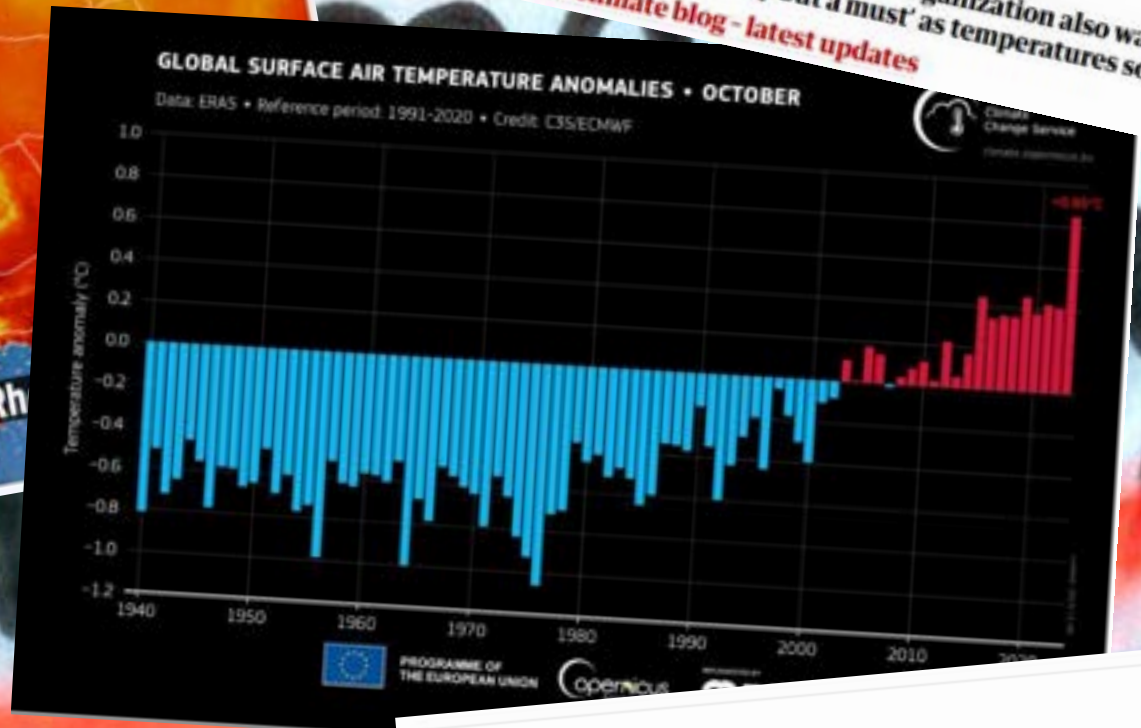
## LYBIA SEPTEMBER 2023

Deadly Flooding Wipes Out Entire Neighbourhoods in Libya  
As many as 2,000 people were feared dead one of the country's leaders said.

'Era of global boiling has arrived,' says UN chief as July set to be hottest month on record

Head of World Meteorological Organization also warns 'climate action is not a luxury but a must' as temperatures soar

US climate blog - latest updates



TIME - 7d

## Earth Will Lock in 1.5°C of Warming By 2029 At Current Rate of Burning Fossil Fuels

New study warns that if the world keeps burning fossil fuels at its current rate, earth's carbon budget will be used up in ...

**Overwhelmed  
Hopeless**



**A global problem...**

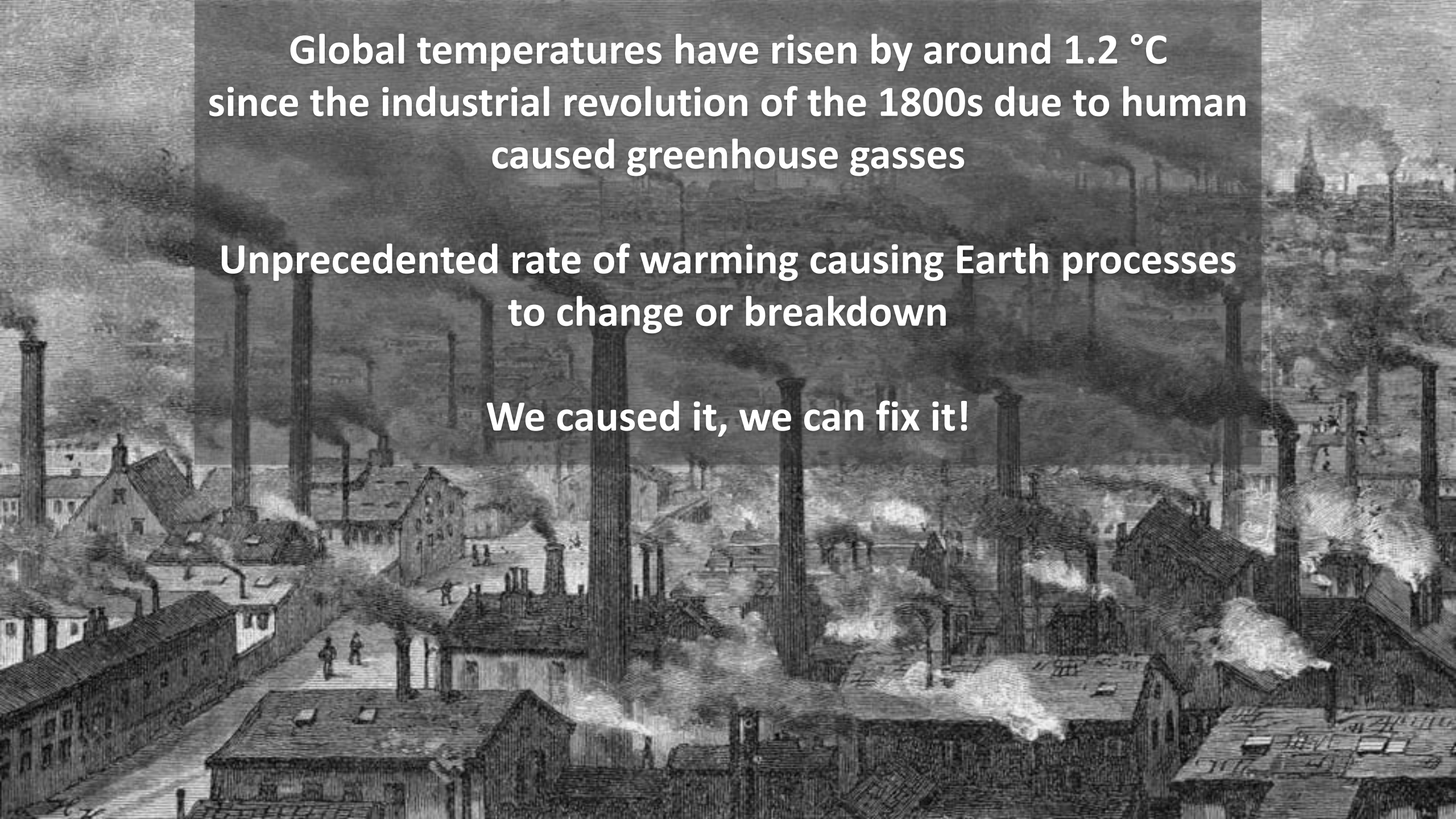
**... with local solutions**



**Global temperatures have risen by around 1.2 °C since the industrial revolution of the 1800s due to human caused greenhouse gasses**

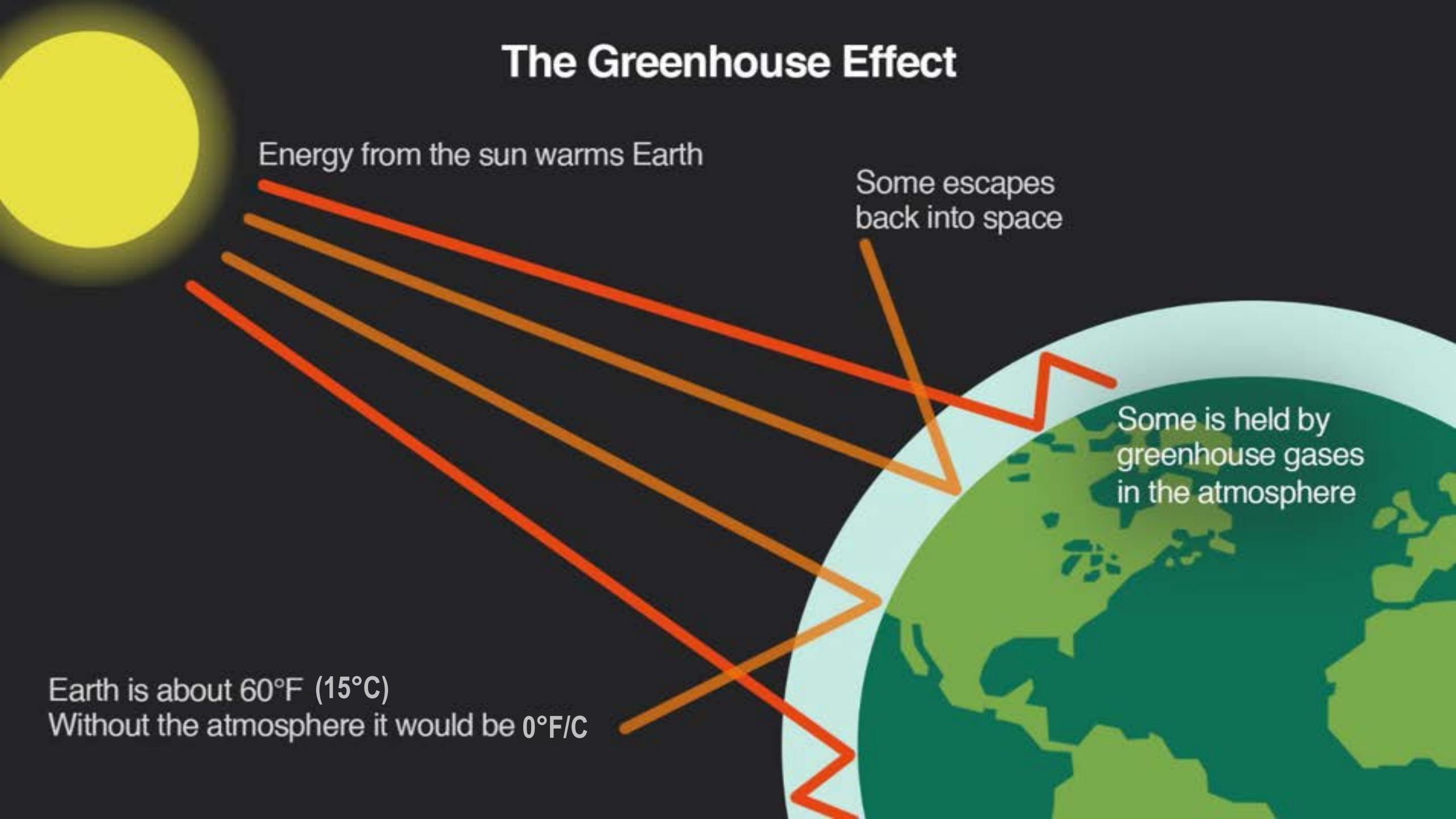
**Unprecedented rate of warming causing Earth processes to change or breakdown**

**We caused it, we can fix it!**





# The Greenhouse Effect



Energy from the sun warms Earth

Some escapes back into space

Some is held by greenhouse gases in the atmosphere

Earth is about 60°F (15°C)  
Without the atmosphere it would be 0°F/C

# Climate Change



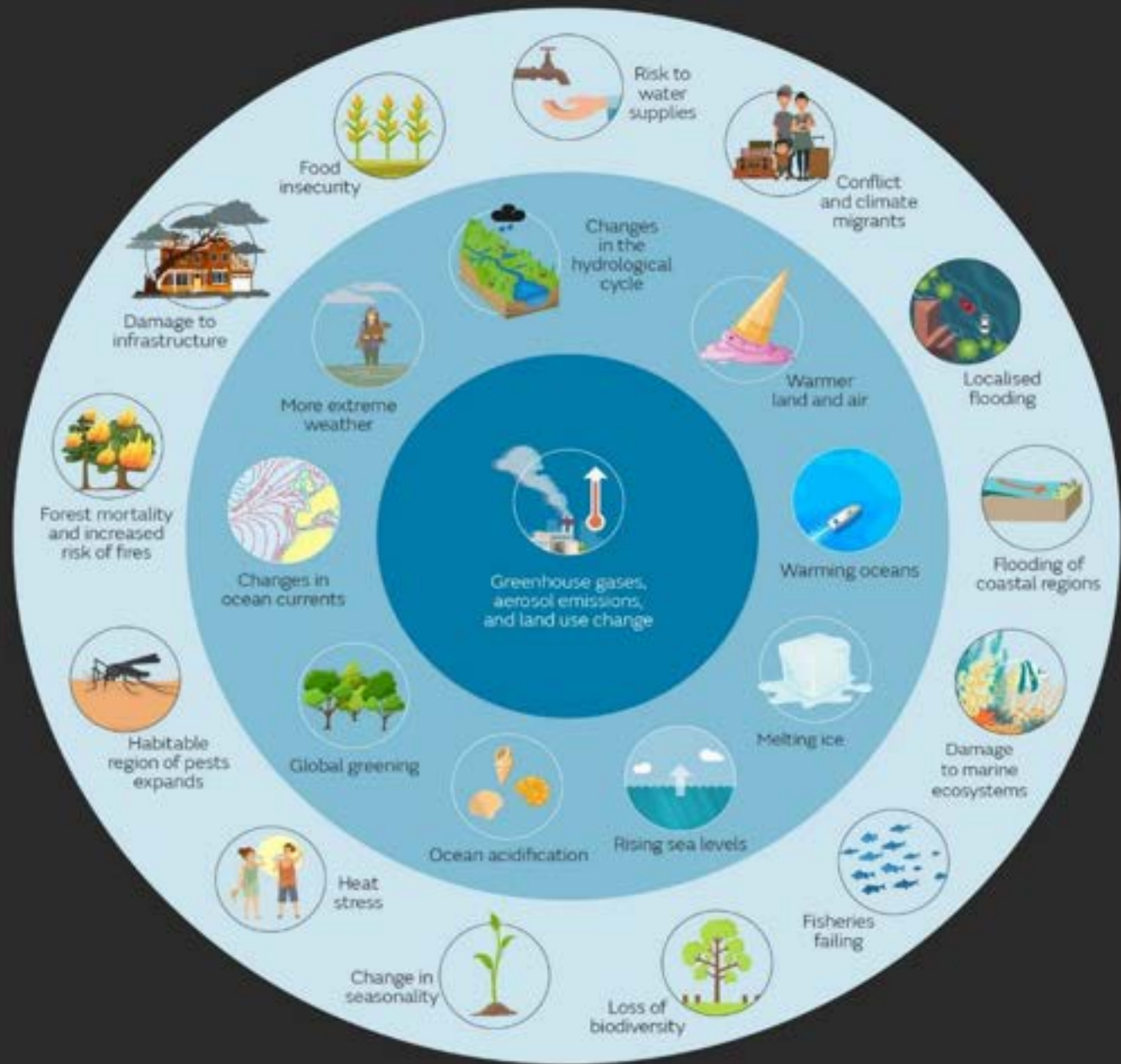
Causes



Effects



Impacts



# State of the UK Climate 2022

The UK experienced the knock-on effect of increasing global temperatures in 2022.

- The UK climate continues to change with temperature extremes changing much faster than average temperature\*.
- Climate change made the UK's record warm year and unprecedented heatwave much more likely.



An attribution study found that a year like 2022\*\* is now almost 160 times more likely due to human-induced climate change.



2022 was the warmest UK year on record (1884 – 2022) and the first time 40°C was experienced in the UK.



Sea level around the UK has risen by 18.5cm since the 1900s – over 60% of this (11.4cm) has occurred in the past 30 years.



In 2022, UK rainfall was 6% below average (1991 – 2020). A slight increase in heavy rainfall has been observed in recent decades.



Overall the 2022 leaf-on season was 7 to 16 days longer than average due to extended spring and summer seasons.



Record breaking summer heatwaves reaching over 40°C in July.  
Drought declared in many parts of England and Wales.  
Significant cold spell in December\*\*\*.

\* based on 1960 to 2022 UK daily average max and min temperature.

\*\* where the annual UK temperature is 10°C or above.

\*\*\* The frequency, severity and duration of cold spells have declined due to climate change.

Infographic for illustrative purposes only. See full report for details.



**Limit the causes**

reduce, absorb and remove greenhouse gas emissions – remove the pollution blanket

**Prepare for the impacts**

Understand and manage the risks – flooding, heatwaves, extreme weather etc...

# What are global leaders doing?

- **Paris Agreement 2015** – cap warming between 1.5-2 °C above pre-industrial levels
- **How?** Reduce greenhouse gas emissions
- **Funding** to help those worst effected



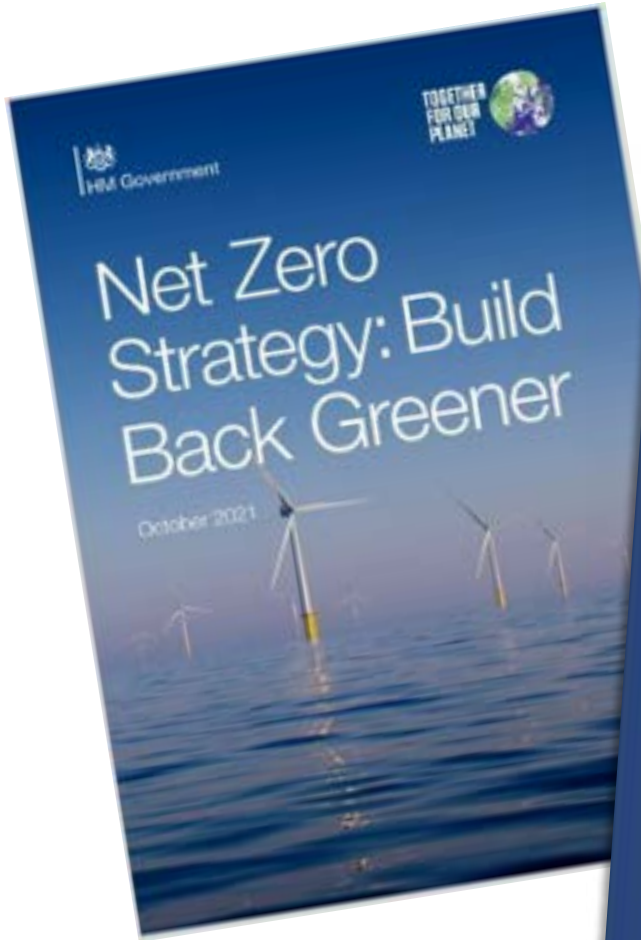
# What is the UK doing?

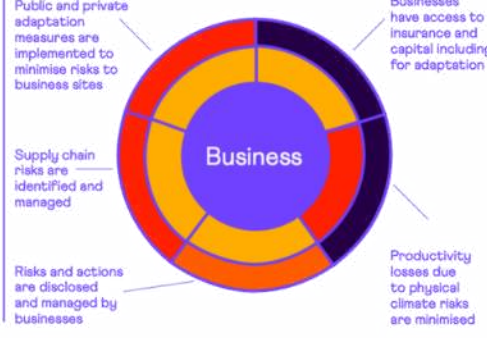
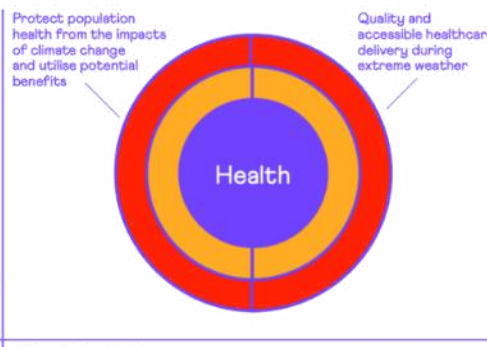
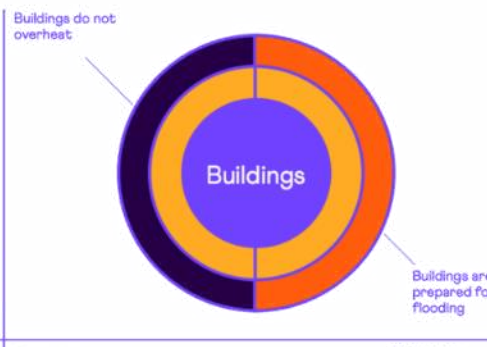
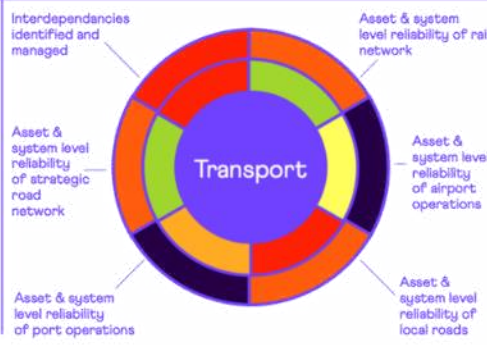
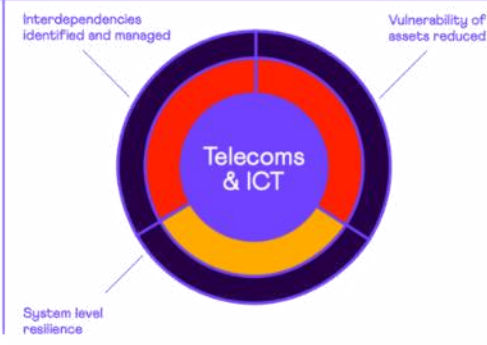
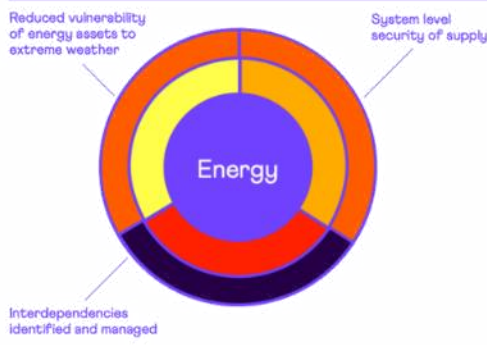
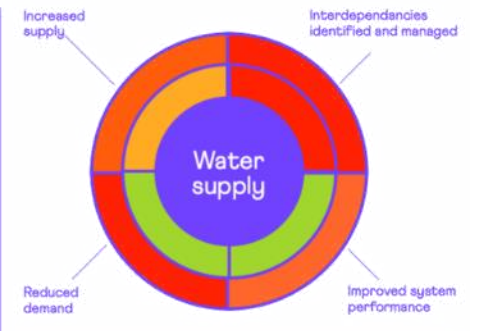
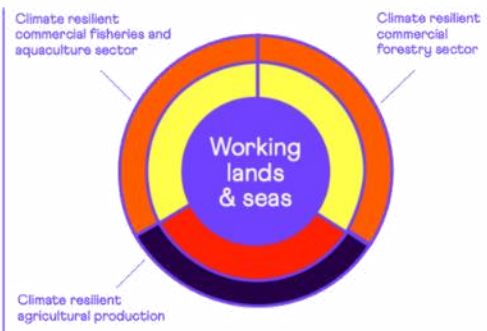
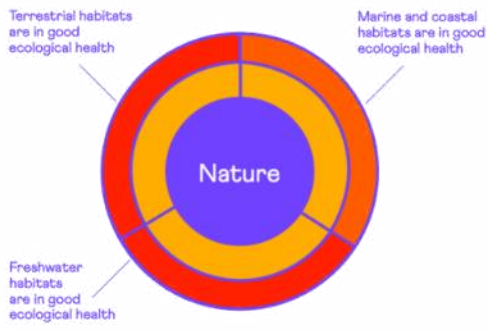
- UK Climate Change Act 2008 – 80% reduction in emissions by 2050 compared to 1990 levels
- 2019 UK declares a **Climate Emergency** - 100% reduction (Net Zero) by 2050 compared to 1990 levels
- Decreasing 5 year carbon budgets - Sixth Carbon Budget 2033-37- 78% reduction compared to 1990 levels
- National risk assessment and adaptation planning every five years



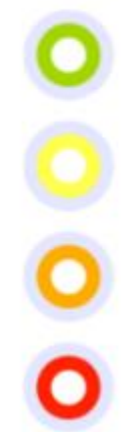


# Reducing Emissions



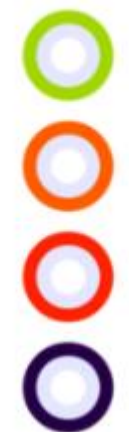


**Plans & Policies (inner ring)**



Credible policies & plans  
 Partial policies & plans  
 Limited policies & plans  
 Insufficient policies & plans

**Delivery & Implementation (outer ring)**



Good progress  
 Mixed progress  
 Insufficient progress  
 Unable to evaluate

# Preparing for Impacts

Progress in Adapting to Climate Change: Report to Parliament 2023 - *Climate Change Committee*





## How can heritage help?

UK has the oldest building stock in Europe  
Around 6 million buildings built before 1919

14,972 listed active places of worship,  
12,208 CoE buildings, 159 in Blackburn Diocese

**Historic buildings can and must adapt to remain viable  
in a low carbon, resilient society**

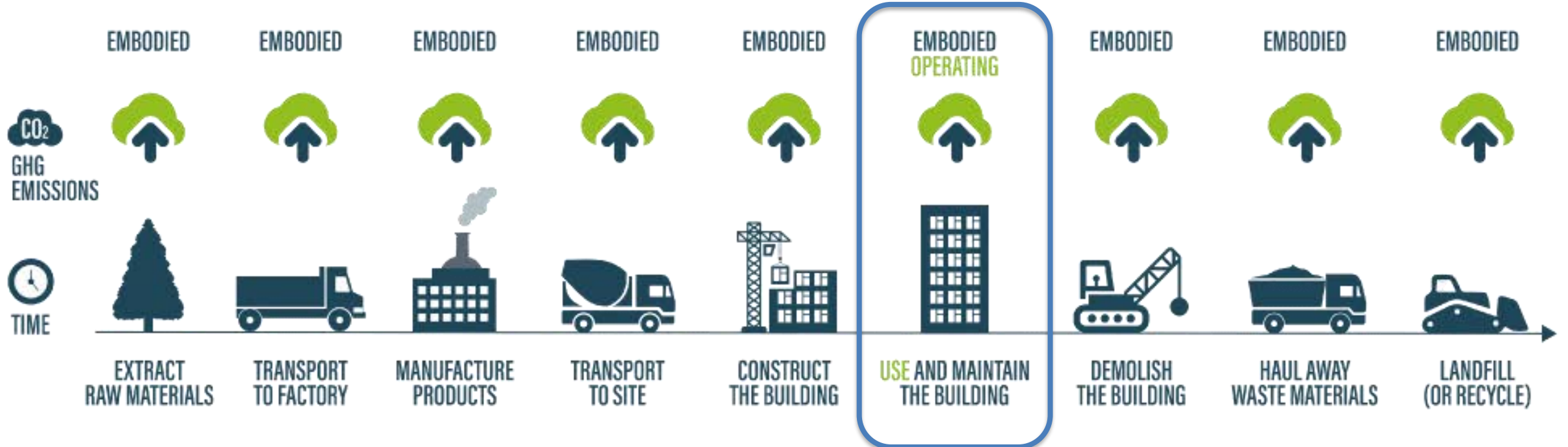
**Every building can lower emissions and save energy**

**Every building can be made more resilient**

**It's not a matter of **if**, but a matter of **how****



- Historic buildings are an underutilised mechanism for reducing carbon emissions
- The greenest building is one that already exists
- Repair, maintenance and continued use prevents unnecessary release of embodied carbon
- Designed to respond to environmental conditions
- **Maintenance, repair, replacement, quick wins** should be the priority before capital works



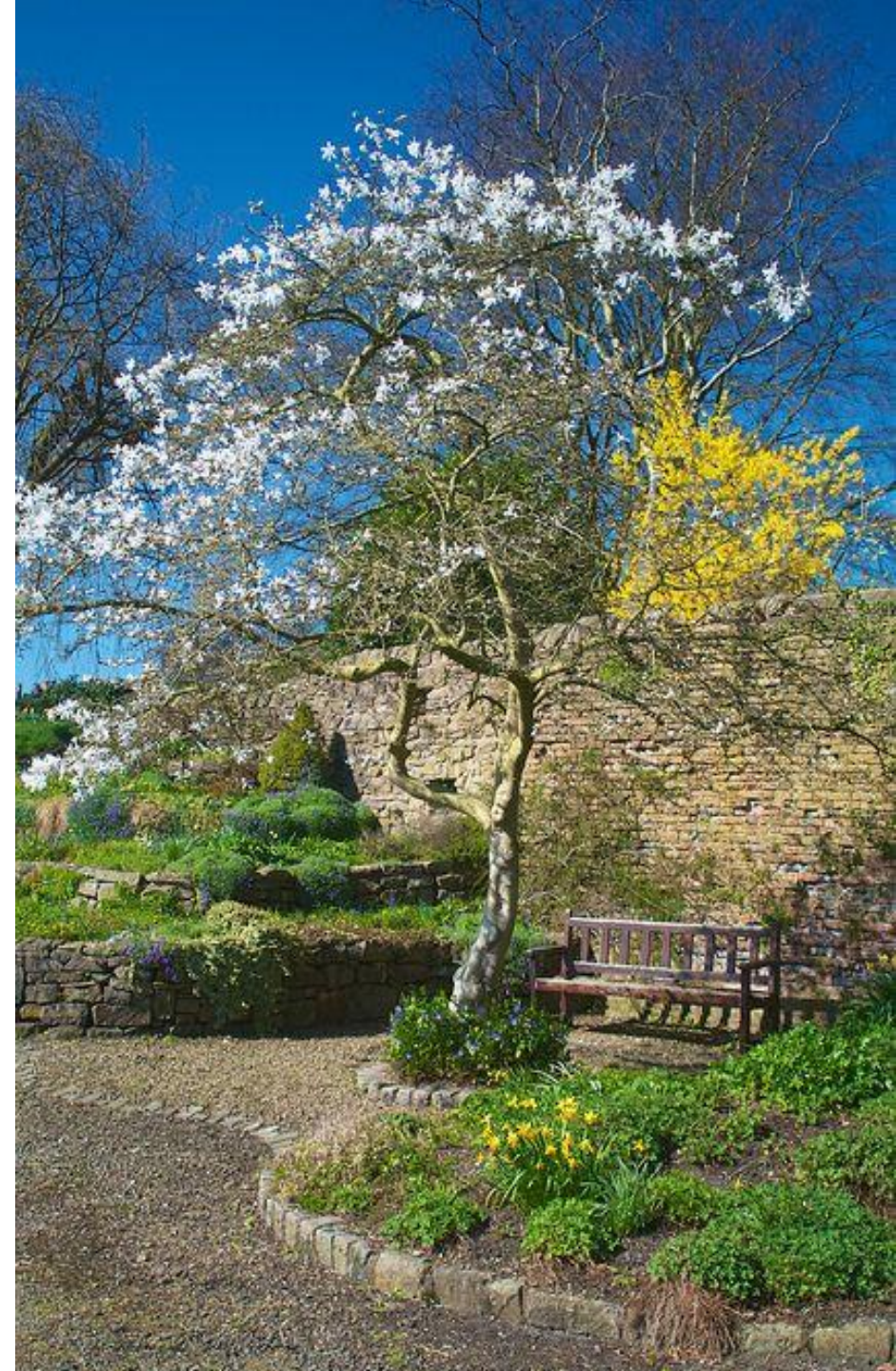
## How can heritage help?

### **Historic landscapes, parks, gardens, cemeteries and churchyards can...**

absorb carbon from the atmosphere

absorb groundwater, limiting flood risk

offer cool, shaded places during hot weather





## Could a Grade III listing for buildings halt the UK's tide of demolition?

22 NOVEMBER 2022 • BY WILL ARNOLD

The government should refresh the Town and Country Planning Act and introduce a Grade III status to protect millions of buildings from needless demolition, writes Will Arnold



## Introducing RetroFirst: a new AJ campaign championing reuse in the built environment

Amid the escalating climate crisis, Will Hurst introduces the AJ's campaign to prioritise retrofitting existing buildings over demolition and rebuild

## Net-Zero Drive Threatens Britain's Ancient Buildings: Balancing Act Between Heritage and Sustainability

By Ayesha Mumtaz • 5 days ago

## Retrofit roadblocks: the struggle to make England's older homes energy efficient

Efforts to upgrade protected properties are being thwarted by an overstretched planning system, fraught with delays and confusion



Sarah Ludford GB IEEU UA @SarahLudford  
22 Apr. 2023

"Across UK, owners of historic homes committed to green retrofits are having their efforts blocked or delayed by an overstretched planning system mired in confusion over how it should treat protected properties"

Very unhelpful for energy-saving efforts  
<https://t.co/DomHRyGb8L>

## Architect in the community: How do you mass-retrofit listed homes?

23 FEBRUARY 2023 • BY RICHARD WAITE. PHOTOGRAPHY BY MARTIN PRIESTLEY

Richard Waite looks at how the social impact funding organisation Footwork is helping a retrofit programme in the historic West Yorkshire village of Saltaire

# Historic England firmly supports urgent climate action

## Climate Action: Our leadership ensures that heritage plays an important role in the fight to limit climate change impacts

A. Our own carbon emissions continue to reduce and remain on target to achieve Net Zero by 2040

B. More organisations in the heritage sector are committed to achieving Net Zero by 2050 or earlier

C. Approaches to adaptation are continuously improved and shared, including the handling of unavoidable losses

D. People are better equipped to make historic buildings and places more resilient to our changing climate

E. More buildings and places have been adapted for resilience and carbon saving

F. Climate change policy across local and national government better reflects the positive role of heritage

## 2022

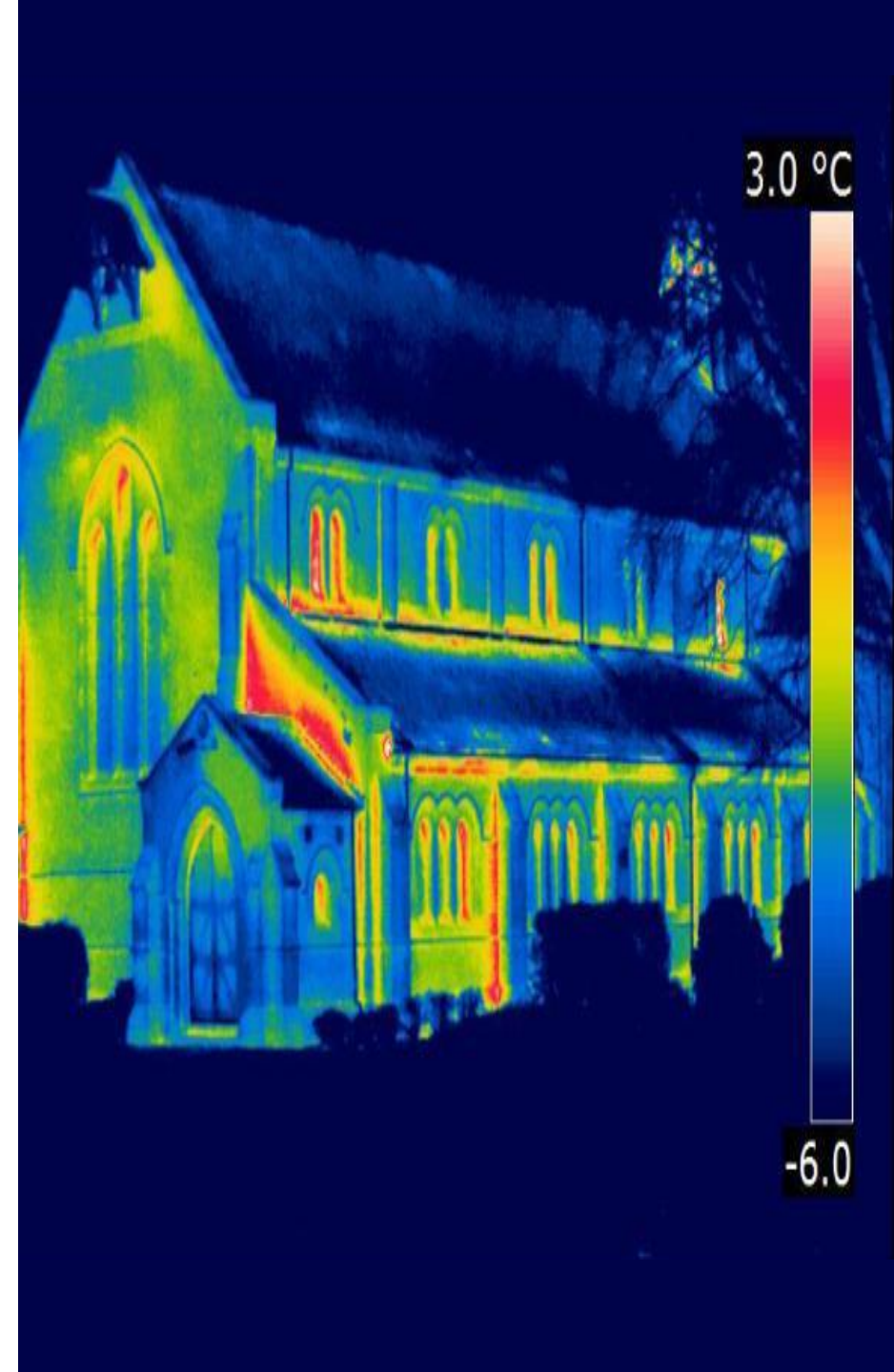
- [Climate Change Strategy](#)
- [Carbon Reduction Plan](#) Net Zero by 2040
- Climate Change Programme
- Appointed Head of Climate Change



2022-2023

## Advice and guidance

- Advice for owners and occupiers - [Your Home](#)
- Research: [Air Source Heat Pumps in Small-Scale Buildings; embodied carbon in the historic built environment](#)
- Downloadable [technical guidance](#), free public [webinars](#)
- **Advice for decision-makers - Historic Environment Advice Note: Climate Change and Historic Building Adaptation Consultation**
- Developing risk assessment evidence and methodologies, including managing loss
- Supporting the heritage sector to lower missions





## Advising government

- Heritage-based solutions to address the climate, biodiversity, fuel and cost of living crises
- Planning reform to better enable climate action in the historic environment
- Buildings standards, including Energy Performance Certificate (EPC) assessments
- Carbon accounting, inc. 7<sup>th</sup> Carbon Budget
- Construction industry skills gaps [Heritage and Carbon Report](#)
- Review into adapting historic homes for energy efficiency
- National risk assessment and adaptation action
- Evidence requirements





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