

Effective Risk Management Keeps London Underground's Projects on Track

By Colin Wheeler

When it opened in 1863, the London Underground was the world's first underground railway. Today, this vital metro system provides over 3 million passenger journeys a day to and from 275 stations. "The Tube" stretches over 400km and requires over 12000 employees to operate and maintain the network. The London Underground is crucial to the economy of London (and indeed the wider United Kingdom).

The Challenge

To manage a diverse set of risks across a multi-million dollar project portfolio. London Underground controls vast portfolio of commercial property across the city, including commercial offices, warehouse facilities and, of course, the stations themselves.



The Facilities Division is responsible for the maintenance and upkeep of the property portfolio. This clearly entails the management of a wide ranging and constantly changing set of risks. In addition, Facilities Management is required to identify and procure new buildings to support the overall corporate strategy of extending the hours of operation of the Tube.

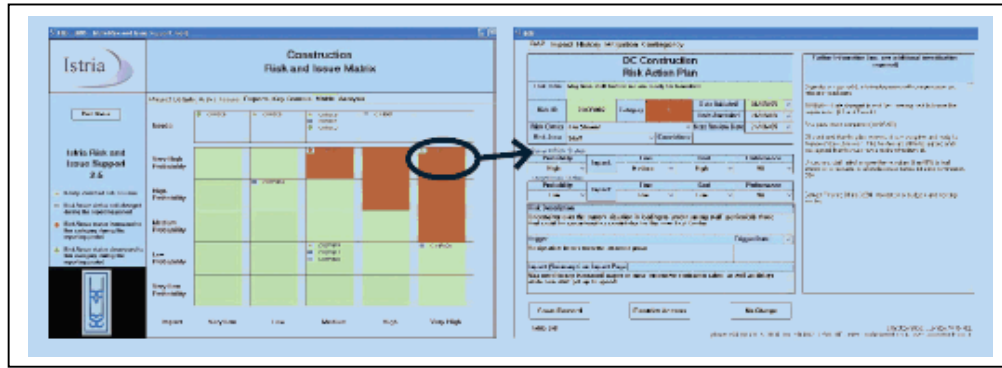
The project portfolio ranged from the refurbishment of existing buildings to the end-to-end acquisition, construction and fit-out of new build properties. The majority of sites were also impacted by Health & Safety legislation with the associated suite of increased risks to the organisation.

The Solution

The solution included design of a robust risk management process and use of a software tool to ensure help embed the process in the wider organisation. London Underground needed to improve its ability to identify, evaluate and manage risks in the organisation. It employed Istria Ltd, a specialist risk management consultancy firm to evaluate the problem and implement a robust risk management solution.

In the first instance, risk management processes needed to be evaluated and, where applicable, redesigned. More crucially, however, these processes needed to be embedded in the organisation and implemented effectively long after the consultants had moved on.

LU again turned to Istria, who have developed the IRIS (Istria Risk and Issue Support) software to help embed the good risk management processes that had been set up. As the tool had been developed by a group of risk managers rather than an IT firm, it focuses on the critical risk management issues.



Through implementing the software, LU found that it benefited from being able to:

- Align risk management activity with programme and corporate objectives
- Maintain a dynamic "heatmap" risk matrix, instantly identifying the high priority risks and providing a snapshot of the overall position
- Quantify risk exposure through robust statistical analysis (Monte Carlo simulations and the @Risk package are embedded within the tool)
- Demonstrate a secure audit trail of risk management activity to both internal and external auditors

The Reward

An improved ability to identify, manage and quantify risk exposure, along with more cost-effective and focussed risk management activity.

Implementing a software tool meant that LU were able to practice what Istria had preached long after the consultants had left the organisation. The tool had embedded the process in the organisation and meant that good practice was not diluted by time or staff churn.

London Underground's Risk Manager for the Facilities Division commented *"IRIS helped London Underground derive major financial and performance benefits. The combination of the easy to use interface, the dynamic risk registers and @Risk Monte Carlo Simulations provide a powerful combination."*

The tool provides LU with the ability to assess the benefits of implementing risk mitigating activity against the costs of doing so. Over a thousand iterations of any scenario are run through the Monte Carlo engine in a few

seconds, providing LU with results to a pre-determined level of statistical significance. LU can therefore be confident that it only spends money on mitigating risks where there is a statistical likelihood that their risk exposure will be sufficiently reduced.

The Risk Manager at LU concluded, *"IRIS is a powerful tool to support decisions on the feasibility of potential projects and to drive forward the identification and selection of options in complex, uncertain scenarios"*

For more information on this case study, go to www.istria-ltd.com or email info@istria-ltd.com



Colin Wheeler



Colin Wheeler has over two decades of experience in the field of Risk Management and is now Technical Director with Istria Risk Management Solutions. He is a leading member of the UK Risk Management community, acting as the UK Risk representative of the Programme Management Institute and a Subject Matter Expert for the rewrite of the OGC's Management of Risk Module. Colin has extensive experience of conducting risk management consultancy and training in both the public and private sector. Previous clients include the Ministry of Defence, the UK Passport Office, the National Health Service, British Telecom, DHL and Transport for London. Mr. Wheeler played a major role in creating the leading edge risk management software, IRIS, a user friendly tool that uniquely combines qualitative and quantitative techniques into a single application that facilitates decision making, automates processes and provides a secure audit trail of risk management activity.

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