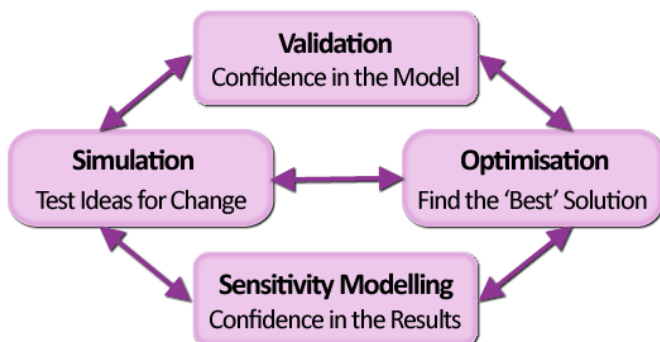


Contingency Planning for London

The Challenge

- London Fire and Emergency Planning Authority (LFEPA) identified the need for a piece of work to underpin the development of specific contingency plans for periods of limited appliance availability.
- ORH was asked to provide expert advice on the location and tactical deployment of front-line resources given a range of 'what-if' scenarios.
- The outputs of the work needed to inform the development of the Service's contingency plans, allowing a more resilient service to be planned.



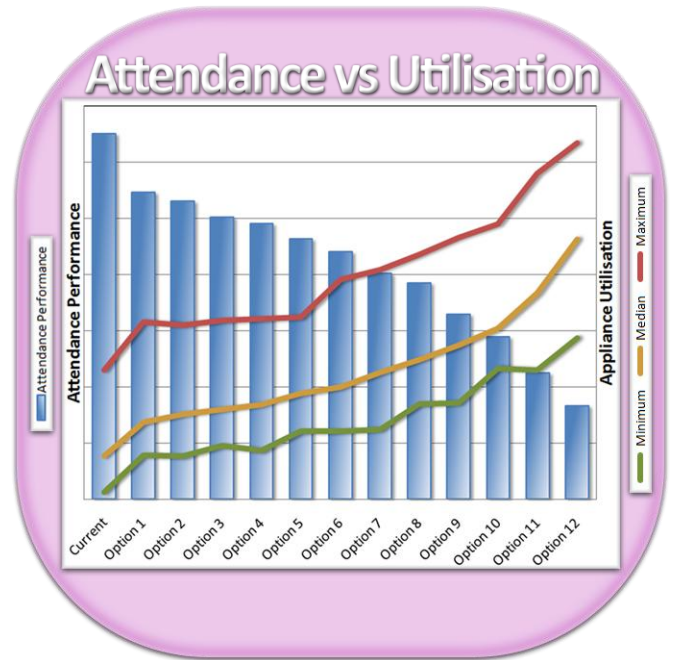
Approach

- Senior officers and ORH consultants developed thresholds for acceptable attendance performance during periods of limited appliance availability.
- ORH's powerful optimisation tool, OGRE, was used to identify optimum locations for appliances, evaluating which stations were most suited for housing one or two appliances, or being left empty.
- ORH's Fire Simulation Model (FSM) was then used to assess the minimum number of pumping appliances required in order to reach the agreed thresholds.



The Solution

- The results for a series of modelled options were provided, corresponding to different levels of appliance availability, appliance utilisation and attendance standards.
- For certain options with low appliance availability, the impact of changing PDAs was modelled so as to inform policy.
- Thresholds were identified for triggering implementation of different levels of operational contingency.
- The solutions generated then informed the development of the Service's contingency plans.



Station Rankings

Station	Deployment Options					
	Decreasing Number of Available Appliances					
Station A	✓	✓	✓	✗	✗	✗
Station B	✗	✗	✗	✗	✗	✗
Station C	✓	✓	✓	✓	✓	✗
Station D	✓	✓	✓	✓	✓	✓
Station E	✓	✓	✗	✗	✗	✗
Station F	✓	✓	✓	✗	✗	✗
Station G	✓	✗	✗	✗	✗	✗
Station H	✓	✓	✓	✓	✓	✓
Station I	✓	✓	✓	✓	✓	✗
Station J	✓	✓	✓	✓	✓	✓
Station K	✓	✓	✗	✗	✗	✗
Station L	✓	✓	✓	✓	✓	✓
Station M	✗	✗	✗	✗	✗	✗
Station N	✓	✗	✗	✗	✗	✗
Station O	✓	✓	✓	✓	✗	✗
Station P	✓	✓	✓	✓	✓	✓
Station Q	✓	✓	✗	✗	✗	✗
Station R	✓	✓	✓	✓	✓	✓
Station S	✓	✓	✓	✓	✗	✗
Station T	✓	✓	✓	✗	✗	✗

Benefits

- A strategic network of stations was identified for periods of limited appliance availability that were integrated into the Service's contingency plans.
- The impact on appliance workload of a number of potential options was quantified.
- The outputs of the work have given the Service confidence in being able to deliver robust operational resilience during periods of limited appliance availability.

