Related programmes and teams
Data-centric engineering
Research Engineering

Helping London to navigate lockdown safely

"There was an urgency and a passion among our team to contribute to the fight against the virus. We wanted to help in whatever way we could."

Theo Damoulas
Leader of Project Odysseus and Turing AI Fellow
The Alan Turing Institute

"This collaboration has not only succeeded in knowledge transfer, but has also created a lasting legacy that we intend to build on."

Paul Hodgson
Senior Manager for City Data
GLA's City Intelligence Unit

As the pandemic took hold in spring 2020, a team in the Turing's data-centric engineering programme began to monitor activity on the streets of London. Their goal: to understand how lockdown was affecting city life, and what interventions were needed to allow the city's nine million people to keep socially distanced.

Named **Project Odysseus**, this was a rapid repurposing of an existing project that had been combining data from various sources in order to estimate and forecast the city's air pollution. Working with the Greater London Authority (GLA) and Transport for London (TfL), the team modified its air pollution algorithms, feeding them with data from London's traffic cameras and sensors to estimate pedestrian and vehicle densities and distances. The Turing's Research Engineering team also played a crucial role by honing the infrastructure that had been developed for the air pollution project, so that the data could be processed quicker and more securely.

The result of the work was a piece of software (an 'Application Programming Interface') that the authorities could use to analyse the anonymised, near real-time data, allowing them to monitor pedestrian density and make social distancing interventions where required. TfL says that it implemented over 700 such interventions at the height of the pandemic's first wave, such as moving bus stops, widening pavements and closing parking bays, and that the Turing's tool provided key data for those decisions.

Looking forward, the researchers are hoping to work with the GLA to monitor high street activity as London recovers from the pandemic, to help understand how social and commercial activity has been affected.