



# T5 Secrets of Success

A £4.3bn Program Delivered  
on Time and on Budget

Heathrow Airport's Terminal 5 was one of the largest infrastructure and construction projects in Europe. It comprised a complex web of 16 major interconnecting projects and 140 sub-projects.

The scope of the project included the 270,000m<sup>2</sup> main terminal building, two satellite buildings (each the size of Terminal 4) and a new 87 meter high control tower to serve all of Heathrow.

Supporting infrastructure works included a major tunnelling program to connect T5 with existing terminals, a new transport interchange, the extension of the Heathrow Express and Piccadilly train lines, two river diversions and a dedicated spur road off the M25 motorway.





## A major achievement

This massive program involved 50,000 people from 20,000 companies. Whilst the initial headlines in the press focused on the operational issues in the opening few weeks – particularly around the major baggage handling problems – the actual construction of the terminal and supporting infrastructure was a huge success, delivering a £4.3bn program on time and on budget.

This was particularly impressive considering the project was designed in the 1990s, with industry norms suggesting it should have been delivered over budget, late, to a low quality standard and with safety issues during construction. Berlin's Willy Brandt Airport, a redevelopment which is both well over budget and program, provides a useful benchmark.

## The heart of the program

Thinc was involved in managing the completions phase and EC Harris was right at the heart of successfully delivering the £4.3 billion program, working closely with BAA and its suppliers across all 16 interconnecting projects. Thinc has a strategic relationship with EC Harris – sharing expertise and capability to deliver the best possible client outcomes across Asia Pacific – and in this article we explore what made this mega-program such a success from both perspectives with Tracy De La Rosa and Mark Utting.

Tracy previously worked for five years with EC Harris on the T5 program and held various roles at both the project and program management office level. She currently works for Thinc as a Senior Consultant at Brisbane Airport. Mark was Thinc's UK Operations Manager whilst the firm worked for BAA and currently heads up Thinc's High Performance Teams division.

We started by asking Tracy to summarise what made the program such a success:

“BAA's key objectives were delivering T5 on time, on budget and to high quality and safety standards. This was a significant challenge considering the size and scale of the project and the number of stakeholders involved. It's difficult to condense the 'success factors' on such a complex project, but I believe there were four core reasons – the team structure, the culture, effective communications and strong leadership.”



“ One day you’ll  
be proud to say  
– I built T5.”

## The secrets of success

### 1 Structure - Effectively setting the team up for success

A Program Management Office was set up with overall control of the program at a high level. The consultant team worked in partnership with BAA to support the establishment and implementation of a comprehensive time and cost project controls solution across all of the 16 major projects.

This allowed each project and sub-project to have real time reporting on cost and schedule performance which enabled timely and accurate decision making at a higher level. Once the structure was set up, effective interface management at the various program and project levels was absolutely crucial to the overall success of the program.

### 2 A collaborative high-performance culture – underpinned by the T5 Agreement

Underpinning the whole program was the T5 Agreement, which created a collaborative, high-performance culture. Unique in the construction industry at the time, it was a ground-breaking contractual and behavioural framework between BAA and each of its first tier suppliers. It created an environment for success through BAA holding all the risks throughout the program. This allowed integrated teams of suppliers to act as one, focusing on solving problems rather than allocating blame. It valued behavioural and cultural issues of equal importance to technical competencies. Although some its critics claim the agreement was costly for BAA, the program was delivered in budget and there is no doubt that the high-performance approach it fostered was fundamental to the program’s success. As Tracy explains:

“The outcomes of the T5 Agreement were significant. For example, it enabled integrated teams in recovery planning, value management and risk management to identify and secure over £200 million worth of savings for BAA. EC Harris also led a value mapping process which generated a further cost saving of over £100 million. The agreement definitely encouraged collaboration and problem-solving and I’m not sure this would have happened under more traditional contractual methods.”

“The T5 Agreement was pioneering in terms of its approach to relationships and cultures,” says Mark Utting, “and it was absolutely crucial to the success of the program. Quantifying, monitoring and controlling communication and relationship risks, just like any other technical risk, is fundamental to creating a high performance culture and the T5 approach was incredibly innovative at the time. T5 proved that you can take the ‘hit and miss’ out of high performance team building on a massive scale.”

### 3 Effective Communications

Effectively communicating with and engaging stakeholder groups in a collaborative and transparent manner from project outset is vital to maximising a project’s potential. Tracy says the internal communications on the T5 program were excellent and a key ingredient to its overall success:

“All too often communications and stakeholder engagement is considered at the early stages of project planning, but quickly loses traction as a project progresses into the delivery phase. On a massive project such as T5, communication was even more important than usual. The communications team did a superb job of effectively underpinning and reinforcing the high-performance culture, as well as sharing successes and lessons learnt to encourage development.”

“The value placed on employee relations was refreshing and clearly demonstrated the importance of people to the project’s success. Every member of the team was valued and rewarded for their efforts and there was a strong emphasis on safety.”

### 4 Strong leadership

Although he left BAA during the program, Tony Douglas was widely praised for his inspirational leadership and his approach to taking on the construction risk. As Mark explains:

“Tony Douglas’ leadership style was fundamentally collaborative and his innovative approach to risk won BAA goodwill and respect from its suppliers at all levels. This was undoubtedly a key ingredient in the success of the program. Project/program leadership – and its impact on human behaviour – is all too often overlooked and poor leadership can lead to a toxic contractual project culture.”

## Ahead of its time

A project of T5's scale and complexity does not come around every day and naturally it had its share of challenges, but impressively the team managed to avoid a budget blow-out and supplier problems so often associated with mega projects.

Tracy concludes "The project was unquestionably ahead of its time. Terminal 5 certainly was 'history in the making' and the lessons from T5 are invaluable for any client embarking on a major capital program." ■



## To find out more, contact:

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Tracy is a Chartered Quantity Surveyor who specialises in delivering structured and forensic cost and commercial management services on large programs. She has significant aviation sector expertise, having worked on Heathrow's T5 at both the program management office and project level. She is currently helping Brisbane Airport Corporation deliver its major capital program and providing strategic advice on the Nadi Airport modernisation project. She is absolutely focused on driving the best possible cost outcomes for her clients.

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Mark is an accomplished Project Manager with qualifications in construction management and 18 years' experience in the industry. This extensive experience within the project environment has enabled Mark to develop a true understanding of what is needed to build trusting and respectful stakeholder relationships and inspire project teams to perform at their very best. He boasts an astute appreciation of stakeholder management and has successfully led large scale and highly complex project teams to achieve the best possible project outcomes, including the conservation of Westminster Abbey, the \$1.2B Darwin City Waterfront Regeneration project, and the Adelaide Convention Centre redevelopment.