

ALEXIUM INTERNATIONAL GROUP LTD (AJX)

Finalises Commercial Agreement for FR Nylon Treatment

SPECULATIVE

23 August 2012

Share Trading Info

ASX Code	AJX
Current Share Price (Aust. cps)	6.9
Trading Low /High (Rolling Year) (cps)	6.0 - 11.5
Mkt Capitalisation (undiluted) \$m	9.6
Cash Balance (30 June 2012)	0.9

Capital Structure (m)

Current Shares on Issue	138.7
Unlisted Options	30.5
Total Securities on Issue	169.2

Directors (Shaded) and Executive Management

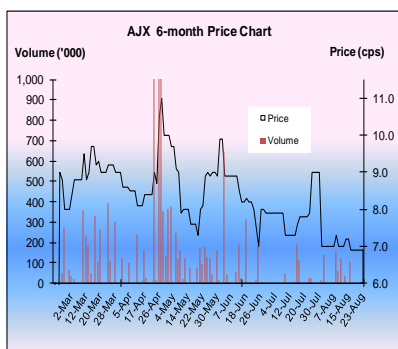
Gavin Rezos	Exec Chairman & President
Stephan Susta	Chief Operating Officer
Craig Smith-Gander	Non Executive Director
Dr Bob Brookins	Chief Technology Officer
Halis Alkis	Textile Consultant
David Lambert	Process Chemist & Prod'n Transition
John Almond	Mgr - Business Development Europe
Nick Clark	CFO & Company Secretary

Major Shareholders

Korcula (BV) SA	13.2%
HSBC Custody Nom. (Aust) Ltd - A/C 3	12.4%
Pper Buchanan Ltd	10.5%
HSBC Custody Nom. (Aust) Ltd - A/C 2	8.7%
JP Morgan Nominees (Aust)	5.8%

Important Disclosure

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- **AJX has finalised its first commercial agreement to license its novel flame retardant treatment, which immediately contributes to the Company's revenue base. AJX are also negotiating license agreements for repellent treatment on ballistics fabrics.**
- **The agreement with Duro Textiles covers Duro's nylon product areas for military, government agencies, upholstery, and industrial workwear markets in North America.**
- **The terms of the license agreement (undisclosed) include an upfront license fee, development cost sharing, machine sales, milestone payments, and royalties based on product sales with minimum quantities.**
- **Both AJX and Duro Textiles are targeting a market opportunity currently in excess of four million linear yards of nylon and anticipate launching a number of new flame retardant nylon fabrics in 2013. Both parties are also planning to build production capacity to meet this market opportunity.**
- **Duro Textiles are an attractive partner because of its industrial production capacity, distribution and sales channels, and their ability to make a sizeable investment in flame retardant technology.**
- **The agreement with Duro is a platform for the Company to expand into other technology platform areas, such as carpets, synthetic fabric blends, and as polymer additives in materials for non-textile applications. AJX are also exploring opportunities to enter into similar partnerships in other geographic regions, including Australasia, Europe, and Asia.**

The Trend Towards Safer Flame Retardants

At present, there is a push by both public and government agencies worldwide to phase out traditional bromine-based flame retardants and other halogen-based flame retardant chemicals, due to environmental and health concerns.

As such, AJX's commercial strategy is underpinned by the Company's introduction of a safe and effective bromine-free flame retardant alternative for several industrial applications.

US Technical Team Strengthened

The appointment in June 2012 of Mr David Lambert has expanded AJX's US-based technical capability. Mr Lambert's appointment is expected to accelerate the development and transition of AJX's treatments to its industrial partners in the US.

Who are Duro Textiles?

Duro Textiles is one of the US' largest dyers, printers, finishers and distributors of textile products. By leveraging technological advances, production experiences and superior quality, Duro is a leader and foremost solution provider for military fabric needs in the US. Duro's military products range from light to heavy weight fabrics that are used in ultra light-weight-breathable ponchos, tents, sleep systems, physical training uniforms, to the extreme durability of ballistic nylon tactical outerwear.

Duro is also a major fabric supplier to the performance apparel, industrial, tactical, home, and hospitality markets. Duro Industries and sister companies Galey & Lord, and Best Textiles are part of Patriarch Partners, LLC, a private equity firm managing \$7 billion in assets in more than 70 companies.

Market Potential for AJX's Flame Retardant Treatment

The potential for AJX's flame retardant treatment is in high volume/high value applications such as military textiles, tents, sleeping bags, work wear and furnishings. AJX are continuing larger demonstration runs for interested partners, as well as certification testing for military and commercial customers.

The company estimates an initial conservative market for flame retardant nylon apparel to be in excess of four million linear metres p.a. (with a much higher market potential), a revenue opportunity of at least \$4 million p.a. to AJX (with excellent margin potential) and expected to grow at double digits as the technology gains acceptance with specifiers and manufacturers.

In addition, AJX can extend its FR treatment to nylon blends, such as NyCo (Nylon Cotton) and polyester which are significantly larger markets again. A further marker for the size of the flame retardant market in the US is the existing annual consumption of 40,000 tonnes of flame retardant chemicals in the US.

Demand is likely to mostly come from military and commercial customers in the US, Australia and Europe. Asia and the emerging markets represent the major longer-term opportunity, once the technology has been validated commercially.

Applications for Flame Retardant Treatments

The application for flame retardant chemicals ranges from automotives, electrical and electronics components to construction, and wires and cables industry. They are also used in plastic covers of television sets, carpets, paints, upholstery, and domestic kitchen appliances.

Building and construction industry is the largest end-use application for flame retardant chemicals. Increasing fire safety regulations and fire safety standards for residential, commercial as well as infrastructural construction are expected to fuel consumption growth of flame retardant chemicals in the building and construction industry. The rapidly growing construction industry in China and India is also expected to boost the market. Wire and cable is the second largest application for flame retardant chemicals.

Industry Trends and Legislative Factors Support the Commercial Transition to Safer Flame Retardants

The most widely-used commercial flame retardants contain the chemical element bromine. Brominated flame retardants - while considered effective in inhibiting the ignition of combustible household items such as furniture padding, plastics, electronics, clothes and the transportation industry - are lipophilic and bio-accumulative, and several brominated flame retardants have been labeled carcinogens and neurological toxins. AJX's flame retardant treatments do not contain organo-bromine or any other halogenated compounds.



The recent scrutiny on brominated flame retardants and other halogen-based flame retardant chemicals has been sparked by investigative reports in the US on the performance of brominated flame retardants and the potential harmful effects on humans and animals.

As a result of these concerns, legislative efforts in the US, at both state and federal level, are underway to phase out brominated flame retardants. In particular, California is transitioning to new standards that can be met without the use of toxic chemicals. Also, the US Environmental Protection Agency intends to conduct a broad investigation into several types of flame retardants.

The concerns raised by these investigations should draw positive attention to the environmental and performance benefits of AJX's flame retardant treatment as a safe and effective alternative.

Expansion of US Technical Capability

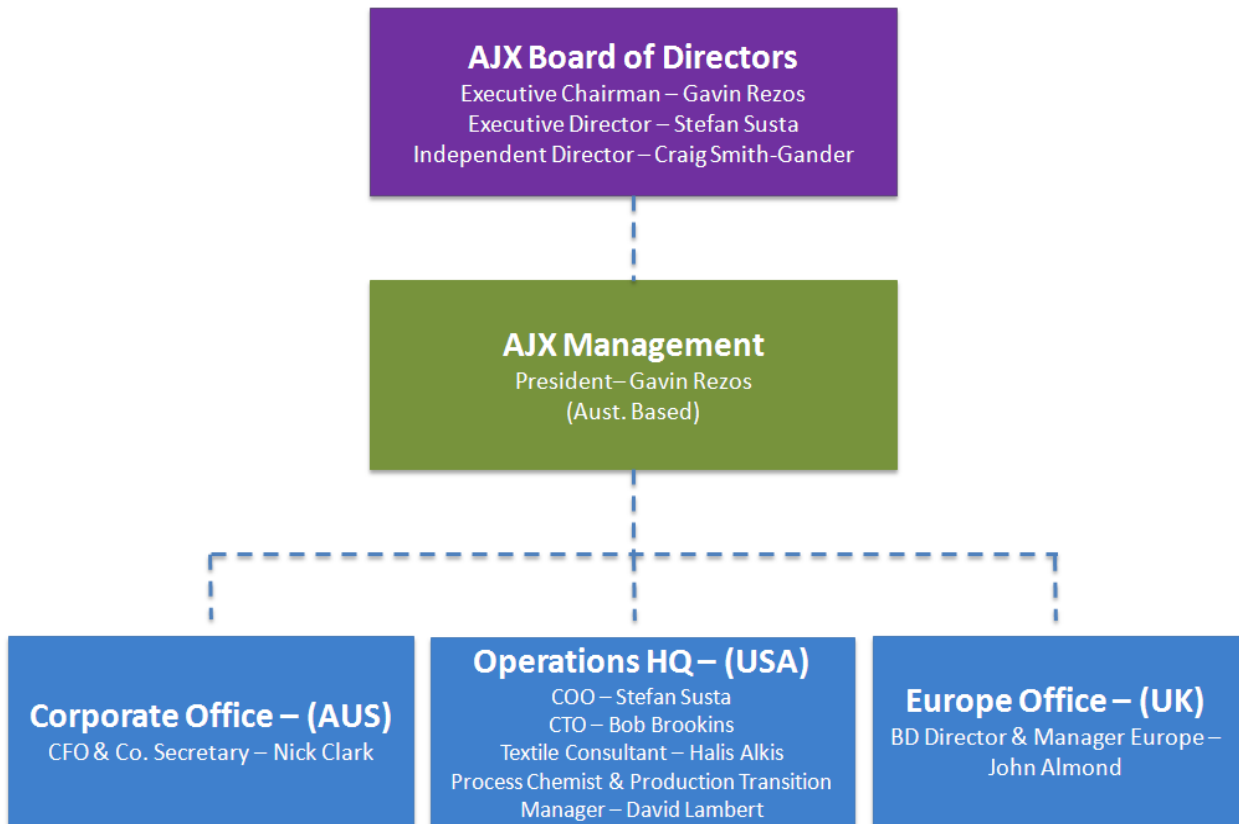
Reflective of the increased commercial interest in AJX's treatments and the commercial roll-out of products to industrial partners, AJX has recently strengthened its technical capability in the US with the appointment of Mr David Lambert, as the Process Chemist and Production Transition Manager. Mr Lambert will also add in-plant trial experience, customer support, and process development experience.

Mr Lambert is a seasoned and highly versatile chemist with nearly 30 years of experience in the supervision, design, development, manufacturing, product stewardship, application, and testing of products. He served the US military for over 20 years and is a retired Lieutenant Colonel with vast supervisory experience in Chemical Corps, Military Police and Air Defense.

In addition, Mr Lambert has extensive formulations experience with both water-borne and solvent-borne formularies including elastomers, auxiliaries, dyes, coatings, and formulated products for a variety of applications.

AJX already has a strong management presence in the key US market, as well as in Australia and Europe, with a number of executives based in the US overseeing critical aspects of the company's operations, in particular product development, IP, commercial partnerships and development.

Figure 1: AJX Leadership and Operational Structure





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