



Case Study

Low cost sourcing for flight
critical items

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China is becoming an important player in aircraft manufacture and now has a role in the manufacture of every airplane Boeing makes, bringing some of the best capability in terms of value, and ability to meet production rates and quality.

The client

The client is a major supplier of highly accurate sensors that measure flight critical systems on commercial aircraft. A leader in their market they were under pressure from Boeing and Airbus to reduce costs year on year while at the same time their US parent company was looking for increased contribution from the business.

The challenge

The Consultancy Company was asked to demonstrate how they would ensure that low cost economy suppliers could meet the stringent requirements of safety and traceability required in the aviation industry and the unique tolerances of run out and concentricity on some of the parts. There were also some extremely high quality coloured anodised finishes that required consistency of colour between batches.

Our approach

Our consultants identified a range of promising vendors in China and Taiwan and arranged meetings with both government and private companies in four different cities. Visits were then arranged for representatives from the UK and US parent company to assess the potential of these companies to make both finished products and components.

The visiting team concluded that sourcing finished parts was not an option, as the technology was not advanced enough, but components could be sourced. Following discussions and a review of drawings, our consultants advised that references to internal and BS standards would have no meaning to Chinese suppliers; so a process was developed to ensure that these references could be easily understood by the potential vendors.

From a potential 100 vendors identified by The Consultancy Company a short list of 12 companies was drawn up. Visits were arranged to meet and assess these potential vendors and to identify what development, if any, their manufacturing processes and quality systems would need in order to meet the standards required by the aviation industry. Each vendor was assessed against a criteria that the team had previously discussed, agreed and documented and any issues were highlighted at the time and discussed with the potential supplier to assess their ability to understand our requirements and their commitment to meet standards.

This process led to the selection of a single vendor currently producing automotive and home entertainment components. An action plan and timescale was agreed for them to produce sample components and to address the issues identified during the audit.



“The Consultancy Company helped us to find reliable partners in China and the savings we have made are impressive. There are significant opportunities for future expansion”

Supply Chain Manager
Client company



‘There is huge potential in China for the emergence of new vendors who can develop and meet the highest technical needs of aerospace companies.’

Graham Barker
China Consultant
The Consultancy
Company

Final qualification visit

When samples had been evaluated and the preferred vendor had confirmed the actions they had taken to resolve the findings of the audit, a final visit was arranged and managed. The outcome was confirmation that all manufacturing and quality processes were now in line with aviation standards and signature of the supply contracts that The Consultancy Company had helped develop.

At each stage of the process our consultants transferred knowledge to the client to ensure that after the project had finished the client would be able to manage a low cost economy vendor base by themselves and understand the cultural and legal differences that affect these relationships.

Results

The result overwhelmingly justified the investment and the outsourcing of the initial components ensured the UK client could achieve the cost targets set by Boeing for the 787 programme without negative impacts on either quality or profitability.

Further evaluations of other potential vendors visited also identified their potential to supply parts that were not included in the initial RFQ.

From the initial project the following was achieved:

- The UK client achieved cost savings of between 45% - 60% on the initial parts sourced.
- The UK team were fully trained in how to identify, assess, choose and manage vendors in China.
- Processes were established to ensure future RFQs were easily understood by vendors in low cost economies.
- The US parent company also subsequently used the vendors identified in this project and achieved similar landed cost savings.

The end result was a high quality vendor with growth capability that could meet all the short to medium term demands of the group for fine tolerance components plus a range of other evaluated vendors that would subsequently supply a whole range of quality parts to the group.

For an initial discussion about your needs contact us:

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