HD **QHL: THE FUTURE OF AUTO, AEROPLANE MANUFACTURE IN AUSTRALIA IS HERE ALREADY AND IT IS HUGE. QUICKSTEP HOLDINGS, AT THE FOREFRONT OF A NEW WAVE OF MANUFACTURE IS AN ALREADY COMMERCIAL SUPPLIER TO THE MOST PRESTIGIOUS GROUPS IN THE WORLD**

BY Jenny Prabhu

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Please note: We acquired a minute **stake** in the float in 2005.

The manufacturing future of Australia is already here.

It will transform us from a country that - perhaps shamingly, given the entrepreneurial "give it a go" spirit of Australia's citizens - exports all our raw materials non value added - to instead being one that exports hi tech, high value products at the forefront of technology - whether in medical science (where a fair few Australian companies already **lead** the world), to **solar** power advanced technologies such as Dyesol's, to wave **energy** such as Carnegie Wave **Energy**, to technologies for the re-use of waste heat like Enerji, to flight simulation and control systems for defence such as Adacel, to hi tech aircraft stress testing companies like Structural Monitoring - to manufacture of products from advanced composites like Quickstep Holdings, the subject of this report.

New technologies are essential to the winding back of global warming, because there has to be replacement for the old. The new manufacturing technologies do not require the giant factories and assembly lines of the past with all its heating, cooling, transport of heavy materials to and from the factory site requirements. They also greatly reduce the need for manpower and so greatly reduce the cost of labor (the use of robots is also increasing exponentially in every area of manufacture - the Financial Times reported this week that **China** bought 36,560 industrial robots last year).

(As an aside, the new technologies also mean the need for vast labor forces is rapidly disappearing - so that smaller highly educated populations, not larger unskilled labor forces are the need of the future - when this reality is embraced and small families become the sought after norm, it will also mean a reduction in pollution and consumption).

Composites are replacing metal in the manufacture of vehicles

Advanced carbon fibre manufacture has been increasingly progressed since the 1950's - with Ford Lotus and Honda involved in creating the Aerostable Carbon Car, a light weight car made of carbon fibre car in 1998, but production via autoclave was slow, cumbersome and did not result in product with a high finish - although it was light weight, could provide 90 miles per gallon petrol consumption and needed a much smaller engine.

From Lockheed Martin website

"In the mid-1990’s, the Air Force Research Laboratory (AFRL) acknowledged that even though there was tremendous potential for the incorporation of advanced composites to reduce aircraft structural weights compared to conventional metal structures, the industry was hesitant to implement them in new aircraft.

As a result of this hesitation, AFRL launched the Composites Affordability Initiative (CAI) to address the perceived risks and barriers. Government labs including NASA worked collaboratively with industry to develop advanced materials and manufacturing technologies. This 10-year AFRL-led research and development effort ultimately led to the Advanced Composite Cargo Aircraft (ACCA) experiment...

Interestingly, the ACCA started out as a Dornier 328 regional airliner whose fuselage and vertical tail were removed and replaced with a new all composite design structure specifically tailored for the air mobility mission.

"Yes, the Skunk Works approach to the ACCA program involved cutting apart a perfectly good aircraft.

AFRL had just $50 **million** set aside for this advanced composite manufacturing program and many in industry felt that it would be impossible to develop a composite cargo aircraft for that amount. The team at Skunk Works decided it was possible but only if they used an existing aircraft to cut costs.

In the spirit of exploration and in an effort to demonstrate and test the technologies while keeping costs down and on schedule, the small team modified the high-wing Dornier jet, mating its existing engines, wing, landing gear and avionics systems to the new composite structure.

The program demonstrated the feasibility of designing and manufacturing large, bonded unitized structures featuring low-temperature, out-of-autoclave curing. The fuselage was constructed in two large half-sections (upper-lower) featuring sandwich construction with MTM-45 skins and Nomex core, bonded together with adhesive and ply overlays along the longitudinal seam rather than numerous frames, stiffeners and metal fasteners used commonly in traditional aircraft. The vertical tail was designed using tailored stiffness technology. These were joined with the existing Dornier 328J cockpit, wing, engines and horizontal tail.

Compared to the original metallic components, the composite structure used approximately 300 structural parts versus 3,000 metallic parts and approximately 4,000 mechanical fasteners compared to 40,000. .. The ACCA demonstrates how future aircraft designs and manufacturing processes can be tailored through the use of advanced composites and new structural concepts to significantly shorten design spans, reduce aircraft size and structural weight, accelerate manufacturing processes, reduce tooling costs and reduce assembly labor. Initial estimates suggest development cost could be reduced by 25 percent or more over today’s processes plus additional operating cost savings from less weight resulting in lower fuel burn.

"Historically, aircraft cost has been determined by the size and weight of the vehicle. With ACCA we are proving that while size does matter, it isn't the be-all, end-all determination of aircraft cost".

* * *

*Formula 1 cars are almost completely made of composite.

*Mass production of composite cars really only commenced last November 2013 with the BMW i3 electric car.

*Composite is rapidly replacing aluminium in aircraft - from 8% of the Airbus A130 in 1982, to 25% 20 years later and currently advancing to more than 50%.

While the manufacture of composites require higher **energy** consumption than steel (but vastly less than aluminium) its green credentials lie in the huge savings it enables in the consumption of fuel for aircraft and **m**/vs.

* * *

From QHL web page

Demand for advanced composite materials has grown 60% in the past 4 years, from 26,000 tonnes in 2006 to 43,000 tonnes in 2010.

Forecasts indicate that this is due to increase to 340,000 tonnes by 2020 – an increase of 800% over the next decade (citing Prof Andrew Walker, a world expert on composites from the University of Manchester in the UK).

"These advanced composite materials have one thing in common - they require curing and the more tonnage demanded the faster it will need to be cured.

Quickstep’s unique, patented manufacturing technology offers cost savings and importantly reduced manufacturing (curing) times to meet these future demands.

2. Defence Contracts are large scale and long term, with significant barriers to entry

In addition to its patented Quickstep Process, the **Company** has considerable high end defence and aerospace grade manufacturing capability using both traditional autoclave ovens and Quickstep Process curing. The **Company** has AS 9100 Rev C qualification - one of only a handful of companies within Australia to meet such standards.

In June 2011 Quickstep achieved Qualified Part List (QPL) from Northrop Grumman and Lockheed Martin Corporation for the manufacture of parts for the F-35 Lightning II Joint Strike Fighter program. This qualification brings the **Company**'s standards to world's best practice for aerospace and defence programs.

Quickstep is the largest independent aerospace composites manufacturer in Australia.

The two other advanced composite manufacturers in Australia are tied to Boeing and Australian Aerospace, a subsidiary of European aerospace **company** EADS.

* * *

Quickstep is led by highly motivated, highly knowledgeable management headed by managing director Philippe Odouard. It has reiterated in its March quarter report that it expects to be cashflow positive in 2015.

Sales are growing exponentially and so are new opportunities for manufacture and quick returns - eg manufacture of drones.

The future of QHL, given its patented market leading technology (patents go out to 2022 and are intended to be kept "ever green" and include not only the Quickstep Process, Quickstep machines for **sale** but also its patented Resin Spray Transfer technology, launched in August last year - a revolutionary technology for the auto industry) and the high barriers to entry, with proven commercial success, offers a huge opportunity for the patient investor.

Washington Soul Pattinson has 17% of the **company**, its initial **stake** was acquired at the time of listing. Numerous capital raisings over the years have often been over subscribed, to even double the amount sought, and QHL is the recipient of several grants.

What the brokers say

Housebroker State One Stockbroking in comments following the March 2014 quarterly report retained a "buy" recommendation with a target price of 30c.

The broker said "there are now two key drivers propelling Quickstep forward:

1. The US Govt's unwavering support for the JSF program - since early 2013 JSF contractor Lockheed Martin has out performed the S&P 500 by 50% and

2. State One's view is that the JSF Program is likely to be a massive success globally and a very significant success for Quickstep after Australia has just signed up as the second major participant (after USA). as the US Govt's in key points from QHL's interim report forecast sales revenue rising to $34.8 **million** in 2015.

The broker added, "There are formal agreements with any of a number (8?) of leading global auto manufacturers, discussion on which have been taking place over the past several years - these include a formal program with Audi being part funded by the German Govt. There appears to be a lot of activity in this space but no announcements as yet".

In a May 2013 report Alan Hill had said, "We anticipate that QHL can expand without large dilutionary **equity** raisings as its facilities are already largely equipped .. also QHL is already receiving significant funding from government grants and related support in Australia, the US and Germany.

"Each RST station, expected to generate sales revenue of approximately $A10/12mln p.a, costed at about $A2m or less, making them eminently fundable".

QUICKSTEP HOLDINGS LTD - A SNAPSHOT

Quickstep Holdings Ltd had its beginnings when inventor Deryck Graham and Neil Graham conceived, developed and constructed the Quickstep process - a method and machines to manufacture composites quicker, cheaper, with accurate repeatability and a high gloss finish superior to other composite manufacturing methods.

Quickstep was incorporated in 2001 in Perth and was operated at CSIRO facilities in Melbourne for the four years to 2003, benefiting from technical input and review of the core science by CSIRO. QHL was then headquartered for some years at Coogee in Western Australia and is now based at its Bankstown airport facility leased in 2011 (formerly a manufacturing centre for Boeing), formally opened in 2012.

Quickstep Holdings manufacturing

Quickstep has significant capabilities and expertise in the production of aerospace-grade advanced composite components using both conventional autoclave-based manufacturing and leading out-of-autoclave production technologies, including its patented Quickstep Process that reduces costs of composite production and also dramatically reduces the time it takes to manufacture a composite part.

Quickstep has three distinct business streams:

*Technology transfer through the provision of the proprietary Quickstep Process equipment and solutions.

*Manufacture of composite components out of the **Company**'s Australian facilities; and

*Conducting paid or self funded Research and Development on new composite structures.

R&D agreements and manufacturing projects

Since first developing the patented Quickstep Process for composites manufacturing in 2001, Quickstep has had Research & Development projects with most of the world's major aerospace groups – including Boeing, Airbus, Lockheed Martin, EADS and Sikorsky.

EARLY DAYS:

2006: Following a j/v with Manchester Uni, QHL manufactured "coupons' simulating aircraft components that were tested by BAE systems.

2006: Acquired FlatOut Boats Pty Ltd, a manufacturer of rigid folding boats (still a small sideline business).

2007: GE Aviation and Sikorsky Air Craft Corp commit to evaluating QHL's QS20 Composites production machines.

2007: Manufactures interior components for Airbus.

2008: Announces it has begun the manufacture of aircraft components.

2009: Wins second US Defence Department contract.

SINCE 2011, CHRONOLOGICALLY

*An MOU with global helicopter **company** Sikorsky International **Operations** Inc was signed in March 2011.

*QHL shipped its first production parts for the international Joint Strike Fighter (JSF) program - in the form of assembled access panels - in March 2012, some weeks ahead of the initial schedule.

*Following the conduct of an international commercial tender program by Lockheed Martin, Quickstep was also selected in March 2012 as the sole supplier for C-130J 'Hercules' tactical transporter wing flaps. Twelve C-130Js are operated by the Royal Australian Air Force.

*Quickstep announced in April 2013 it had received new F-35 **purchase** orders from JSF program partner, Northrop Grumman Corporation, under long term agreements previously signed with the **company**. According to Quickstep Managing Director, Philippe Odouard, "Together with our existing contract to supply parts for Lockheed Martin's C-130J 'Hercules' transport aircraft, our **firm** order book is now around $20 **million**, mostly for delivery by the end of calendar year 2014."

*On July 25 2013 QHL announced the first **sale** of its Quickstep Process product to Orpe Technologiya, a Russian based aerospace parts manufacturer that supplies clients in over 20 countries including EADS/Airbus, Boeing and Siemens.

On July 26 2013 in a 'spec buy" recommendation at 15.5c (valuation 46/75c) State Wide analysts Peter Kopetz and Alan Hill said the contract is significant for a number of reasons - as the first **sale** of the Quickstep Process; because the customer is highly regarded, with Russia leading the global satellite launching industry globally; the **sale** has been completed at commercial rates, no offsets or subsidies; and

the contract involves the production of very large composite components - few companies globally are capable of producing such large panels out of autoclave, which is much cheaper.

It is an opportunity for QHL to demonstrate it can repeatedly produce large and very high quality carbon fibre panels at a very low cost compared with the autoclave.

*Under various memoranda of understanding, Quickstep is supplying carbon fibre composite skins and sub-assemblies for the JSF program. Quickstep Holdings announced in April 2014 that it has signed a long-term agreement (LTA) with Melbourne-based Marand Precision Engineering to supply 700 sets of carbon fibre composite parts for F-35 Lightning II Joint Strike Fighter vertical tails to Marand over a period of 14 years.

*Each ship set of vertical tails provided by Quickstep will contain 18 individual parts, including skins, spars and fairings. These parts, along with parts from other suppliers, will be assembled by Marand into vertical tails for BAE Systems UK, for ultimate delivery to Lockheed Martin's Fort Worth facility in Texas, where they will be incorporated into F-35A model aircraft on the production line. Quickstep expects to deliver the first parts to Marand in the second half of 2015. At peak production, the new LTA is expected to provide A$13 **million** per annum in sales revenue for Quickstep.

The overall agreement to supply JSF parts - to different Original Equipment Manufacturers - is valued by the **company** at up to A$700 **million** over two decades. At peak production, Quickstep is expected to generate JSF revenue of approximately A$40 **million** per annum.

Launch of patented Resin Spray Transfer Technology - August 2013

On August 12 2013 Quickstep Holdings Ltd announced its patented Resin Spray Transfer technology (RST) was launched today by Minister for Innovation, Senator the Hon Kim Carr, at Quickstep's Bankstown Airport facility.

The robotised process fully automates production of lightweight carbon fibre composite car panels so that they can be made in minutes and at very low cost compared to other more capital intensive methods. RST enables car parts to be mass produced with a high quality finish direct off the mould, a major improvement on existing carbon fibre processes.

Managing director Philippe Odouard said in the report, "In the emerging emission legislated world, every leading car manufacturer is aiming to develop cars that are lighter, more affordable and consume less fuel. That can be achieved using QHL's Resin Spray Transfer Technology".

The launch of RST followed two years of research led by Quickstep Holdings Ltd and supported by the German Government and leading car manufacture Audi to develop new manufacturing solutions for the cost effective volume production of composite parts for the automotive industry.

The PRESCHE Project was aimed at achieving cost reductions of up to 30% over existing manufacturing costs for the production of light weight composite parts for the automotive industry. The other partners in the consortium apart from Audi include Coriolis Composites GmbH, EDAG GmbH & Co, KG, the Fraunhofer Institute for Chemical Technology and the University of Stuttgart, Institute of Aircraft Design. The project is supported by the German Ministry of Education and Research.

QHL's managing director Philippe Odouard said the launch of the PRESCHE project in Germany is an enormous opportunity for the **company** to progress its Resin Spray Transfer (RST) technology in partnership with a high quality group of partners including Audi.

The search for lighter vehicles with reduced fuel consumption and carbon dioxide emissions is being driven by legislative changes globally, such as the new regulations expected to be introduced in the US by 2017 requiring all new cars to operate on a 6.5 litre per 100 km efficiency.

(3D Printing although offering enormous advantages for low cost and rapid manufacture of products from metal, plastic and other materials, at this stage is not able to manufacture woven products, comprising various composites, such as are used in QHL's manufacturing process)

QUICKSTEP HOLDINGS LTD FINANCIALS

Code: QHL

Last Traded price 20.7c.

Shares Issued 397.5m.

Market Cap 82.3m

QHL is forecasting Revenue of $17m in the year 2014 $36m in 2015 and to be cash flow positive in 2015.

1/In August last year QHL raised $12.666 mln net proceeds in a placement and SPP at 20c per share. QHL is the recipient of grants by various governments.

Temporary management change

On May 29 Quickstep Holdings Ltd announced it has appointed the current non exec chair Tony Quick as executive chairman to assist managing director Philippe Odouard for a period, freeing up some time fort he managing director to pursue significant growth opportunities. Quickstep has experienced significant growth in its **operations** over the past year, expecting to more than double both sales and total revenue this financial year vs last year. In 2015 QHL expects further significant growth and is also seeking to break into the automotive market.

Directors:

Tony Quick, Executive Chairman

Tony Quick is Chair of the Defence Materials Technology Centre which is a Defence funded Co-operative Research Centre.

He is also the TCF Supplier Advocate in the Department of Industry, Innovation, Science, Research & Tertiary Education and an Adjunct Professor at RMIT University.

After graduating from Cambridge University, Tony Quick spent most of his career in International Business Development, Program and Business Management.

Mr Quick first worked in Aerospace composites in 1988 and in 1993 he joined Westland Helicopters where he held senior international business development and program management roles. In October 2000 he left Westland to emigrate to Australia and, in 2001, set up GKN Aerospace Engineering Services Pty Ltd to service global demand for engineering services, he was the Director and General Manager until 2009. The **company** provided design services to the F-35 Joint Strike Fighter program for Lockheed Martin and Northrop Grumman and grew to employ more than 240 aerospace engineering staff in Australia. Its parent **company**, GKN Aerospace, is one of the world's largest independent first-tier suppliers to the global aviation industry providing integrated metal and composite assemblies for aerostructures and engine products. Mr Quick was the Director of the Defence Industry Innovation Centre, Enterprise Connect from 2009 to 2011.

Mr Quick was one of the founding co-chairs of the JSF Airframe Vehicle and Propulsion Systems Industry Capability Team and a member of the JSF Industry Advisory Committee.

He chaired the Joint Steering Committee for the implementation of the Action Agenda for Aerospace and the Australian Aerospace Industry Forum: Aerospace Defence Industry Engagement Working Group. He was a member of the Future Manufacturing Industry Innovation Council and chaired the Design Victoria Advisory Board.

Philippe_Odouard, Executive Director

Ecole Des Hautes Etudes Commerciales Postgraduate Masters (Finance)

Mr Philippe Odouard was appointed Chief Executive Officer and Managing Director in October 2008. He has significant management experience within the global aerospace and defence sectors - both of which are primary target markets for Quickstep's technology.

Prior to joining Quickstep, Mr Odouard held a dual role with Thiess Pty Ltd - one of Australia's largest infrastructure and services contractors - as Senior Manager of Strategy and Business Development: Defence, and Project Director for the A$3 **billion** Melbourne desalination plant.

Mr Odouard has also held a number of senior management roles within Thomson-CSF (now Thales Group) - a world leader in information systems for the aerospace, defence and security markets. During this time, which included roles in both Australia and Europe, Mr Odouard was responsible for managing innovation developments as well as technology transfers. He negotiated and managed long term contracts with major global aerospace and defence groups.

Significantly, Mr Odouard managed the Minehunter project, which at the time was the largest user of composites in Australia. In addition, he negotiated and managed significant contracts with Eurocopter when they sold the all-composite Tiger helicopter to the Australian Defence forces.

Mark Jenkins, Independent Non-Executive Director

B. Com., Grad. Dip. Business

Mr Jenkins has 20 years' consulting, operational/financial management and business development experience in professional services firms (Chartered Accountants), investment banking, government agencies and public companies. Initially qualifying as a Chartered Accountant in Australia, his career includes two extended periods in London and has involved successful and extensive investment, commercial, financial and government dealings in Australia, Asia, the United States and Europe.

Mr Jenkins was previously Australia's Investment Commissioner based in London. He has also been involved as an advisor and investor in early stage technology companies, taking them through the initial funding and commercialisation stages. Mr Jenkins holds a Bachelor Degree in Commerce from the University of Western Australia and a Graduate Diploma in Business from Curtin University. He has also been involved in numerous professional development programs, including Cranfield University in England.

Bruce Griffiths, OAM, non exec director

Mr Bruce Griffiths OAM, has had a successful and extensive career, spanning more than 40 years, in the manufacturing industry. He has held a number of senior executive roles within the industry and has a long history in working with Government.

Bruce was recently awarded the Order of Australia Medal for services to the automotive manufacturing industry and to the community.

Current appointments include: Manufacturing Leaders Group, Rail Supplier Advocate, since 2009; Board Member, Industry Capability Network Limited (ICNL); Director, Air International Thermal Systems; Chairman, Sail Melbourne ISAF Sailing World Cup; Member, Automotive Industry Innovation Council; Advisory Board Member, Enterprise Connect.

Previous appointments include: Chairman, Futuris Automotive Group (2007-2012), Managing Director, Futuris Automotive Group (1992 -2007), Chairman, Air International Thermal Systems (2008-2011), Board Member, AutoCRC (Advanced Automotive Technology Ltd) (Inception -2012), Vice President of the Federation of Automotive Products Manufacturers (FAPM) (1990-2012)

Honours: Order of Australia Medal, 2013, Centenary Medal for Services to the Development of the Auto Industry Policy, Victorian Manufacturing Hall of Fame for services to the Manufacturing Industry.

Peter Chapman Cook, Non-Executive Director

M. Pharm., FRMIT, PhC., MPS, MRACI, C.Chem., MAICD.

Mr Cook has extensive business experience both in Australia and overseas.

He is currently CEO and Managing Director of Biota Holdings Ltd, and previously held the positions of Managing Director and Chief Executive Officer of Orbital Corporation Limited, Chief Executive Officer of Faulding Hospital Pharmaceuticals, President of Ansell's Protective Products Division, Deputy Managing Director of Invetech and Director of Research and Development for Nicholas Kiwi. He has had extensive experience in the commercialisation of innovation, both in new and established markets. He also has extensive experience in mergers and acquisitions, particularly with technology-based companies and has a strong manufacturing background.

Mr Cook has over ten years' international commercial experience in Europe, USA and Asia, where he has both lived and worked. Mr Cook holds a Masters Degree in Pharmacy and post graduate qualifications in Management.

Air Marshal Errol McCormack (Ret'd) AO, Non-Executive Director

Errol McCormack served in the Royal Australian Air Force for 39 years, retiring in 2001 as Chief of Air Force with the rank of Air Marshal. During his period of service he commanded at unit, wing and command level, held staff positions in capability development, **operations** and educational posts and attended both RAAF and Joint Services Staff Colleges. His overseas postings included flying tours in Vietnam, Thailand, Malaysia and Singapore, an exchange tour with the US Air Force flying the RF4C, Air Attaché Washington and Commander Integrated Air Defence System in the Five Power Defence Agreement between Malaysia, Singapore, UK, New Zealand and Australia.

Since his retirement from the RAAF he has established a **company** providing consultancy services for multi-national companies working with the Australian Department of Defence.

He is also Non-Executive Chairman of Chemring Australia Pty Ltd, a countermeasures and pyrotechnic manufacturing **company** based in Victoria, and consults for Chemring Group PLC and General Electric Military Engines.

His pro-bono work includes Chairman of the Board of the Williams Foundation, an RAAF Association think-tank supporting development of Australian military aviation policy. He is a member of the Royal Aeronautical Society and the Australian Institute of **Company** Directors.

Air Marshal McCormack has outstanding contacts throughout the Australian and international defence industries, and significant experience in assisting companies such as Quickstep in defence contracting and government liaison.

He joined the Quickstep Board in August 2010.

David Singleton, Non-Executive Director

David Singleton is the current Chief Executive Officer of Poseidon Nickel and was formerly CEO of Clough Engineering.

In addition to his experience at the helm of ASX-listed companies, David has significant experience in the global aerospace industry, having held numerous senior roles with BAE Systems (British Aerospace). These include Group Head of Strategy and **M**&A (1997-1998 and 2003), Managing Director – Asset Management (1998-1999), and Chief Executive Officer of AMS NV – an Anglo-Italian Joint Venture between BAE Systems and Finmeccanica operating in defence and civil electronics (1999-2003).

Prior to joining BAE, David also held senior management roles with several British defence manufacturers, including Business Unit Director of Royal Ordnance Rocket Motors (a wholly-owned subsidiary of British Aerospace focused on the research, design and manufacture of military missile motors and civil space thrusters); and General Manager of Royal Ordnance WFV (a UK-based manufacturer of guns and fighting vehicles for military applications).

He joined the Quickstep Board in October 2010.

Nigel Amperlaw, Non-Executive Director

Mr Ampherlaw joined the Quickstep Board in July 2013. He was a Partner of PricewaterhouseCoopers for 22 years where he held a number of leadership positions, including heading the financial services audit, business advisory services and consulting businesses. He also held a number of senior client **Lead** Partner roles. Mr Ampherlaw has extensive experience in Risk Management, technology, consulting and auditing in Australia and the Asia-Pacific region.

Mr Ampherlaw's current corporate Directorships include a non-executive Directorship with Credit Union Australia, where he is Chair of the Risk and Technology Committees and a member of the Audit and Strategy Committees; and a non-executive Director of the Australia Red Cross Blood Service, where he is a member of the Finance and Audit Committee and a member of the Risk Committee. Mr Ampherlaw has also been a member of the Grameen Foundation Australia charity board since 2012.

Jaime Pinto, ACA, **Company** Secretary

Jaime is a Chartered Accountant with over 20 years experience in both professional practise and commerce. He has held senior finance roles in organisations of varying size and complexity, including small private businesses, large national groups and ASX listed entities. Jaime has significant experience with evolving companies and those undertaking rapid structural change, tailoring and implementing core accounting, administrative and compliance foundations to support such change. He is currently the **Company** Secretary of a number of ASX-listed and unlisted companies including BKI Investment **Company** Limited (ASX:BKI) and Clover Corporation Limited (ASX:CLV).

Jaime joined Quickstep in November 2012.

SENIOR MANAGEMENT

AUSTRALIA:

Nicole Sharman, Chief Financial Officer

Nicole Sharman is a broadly skilled CFO with 20 years of successful experience who places a strong focus on strategic and commercial imperatives, drawing from her background in automotive, manufacturing/engineering, aged care and service based organisations. Her experience encompasses risk

management, governance, financial and management accounting, **company** secretarial and public officer of private, unlisted public and multinational companies ranging in size from 140 to 3,000 employees.

John Johnson, Vice President - Commercial & Administration

John Johnson is an experienced finance executive who joined Quickstep as Chief Financial Officer in 2009. Mr Johnson has held senior positions with several high-profile aerospace companies including Commercial Manager of Finance (Divisional CFO) Hawker de Havilland for The Boeing **Company**; Financial Controller (Divisional CFO) ASTA Components for Aerospace Technologies of Australia Ltd; and he assisted as Manager for the Defence Integrated Distribution System Project Team for BAE Systems. He has also recently held the positions of Executive General Manager Finance & Legal and Executive General Manager Corporate Service for the Port of Melbourne Corporation.

Michael Schramko, Vice President - **Operations** Quickstep

Michael has a diverse background that includes Airbus in the UK and Hawker De Havilland and Boeing Aerostructures in the US and Australia. He has experience in **operations**, production, product development, engineering and program management. Most recently Michael has been the **Operations** Manager for the Fisherman's Bend site of Boeing Australia.

Tracy Swinley, Vice President - Human Resources

Tracy Swinley is an experienced Human Resources professional who has held a number of senior and executive roles in both listed and private companies, as well as the public sector. Her experience encompasses industries such as manufacturing, utilities, finance, health and education. She has also developed a successful consultancy business across all facets of human resources. With tertiary qualifications in law, industrial relations, political science and social work, she brings significant expertise to the **company**. Her role within the business is to **lead** the development and implementation of the 'people strategies' to ensure that these directly support the commercial objectives of the **company**.

Bob Pillay, Joint Strike Fighter Project Manager

Bob Pillay is responsible for overseeing Quickstep's manufacturing for the F35 Joint Strike Fighter program. He has significant experience in aerospace production, including over four years as Production Manager - Aerospace for TenCate Advanced Composites in the United States.

Wendy Smith, C-130 Project Manager

Wendy Smith, with a Mechanical Engineering degree from University of Texas Arlington and an MBA from Texas Christian University joined the Quickstep team in October 2012 as the C-130 Project Manager. With over 10 years experience at Lockheed Martin US in design, manufacturing, supplier integration and international production, she is a valuable addition to our senior management team.

AMERICA:

Dale Brosius, President – Quickstep Composites LLC

Dale Brosius is responsible for the commercial development of the **Company**'s technology in the Americas. He has extensive practical experience in the composites field, having led composites-oriented businesses in the US and Europe, with a strong emphasis on materials. Mr Brosius spent eight years with Dow Chemical in manufacturing and commercial development roles, with a focus on automotive composites.

He then spent twelve years in various commercial and general management roles at Fiberite and Cytec Fiberite, gaining considerable exposure to advanced composites processes and applications in aerospace, sporting goods, and industrial markets.

Benjamin Luedtke, Technical Manager – Quickstep Composites LLC

Benjamin Luedtke is based at Quickstep's North American subsidiary, Quickstep Composites LLC, where he manages the day-to-day **operations** of the Quickstep facility, including specific OEM and Tier One projects. Ben was recruited from Applied Materials Inc, and has over 12 years' experience in the processing of high technology materials at sites in the US and Asia.

EUROPE:

Dr Jens Schlimbach, Vice President - Quickstep GmbH & Global Head of Research & Development

Dr Schlimbach has more than 10 years' experience in advanced composite manufacturing technologies, including design and development of carbon fibre reinforced polymer (CFRP) structures as an alternative to steel and aluminium. He spent 5 years at the “Institut für Verbundwerkstoffe” (Institute for Composite Materials) leading a variety of national and international composite R&D projects for the aerospace, automotive and other industries. He has a strong involvement and expertise in the scientific field of composites as an author, lecturer and consultant. He has provided consultancy services to a number of composite companies, including Eurocopter, the world's largest helicopter supplier. He joined Quickstep in February 2007.

Dr Amol Ogale, Process & Technologies, Quickstep GmbH

Dr Ogale has more than 10 years' experience in dry fibre based composite manufacturing technologies including pre-forming, liquid composite moulding and development of CFRP components. After his degree in textile engineering he worked 5 years at the “Institut für Verbundwerkstoffe” (Institute for Composite Materials) in the field of advanced preforming and liquid composite moulding. Since 2007, he has been a consultant to the composite industry, including Eurocopter, the world’s largest helicopter supplier. He joined Quickstep in February 2007.

Ari Vihersaari, Vice President of Global Business Development

Ari Vihersaari has spent most of this career in the aerospace and defense sectors, and in companies developing, designing and manufacturing advanced, lightweight structures. His experience includes management of high technology SME's, managing spin-off and engineering programs and leading sales and business development teams. He has a wealth of experience and contacts worldwide to promote the Quickstep Process as well as its manufacturing capability.

Major shareholders:

Washington H Soul Pattinson 17.17%

State One 6.09%

Please note: Our first Week's Special was on September 8, 2005. The listing price was 25c. We had acquired shares in the float, duly noted in the report.

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