

# Core capability training on climate change

Greg Chant-Hall, Square Gain

London Environment Directors' Network



forum

[www.greenRecovery.co.uk](http://www.greenRecovery.co.uk)

## TEC LEDNet joint statement



1. **Retrofit London:** Retrofit all domestic and non-domestic buildings to an average level of EPC B. Programme timescale: 2020 – 2030.
2. **Low-carbon development:** Secure low carbon buildings and infrastructure via borough planning. Programme timescale: 2020 – 2022.
3. **Halve petrol and diesel road journeys:** Halve road journeys made by petrol and diesel via combined measures that can restrict polluting journeys and incentivise sustainable and active travel options. Programme timescale: 2020 – 2030.
4. **Renewable power for London:** Secure 100% renewable energy for London's public sector now and in the future. Programme timescale: 2020 – 2030.
5. **Reduce consumption emissions:** Reduce consumption emissions by two thirds, focusing on food, clothing, electronics and aviation. Programme timescale: 2020 – 2030.
6. **Build the green economy:** Develop London's low carbon sector and green our broader economy. Programme timescale: 2020 – 2030.
7. **Creating a resilient and green London**

## Background and overview



- Programme of webinar-based workshops

- Core training x 3 sessions

- Optional sessions:

- Existing buildings
- New buildings
- Transport
- Power
- Procurement, consumption & waste
- Green economy & recovery
- Measurement & reporting

**Dates and times:**

1, 2, 7 October, 10:00 – 11:00

20 October, 10:00 – 11:00

17 November, 10:00 – 11:00

1 December, 10:00 – 11:00

15 December, 10:00 – 11:00

12 January, 10:00 – 11:00

2 February, , 10:00 – 11:00

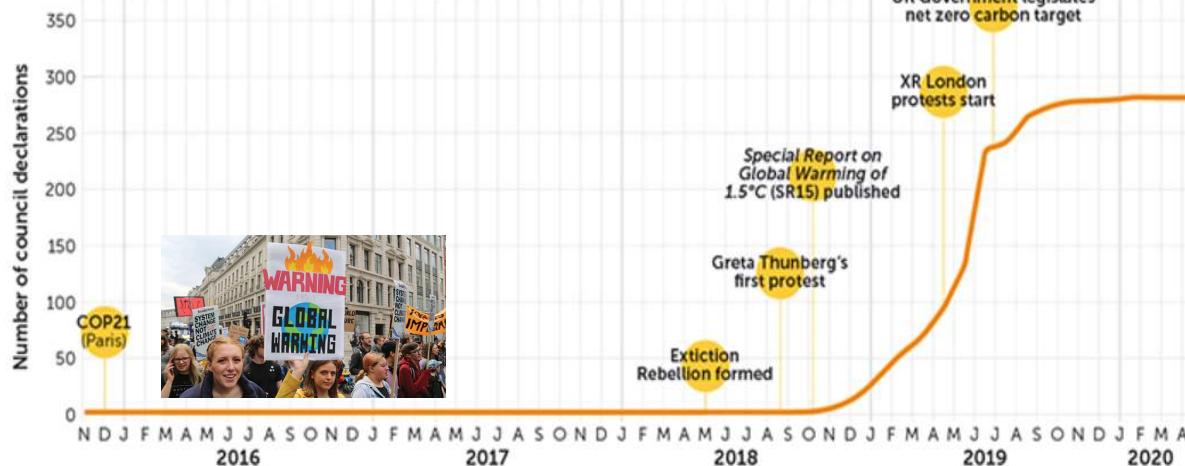
9 March, 10:00 – 11:00



forum

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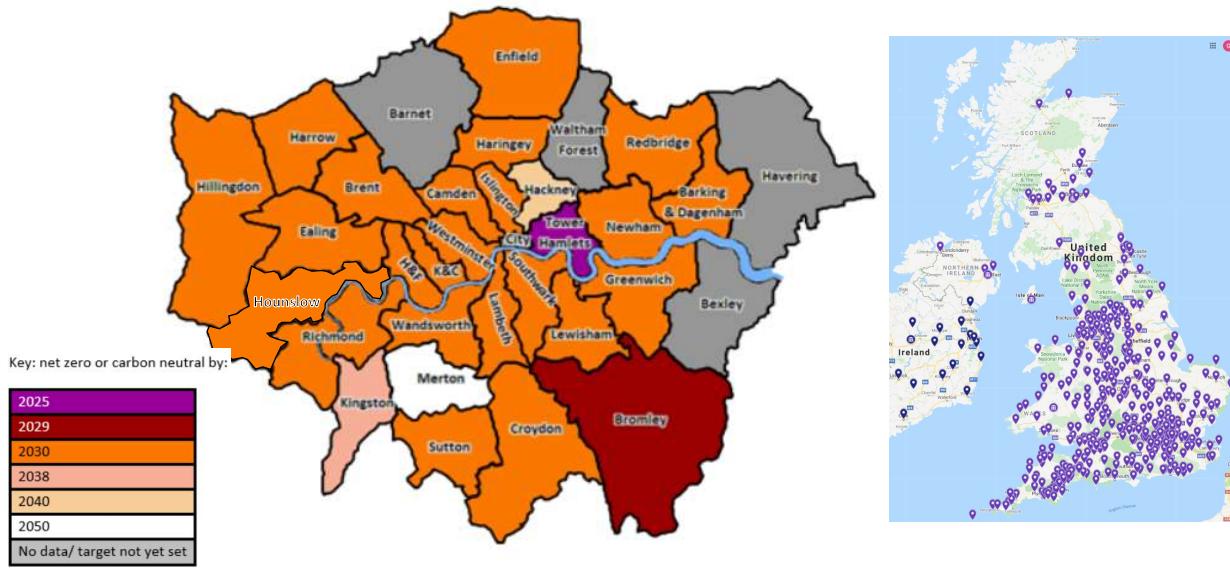
## UK Climate Emergency Declarations



## London borough declarations

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## Why you?

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You are participating in training because you:

- Are a key decision maker and can make things happen
- Are able to influence others
- Have the ability to demonstrate leadership and best practice

## Summary



- Overview of the climate crisis
  - Why this is important for London
  - Introduction to identifying carbon intensive activities and opportunities
  - Introduction of how to overcome strategic challenges and take pragmatic action
  - Questions and discussion
- More detail will be covered in each of the optional sessions

## Overview of the climate crisis



Photo: NASA



The atmosphere is not so big... only 10k thick

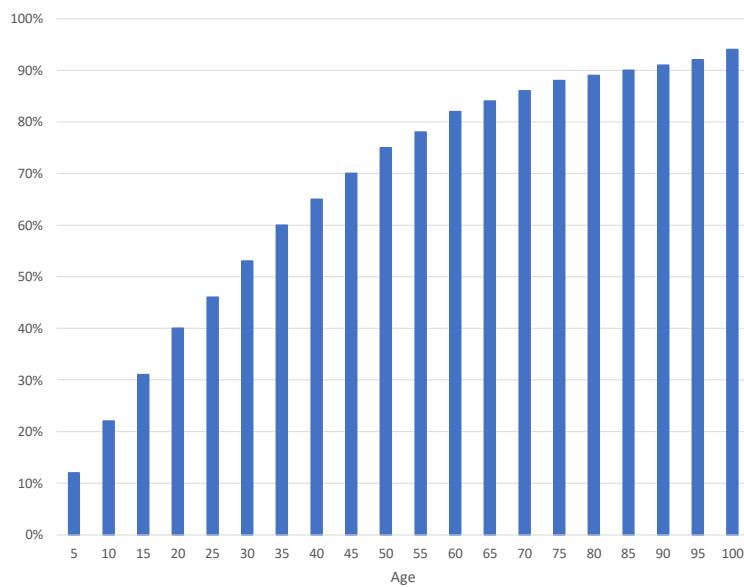
Photo: NASA

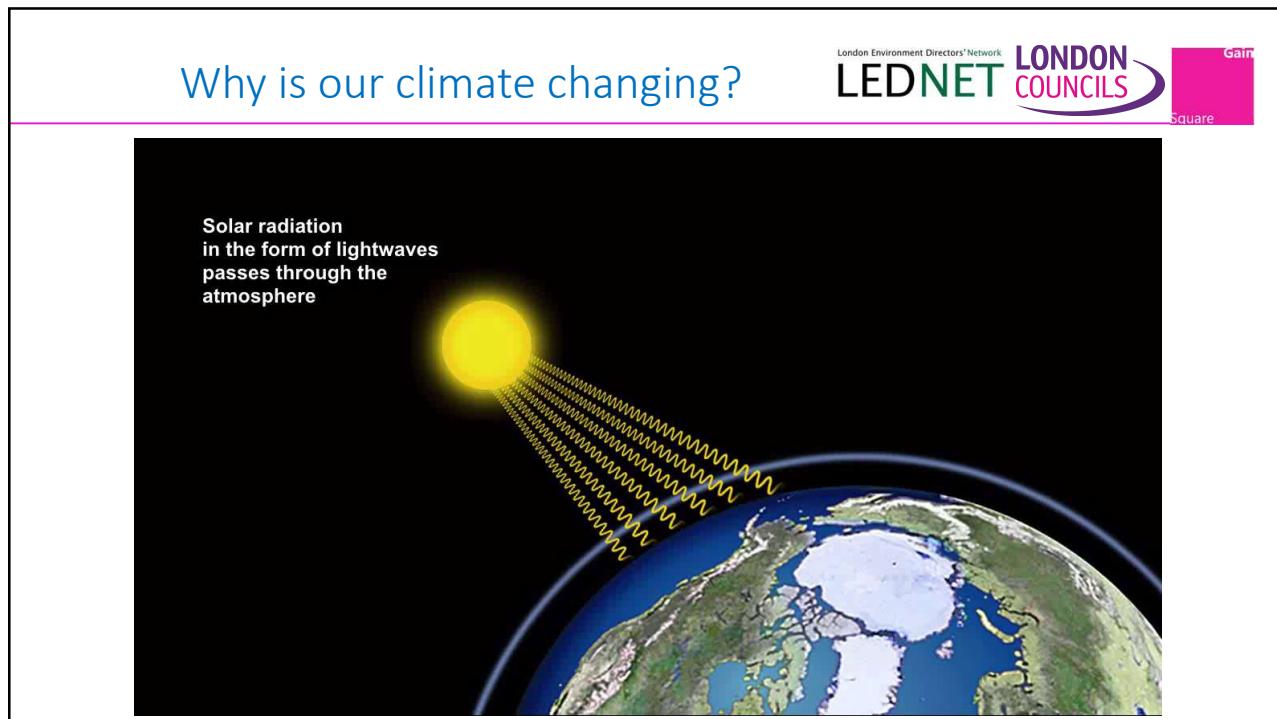
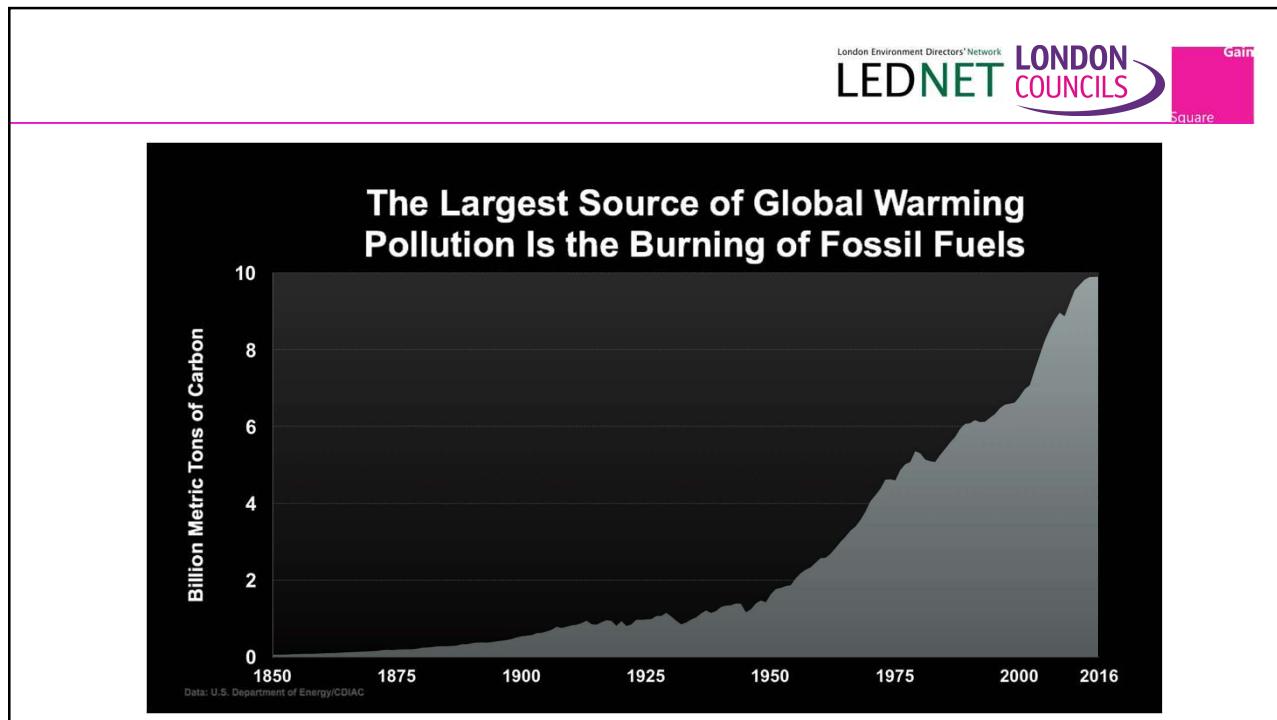


## Emissions in your lifetime

What % of global fossil fuel emissions have occurred in *your* lifetime?

\*since 1751



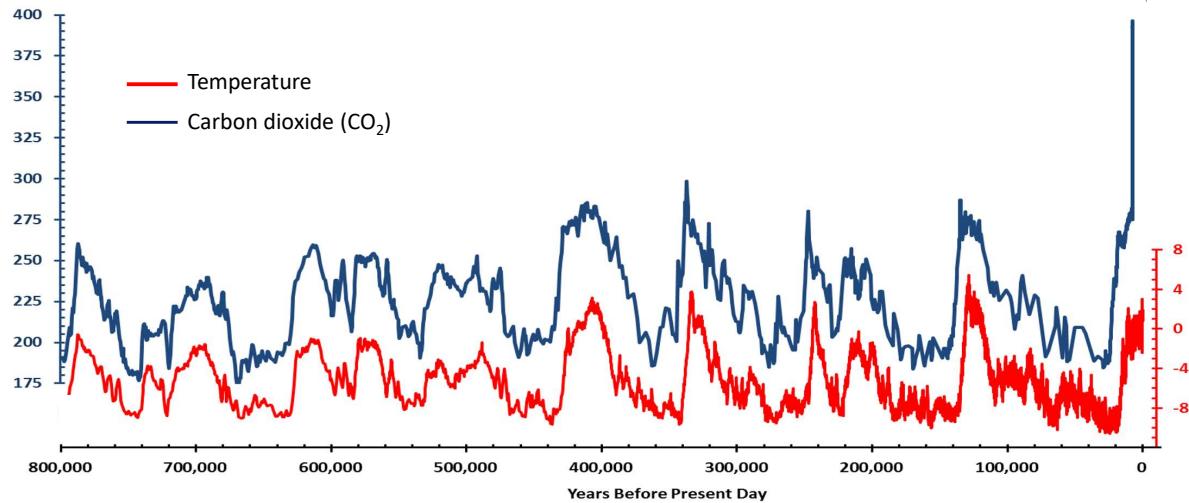


## Atmospheric Carbon

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Square20<sup>th</sup> May 2020: 417.2 ppm

## Weather v climate

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**Weather** is what happens in the short term—day to-day (or even moment-to-moment) changes in temperature, humidity, precipitation, etc.

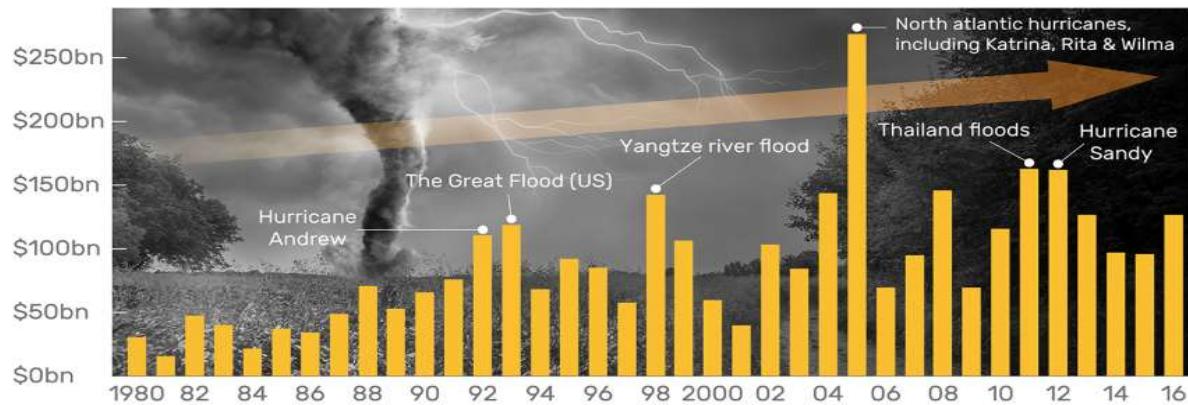
**Climate** is the average of weather events over a longer period of time—typically 30 years or more. The difference is all about timing.



*"Weather is your mood. Climate is your personality."* Dr. Marshall Shepherd

## Weather v climate

- Climate change impacts weather patterns.
- We can see changes in weather patterns, and the number of extreme weather events over a period of time



## Hottest years

19 of the 20 hottest years on record have occurred since 2001!  
**The last five years have been the hottest:**

2016

2019

2018

2017

2015

2020

?????

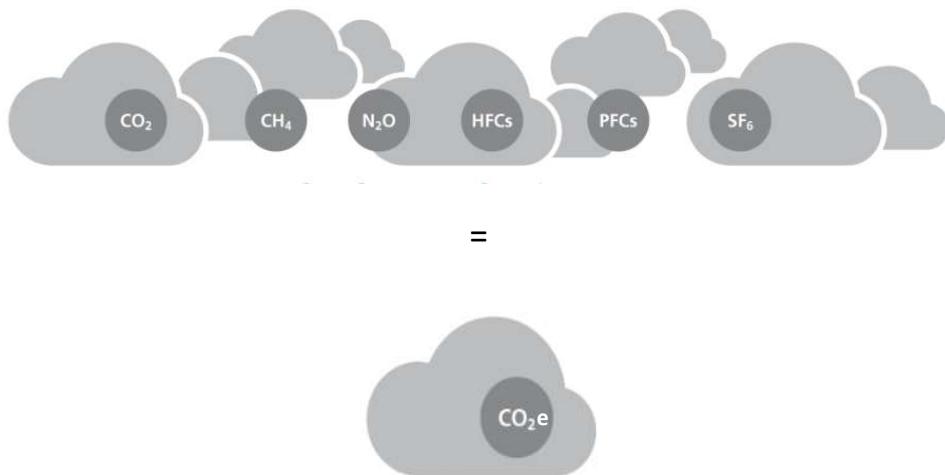
## Greenhouse gases & carbon dioxide

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## Carbon emissions & Carbon sinks

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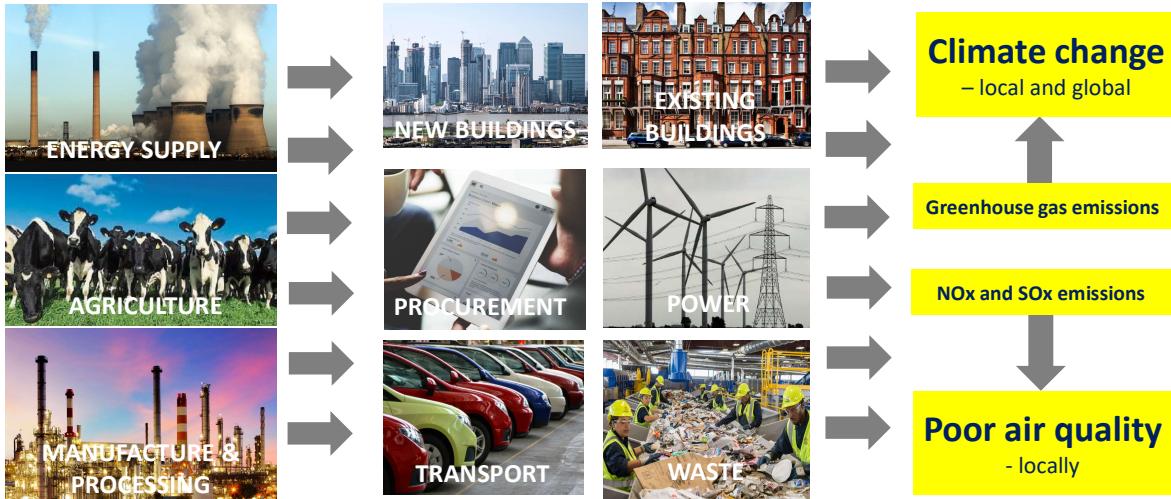
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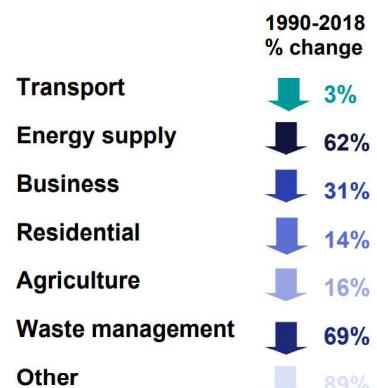
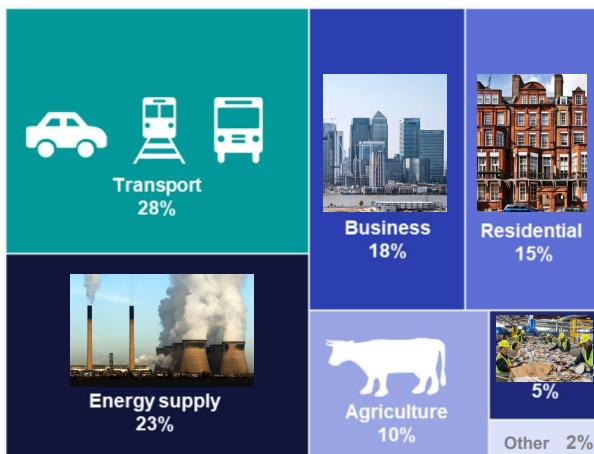
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## What's causing this globally ?



## What's causing this in the UK?



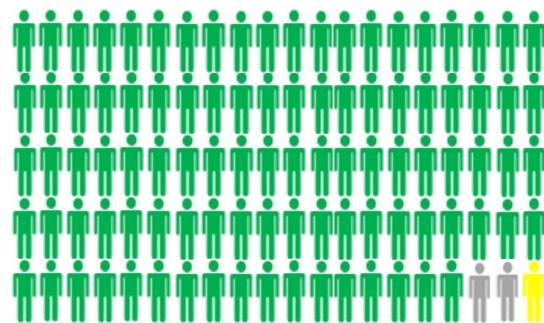
## What's causing this in London?

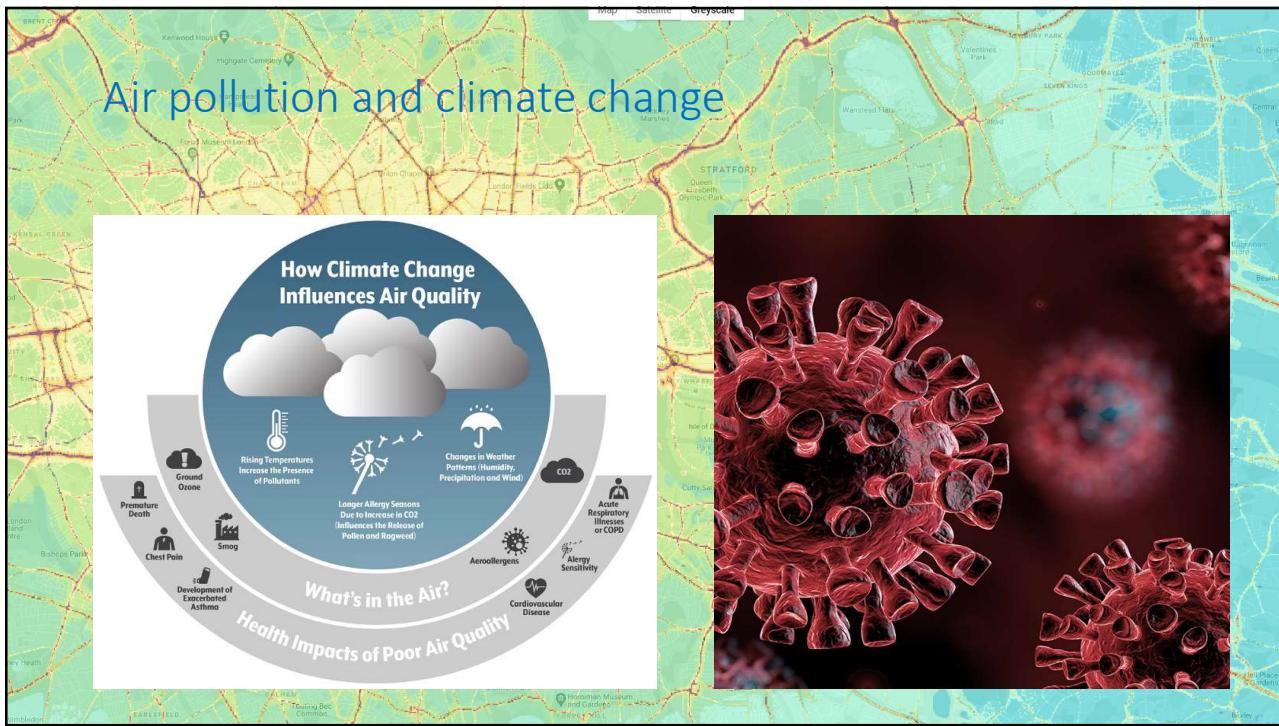


2000-2017  
% change:

- Transport -9%
- Business -54%
- Residential -35%

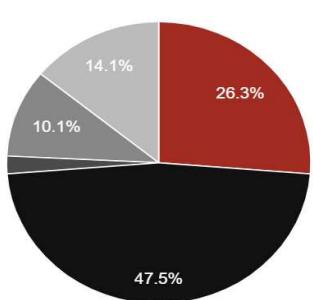
## Why has it taken so long to 'prove'?



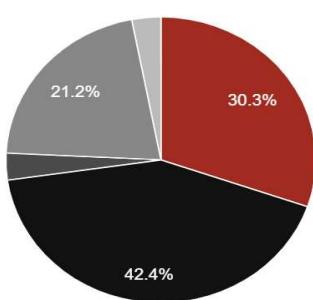


## Sources of air pollution in London

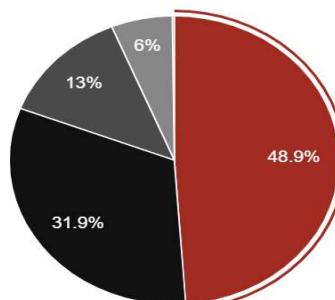
PM10 emission sources



PM2.5 emission sources



NOx emissions sources



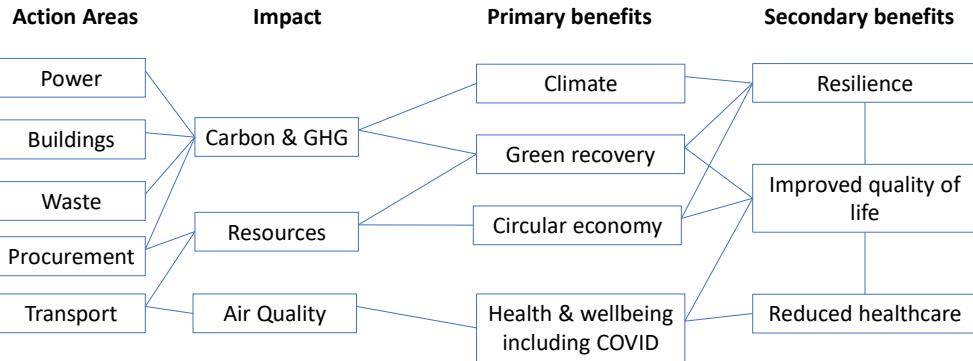
& climate change



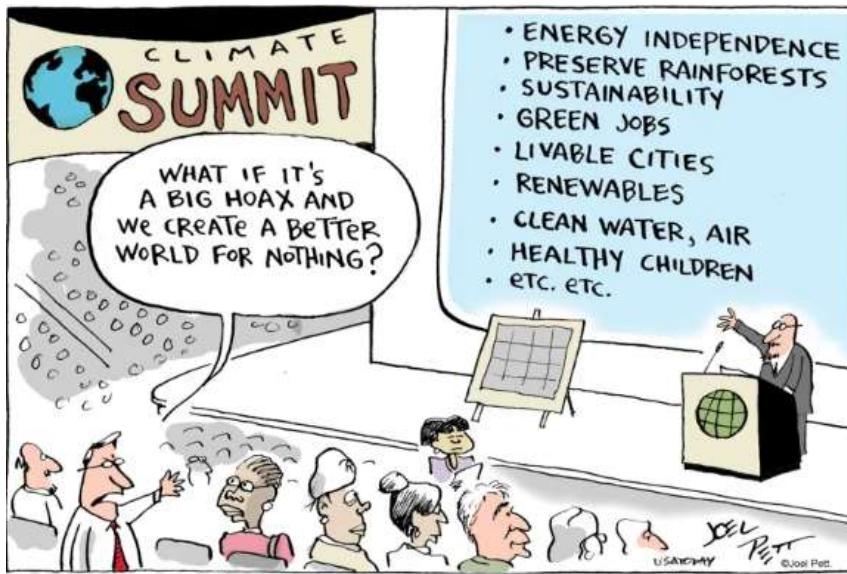
Source:  
[BreathLondon.org](http://BreathLondon.org)

● Road Transport  
● Industrial & Commercial  
● Transport (aviation, rail, river)  
● Domestic  
● Miscellaneous

# Delivering co-benefits



# Delivering co-benefits

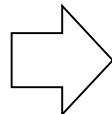
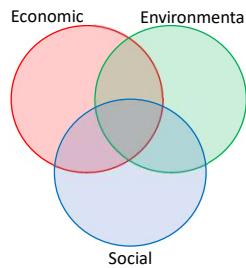


## The costs of doing nothing

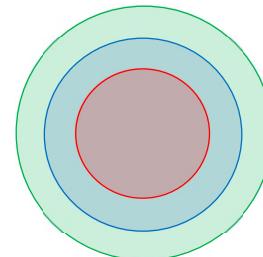


## Growing realisation?

Perceptions pre COVID-19



Current realisation?



"we have a deep responsibility...to promote long-term value. Climate change has become a defining factor in companies' long-term prospects"

Before we discuss London specifically...

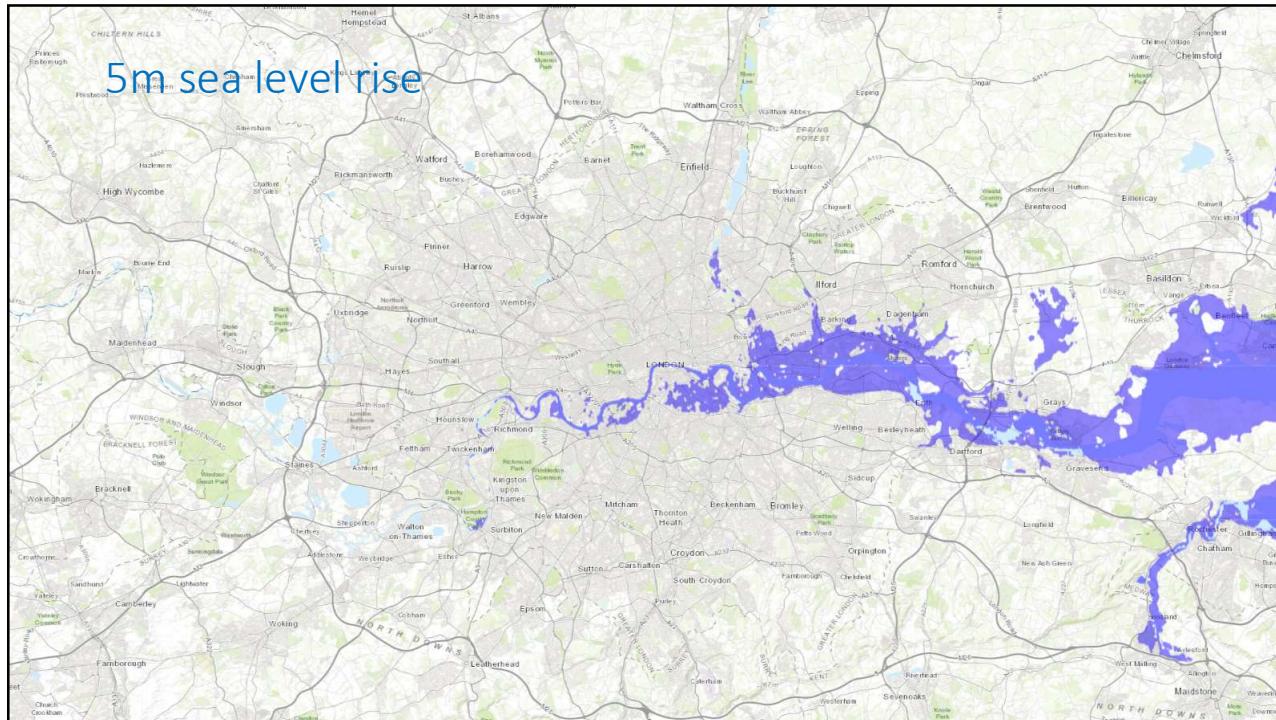
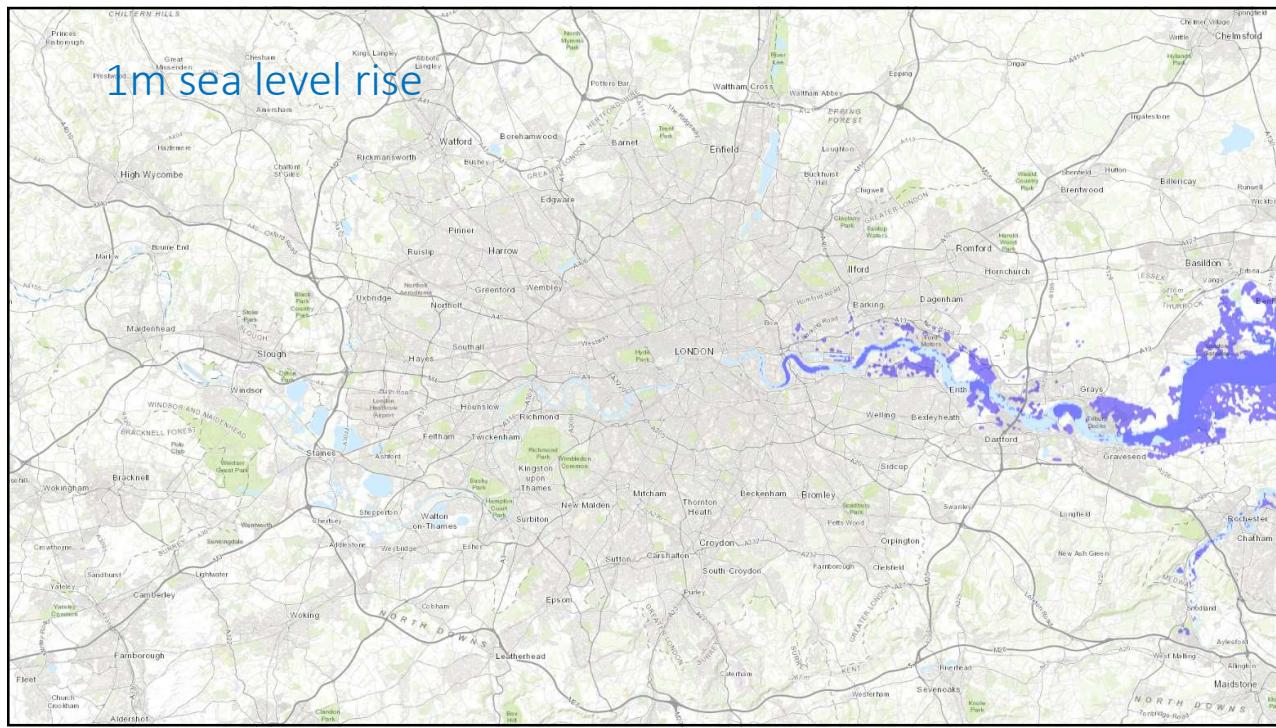
## Questions?

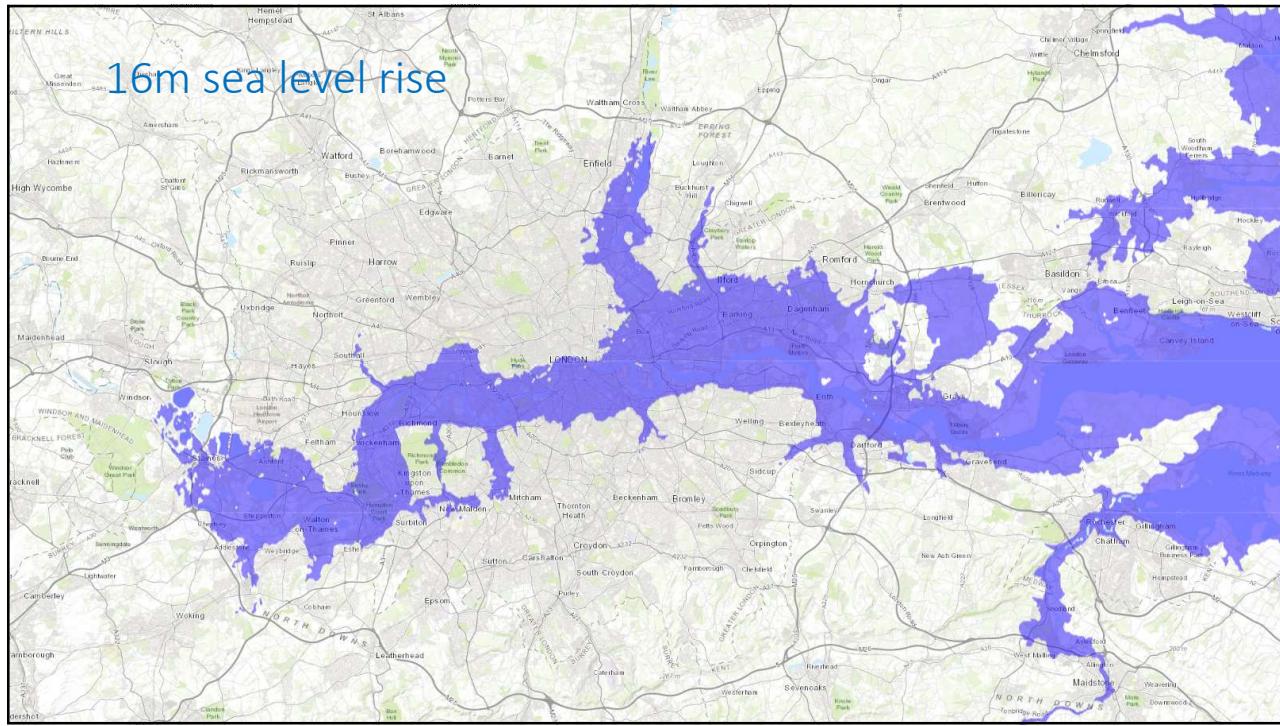
Why is this important for London?



- Climate change impacts are already being felt in London e.g.
  - Overheating
  - Sea level rise

Swift action is imperative





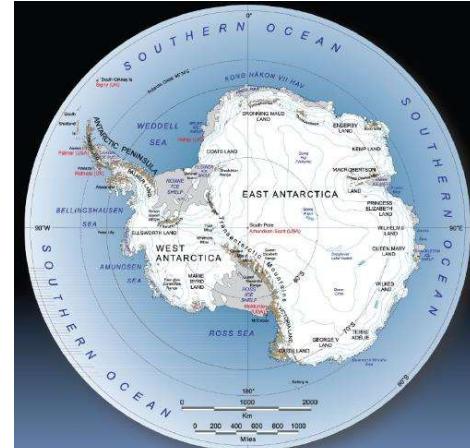
## Melting ice and sea level rise

7 metres – Greenland ice sheet

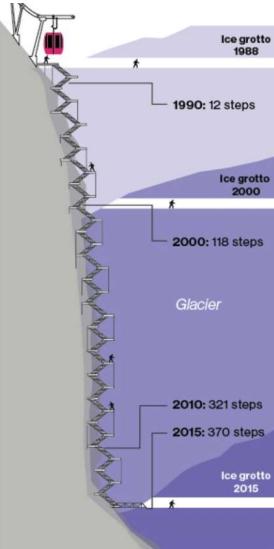


+

9 metres – West Antarctic ice sheet



## Impacts in our lifetime



1988



2015

## River Thames flooding



## Overheating

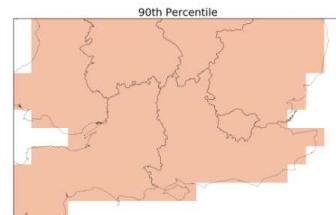
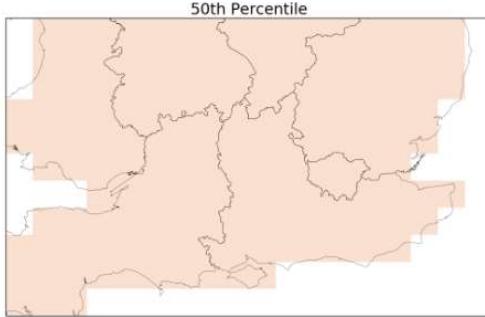
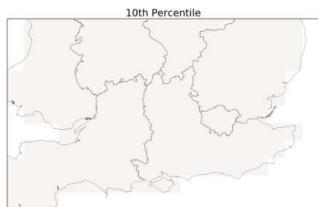
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Average predicted temperature increase by 2030..... nine years away!



Met Office  
Hadley Centre



Video © SevArt/Ponds

## Policy initiatives



**IPCC**  
INTERGOVERNMENTAL PANEL ON  
climate change

HM Treasury, 1 Horse Guards Road, London, SW1A 2HQ  
10 August 2020

Alex Sobel MP  
Chair of the Net Zero APPG,  
House of Commons,  
London  
SW1A 0AA

Dear Alex,  
**NET ZERO ACTION PLAN**  
Thank you for your letter of the 21<sup>st</sup> July laying out a 10-point Net Zero Review Action Plan.

As I said in my Summer Update speech last month, the Government takes its environmental responsibilities very seriously and is committed to our recovery. Since the outbreak of COVID-19, and before, we have developed policy addressing a number of the issues outlined by your 10-point plan.

And, as part of our commitment to climate action, the Government will be making additional announcements very quickly that further demonstrate our determination to build back greener.

Earlier in the year we announced £50 million to support Carbon Capture and Storage in at least four industrial clusters, a vital technology that will help some of our hardest to abate sectors to decarbonise, whilst helping to level up the nation.

We are also committed to transforming our transport sector, committing over £1 billion to promote the uptake of ultra-low emission vehicles, including up to £500 million to support the roll-out of our charging network. More recently we announced £2 billion to make it easier to cycle and walk.

And, since the outbreak of Covid-19, we have put climate at the heart of our recovery. In recognition of the need to support workers into low carbon industries, we have created Skills for Green Jobs, a new programme area designed to be delivered by local partners. We have ensured that any company receiving financial support as a Last Resort Business Intervention will be expected to commit to ambitious conditions on Net Zero targets.

At the Summer Economic Update we went further still. We announced £3.05 billion in housing investment, including £1 billion for carbon capture and conversion, alongside R&D funding for revolutionary decarbonisation technology by dedicating £100 million towards Direct Air Capture technologies to support our Net Zero target.

This Government remains committed to building a strong economy ready for our Net Zero future. Our Net Zero Review will be published in Spring next year, and will focus on the costs and routes to achieving this goal.

I look forward to working with the APPG to deliver our shared objective.  
Best wishes,

Rishi Sunak

## Process of prioritisation

1. Baseline
2. Declare commitment!
3. Establish carbon intensity and materiality
4. Identify emissions that are within council control
5. Identify which other emissions can be influenced (through direct procurement and across the borough)
6. Investigate interventions
  1. Type
  2. Scale
  3. Timing
7. Establish business case and allocate budget based on priority and risk

## Blueprint for local climate action



A blueprint for accelerating **climate action** and a **green recovery** at the local level

Recommendations include for Government:

- Invest in low-carbon and climate-resilient infrastructure
- Support reskilling, retraining and research for a net-zero well-adapted economy
- Upgrade our homes to ensure they are fit for the future
- Make it easy for people to walk, cycle, and work remotely
- Accelerate tree planting, peatland restoration, green spaces and other green infrastructure

A blueprint for accelerating  
climate action and a green  
recovery at the local level



With support from the Local Government Association, London Councils and GAIN Alliance



## Risks and Opportunities



### Physical

- Overheating
- Asset damage through floods/drought etc
- Green space

### Transition

- Meeting voter expectations
- Ability to provide services
- Achieving targets
- Optimising costs and attracting funding
- Stranded portfolio assets
- Job creation through green economy

## Local authority stakeholders include

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Local Government

Academia

NHS

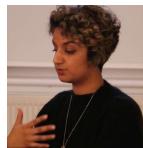
Big business

Local business

Local residents

Financiers

Insurers



CLIMATE  
REFRAME

## We have the opportunity to lead

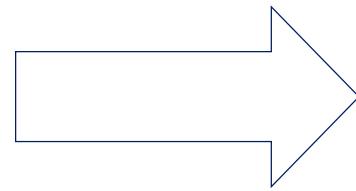
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Lead



Borough wide

## Pragmatic action – workshop series

- We will be focusing on pragmatic actions through our topic specific workshop series, which will include mitigation and adaptation to climate change.
- The following slides provide a brief introduction to each of these workshops
  - Existing buildings
  - New buildings
  - Transport
  - Power
  - Procurement, consumption and waste
  - Green economy
  - Measurement and reporting

## Existing buildings

- 20 October, 10:00 – 11:00
- Retrofit to decarbonise existing London homes and buildings.
  - Case study examples
  - Pragmatic actions
  - Common pitfalls
  - Costs and potential funding



## New buildings

- 17 November, 10:00 – 11:00
- Low-carbon new development
  - Case study examples
  - Pragmatic actions
  - Common pitfalls
  - Costs and potential funding



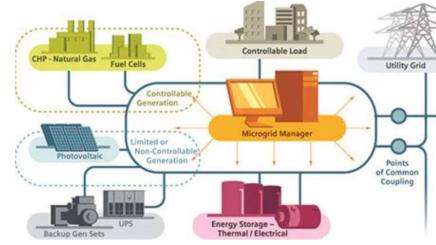
## Transport

- 1 December, 10:00 – 11:00
- Decarbonising transport, the decarbonisation of council fleets to create momentum.
  - Case study examples
  - Pragmatic actions
  - Common pitfalls
  - Costs and potential funding



## Power

- 15 December, 10:00 – 11:00
- Decarbonising energy and energy systems, renewable power for London, microgrids.
  - Case study and technology examples
  - Pragmatic actions
  - Common pitfalls
  - Costs and potential funding



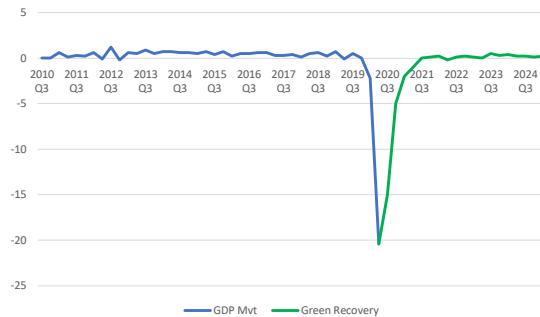
## Procurement, consumption and waste

- 12 January, 10:00 – 11:00
- Reduce consumption and decarbonise consumption emissions – more towards sharing economy. Decarbonising waste and recycling services
  - Case study examples
  - Pragmatic actions
  - Common pitfalls
  - Costs and potential funding



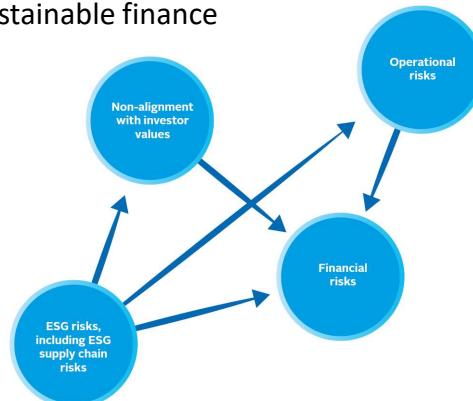
## Green economy

- 2 February, , 10:00 – 11:00
- Building the green economy and green collaboration, around climate mitigation, resilience and climate adaptation, which may include the use of Sustainable Finance to attract private funding into LEDNet's priority areas
  - Case study examples
  - Pragmatic actions
  - Common pitfalls
  - Costs and potential funding



## Measurement and disclosure

- 9 March, 10:00 – 11:00
- Carbon measurement/ budgeting, accounting and reporting, including the Taskforce on Climate Related Financial Disclosures.
  - Case study examples, including raising sustainable finance
  - Pragmatic actions
  - Common pitfalls
  - Costs and potential funding



## Key intervention points

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MOTOR VEHICLE LEASE AGREEMENT

LESSEE Name: Address:	CO-LESSEE Name: Address:																												
LEASE DATE:	MEMBER NO.																												
This Motor Vehicle Lease Agreement, referred to as the "Lease", is a contract between the words "Lessor", "we", "us" and "our" to refer to the person or entity desiring your vehicle to each period of time during which who signs this Lease as Lessee. The disclosures included in this document are required by law.																													
1. DESCRIPTION OF VEHICLE																													
<input type="checkbox"/> New <input type="checkbox"/> Used      Year      Make      Model      Mileage      VIN      Engine No.																													
If a vehicle is being traded in to finance the capitalized cost, the trade-in value is:																													
<input type="checkbox"/> New <input type="checkbox"/> Used      Year      Make      Model      Mileage      VIN      Engine No.																													
2. FEDERAL CONSIDERATIONS																													
a. Amount Due at Lease Signing or Delivery <table border="1"> <tr> <td>Name</td> <td>State</td> </tr> <tr> <td>Hybrid agile project</td> <td>in process</td> </tr> <tr> <td>Determine goals and strategy</td> <td>completed</td> </tr> <tr> <td>Requirements engineering</td> <td>in process</td> </tr> <tr> <td>Develop Release 1</td> <td>in process</td> </tr> <tr> <td>Team Genf Sprint</td> <td>in process</td> </tr> <tr> <td>Team Genf Sprint 1.1</td> <td>in process</td> </tr> <tr> <td>Team Genf Sprint 1.2</td> <td>planned</td> </tr> <tr> <td>Team Berlin Sprints</td> <td>planned</td> </tr> <tr> <td>Team Berlin Sprint 1.2</td> <td>planned</td> </tr> <tr> <td>Release 1 End</td> <td>planned</td> </tr> <tr> <td>Develop Release 2</td> <td>planned</td> </tr> <tr> <td>Release 2 End</td> <td>planned</td> </tr> <tr> <td>Rollout</td> <td>planned</td> </tr> </table>		Name	State	Hybrid agile project	in process	Determine goals and strategy	completed	Requirements engineering	in process	Develop Release 1	in process	Team Genf Sprint	in process	Team Genf Sprint 1.1	in process	Team Genf Sprint 1.2	planned	Team Berlin Sprints	planned	Team Berlin Sprint 1.2	planned	Release 1 End	planned	Develop Release 2	planned	Release 2 End	planned	Rollout	planned
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## Questions & Discussion

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**Greg Chant-Hall**  
Square Gain

[www.squaregain.co](http://www.squaregain.co)

[gregchanthall@squaregain.co](mailto:gregchanthall@squaregain.co)

## Next workshop dates



- Topic specific workshop dates:

- Core training x 3 sessions
- Optional sessions:
  - Existing buildings
  - New buildings
  - Transport
  - Power
  - Procurement, consumption and waste
  - Green economy
  - Measurement and reporting

### Dates and times:

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2 February, 10:00 – 11:00  
9 March, 10:00 – 11:00

## Feedback and immediate actions



- Feedback forms – required for your CPD certificate  
<https://www.surveymonkey.com/r/C9R8MXJ>
- Register for the next workshops
- Visit the LEDNet Climate forum

forum

[www.greenRecovery.co.uk](http://www.greenRecovery.co.uk)

Blog

FAQs

Session recordings

Slide handouts

Climate e-learning



