Q&A

WITH HUW THOMAS, PARTNER AT FOSTER + PARTNERS, IN CHARGE OF THE THAMES HUB PROJECT

Q1 LORD FOSTER IS CHAMPIONING THE PROPOSALS BUT WHO ARE THE TEAM BEHIND IT AND WHOSE IDEA WAS IT?

The idea of locating an airport in the Estuary has been around for decades, but our proposal is unique for its spine and for its integration with a new orbital rail network. Our team is made up of Foster + Partners, infrastructure consultants Halcrow and economists, Volterra Partners.

Q2 IF REALISED, THE THAMES HUB WOULD REPRESENT PERHAPS THE MOST AMBITIOUS UK PROJECT OF THE MODERN AGE. HOW WOULD A PROJECT OF THIS CALIBRE BE UNDERTAKEN – WHERE WOULD A PROJECT MANAGER START?

The initial priorities are to guarantee political will for the project, which means identifying key national as well as local benefits. In tandem, they would need to achieve a secure indication of cost and to establish a robust financing strategy. The next stage would be to explore the necessary planning processes for a project of this scale.

Q3 WHAT ARE THE TIME SCALES FOR THE PHASES AND WHAT DO THE PHASES ENTAIL?

We envisage project planning within this parliamentary term to allow submittals for approval at the start of the next parliament – the new barrier, rail orbital and airport are relatively straightforward in this respect.

Q4 WITH SO MANY STAKEHOLDERS INVOLVED HOW WOULD YOU ENSURE THAT THE PROJECT IS DELIVERED ON TIME, ON BUDGET AND WITH MINIMAL DISRUPTION?

As recent projects such as Crossrail and the London Olympics show, the UK has well-developed mechanisms for embracing multiple stakeholders in planning and delivery – we will draw on these skills.

Q5 HOW CLOSE ARE YOU TO MAKING THIS PROJECT A REALITY?

We believe that with political will, the project is eminently deliverable. There are persuasive arguments – it has the potential to unlock economic benefits for this generation, as well as securing Britain's competitive position internationally.

Q6 WHAT ARE THE PROPOSED COSTS OF THE THAMES HUB PROJECT?

The costs are £20 billion for the rail network, £20 billion for the new Estuary airport, £6 billion for the new flood protection barrier and £4 billion for local infrastructure and environmental mitigation.

Q7 WITH FEARS OF A FRESH RECESSION ON THE HORIZON, IS NOW THE RIGHT TIME TO INVEST IN SUCH A PROJECT?

Now is the right time. There is no shortage of money globally for good projects and the economic benefits it has the potential to deliver make the Thames Hub one of the most compelling initiatives in the world.

Q8 WHERE IS THE CAPITAL GOING TO COME FROM TO FUND THE THAMES HUB?

Numerous stakeholders are required, from early risk capital to institutional investment for the ownership and operation of the different components. The clear commitment shown so far indicates that there is an appetite for such investment.

Q9 IS THE NEW HONG KONG INTERNATIONAL AIRPORT BEING SEEN AS A BLUEPRINT FOR THE THAMES HUB?

The Thames Hub vision is aligned with the infrastructure needs of the UK, but it offers many lessons – Chek Lap Kok was visionary in the sense it addressed the capacity constraints of Kai Tak and established the leading Asian hub. Foster + Partners worked on the project for six years and it is consistently voted by passengers as the best airport in the world.

Hong Kong airport.

THE TEMPLATE: HONG KONG INTERNATIONAL AIRPORT

Dr James 'Ox' van Hoften.

The projects proposed as part of the Thames Hub are ambitious and bold. Should they go ahead then the project team involved will face a gargantuan task.

The team can take comfort, however, from a programme similar in complexity.

The Hong Kong Airport Core Programme, also the brainchild of Lord Foster, had goals similar to that of the Thames Hub.

The programme, and in particular the airport, was designed to alleviate some of Hong Kong's congestion and keep it at the forefront of the Asian economic boom.

As part of the programme, the new Hong Kong International Airport (HKIA) was built on a large artificial island, formed by levelling the mountainous Lam Chau and Chek Lap Kok islands.

HKIA was the centrepiece of a $20 billion, ten-part programme which was completed in 1998.

The programme also saw the construction of a transportation corridor stretching 22 miles from Hong Kong Island to the site of HKIA, a high-speed rail system, a six-lane superhighway, two underwater tunnels and two bridges.

Bechtel was hired as the overall project management company to coordinate all the various elements of the programme. Dr James 'Ox' van Hoften was Bechtel's programme manager. He said that the key lessons to take away from Hong Kong were patience, planning and high level project management.

"The project was in planning phases for almost 30 years. It had changed over the years but was finalised as a consolidated complex project in 1989," said Dr van Hoften.

"Early on the government knew that a project of this size, which accounted for over half of the Hong Kong budget, would need a very comprehensive co-ordination. Bechtel's role involved programme oversight, co-ordination of the various elements, control of project contingencies, insurance and a variety of other important project requirements."

The Hong Kong government put together a government board called the Airport Development Steering Committee (ADSCOM) to oversee the project. The heads of all the government entities were members of the committee and Bechtel helped with its implementation.

Dr van Hoften added: "Another key takeaway was the government's commitment to success. ADSCOM met every two weeks and continued until project completion. All key project decisions were taken at these meetings including commitments for spending as well as some technical issues. Any large-scale project, including a Thames Hub, would benefit from early planning and committed oversight plus professional project management."

THE AIRPORT HAS RECEIVED NUMEROUS AWARDS AS THE BEST AIRPORT IN CHINA, BEST AIRPORT IN THE WORLD AND A HOST OF OTHER ACCOLADES.

THINK BIG

In Hong Kong, location was an issue. The densely populated mainland meant that engineers and developers had to think big and eventually decided to build the hub airport out at sea.

Engineers used excavated land as landfill to create an area big enough to build the airport. Before this could happen however, the seafloor needed to be cleared, sand added to the seabed and the crumbled mountain remains laid on top to close the mile and a half gap between the two islands.

Location is also a concern for the Thames Hub. The Isle of Grain has been earmarked as the hub's central location should the programme be given the green light. No longer an island, the Isle is virtually all marshland so a similar landfill exercise would need to be undertaken to secure the development's foundations.

While the engineering provided many challenges, one of the biggest issues on the Hong Kong Airport Core Programme was securing the final go-ahead.

"The project was planned to be concluded before the handover of Hong Kong to the Chinese so there was a defined deadline and complicated project planning. Once committed, the government never looked back or tried to re-examine its decision," said Dr van Hoften.

He added: "The engineering and construction, while complicated, was carried out by a very large group of competent international contractors; at one stage there were some 170 contractors from 18 countries working on the project."

LESSON LEARNED

Perhaps the biggest lesson for Thames Hub developers is not to be rushed into delivering the project should it get the go-ahead. Some critics argue that pressure to complete the HKIA project in just seven years led to severe organisational, mechanical and technical problems that almost crippled the airport for months after it opened.

At the time of opening, Hong Kong Politician Lau Kang-Way was quoted as saying that the airport had become the laughing stock of the world. Instead of a first class facility, it had become a 'ninth class' one.

Responding to criticism that the pressure to complete led to operational and organisational difficulties, Dr van Hoften said: "Of the 10 Airport Core Programme projects, only the airport itself was delayed. All of the other projects opened ahead of schedule and $1.5 billion under budget.

"It is correct that the airport was opened before the cargo handling facility, a private investment project, was completed. Any issues on opening day were settled quickly afterwards."

Despite the enormous technical difficulties, HKIA is now the world's tenth busiest passenger airport, handling over 50 million passengers every year.

Dr van Hoften concluded: "The airport has received numerous awards as the best airport in China, best airport in the world and a host of other accolades. By all measures it should be considered a resounding success."