

## Resource type: case study

### From T5 to Heathrow Expansion

Heathrow's journey to becoming a Capable Owner started with the learning from the collapse of the Heathrow tunnel – they had to do things differently. T5 set high standards in terms of specification and conception and aspired “to deliver the world's most successful airport development”. Challenging civil engineering problems in a very tight site melded with the ambition to achieve an architectural statement for the principal international gateway to the UK. The BAA programme team consciously set out to improve on the performance benchmarks of major projects and the context for achieving this vision was the cultural change facilitated by the T5 Agreement. Born from the traumatic experience of the Heathrow Express project, BAA decided that as it effectively held the risk on the T5 programme in any case, it might as well formally take that risk through the contract, thereby motivating collaborative behaviour from suppliers when the going inevitably got tough. This approach was honed through the development of the Queen's Terminal 2, and is now moving forward with the preparations for Heathrow Expansion.

Heathrow learned from T5 the following key lessons:

- The Capable Owner needs to take most of the risk on the programme most of the time;
- The Capable Owner builds a team capable of mitigating that risk;
- The Capable Owner takes full accountability for the programme;
- It also learned the importance of the performance management of the supply chain from Crossrail.

Heathrow now has greater maturity than BAA had for T5 because it understands that the expansion programme is about running a business, not about launching a megaproject. With this, and the lessons from Terminal 5 construction, in mind, Heathrow set about planning for how it will deliver Expansion in a transformational way. This plan is set out in the Heathrow Expansion *Delivery Model*, which defines how the Heathrow team plans to deliver an affordable and financeable Expansion; whilst being innovative, sustainable and fulfilling their commitments. This model was created with the intentions of creating:

- Improved performance
- Improved, sustainable returns for shareholders, airlines and delivery team
- Improved management of risk

which in turn has the following benefits of:

-  XX% Cost
-  XX% Time
-  XX% Health, Safety and Wellbeing
-  XX% Environment
-  XX% Operations and Passenger Experience

Heathrow’s approach to the Delivery Model is summarised in the Acropolis in figure 1, in which every box represents a high-level chapter of an overarching document which outlines Heathrow’s new way of working as an integrated delivery team.

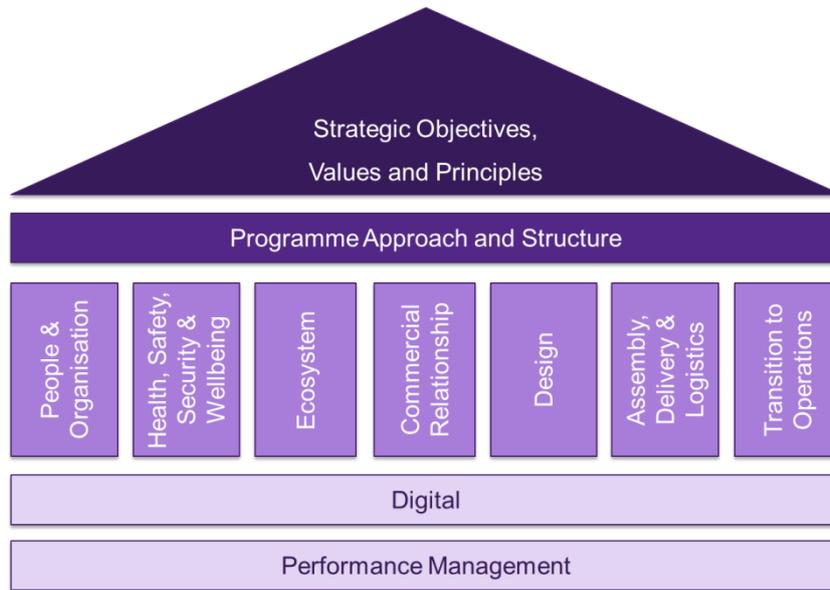


Figure 1: The Heathrow Acropolis

Two outputs of this new approach which demonstrate how Heathrow is looking to deliver Expansion in a more innovative way are the Logistics Hubs and Innovation Hub.

**Logistics Hubs:**

Heathrow has set out the procurement strategy and has long-listed 65 sites selected across the UK as potential Logistics Hubs for the expansion of the airport. Four locations will eventually be selected to pre-assemble components of the expanded airport before transporting them in consolidated loads to Heathrow. Logistics Hubs is a wide and broad initiative which depends on a network of organisations engaging with each other, government agencies, suppliers and other owners. Logistics Hubs are off-site facilities that deliver:

- Efficient and affordable expansion. Logistics Hubs can be used for pre-assembly and will be situated closer to the suppliers;
- Strategic, economic and social benefits such as re-balancing economy, attracting a different market, social value for workers on site;
- Faster delivery and unlocking the benefits of the expanded airport through pre-assembling components driving up productivity, vertical integration between suppliers, and cutting down on re-work on site;
- Creating a platform for sustainability which feeds into the Heathrow 2.0 plan for sustainability growth;
- Supporting existing operations to provide the best passenger experience in the world. It is a process of marrying off-site logistics with on-site logistics, creating the ecosystem of value.

The Logistics Hubs will ensure that people from across the UK benefit from the expansion of the airport. By collaborating with other major infrastructure owners there is a potential for them to benefit and together support off-site manufacturing and build a Learning Legacy.

Maya Jani, expansion procurement director, is leading the process. She argued that there is a need to create a culture that de-motivates working on site and motivates working off-site throughout design because design is going to be intrinsic to this. Maya further reflected that:

*“For me it is about creating value which is at the heart of Logistics Hubs. You should be able to plug it in and it should work. And for the passengers to feel that there is no construction going on here at all, but things are just happening.”*

### **Innovation Hub:**

In Heathrow innovation is defined as a new product, service or business model that is a step change and creates value, e.g. financial value, environmental value, societal value, job creation etc. It may be new to Heathrow but not necessarily new to the World. Innovations are driven by the external influence (top-down innovations): industry targets, changes in the regulations etc.; and problems that come from customers' insights or operational issues (bottom-up innovations) where there is a need for an innovative approach.

There are numerous examples of innovative initiatives in Heathrow such as common use self-service kiosks, automated ticket presentation, the Airport Operations Control Centre (APOC), self-bag drop: trials and initial deployment in T5, self-boarding gates in T2B & domestic ones in T5A. Yet there are some innovation challenges at Heathrow: a lack of a coordinated approach; multiple areas looking at the same innovations; the challenges of harnessing innovative ideas; innovative ideas being 'stuck' going through governance; employees not feeling there is a culture of innovation and not being given time and permission to do it. An updated approach to innovation is to create a culture of innovation where everybody feels innovation is part of their day job and they feel empowered to make it happen. Therefore, the Innovation Hub, a network of innovation agents responsible for moving ideas forward at pace through the support of the executives and sponsors, has been created. Colin Mair, Head of Innovation at Heathrow is the leading Innovation Agent who defines the Innovation Hub as:

*“A support and communication network for people wanting to be more innovative and who have innovative ideas or challenges, and need help to unlock them. The way we do that is by connecting you with people who think similarly, or you can learn good practices from and share ideas. By providing some services, we can give you some tools on writing your challenge, articulating it, prioritising your set of challenges, facilitate workshops.”*

The Innovation Hub is an attempt to improve communication, improve knowledge management, and create a network of innovation agents, people within different departments or strategic programmes, who feel that they are the people who are trying to coordinate ideas for future products, services, business models, and developments. Innovation agents are nominated within departments who are active individuals to whom organisational members take challenges, opportunities and ideas and bring them to the Hub or other agents. Innovation agents get together regularly to talk about progress on three main areas: challenges, opportunities and ideas. Challenges are problems to be solved; opportunities are possibilities and ways to make changes; ideas are solutions to be

implemented either for challenges or opportunities. Figure 1 shows ways innovation is operated and supported by an Innovation Hub in the organisational journey.

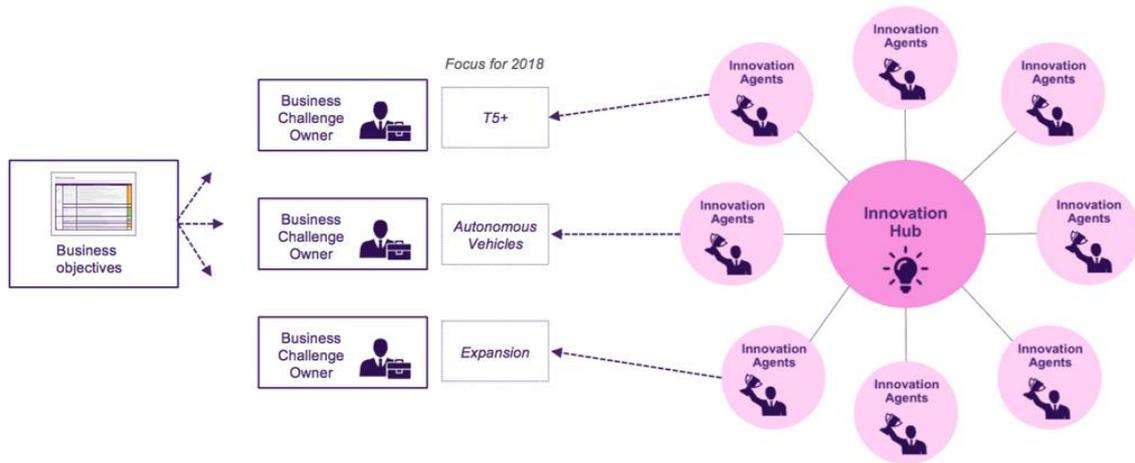


Figure 1 The ways innovation is operated and supported by an Innovation Hub at Heathrow