

PROJECT CASE STUDIES DELIVERING OUTCOMES

Aerospace and defence, business development, management and technical support services.

www.hawksland.com



Welcome to Hawksland Demanding aerospace and defence markets bring unique opportunities to grow your business, improve operational and supply chain performance, lower costs and increase shareholder value. Commercial aerospace markets are poised for growth, but increased production brings new challenges. Meanwhile, after years of decline military spends are stabilising. Defence contractors continue to consolidate and innovate in readiness for a return to growth. Meeting these challenges requires business transformation through skilfully managed projects and clear focus on business outcomes. Since 1988, our 200+ globally-based aerospace and defence experts have successfully addressed business, operational and supply chain challenges facing organisations like yours. Our associates rethink, reimagine and reset ways of working. Excellent execution, new supplier engagement models and pursuit of market-based profitability is vital - as is rethinking value creation across product lifecycles and enterprises. That's why we blend strategy with hands-on programme management to deliver your growth, performance and cost objectives. Read about some of our client projects. Then let's talk. Gary Windas FRAeS, MIOD MANAGING DIRECTOR



"Hawksland Associates have worked with us on a variety of assignments over the last 15 years. Whether we need to improve performance, reduce costs, have a complex program to manage, resolve a difficult situation or need to augment our management capacity, we ask them first. They're results driven, hand's-on, execution led and always deliver."

HANS BUETHKER, PRESIDENT - FOKKER TECHNOLOGIES

Your success:

selected case studies

Winning new business

Strategic partnering and proposal management - B787.



Assignment

Develop strategies and proposal to win new Boeing 787 Dreamliner systems contract.

Approach

- Created 'whole aircraft' systems integration approach to develop 787 aircraft.
- Brought together 2 separate companies to offer combined design-make solution.
- Wrote proposal and supported negotiations.

Outcome

- Successful selling of partnering proposal to OEM customer for complete design and build of all aircraft systems.
- Created proposition to integrate with all OEM 1st-tiers for modular design with complete commonality across all ATA Chapters.
- Led to \$1Bn life of contract win.

Cost reduction

Design optimisation, spend & supplier reduction - Aero-engines.



Assignment

Develop proposals and embed savings on aeroengine program to ensure product remains competitive in market.

Approach

- Employing SCOS tools conduct product breakdown structure and supplier spend diagnostic.
- Hold design, manufacture and supplier workshops to optimise product.
- Develop supplier cost reduction and negotiation strategies.
- Recommend complete value chain improvements and support execution.

Outcome

• Led to 15% cost reduction on engine, supply chain consolidation and client winning new contract.



Regional development

Vision and strategic roadmap to establish new aerospace industry.



Client

Middle East Govt. client

Assignment

Create vision and strategy to establish an aerospace industry in Middle East leading to economic diversification and employment, reducing reliance on oil income.

Approach

- Leverage offset obligations from airline a/c purchases to stimulate OEM support.
- Focus on establishing niche, high margin, advanced composites and reverse technology transfer of existing programmes.
- Also acquire stakes in overseas incumbents.

Outcome

 Leads to formation of tier-2/1.5 company now producing Airbus and ATR primary structures; plus company with \$15bn investment war chest acquiring MRO and other aeronautical industry capabilities.

Spend reduction

Lower aerostructures and airline services business spend.



Client

Investment

Fund

European 1st-tier & Services co.

Spend Reduction

Assignment

Create strategies which significantly reduce aerostructures procurement spend and help airline services business lower costs to remain competitive.

Approach

- Analyse complete commodity spend and deploy Hawksland's SCOS tools to simplify complexity of situations.
- Create savings opportunities, strategies and tactics.
- Lead client team to consolidate supply base, negotiate and implement savings.

Outcome

- 23% aerostructures spend savings (12% annualised) and VMI deployment
- 8% services business spend savings and creation of PMA strategy and project deployment.

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"Hawksland Associates are extremely good at setting up the right organisation to run very complex projects. They can perform **very detailed** and **in-depth** studies and analysis before arriving at very worthwhile recommendations."

JAN WILLEM GUNNINK, PRESIDENT - GTM ADVANCED STRUCTURES



Your success:

selected case studies (continued)

On Time

& Budget

Program management

Engineering, development, manufacturing and certification - A350 XWB Outboard Flap.



Client

European Aerospace co.

Assignment

Develop supply chain strategy to support winning of A350 XWB Flap program from OEM. Thereafter Program Manage complete whole-life cycle development.

Approach

- Identify and secure RRSP supply chain partners and prepare winning proposal.
- Negotiate contract with OEM. Establish design, manufacturing, supply chain program team.
- Responsible for full RC and NRC business case. Leverage know-how to achieve lowest weight with minimal design change.

Outcome

- Successful 1st article shipset delivery ontime, to-budget meeting requirements.
- Set-up optimised supply chain and fully optimised balanced takt production line. Introduced VMI & JIT lean flow lines.

Supply chain management

Strategy, process, development & turnaround of global airframe, systems & engine suppliers.



Client

Various OEM & 1st-tier clients.

Supplier Turnaround & Low Cost

Assignment

Several assignments requiring turnaround and improvement interventions to get back-on-track; improve productivity and quality; reduce costs and free-up additional capacity.

Approach

- Understand the requirements, (i.e. spec., deliverables etc.); 'read-the-supplier' understand situation & problem solve.
- Introduce various lean toolsets and other improvement initiatives.
- Coaching, mentoring & training leadership, staff & shop floor personnel to change.

Outcome

- Successful supplier turnaround's, embedding of improvement methodologies and creating all round cultural change.
- Leads to overall efficiency gains, lead-time, cost and waste reduction. Both client and supplier benefit in improved KPI's.



Lean aircraft MRO & CMRO

Operational health-check review; lean strategy execution via policy deployment & coaching.



Client

EU co. - Asia & USA operations

20% Man-hour Savings

Assignment

Detailed audit and health check clients' underperforming USA & Asia aircraft MRO & CMRO facilities. Led to being requested to implement improvement program.

Approach

- Cultural & organisation changes introduced engaging Interim Mgr. to embed lean.
- Value stream mapping identified information & materials flow waste reduction.
- Revamped hangar & introduced 5S; visual workplace; policy deployment; Kaizen events; leadership and team development.

Outcome

- 20% man-hour savings on aircraft MRO activities freeing capacity and better asset utilisation.
- CMRO activities led to \$2.3m savings.

Project management

Project engineering & management of aircraft interiors: development, installation, certification.



Client

European aircraft interiors co.

Aircraft
Certification
On Time

Assignment

Project manage complete development, installation and certification of cockpit, cabin and cargo bay interiors of 2 aircraft (DeHavilland Dash 8-200/300 series) undergoing flight certification trials.

Approach

- Establish and lead project design, engineering, manufacturing and installation teams working across 2 shifts on a 7 day working cycle.
- Develop interiors along with active noise vibration system. Install and certify while working around flight test certification team undergoing flight tests.

Outcome

- Successful on-time, to budget installation and certification of interiors and active noise vibration system.
- Aircraft went on to achieve full certification.

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"Hawksland are first-class program, operations and supply chain managers. We've engaged them on several occasions, so you could say - we like what they do and how they work. They're **pragmatic and achieve objectives efficiently**. Highly recommended!"

PROFESSOR GUENTHER KAPPLER, MANAGING DIRECTOR (GESCHÄFTSFÜHRER FORSCHUNG UND ENTWICKLUNG) - BMW ROLLS-ROYCE AEROENGINES GMBH

Your success:

selected case studies (continued)

New Factory

Setup

Low cost factories

Design, layout, development and commissioning – Mexico.



Client

European 1st-tier aerospace co.

Assignment

Develop proposal to establish low cost aircraft final assembly factory in Mexico. Design, layout and commission new facility including managing transfer plan.

Approach

- Led facility design, final assembly line layout, cost modelling, recruitment, training, civil contractors and Mexico teams in developing and commissioning facility.
- Supplier transfer and customer management.

Outcome

- Successfully programme managed complete turnkey project establishing new greenfield factory and final assembly line in 9 months.
- Delivered first article assembly 3 months later to aircraft OEM in USA.

Develop assembly line

Project engineer development of a final assembly line – Transport.



Programme

Recovery

Client

US Defence OEM

Assignment

Develop and commission a final assembly line for military transport facing programme slippage and focus on recovering first-article delivery schedule delays.

Approach

- Assign project engineering team to focus on critical path constraints and simplify technical requirements.
- Introduce innovative tooling and assembly technologies & outsource non-core activities.

Outcome

- Successful commissioning of assembly line and recovery of 3 month programme delay.
- Consequent saving in first aircraft late delivery penalties.



Improve operations

Lead-time, cost and waste reduction.



Client

Various

55% Efficiency Gain

Assignment

Several assignments where clients need to reduce waste and improve efficiency levels.

Approach

- Asset utilisation optimisation, shift pattern introduction, takt smoothing, deployment of several lean toolsets including: Value Stream Mapping, 5S, KAIZEN, KANBAB, TQM, TPM, Policy Deployment, Six-Sigma.
- Embedding culturnal change via coaching, mentoring and training leadership, staff and shop floor.

Outcome

- Successful embedding of improvement methodologies and creating all round cultural change.
- Leads to overall efficiency gains, lead-time, cost and waste reduction.

New material introduction

Competing 'head-on' with the threat of composites.



Client

US Aluminium OEM

Lower Capital Investment

Assignment

Develop manufacturing technology, trade studies and business case proposals to persuade OEMs to invest in next generation advanced metals vs. competing threat of advanced composite materials.

Approach

- Conduct research in advanced manufacturing technologies and perform weight and cost trade studies on metals vs. composites.
- Develop process mapping and capital investment trades.

Outcome

- Identified new processes, lower recurring costs and capital investments.
- Proposal delivered to OEM customer also showed faster process takt and lower manufacturing facility sq. ft. requirement.

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"Hawksland has a clear view on how aerospace businesses work, they're results driven and will deliver. They have a **great network** and can put a dedicated team of specialists together on short notice. It was a pleasure working with them."

LEON DE SCHEPER, STRATEGIC OUTSOURCING MANAGER – STORK SP AEROSPACE, LANDING GEAR DIVISION

Your success:

selected case studies (continued)

Lead-time

Savings

Lean engine assembly & MRO

Operational audit; engine turnaround lead-time improvement; assembly & MRO responsible.



Client

Global Engine OEM

Assignment

Investigate engine MRO operations 'onepiece flow point improvement' and assembly line activities. Seperately, manage new engine development & final assembly line.

Approach

- Audit activities. Value stream map entire internal enterprise and further optimise already improved processes.
- Harmonise with other activities with lean toolkit deployment and waste removal.
- Program manage establishment new final assembly line (seperate project – BR715).

Outcome

- Significant improvement in engine turnaround leadtime by 15%.
- Improved asset utilisation with resulting extra capacity being made available.
- Established new engine final assembly line.

Proposal management

Create strategy, estimating model, business case, write & sell proposal to customer.



Client

Several 1st & sub-tier clients

Winning Proposals

Assignment

Several client assignments supporting the proposal management phase in response to end-customer RFI & RFQ's. Focus on creating compelling winning proposals.

Approach

- Adopt the mantra 'champion change, challenge the status quo'.
- Marketing mix- framework current situation context and analysis.
- Robust estimating model and business case creation.
- Deliver compelling propositions leveraging know-how and novel business models.
 Support bid delivery and negotiations.

Outcome

 Several contracts successfully won for clients including at Airbus and Boeing plus several 1st and sub-tier suppliers.



Commercial dispute resolution

Interventions and mediation to resolve contract disputes with suppliers and customers.



Assignment

Several assignments requiring intervention leadership where clients need to resolve contractual claims with suppliers and customers.

Approach

- · Situation and complication analysis, breaking down key elements substantiating fact-based position.
- Contract interpretation in legal jurisdiction and business case scenario analysis.
- Strategy creation; negotiation preparation.
- · Advise and coach client on approach; lead negotiations and mediate between parties.

Outcome

- · Successfully resolved disputes avoiding legal proceedings.
- · Achieved in some cases successful improved ROS of +5%.

RFID technology introduction

Asset track and trace configuration and location management in factories and MRO facilities.



Assignment

Develop track and trace technology solutions to manage assets in a variety of environments including factories producing aircraft systems and MRO facilities needing to ensure tools and LRU's are traced.

Approach

- Conduct facility and product diagnostic determining which RFID technology is appropriate to the envioronment.
- Identify key requirements for tracking and tracing assets and select LF, HF or UHF transponder and reader systems.
- Integrate with ERP and other IT systems.

Outcome

- Seemlessly embed systems without disruption to existing opereations.
- · Achieve reduction in lost assets and fast detection of their locations saving time.



"If you need help in aerospace supply chains, ask Hawksland Associates. They know how to deliver results and can **readily mobilise** many high quality people."

TOINE VERBRUGGEN, VICE-PRESIDENT PROCUREMENT - FOKKER AEROSTRUCTURES BV.

Supporting your success

A thriving business in aerospace and defence based on successful client relationships.

We've got a vested interest in helping you and your shareholders achieve your objectives.

Plenty of consultancies preach theory and develop grand strategies for Aerospace & Defence. But no one else sees programme implementation through to completion quite like us.

When we drive growth, lead improved performance and help slash costs, your success always comes first.









Successful

We put your success first through inspired strategy and hands-on programme management.







