

## Fastbrick Robotics Quarterly Report | June 2018

### Highlights

- Hadrian X mechanical assembly complete
- Fastbrick Robotics rebranded to FBR
- Testing of the Fastbrick Wall System delivers excellent results
- Global study of Hadrian X addressable market complete
- Strategic Collaboration Agreement signed with GP Vivenda
- Memorandum of Understanding with Caterpillar extended; New option granted
- Board and Executive team strengthened; US office opened

**Monday, 30 July 2018** – Robotic technology company **Fastbrick Robotics Limited (ASX:FBR)** ('FBR' or 'the Company') is pleased to provide its quarterly update for the three months ending June 30, 2018.

### Hadrian X Mechanical Assembly Complete

Mechanical assembly of the Hadrian X was completed during the quarter, as announced on 7 June 2018.



The mechanical testing and commissioning of the Hadrian X is progressing well, with the layhead and boom hydraulics now commissioned. A number of refinements have been identified and implemented through the ongoing commissioning process ahead of Factory Acceptance Testing '(FAT)' and Build1, presently scheduled for the latter half of the 2018 calendar year.

# ASX Announcement Fastbrick Robotics Limited



## Fastbrick Robotics Rebranded to FBR

The Company rebranded from 'Fastbrick Robotics' to 'FBR' during the quarter to ensure that the Company's branding and structure is reflective of its corporate strategy. In line with this, the Company despatched a Notice of General Meeting subsequent to the end of the quarter containing a Special Resolution seeking shareholder approval to officially change the name of the Company to FBR Limited. The General Meeting will be held at Crown Perth Convention Centre on 29 August 2018 at 10am.

## Fastbrick Wall System Testing

Over the past few months FBR has engaged Curtin University, Newcastle University, the Sydney CSIRO and a host of independent certifiers to conduct extensive testing on the current Hadrian optimised block prototype, adhesive and render that make up the Fastbrick Wall System.

After conducting 7-day and 28-day compression strength tests, an independent certifier has determined that the current prototype Hadrian optimised blocks to be used in Factory Acceptance Testing ('FAT') and Build1 meet the requirements for use in up to 3-storey construction. Newcastle University also carried out bond wrench testing (designed to test the strength of the joints between the blocks) and prism compression testing on the Fastbrick Wall System, with both completed successfully. Preliminary flexural testing using the current prototype Hadrian optimised block indicated that the Fastbrick Wall System is capable of handling the worst cyclonic conditions in Australia.

The Fastbrick Wall System has also completed fire rating testing at CSIRO Sydney with exceptional results. FBR intended to test the Fastbrick Wall System until destruction, but the below image shows the current prototype Fastbrick Wall System after over four hours of fire rating testing, at which point the test was concluded due to surpassing industry standard testing by a significant margin.



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# ASX Announcement Fastbrick Robotics Limited



Likewise, thermal rating testing was carried out both internally and at Newcastle University with good results. A porosity rating test to determine the level of moisture ingress in the Fastbrick Wall System was completed on a double rendered wall using the current prototype Hadrian optimised block and adhesive at Newcastle University, producing exceptional results.

## **Global Study of Hadrian X Addressable Market Complete**

As detailed in the Company's announcement released to the ASX on 26 April 2018, the first phase of the global market study carried out in conjunction with FBR's global strategic business advisor, EY-Parthenon, was completed during the quarter. Associated market analysis indicated that a stock of approximately 140,000 to 150,000 Hadrian X construction robots would be required to build all low-rise buildings globally in 2018.

## **Strategic Collaboration Agreement with GP Vivienda Signed**

As announced to the ASX on 20 June 2018, FBR has entered into a Strategic Collaboration Agreement ('SCA') with GP Vivienda to discuss potential pilot testing programs for FBR's Hadrian X construction robots in Mexico, as well as opportunities for future applications of FBR's core Dynamic Stabilisation Technology ('DST').

GP Vivienda is the housing division of Grupo GP, one of Mexico's largest construction companies, and has built over 70,000 homes in communities across Mexico. The SCA between FBR and GP Vivienda extends for two years, and in addition to the above contemplates commercial, corporate and investment opportunities, knowledge sharing, mutual business development opportunities, and joint technology or business process development opportunities.

A detailed analysis of the Mexican market for the Hadrian X carried out in conjunction with EY-Parthenon indicates a theoretical need for approximately 700-750 Hadrian X construction robots to replace all bricklaying labour in Mexico in 2018. The majority of construction in Mexico is low-rise and almost entirely made up of brick and block construction. Mexico is currently suffering from an acute deficit in affordable housing of approximately 8.3 million homes, presenting a major social issue in Mexico that the Hadrian X could assist with. Further, given the frequency of extreme weather events and earthquakes in Mexico, the Hadrian X can assist in providing reliable, timely and cost-effective post-disaster construction and provides a unique solution to the affordable housing problems in Mexico, a problem shared by many other countries around the world.

## **Memorandum of Understanding with Caterpillar Extended; New Option Granted**

Subsequent to the end of the quarter, FBR announced that the term of its Memorandum of Understanding ('MOU') with Caterpillar Inc., originally due to expire on 30 June 2018, has been extended to 31 January 2019 in order to allow FBR additional time to demonstrate its technology to Caterpillar in line with the original intentions of the MOU and FBR's current development schedule. Further, FBR and a subsidiary of Caterpillar Inc. have entered into a new option deed which provides Caterpillar with a new option to subscribe for FBR shares, intended to replace the previous Caterpillar option which expired on 30 June 2018. Under the new option, Caterpillar has the ability to subscribe for shares in FBR to the total value of approximately US\$10 million at a subscription price of A\$0.24 on or before 31 January 2019. The pricing of the new option at \$0.24 represents a 20% increase from the the previous option, priced at \$0.20.

## **Board and Executive Team Strengthened; US Office Opened**

Subsequent to the end of the quarter, FBR announced the appointment of former Caterpillar executive Mr Steve Pierz as its Chief Innovation Officer, based permanently in the United States. Steve has a long history of driving innovation initiatives at Caterpillar and was instrumental in putting together the Strategic Collaboration Agreement with GP Vivienda. The opening of an FBR office in the



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US is a significant milestone for the Company, and will facilitate the commercialisation of the Hadrian X and future DST applications.

FBR also appointed a new Non-Executive Chairman, Mr Richard Grellman AM, following the retirement from the Board of Ms Shannon Robinson. Richard brings a wealth of experience and leadership to FBR, having previously worked with accounting firm KPMG for 32 years. Richard is also currently the Non-Executive Chairman of IPH Limited, and Director and Chairman of the Audit Committee of Bisalloy Steel Group Limited.

Mr Aidan Flynn, Chief Financial Officer, was also appointed Joint Company Secretary subsequent to the end of the quarter.

FBR is continuing to review its resourcing to ensure that it has strong and capable leadership to deliver on strategic initiatives, generate ongoing value to shareholders and grow the Company.

## Ends

### For more information please contact:

#### Fastbrick Robotics Ltd

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#### About FBR

Fastbrick Robotics Limited (ASX:FBR) designs, develops and builds dynamically stabilised robots to address global needs. These robots are designed to work outdoors using the company's core Dynamic Stabilisation Technology (DST™). FBR is commercialising products for the construction sector together with DST™-enabled solutions for other industries.

To learn more please visit [www.fbr.com.au](http://www.fbr.com.au)



## Appendix 4C

### Quarterly report for entities subject to Listing Rule 4.7B

<b>Name of entity</b>		
Fastbrick Robotics Ltd		
<b>ABN</b>	<b>Quarter ended ("current quarter")</b>	
58 090 000 276	30 June 2018	

  

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) Hadrian Development costs	(5,283)	(11,000)
(b) staff costs – Hadrian Development	(2,811)	(6,387)
(c) product manufacturing and operating costs	-	-
(d) advertising, marketing and business development	(355)	(613)
(e) leased assets	-	-
(f) administration and corporate costs	(1,503)	(4,735)
(g) staff costs – Administration	(935)	(1,577)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	331	423
1.5 Interest and other costs of finance paid	(2)	(3)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
1.8 Other:		
- R & D rebate	-	973
- Commercial grants	15	78
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(10,543)</b>	<b>(22,842)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(385)	(1,286)
(b) businesses (see item 10)	-	-
(c) investments	-	-
(d) intellectual property	-	-
(e) other non-current assets	-	-
2.2 Proceeds from disposal of:		
(a) property, plant and equipment	-	-
(b) businesses (see item 10)	-	-
(c) investments	-	-
(d) intellectual property	-	-
(e) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(385)</b>	<b>(1,286)</b>

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	37,647
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	175	1,561
3.4	Transaction costs related to issues of shares, convertible notes or options	(2)	(1,773)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>173</b>	<b>37,434</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of quarter/year to date	32,712	8,651
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(10,543)	(22,842)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(385)	(1,286)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	173	37,434

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of quarter</b>	<b>21,957</b>	<b>21,957</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts</b>	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	5,343	2,134
5.2	Call deposits	16,307	30,323
5.3	Bank overdrafts	-	-
5.4	Other (Guarantee facilities)	307	255
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>21,957</b>	<b>32,712</b>

<b>6.</b>	<b>Payments to directors of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to these parties included in item 1.2	199
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3	Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	
<p>\$167k Directors' fees and reimbursements</p> <p>\$32k Director &amp; Corporate administration paid to Laurus Corporate Services Pty Ltd of which Gabriel Chiappini is a director and shareholder</p>		
<b>7.</b>	<b>Payments to related entities of the entity and their associates</b>	<b>Current quarter \$A'000</b>
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3	Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	
<p>N/A</p>		

8. <b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

N/A

9. <b>Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Research and development	3,750
9.2 Product manufacturing and operating costs	-
9.3 Advertising, marketing and business development	500
9.4 Leased assets	-
9.5 Staff costs - Administration	1,200
9.6 Administration and corporate costs	1,300
9.7 Other (Patents & Trademarks)	500
<b>9.8 Total estimated cash outflows*</b>	<b>7,250</b>

\*The estimated cash outflows are required to exclude all cash receipts including receipts from research and development tax cash offsets.

10. Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)	Acquisitions	Disposals
10.1 Name of entity	n/a	n/a
10.2 Place of incorporation or registration	n/a	n/a
10.3 Consideration for acquisition or disposal	n/a	n/a
10.4 Total net assets	n/a	n/a
10.5 Nature of business	n/a	n/a

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



Aidan Flynn, Company Secretary  
31 July 2018

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.