London Climate Goals Design Sprint
Participant Briefing

Date: Monday 16 and 23 May, 10am-4pm
Venue: Trampery, 239 Old Street, London, EC1V 9EY. View on map.
Catering: Lunch will be provided.

About the event

Thank you for signing up for the London Climate Goals Design Sprint! We're delighted to be bringing together London borough environment teams with experts in digital, data, smart cities and behavioural insights from the public, third and private sectors. We look forward to having your experience and expertise in the room.

The sprint's driving question is: **How can technology, data and innovative smart city approaches support the delivery of the capital's climate goals?** We'll explore that question through the lens of four specific themes: Retrofit, Low Carbon Transport, One World Living, and Renewable Power. Below you'll find a brief overview of each theme, together with the specific design challenges we would like your help on.

Why attend?

The sprint is a chance for you to learn much more about London's major climate goals, contribute ideas and directly influence London's key decision makers. We ask you to come with an open mind and a willingness to join conversations alongside colleagues from many different professions to help us make progress.

About the organisers

This event is being hosted by:

- The London Office of Technology & Innovation (LOTI), an organisation that helps boroughs work together to bring the best of digital and data innovation to improve services and outcomes for Londoners.
- The London Environment Directors' Network (LEDNet) - the membership association for the Environment Directors across London's boroughs and the City of London. LEDNet provides collective leadership on climate, and supports the delivery of effective, efficient and innovative environmental services for all Londoners.

Design Challenge 1: Retrofit

Our vision for 2030: All London's buildings are more energy-efficient, and have an average EPC rating of B. Energy bills for residents, businesses and institutions are lower, buildings are warmer, and related emissions are substantially reduced. We have achieved this not only through new technical solutions and improvements to public sector building stock, but also by supporting other sectors and residents to retrofit their own buildings and overcome financial, technical and administrative barriers to doing so.

Borough Leads: Dominic Millen, Enfield; James McHugh, Waltham Forest

Context:

- Buildings contribute around 76% of London's greenhouse gas emissions.
- 80% of current building stock is likely to still be in place in 2050.
- Greening the UK's housing stock will mean retrofitting 5x more homes than we are currently building every year (UK Green Building Council).
- Most fuel poverty is partly due to energy-inefficient properties, particularly in the private housing sector (BEIS).

Design Challenges:

1. How might we identify and prioritise neighbourhoods suitable for retrofit projects?
2. How might we understand and engage London households to help them retrofit their homes?
3. How might we monitor the number of retrofit measures that are delivered and their impact on energy efficiency and carbon emissions?

Design Challenge 2: Renewable Power for London

Our vision for 2030: London is powered substantially via renewable energy. The public sector is powered by 100% renewables, and local residents and businesses are also making the switch, supported by a thriving, growing and well-resourced network of decentralised renewable energy projects.

Borough Leads: Keith Townsend, Islington

Context:

- Burning fossil fuels to make electricity is the biggest source of CO_2 emissions in the UK (WWF).
- In 2016, London sourced just 0.05% of its energy from renewables - the lowest of any UK city (Green Alliance).

- Collectively we've made progress since then, but have much further to go!
- Renewable energy is 50% cheaper to generate than fossil fuels (Ember). Combined with economic models that keep those savings with consumers (e.g. decentralised networks), this could help tackle fuel poverty and soaring energy costs.

Design Challenges:

1. How might we help Londoners move to renewable energy tariffs?
2. How might we help Londoners reduce their energy usage?
3. How might we identify suitable communities and sites for decentralised energy projects across London?
4. How might we track our progress towards the goal of 100% renewable energy in London?

Design Challenge 3: Low Carbon Transport

Our vision for 2030: 50% fewer journeys are being made on London's roads by polluting petrol/diesel vehicles. The general public are using more public transport, active travel and lower-carbon vehicles, and we've also decarbonised London's buses, freight transport, and transport infrastructure projects.

Borough Leads: Matthew Hill, Kingston; Damian Hemmings, Westminster

Context:

- 25% of London's CO_2 emissions are from the transport sector (Centre for London).
- 37% of trips in London are made by car or motorbike (TfL).
- Traffic is also a major source of PM2.5 and NO_2 air pollution, contributing significantly to 4,000 air-quality related deaths in London every year (GLA).

Design Challenges:

1. How might we better gather, monitor, model and communicate data to plan and deliver effective transport decarbonisation pathways for every borough?
2. How might we positively engage and consult communities on the infrastructure changes we are making to help decarbonise transport (e.g. low traffic neighbourhoods)?
3. How might we use existing and new data sources/tools to understand the influences over Londoners' daily travel choices, and the user needs of those whose behaviour we are seeking to influence?

Design Challenge 4: One World Living (OWL)

Our vision for 2030: The emissions from the goods Londoners consume, specifically food, clothes, electronics, and plastics will be reduced by two thirds. We will have shifted from a consumption-centred model (where people buy items, use them for a relatively short period, and then discard them), to a more circular and sustainable model based on sustainable sourcing, repair, reuse, refurbishment and recycling as standard.

Borough Lead: Matthew Adams, Harrow; Motoko Doolan, West London Waste Authority

Context:

- 45% of London's carbon footprint is from products made elsewhere and imported for consumption (ie. consumption-based emissions) (GLA).
- If everyone consumed as much as the average UK resident, we would need three planets' worth of resources (WWF). One World Living is all about living within the resources of our finite planet.
- London produces 7m tonnes of waste every year:
    - 30% is from food and plastics.
    - 37% of the food produced to supply London's food chain is wasted.
    - The fashion industry produces 8-10% of global CO_2 emissions (UN).
    - Brits buy 41% more clothing than other Western Europeans.
    - There are estimated to be 556m unused electrical devices in cupboards in UK households.
    - In 2021, global electronic waste weighed 57 million tonnes - more than the Great Wall of China - less than 20% of which was recycled (BBC). We risk exhausting the world's supply of key elements involved in producing electronics (Royal Society of Chemistry).

Design Challenges:

1. How might we better understand the impact of individual choices and borough interventions to reduce waste, and prioritise the most impactful initiatives?
2. How might we better understand different types of user, and what factors will most incentivise them to switch behaviours?
3. How might we help citizens find information on where and how to access sustainable choices (e.g. textile repair, electrical recycling, circular SMEs, ...)?
4. How might we support groups and individuals working on waste reduction to network, find spaces to operate in, and increase their impact?