

# Product Summary

Simplifai Systems mission is to solve the world's traffic problems through the application of artificial intelligence.

The traffic management industry relies upon systems with a replacement cycle of 10 to 20 years, that often use expensive and outdated technology. These systems are typically designed to reduce journey time or delay and are most effective in small, localised areas where the traffic flow is predictable. Such systems are unable to tackle a range of traffic-related problems and cannot cost-effectively scale to provide effective traffic management for large cities. On their own, they are no longer suitable for traffic management in the modern age.

Through a long-term collaboration with Huddersfield University, Simplifai Systems has developed a novel approach to traffic management that works alongside existing systems, sensors and smart city technologies to improve their effectiveness.

Using artificial intelligence, Simplifai generates real-time traffic control strategies to solve complex issues that are currently poorly managed. It uses a flexible, goal-oriented approach that allows it to tackle many different traffic problems through simple software configuration and AI reasoning, rather than new hardware deployment. For the moment, it changes traffic lights across a city to achieve a particular goal, through the manipulation of traffic flow and road occupancy. In the future, it could control any aspect of public or private transport infrastructure.

Simplifai solves the following common problems:

- Relieving routine or unexpected congestion
- Rapidly moving people to and from major events such as concerts or sports matches
- Reducing air pollution or redistributing it to areas where it causes less human harm
- Maintaining effective traffic flow around roadworks or traffic incidents
- Getting people home safely in advance of inclement weather
- Evacuating a city in an emergency

It can be used directly by authorities with a responsibility for traffic management or traffic-related impact such as air quality. It supplements the services offered by existing traffic management providers - including traffic modelling, supervision and control. An ideal companion for smart cities, Simplifai can also be used in an algorithm-as-a-service environment.

The primary benefits of Simplifai include:

- Up to a 20% improvement over existing traffic management techniques
- Leverages existing capital investment in sensors, controllers and other transport infrastructure - so no need to purchase new equipment
- Augments existing traffic management software, including any investments already made in smart cities technology - so no need to decommission your existing solutions
- Operates at city-scale - which cannot be effectively achieved by existing traffic management products
- Goal-oriented - you can rapidly and continuously change your traffic management objectives through simple software configuration