Overview

Seeking to offer the best-rated airport service in the world, Heathrow has invested £11bn over the past 10 years in building and opening Terminals 5 and 2, as well as making significant upgrades to the other terminals.

Part of this major transformation programme is the implementation of a Heathrow-wide integrated baggage-handling system capable of handling 110 million bags a year. And a key part of that system is the £500m Terminal 3 Integrated Baggage (T3IB) system. This unique, state-of-the-art vertical facility uses a mix of proven and new technology, including robotic automation, to manage all of the terminal’s baggage under one roof. A project encompassing construction, technology and major business change, it has delivered real and tangible results for passengers.

Objectives

With one-third of Heathrow passengers connecting from one flight to another, the majority of connections being between Terminals 5 and 3, it is critical to ensure that connections are easy and fast, with the aim of keeping every passenger with every bag, every time.

A new dedicated baggage system for Terminal 3 that was integrated with Terminal 5 would further improve minimum connection times. It would also provide the opportunity to upgrade the Terminal 3 baggage facility and work environment, which was out of date and noisy, with inefficient processes and sub-optimal handling practices.

Delivery and governance

A cross-organisational leadership team made up of 10 programme leaders met on a weekly basis to track progress, plan and validate milestones. In addition, the programme had an 80-strong supply chain and client team, and a site presence of up to 400 at the project’s peak.

T3IB was a highly complex programme, involving new ways of working, new technology and new equipment, all within a new facility. An extensive operational-readiness strategy
ensured people, process, systems and
the facility all worked together and
were ready to go live.

This required consultation with,
and the buy-in and involvement
of, multiple global stakeholders,
including airlines, baggage handlers
and operations teams, as well as legal,
security, safety and performance.

The team created a ‘baggage
roadmap’ for sign-off by key
stakeholders that illustrated the
business-change journey and that
set out an agreed schedule of what
would happen and when. The robust
governance structure ensured all these
audiences were kept informed and
engaged throughout every stage.

Stakeholder management and testing
Effective communication and
engagement with the airlines and the
baggage handlers about the level of
automation being brought in was vital.
Change champions, mobile roadshows,
regular newsletters, and an animated
brochure and movie were all tools
used to make sure the stakeholders
understood the new processes and how
T3IB would benefit their operation and
their business.

To build operational confidence,
trials were set up using semi-automated
devices and robots in existing baggage
halls and supplier Vanderlande’s
test facility in the Netherlands. This
early proving enabled the teams to
identify and solve a whole range of
issues in advance.

In addition, a dedicated T3IB
training suite enabled the handlers
and operations teams to get up to
speed with the new equipment and
technology well in advance of roll-out.

Challenges
Real-estate constraints at Heathrow
meant that T3IB had to be built
vertically, surrounded on all four sides
by live operations.

Given the huge volume of air and
passenger traffic that flows through
Heathrow every day, it was vital
that works did not disrupt everyday
operations. For example, a steel-
framed bridge that conveyed luggage
had to be moved overnight in a window
of just five hours so that an existing
baggage facility did not have to
shut down.

Project successes
Taking on board lessons from the
2008 opening of Heathrow’s Terminal 5,
the team delivered a phased transition
of the new facility for affected airlines
and handlers, hitting the agreed
deadlines of March 2015 to June 2016.

People, processes, infrastructure and
technology have been brought together
at T3IB to keep baggage flowing
smoothly. A bag from Terminal 3 now
only takes 10 minutes to go through
the tunnel to Terminal 5.

The new dedicated facility is
much more efficient, provides an
improved work environment for staff
and is a pivotal part of Heathrow’s
plan to revolutionise the way it
manages baggage to enhance the
passenger experience.
The APM Project Management Awards have been celebrating project management excellence since 1993, and the broad range of categories is designed to make entry possible for projects and companies of all sizes and complexity.

The awards reflect the invaluable contribution that project managers make in all sectors of society and the event provides an opportunity for industry professionals to meet with colleagues and entertain guests, as well as celebrate at one of the year’s most exciting events. Highly regarded in the project management industry, the awards reflect the dedication and talent that helps to shape the project management community and the world around us.

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