

LCAG Conference Tuesday 22nd October 2024

'Planning for a Resilient Future' - Notes from the Conference

Introduction

The Livery Climate Action Group, founded by Alderman Alison Gowman, celebrated its 3rd anniversary and its 3rd conference thanks to Merchant Taylors' Hall, hosting the event with the Mercers' Livery the City of London Corporation and others as sponsors.

Almost 200 people representing over 59 Livery Companies congregated for an early lunch and the opportunity to peruse stands by The Institute of Physics (promoting their publication '*Physics Powering the Green Economy*'

<https://www.iop.org/strategy/science-innovation/physics-powering-green-economy>),

The Institution of Environmental Sciences and Pollinating London Together, as well as speaking to students from City of London Girls' School, Simon Langdon School, Hugh Myddelton School, St Saviour's and St Olave's School and Walsall Academy.

The Lord Mayor

Following a welcome by Alderman Gowman, the Right Honourable The Lord Mayor, Alderman Professor Michael Mainelli, opened proceedings, keen to emphasise the progress made by the City Corporation through its Climate Action Strategy and proud to point out that London was the first city in the world to bring in a Clean Air Act. He closed with explanations of the role of the City in carbon pricing to encourage reduced emissions as well as innovating solutions such as photochromic paint on roofs to deflect heat absorption.

Setting the Scene

Allan Barton threw down the gauntlet identifying the main challenges facing not only the City but also the world if we do not act to mitigate the impacts of climate change.

- Energy: is there a joined-up plan?
- Water: oceans will rise, are there enough reservoirs?
- Temperature: hotter summers lead to more forest fires, even in London.
- Skills: we don't have the engineers.

The Panels

Four themed panels discussed a wide range of issues facing the City and beyond that need to be addressed if we are to achieve a resilient future. The key ideas from each panel are outlined below:

Water: chaired by Prof Carolyn Roberts with Tim Munday and Dr David Lloyd Owen

- UK Water is aiming to be carbon neutral by 2030 requiring £105bn investment.

- Water poses a ‘wicked problem’ that is poorly formulated and understood with no understanding of the solution or even if one exists. Could the City cut through this and lead on solving the problems?
- Currently London has 100 days of ‘water stress’ per year where water used is greater than water treated and put into the system. The worst-case scenario is population growth and zero action which leads to 360 stress days per year.
- We need to understand the nature of regulation: currently there are two different regulators – one for drinking water which is very effective and one for sewage which isn’t. We need desire, data and delivery and new regulations to drive progress. The City has a big role to play in this – not least raising the money. -.
- Practical opportunities in the City of London including creating leaky dams to slow water flow, sustainable urban drainage systems, blue roofs and the separation of foul and clean water sewage systems.

Energy chaired by Prof Averil Macdonald with Ashutosh Shastri and Jon Clark

- Setting the scene, Prof Macdonald pointed out that London’s Clean Air Act actually only displaced the discharge of smoke and sulphur to Wales, and today, the UK is reducing its carbon emissions by displacing their discharge to China. So much for the west reducing global emissions. The challenge is in achieving net zero by electrification (see the excellent website <https://grid.iamkate.com/>) and the potential of hydrogen.
- Energy security has trumped simple decarbonisation and brought energy resilience into sharp focus. The UK’s priority should be the scale-up of low carbon technologies to achieve optimisation/digitisation. For the City, opportunities should focus on optimising the built environment and positioning London as the centre for energy tech.
- Transition will require significant capital – probably in excess of £100bn. Currently the UK energy demand is reducing while demand worldwide is growing and the money will go to where the greatest opportunities are. The City can play a strategic role in global capital flows. The UK energy sector offers a broad range of investment opportunities from emerging technologies to established long term infrastructure.

Biodiversity chaired by Dr Heather Barrett-Mold with Ben Bishop and Dr Cristina Banks-Leite

- Species extinction is a very real issue with biodiversity loss and climate change inextricably linked via extreme weather events – a butterfly emergency was declared this year which is a notable environmental indicator.

- We need to protect green spaces within cities: a trade-off between urban landscaping vs natural landscapes. Currently urban temperatures are 7°C higher than the surrounding countryside.
- 40% of London's canopy is Plane trees. Pests and pathogens impact these increasingly with heat stress. We need to plant trees now for maturity in 20 years and second guess how they will thrive, or even survive, as the climate changes.
- Biodiversity is a net gain for everyone. Our need to understand better the potential of biodiversity and technology is becoming increasingly important to monitor changes 24/7, and 365 days per year with processing now possible using AI.
- Current mechanisms to increase biodiversity include 'Biodiversity Net Gain' and 'Nature Recovery' strategies.
- Project on acoustic monitoring by Imperial College with the City of London Corporation as an effective and innovative way of collecting data.

Skills chaired by Alex Hughes with Simon Sadinsky and Faiza Khan

- The issue of the skills pipeline exercises minds in all sectors – see report '*Rise in Green Jobs*' 2025 and '*Are Green Jobs for Everyone*' 2025. However, for the new 'green' sectors, the issue is particularly pronounced as the nature of the skills requirements is still evolving: currently 90% don't require a degree.
- There is an opportunity for the City and the Livery to provide bursaries to overcome challenges and to provide opportunities. This will increase confidence and lead to social mobility. We need to attract groups that do not usually see themselves working in these sectors which will increase the diversity of approach to problem-solving.
- The King's Foundation supports 17,000 learners per year and is looking for more meaningful links between industry and education with industry defining skills' gaps and co-designing training. The King's Foundation is seeking to tap into Livery knowledge and contacts.

Walsall Academy

Walsall Academy, a member of the Mercers Academy Trust, spoke about their response to the climate emergency. They both spoke and showed a BBC video about their school describing their Eco Club which highlighted their work. This included creating a new biodiversity garden which they maintained for wildlife and individual refreshment and urging the school authority to put solar panels on the roof. A wide range of small but meaningful community interventions were also described.

Keynote Speaker

Professor Thomas Waite, the Deputy Chief Medical Officer for the UK drew these themes together with a warning of the health risks facing the UK as part of a warming world. Reports [UKHSA 2023](#) & [UKCCRA3 2021](#) outline many concerns but he concentrated on three:

1. Heat stress leading to heat stroke
 2. Water and infectious diseases
 3. Vector-borne diseases
- Heat stroke occurs when core body temperature exceeds 40°C and leads ultimately to seizures. People over 70 are most prone and changes in building design and adaptation are required to mitigate this.
 - Both drought and excess rainfall are problems that raise the risk of infections, eg Cholera, entering the body via the mouth (food or water). The global stock of vaccine against cholera had all been used earlier this year due to excessive demand. We need to prioritise animal husbandry, hygiene and sewage management.
 - Vector-borne diseases eg via mosquitoes are also more worrying as temperatures rise. The Aedes mosquito (carries Zika, Dengue, Yellow Fever) has now moved as far as the north coast of France.
 - Tackling climate change is essential for health.

Conversation – Emma Howard-Boyd.

- Emma Howard-Boyd chaired the recent [London Climate Resilience Review](#). Adaptation and resilience of the urban environment are key and we need to learn from cities around the world.
- The UK is not ready for the impact of extreme heat eg a week at 40°C. London ran its first ‘heat exercise’ this year to plan for the risks.
- The City has been responding to the Review and looks to share its plans and solutions across London working with the Mayor of London and Government.
- The UK also needs to get finance and insurance sectors involved with a notable role for private finance.
- The role of Liveries includes working with schools and caring for their property portfolios as well as reducing their own emissions.