## » Richard Wilding ine ogistics of the Professor of Supply Chain Strategy Games

he Olympic Games will be Britain's largest peacetime logistical exercise. It is the equivalent to running 26 simultaneous sporting world championships at the same time. It is anticipated that 9 million spectators will attend the main Games and 2 million the Paralympic Games. In total over 300,000 athletes, officials, media and workforce will also be in attendance.

London tourism chiefs are anticipating 500,000 people will be looking to stay in London during the three month period the Games are running. The implications of the Games on logistics will be significant. For Central London at 'steady state' deliveries and collections make up 17% of the traffic rising to 25% of journeys from Monday to Friday.

This equates to 281,000 freight journeys delivering goods. The Olympics will require an additional 1 million items of sports equipment and 250,000 items of luggage to be moved and managed. You then need to consider feeding and housing all of the additional people.

The complexity of the Olympics logistics operation is the responsibility of UPS, the official logistics partner of the Games. UPS has moved 10,500 beds sourced in China and Malaysia through the supply chain and has secured 80,000 square meters of warehousing space to accommodate the demands of the Olympics. They have the unenviable task of managing the 'last mile' into the Olympic venues. Loads are brought into warehouses, unloaded, checked and X-rayed for security purposes before being loaded onto vehicles to be sent into the venues.

But what goes into the venues also needs to come out. Decommissioning of the Olympics is also a significant challenge involving retrieval, return to warehouses and disposal.

In order to ensure efficient flows of people and goods considerable analysis and planning has to take place. As the Games commence, two goals need to be achieved: provide an excellent Olympics experience for everyone, but keep London and the UK moving so business can continue as usual. The chance of gridlock occurring within London at the time of the games is very small. London's transport systems are well used to high volumes of traffic. 1.1 billion tube journeys per year take place which is comparable to all the journeys on the rest of the UK's rail network. Half of all bus journeys in England take place in London. However, with such a surge in demand, plans are in place to ensure smooth flows of goods and people. An Olympic Route Network is being implemented which is effectively a mass transit corridor to serve the Olympics.

London has a road network of 9200 miles. the Olympic Route Network consists of a total of 109 miles (1% of the total) stretching across London which can be used by the vast majority of vehicles, but mainly buses and large vehicles. There is only 30 miles of Games lanes dedicated to athletes, officials and special traffic. So by reserving 0.3% of the network for the Games it is anticipated this will actually reduce the pressure on the rest of the network and therefore make movements faster for everyone.

Extensive logistics modelling has been undertaken to identify the pressures on the road and transport networks during the Games. This modelling looks at 30 minute time windows, 24 hours a day for each day of the Olympics. This identifies potential 'hot spots' in the network enabling these to be avoided at certain times. This data is being made readily available to all via websites. The models and simulations take into account previous data and run scenarios. For example, it is known that school holidays reduce demand by 10% and when other major events in London take place different modes of transport are utilised, so typically a 20% reduction in road traffic may occur. The modelling has identified that 70% of Central London will be unaffected during the games.

Businesses need to plan to ensure 'business as usual' can continue. When considering the movement of goods, deliveries and collections the motto of: 'Reduce, Re-route, Re-time and Revise mode' has been developed.

**Reduce** - Where possible consolidate and join multiple orders into a single delivery to reduce journeys. Why not collaborate and coordinate with neighbouring business to share deliveries? This will also reduce individual organisation costs and the amount of CO<sup>2</sup> created saving money.

**Re-route** - By identifying the traffic hot spots using the freely available planning tool, identify if it is appropriate to re-route deliveries perhaps using different depots to supply from or perhaps different suppliers. This will save time and  $CO^2$ .

**Re-time** - Arrange out of hours deliveries when roads are quieter, plan to receive deliveries outside the busiest times. But also ask what can be supplied before the Games or even after. Stock up on non-perishable items in advance and carry out preventative maintenance of vehicles and other resources to ensure everything runs smoothly.

**Revise-mode -** Where possible, look to use different transport and delivery modes, try cycling or walking couriers for small deliveries. Use 'driver's mates' to minimise drop off parking by enabling them to 'jump out' and deliver. Use secure drop boxes for smaller items.

These actions may provide a surprising legacy from the Games, forcing the logistics and transport industry to innovate. Changes to the industry generated by this event may have lasting impact by reducing costs and increasing the sustainability of transport operations for years to come. MF

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## The logistics of the Games

School of Management (SoM)

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