

## FBR Limited Quarterly Report | December 2018

**Tuesday, 22 January 2019** – Robotic technology company **FBR Limited (ASX:FBR)** ('FBR' or 'the Company') is pleased to provide its quarterly update for the three months ending December 31, 2018.

### **First full home structure built with Hadrian X; prospectus milestone achieved**

On 13 November 2018, FBR announced it had successfully demonstrated its robotic home building technology, Hadrian X, by building a 180m<sup>2</sup>, three-bedroom, two-bathroom home structure in less than three days. This achieved a major technical milestone set for the Company back in 2015.

The structure was independently verified as meeting the relevant building standards by a civil and structural engineering consultancy group, and was later rendered in sections to demonstrate that the structure was of renderable quality for commercial use.



*The finished three-bedroom, two-bathroom structure built at FBR's test facility with the Hadrian X in under three days*

Shortly after completion of the build, FBR hosted a team from Wienerberger AG, the largest clay block manufacturer in the world, to discuss the progress of the Hadrian X and the path forward for commercialisation.



*CTO Mark Pivac with Wienerberger AG representatives Alexander Lehmden, Head of Product Management Wall Clay Building Materials Europe and Sebastian van Droogenbroeck, Head of International Product Management Façade testing a Wienerberger porotherm block in the Hadrian X's gripper*

### **First Hadrian X outdoor test builds commenced**

Subsequent to the end of the December quarter, the first Hadrian X returned to FBR's High Wycombe facility and commenced outdoor testing, with a small structure completed as part of initial testwork.

The Hadrian X will soon commence building a full home structure outdoors on the High Wycombe site, which will again consist of three bedrooms and two bathrooms, but will be a more complex design than its previous build to provide a greater demonstration of the Hadrian X capabilities as it progresses through the testing regime.

Home structure completion work will be incorporated into this test and demonstration including rendering, brick veneer, roofing, roof ties, window and door frame installation, MEP (mechanical, electrical, plumbing), ports, dry wall and wet finishing of internal walls.



*The building of an 'F' structure in progress. The two-course F structure comprises every block configuration and combination required for the build of a full home structure.*

### **Second Hadrian X commissioning underway**

Testing and commissioning of FBR's second Hadrian X is progressing well, with indoor test builds to commence shortly. This second Hadrian X machine will initially build small structures indoors before progressing to full home structures outdoors in readiness for the construction of the first commercial homes on residential sites later this year.



*The second Hadrian X is drawing closer to its first indoor test builds as commissioning progresses*

**Wall as a Service™ business model unveiled; Memorandum of Understanding with Caterpillar discontinued by mutual agreement**

On 3 December 2018, FBR released a new investor presentation which outlined the Company's proposed business model of Wall as a Service™, or WaaS™, for the first time. The WaaS™ model is based on partnering with large brick and block manufacturers to scale the global rollout of Hadrian X robots by leveraging their existing customers, infrastructure and market share. FBR's strategic relationship with Wienerberger, the largest clay brick and block manufacturer in the world, is significant for this reason.

After extensive discussions with builders and brick makers, it was determined that they would prefer a model where walls can be provided by an expert on demand rather than adding new elements to their businesses to own, operate and service robots. FBR intends to introduce the Hadrian X to its target markets as quickly and effectively as possible, and rather than wait for industry players to purchase robots up front, train operators and build contract robotic bricklaying businesses from the ground up, FBR's research and analysis indicates that offering WaaS™ is the best, most value adding and fastest path to commercialisation.

FBR will not only retain full control of its IP under this model, but will also manage the people operating Hadrian X robots to ensure that the introduction of this leading technology is smooth and efficient. Further, WaaS™ offers the potential for significantly higher and longer-term income than royalties

# ASX Announcement FBR Limited



from machine sales, and could scale at a much faster rate than traditional OEM-based machine sales to isolated end users.

Both FBR and Caterpillar acknowledged that despite the dissolution of the MOU, the companies remain open to possible future business opportunities together.

FBR is now focused on completing outdoor test and demonstration builds with the Hadrian X robots at its High Wycombe facility. It is expected that this will be followed by the commencement of construction of homes under commercial contract in Australia later this year as envisaged in the second milestone disclosed in the 2015 prospectus.

**Ends**

**For more information please contact:**

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**About FBR**

FBR 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

**Name of entity**

FBR Limited	
<b>ABN</b>	<b>Quarter ended ("current quarter")</b>
58 090 000 276	31 December 2018

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) research and development	-	-
(b) product manufacturing and operating costs	-	-
(c) advertising, marketing and business development	(210)	(534)
(d) leased assets	(3)	(7)
(e) staff costs – Administration	(1,010)	(2,031)
(f) administration and corporate costs	(424)	(911)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	86	181
1.5 Interest and other costs of finance paid	-	(1)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,562)</b>	<b>(3,303)</b>

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(288)	(333)
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	(225)	(381)
	(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	(150)	(150)
2.4	Dividends received (see note 3)	-	-
2.5	Other		
	- Hadrian Development costs	(2,157)	(4,911)
	- staff costs – Hadrian Development	(2,811)	(5,812)
	- R & D rebate	-	7,376
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(5,631)</b>	<b>(4,211)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	61
3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
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>61</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	21,697	21,957
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,562)	(3,303)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(5,631)	(4,211)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	61
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>14,504</b>	<b>14,504</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	5,247	4,440
5.2	Call deposits	9,000	17,000
5.3	Bank overdrafts	-	-
5.4	Other (Guarantee facilities)	257	257
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>14,504</b>	<b>21,697</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	138
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	150
6.3	Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

\$138k Directors fees and reimbursements  
\$150k Loan to Director

<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	

N/A

**8. Financing facilities available**  
*Add notes as necessary for an understanding of the position*

	<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

<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Research and development	4,279
9.2 Product manufacturing and operating costs	-
9.3 Advertising, marketing and business development	273
9.4 Leased assets	3
9.5 Staff costs - Administration	1,019
9.6 Administration and corporate costs	447
9.7 Other (Patents & Trademarks)	475
<b>9.8 Total estimated cash outflows*</b>	<b>6,496</b>

<b>10. Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)</b>	<b>Acquisitions</b>	<b>Disposals</b>
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  
22 January 2019

## 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.