

**Submission
No 10**

**INQUIRY INTO THE DEFENCE INDUSTRY IN NEW
SOUTH WALES**

Name: Quickstep Holdings @ja JHX

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Quickstep Holdings Limited

SUBMISSION

New South Wales Legislative Council Standing Committee on State Development

‘Inquiry into the Defence Industry in New South Wales’

16th June 2017

Executive Summary

- Quickstep Holdings Limited (**‘Quickstep’**) is an Australian publicly listed company, at the forefront of advanced composites manufacturing and technology development
- Quickstep is the largest independent aerospace-grade advanced composite manufacturer in Australia, partnering with some of the world’s largest aerospace / defence organisations including Lockheed Martin, Northrop Grumman and BAE Systems, as well as Victorian-based Marand Precision Engineering
- Quickstep is involved in the global F-35 Lightning II supply chain through the manufacture of vertical tail and centre fuselage composite components from our advanced manufacturing facility in Bankstown, New South Wales. We are the sole supplier for 21 composite components globally, ensuring that every JSF made has Quickstep components as part of the aircraft
- The Australian supply industry has so far won over A\$554 million worth of production and development work from the JSF program and this will increase significantly with rising production volumes and sustainment opportunities
- The Defence sector plays a significant role in the development and growth of an advanced manufacturing sector in Australia creating opportunities for participation in high value global supply chains. The Defence sector has a significant impact on the current and future financial performance of Quickstep, allowing us to continue to grow our staff numbers and to fund the development of advanced manufacturing processes to support a number of new business opportunities.
- The Defence sector provides significant employment opportunities, which are high skilled manufacturing jobs of the future in Australia. It has provided in excess of 200 FTE jobs for Quickstep which is set to increase significantly over the next three years as JSF program volumes increase
- Training and up-skilling of employees is a fundamental requirement of Quickstep’s growth in the composites industry and the Defence sector helps provide the scale to support those training requirements
- The New South Wales Government can assist the development of a strong Defence sector in the State by supporting and assisting companies to:
 - **Identify, bid for and secure Defence-related business:** May include working closely with suppliers to secure business and encouraging defence-related customers to seriously consider these suppliers. May also include funding support for Non-Recurring Costs (engineering, tooling, project costs etc.), as in many bids suppliers are expected to amortise initial tooling and set up costs over program life
 - **Recruit, train and develop a strong and capable workforce:** May include co-supporting existing Federal Government and Defence related programs and supporting other employment initiatives
 - **Innovate and commercialise technology:** May include supporting new capital investments and infrastructure upgrades undertaken by Defence suppliers in New South Wales
 - **Undertake Defence related research and development:** May occur by co-funding this activities or assisting in the set-up of facilities to support these activities
 - **Gain access to international markets and customers:** May occur through supporting trade missions, in-country visits to and from international customers, in-market support to suppliers and advocacy efforts within Australia and with international customers
- Quickstep commends the New South Wales Legislative Council’s Standing Committee on State Development for this strategic initiative in undertaking a detailed review into the defence industry.

Introduction

The Defence sector has an extremely important place in the Australian economy, as one of the main industry sectors providing growth opportunities for Australian companies involved in advanced manufacturing activities.

Australian industry will play a major role in the delivery of the Australian Government's 2016 Defence White Paper and the State of New South Wales is well placed to support the development of a technologically advanced, innovation-driven and sustainable Australian defence industrial base. The competition between States to gain a substantial share of this growing defence industrial base is increasing dramatically and a number of initiatives may need to be undertaken to incentivise and further grow and expand the defence industry in New South Wales.

The building of sovereign capability in Defence is a major cornerstone of the Defence White Paper and Defence Industry Policy Statement. The Australian Government has formally recognised the vital role of the Australian defence industry in the delivery of its Defence plans and that the need for further support and development of industrial capabilities is vital to Australia's future. New South Wales can play a major role in the development of this sovereign capability.

Quickstep Holdings - Overview

Quickstep Holdings Limited ('Quickstep') is an Australian publicly listed company (ASX: QHL), at the forefront of advanced composites manufacturing and technology development. Quickstep, through its wholly owned division Quickstep Technologies, is today the largest independent aerospace-grade advanced composite manufacturer in Australia, and we are partnering with some of the world's largest aerospace / defence organisations including Lockheed Martin, Northrop Grumman and BAE Systems, as well as Victorian-based Marand Precision Engineering.

Quickstep's advanced manufacturing headquarters are located in Bankstown, New South Wales, Australia and we also have process support and servicing activities in Munich, Germany and we have recently established our New Technology and Global R&D Centre within Deakin University's in Waurin Ponds campus in Victoria. Quickstep has projected sales of around \$52 million in 2016/17 and we currently employ 216 people in total, with 207 staff in Australia and 188 working in New South Wales. The majority of Quickstep's revenue is attributable to export sales, with our Bankstown operation being 100% export focused.

Quickstep has developed 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 (developed in-house and patented).

Quickstep's core value proposition to the aerospace, defence and other advanced manufacturing sectors, is our manufacturing capabilities in both 'build to print' and 'blackbox solution' environments. We have developed in-house new composite material manufacturing solutions, with the ability to produce lower cost, high quality carbon fibre components, at higher volumes than traditional aerospace manufacturing processes, such as Autoclave curing.

Through our advanced manufacturing facilities in Bankstown and the new process capabilities we have developed in-house, Quickstep has the potential to be a world leader in composites process technology solutions. This however, is contingent on us being able to secure sufficient manufacturing projects in Australia and globally.

The Joint Strike Fighter (JSF) F-35 Lightning II jet is one such project and it has significant implications for the growth of Quickstep and a number of other Australian manufacturing businesses. Quickstep is involved in the global F-35 Lightning II production supply chain through the manufacture of centre fuselage composites parts and; the production of vertical tail composite parts for the aircraft, from our advanced manufacturing facility in Bankstown, New South Wales. Quickstep shipped its first production parts for the international JSF program in March 2011.

As an approved supplier to the JSF program, Quickstep was considered capable of bidding for the supply of composite wing flaps for the C-130J program. Following the conduct of an international commercial tender program by Lockheed Martin, Quickstep was selected in March 2012 as the sole global supplier for C-130J 'Hercules' tactical transporter wing flap, under a five-year memorandum of agreement (MoA) valued at US\$75 million, recently converted into a five-year firm order.

Each year since program inception, Quickstep has received new F-35 purchase orders from JSF program partner, Northrop Grumman, under long-term agreements previously signed with Northrop. These orders are increasing every year as the program ramps up in quantity and we are sole global supplier of some of these composite parts. Under various memoranda of understanding, Quickstep is supplying carbon fibre composite skins and sub-assemblies for the JSF program.

In April 2014, Quickstep announced that we had 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 contains 18 individual parts, including skins, spars and fairings. These parts, along with parts from other suppliers, are being assembled by Marand into vertical tails for BAE Systems UK, for ultimate delivery to Lockheed Martin's Ft Worth facility in Texas, where they are incorporated into F-35A aircraft on the production line. Quickstep delivered the first parts to Marand in the second half of 2015. At peak production, the new LTA is expected to provide \$13 million per annum in sales revenue for Quickstep.

The overall agreement to supply JSF parts with different Original Equipment Manufacturers is valued by Quickstep at up to \$840 million over two decades. At peak production, we are expected to generate JSF revenue of approximately \$50-60 million per annum. This will be enhanced further through sustainment opportunities that will deliver additional revenue through the supply of replacement and spare parts.

As you can see from the above, the JSF program is planned to have a significant impact on the current and future financial performance of Quickstep, allowing us to continue to grow our staff numbers in Australia and to fund the development of additional advanced manufacturing processes and innovative practices to support a number of new business opportunities that we are currently in discussions with other aerospace, defence and other advanced manufacturing product producers.

Defence Manufacturing - Delivers Employment, Innovation and Global Growth

Defence Sector in Australia

Australia has a long history of designing, manufacturing and adapting products to meet demanding military requirements. The Australian defence industry sector covers a range of industry segments including the aerospace, maritime, land, weapons and electronic systems domains.

According to the Australian Trade Commission (Austrade), the Australian defence industry in Australia employs around 27,000 people and supports/supplies to the Australian Defence Force and Defence Material Organisation. Australia exports over \$750 million of defence products and services, in particular to the USA, Europe and New Zealand. There are several major Primes and all are foreign owned with the exception of the Australian Submarine Corporation. These Primes include Lockheed Martin, Northrop Grumman, BAE Systems, Raytheon, Thales, Airbus and Boeing. Within the defence sector there are around 3,000 organisations, predominantly small to medium enterprise (SMEs). These SMEs account for approximately 50% of employment in the defence sector.

The defence sector operates across Australia, with Primes and SMEs located in all states, with South Australia, Victoria, Queensland and New South Wales being the largest defence related states.

The South Australian Government claims that it is "The Defence State" and is home to the headquarters or significant operations of a number of major defence companies including ASC, BAE Systems Australia, Lockheed Martin Australia, Raytheon Australia, Saab Systems, Babcock, Cobham, Ultra Electronics and Nova Systems. The defence industry employs some 27,000 workers, both directly and indirectly, in South Australia and contributes \$2 billion to the state's economy annually.

The Victorian Government estimates that Victoria's defence sector contributes up to \$8 billion to the state's economy annually. The defence industry in Victoria includes more than 300 businesses and directly employs around 7,000 people who make equipment and provide services for defence activities.

New South Wales has the largest number of defence bases and facilities in Australia. New South Wales' large Defence presence of more than 20,000 people ensures significant contracting and employment opportunities. As a result, an additional 6,500 are employed directly in the defence industry, and a further 19,500 people in New South Wales in other sectors that support defence. The New South Wales Government sees the defence industry as a key driver of future growth and innovation across the state.

Quickstep Employment in Australia

Quickstep has grown rapidly over the past five years and this is evidenced by the growth in employment with the company, particularly in New South Wales. In FY2012, the year that Quickstep moved to Bankstown, New South Wales, we had a total of 55 staff, 50 (91%) of those people located at Bankstown. By the end of FY2014, Quickstep employed a total of 140 staff, with 130 (93%) of these people working at the Bankstown site in New South Wales.

We currently employ 216 staff across the Quickstep group and 188 (87%) of these people are in New South Wales. The growth does not stop there, will a further 15 staff for new positions currently being sought for the Bankstown site and a further increase of about 80 direct staff at the Bankstown site by 2019.

Recruiting, training and retaining a highly skilled and capable workforce is paramount to our future success and this is one of the key areas that we feel that the New South Wales Government can assist us and other defence related SMEs, in achieving this objective. We have in particular experienced difficulties in recruiting skilled employees with the following requisite skill sets:

- Composites manufacturing understanding and experience
- Non-Destructive Testing (NDT) capability
- Lean manufacturing principals
- Mechatronics (for more technically related roles)
- Safety, quality practices & measurement
- Manufacturing, production and processes

Innovation

Innovation and continuous improvement are cornerstones of the Quickstep business and we have invested in both research and development (R&D) and product and process improvements to enhance our position in the defence and aerospace sectors. In FY 2016 alone, we spent \$3.5 million on the development and commercialisation of technologies and advanced manufacturing practices, to ensure that we can provide world-class advanced composite solutions to our customers.

To further expand our customer base and to support both Australian-based and global defence sector opportunities, we will need to continue to invest in strategic R&D activities and in new process technologies and testing capabilities. Some of these capabilities do not yet exist within the Australian defence sector and this is another key area where the New South Wales Government could assist both us and the defence sector in the state, in bringing these technologies and capabilities into the Australian market, providing additional product supply opportunities and contributing to the further growth of defence sovereign capability in this country.

Investment in Growth

Quickstep has recently completed a planned \$10 million capital expansion of our Aerospace Manufacturing facilities in Bankstown, including a capital investment program for the expansion of JSF production and the commissioning of automated robot drilling cell for C-130J production at the site. This takes the total investment made at the Bankston site to around \$30 million and provides Quickstep with further production capacity to take on addition manufacturing work at the facility. As stated earlier, JSF production increases alone will see an increase of about 80 direct staff at the Bankstown site by 2019.

Further growth and expansion in the future will come with additional capital expenditure requirements for both advanced manufacturing equipment and infrastructure to support the growth in manufacturing staff. For example, Quickstep is currently located on a very old, heritage protected site, adjacent to the Bankstown Airport and our growth in staff, will require expenditure on items such as additional car-parking, staff amenities, training facilities etc. This is also an area that we would like to see being supported by the New South Wales Government to attract, support and retain future employees.

Benefits to Australia & New South Wales

There are a number of economic, educational, industrial and social benefits and opportunities that result for the Australian and New South Wales economies that are derived from the support and further development of Australian suppliers to the Defence sector and they include:

- The Intellectual Property developed within these suppliers remains in Australia and can be transferred to the supply of advanced manufacturing services in other advanced manufacturing sectors (i.e. automotive, truck, mass transit (rail and bus), marine, medical device etc.)
- These Australian suppliers provide employment opportunities to a number of staff, some of which have been recruited from the automotive sector, helping to assist in offsetting the loss of skilled jobs within the Australian manufacturing sector
- Additional capital equipment will be required by these Australian suppliers for product development and manufacturing purposes and these may be sourced locally in Australia and New South Wales
- Supply chain opportunities for a range of other Australian suppliers will be created, as have strong links and networking opportunities with other Australian based companies and institutions
- The outcomes fit perfectly with the Australian Government's stated aim of developing sovereign capability and encouraging and fostering innovation and developing and expanding 'advanced manufacturing' capabilities in Australia
- Fits with the New South Wales Government's stated objective of making New South Wales a prosperous state, recognised as a place of opportunity, a place where people want to live, have good jobs and businesses choose to invest and grow

New South Wales Government – How Can Government Assist?

The New South Wales Government can assist the development of a strong Defence sector in the State by supporting and assisting companies to:

- **Identify, bid for and secure Defence-related business:** This may include working closely with suppliers to secure business and encouraging defence-related customers to seriously consider these suppliers. This may also include funding support for Non-Recurring Costs (engineering, tooling, project costs etc.), as in many bids suppliers are expected to amortise initial tooling and set up costs over the program life. A loan linked to repayment through a levy on sales for that program would be very beneficial
- **Recruit, train and develop a strong and capable workforce:** This may include co-supporting existing Federal Government and Defence sector related programs (Such as Skilling Australia's Defence Industry) and supporting other employment initiatives (i.e. Traineeships, Internships, School pathways, Apprenticeships etc). This may also include developing longer-term programs to attract, train and develop skills in advanced manufacturing in New South Wales
- **Innovate and commercialise technology:** Both products and processes to meet future Defence needs. This may include supporting new capital investments and infrastructure upgrades undertaken by Defence suppliers in New South Wales, including facilities to accommodate higher employee numbers
- **Undertake Defence related research and development activities:** This may occur by co-funding this activities or assisting in the set-up of facilities to support these activities
- **Gain access to international markets and customers:** This may occur through supporting Defence trade missions, in-country visits to and from international customers, in-market support to suppliers and advocacy efforts within Australia and with international customers

Closing Thoughts

Quickstep commends the New South Wales Legislative Council's Standing Committee on State Development for this strategic initiative in undertaking a detailed review into the defence industry in New South Wales and we look forward to continuing to be an active participant in the growing Defence sector in New South Wales and to keeping this globally important sector operating successfully in the Australian economy.

It is important that a long-term future is secured for the Defence manufacturing sector in Australia and this requires a strong commitment from government and industry to work in an environment that encourages and nurtures innovation in new product development and advanced manufacturing practices and techniques. The development of greater sovereign capability is a major conduit for such innovation and therefore plays an important role in the future of advanced manufacturing and job creation, in Australia and provides a springboard into the global Defence markets.

Quickstep is proud to be a key Australian Defence supplier, operating in the State of New South Wales.

Yours sincerely,

Mark Burgess
CEO & Managing Director
Quickstep Holdings Limited