TfL Lane Rental Scheme

Designing the Road to Net Zero

HAUC(UK)/TfL Lane Rental
Industry Publication

Introduction

Climate change is damaging our environment, and our bottom line. In the UK, climate change costs the economy £27bn a year, and worryingly, it is an ever increasing spiral.

Across the globe, climate change is impacting the weather system, leading to increasing wildfires across multiple continents, droughts, and increased storms. The impact of wildfires on the planet is not limited to loss of life, habitat destruction, and an increased demand on resources, it directly adds to the emissions already being produced, thus worsening climate change. Droughts are leading to diaspora and resource instability.

In the UK the impact of increasing storm damage on our infrastructure is leading to extreme damage, and impacting the flow of daily life. The financial impact of storm damage directly affects our Utilities and Local Authorities, through damage to overhead, and subsurface assets, and to our road networks (pot holes, landslips and more).

The impact of rectifying the effect of climate change not only damages our bottom line, it adds further emissions, thus becoming a vicious circle. We cannot wait, the global target of 'Net Zero 2050' will not happen overnight, and by 2030 we need to have almost halved our global emissions (less than 6 years away).

However, all is not lost, while the Street and Roadworks industry may be a small part of the global emissions, through small changes, we can begin to have a positive effect on reducing climate change.

To support the street and road works sector in its transition to zero HAUC(UK), together with Transport for London, set out to research the impact the sector has on climate change.

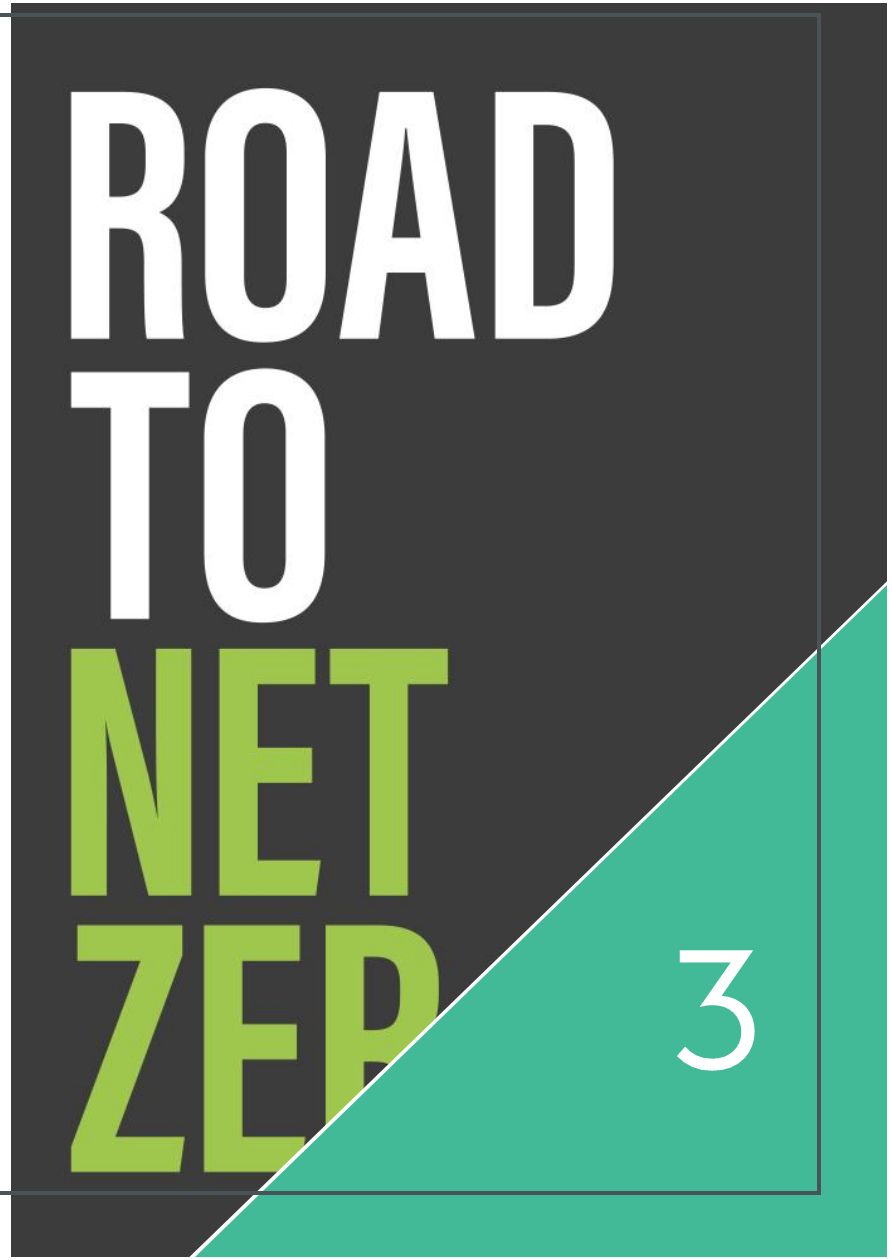
The Project

In order to bring about sustainable change, the industry requires an understanding of the actions needed to minimise the impact of street and roadworks on climate change, while avoiding unintended adverse consequences.

Building on the outcomes of the Discovery Phase, the **Road to Net Zero** project successfully obtained funding to move into the design phase, continuing the work with University of Birmingham (UoB) and EA Technology (EA) as research partners. There were four key themes to this phase;

- Communication
- Emissions
- Tools
- Guidance

The deliverables included revised baseline emissions for the sector, assessing reduction targets as well as a guide for achieving them, sector wide carbon calculator to record/log emissions data developed with the industry, carbon accounting/reporting plan, creation of a wider 'all consequences framework', development of alternative business models and a case for change, supporting future decision making . As part of the communications piece, steering, working and advisory group were established.



Outcomes

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Working with the sector, it was found that between 10-40million tonnes of carbon dioxide equivalent are produced annually based on 2.5m works. As a sector, the tracking of emissions data for street and road works is not standardised, leading to variances.

A review of reduction targets across the sector was carried out to establish an overall target for the sector, which was found to be a 50% reduction by 2040, and a 100% reduction by 2045. The recommendations for reaching these targets include moving to low emission vehicles and machinery, hydrogen and alternative fuels. Key in all of this is collaboration and innovation.

Carbon tracking and accounting, using the Carbon Calculator produced in this phase, will be essential in establishing performance, and monitoring the changes created by the introduction of new methods and technologies.

The all consequences framework created in this phase will provide the industry with a holistic view of the potential impact of works. This will supports the industry in avoiding unintended negative consequences, and not solely focusing on carbon emissions.

In addition, this phase of the project has provided the industry with design options for Street and Roadworks, e.g. trenchless technology, minimum dig, robotics etc and a governance framework has been produced.

Four transformative business models have been created including benefits, policy requirements, and recommendations for implementation of a hybrid model that progressively introduces the most beneficial aspects of all models.

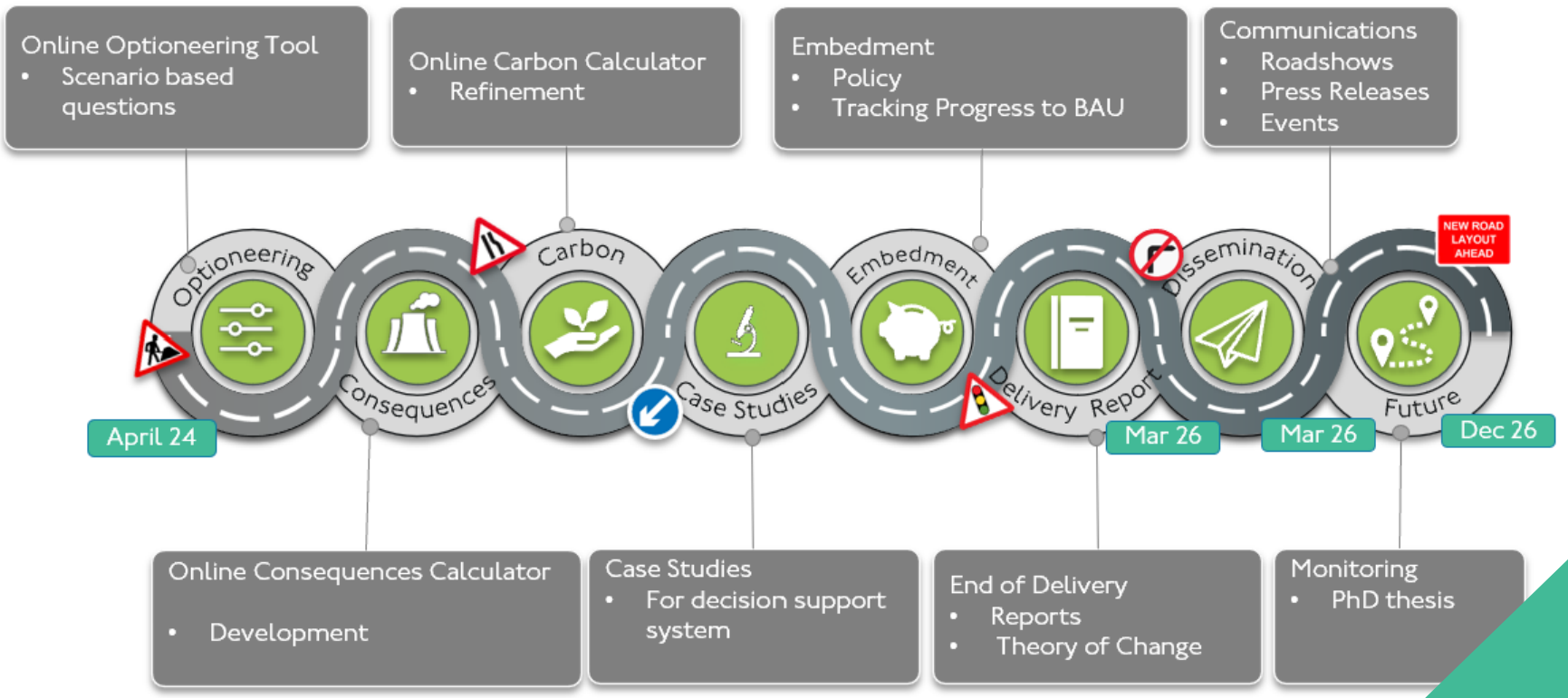
The Project Charter was created, with a number of individuals and organisations signing up to support the project. In addition, the project steering group was further enhanced with increased members, covering a wider variety of organisations undertaking street and road works. An advisory group, consisting of senior sector leaders as well as governments was created to provide high level project support.

Steps for Change

As a result of the design phase, the following areas were identified for further exploration:

- Data collection and tracking, using the Carbon Calculator
- An optioneering tool allowing users to input future works to forecast emissions
- An integrated All Consequences Framework
- Case Studies e.g. new methods of working, new technologies
- The Little Book of Change for Street and Roadworks

The time to act is now, it is essential that the sector takes steps in understanding it's emissions and exploring new ways of working. It is essential that the focus is not solely on carbon, but on the consequences for society, the environment and the economy.



Roadmap

The project recently secured funding for the delivery phase and the roadmap (above) details the remaining phases of the Road to Net Zero project

Conclusion

The Design Phase provided the opportunity to demonstrate how transformation could be achieved by establishing baseline emissions and reduction targets, a prototype carbon calculator and all consequences framework, and multiple methodologies and reports to advise the industry.

There is a passion within the industry to make change, however, until the project commenced, many were operating in isolation. Through the work in the Design Phase, the industry as come together to move forwards, through collaboration and innovation.

To maximise on the work of the industry so far, the project has acquired further funding for a delivery phase.

Commitment can be given to the project by signing the Charter via the project website or by scanning the QR code right of screen. **Be a hero for Net Zero?**

The dinosaurs could not prevent their extinction, humans can,

Author

- HAUC(UK)/TfL www.roadtonetzero.org.uk
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- Email: LaneRentalFunding@tfl.gov.uk