

## Weebit Nano moves closer to productisation

*Demo chips successfully complete functionality testing; scaling embedded ReRAM down to 22nm; technology transfer to SkyWater on-track*

### Q3 FY22 Quarterly Activities Report

#### Key highlights

- **Demo chips successfully complete functional testing**
- **Scaling embedded ReRAM technology down to 22nm**
- **Technology transfer to SkyWater's US fab progressing to schedule**
- **Demonstrated Weebit's first crossbar ReRAM array, an important step towards discrete memory**
- **Ongoing evaluations with potential partners and customers**

29 April 2022 – Weebit Nano Ltd (**ASX: WBT, Weebit or Company**) is pleased to provide this activity report for the quarter ended 31 March 2022 (**Q3 FY22**), along with the Company's Appendix 4C cash flow report.

#### Commenting on Q3 FY22, Weebit CEO Coby Hanoch said:

"Weebit Nano continues to deliver against its commercialisation strategy, achieving an important technical milestone on its productisation roadmap. Functional testing of the first demo chips with our embedded ReRAM memory module confirmed the technical parameters of our technology, and we are now progressing to characterisation and qualification with SkyWater.

"Our demo chips, designed as a System on a Chip (SoC), provide potential customers with physical samples of our ReRAM memory technology within fully operational chips. While this is an important step towards delivery of a commercial product, it also enables potential customers to begin incorporating Weebit's memory technology within their future product designs.

"To meet the needs of advanced applications such as AI, 5G and IoT, we are continuing to scale our ReRAM to smaller geometries where embedded flash technology is no longer feasible. We have already commenced work with CEA-Leti on scaling down to 22nm, a process technology only a handful of advanced fabs in the world can support. At the same time, we are continuing to improve the production-level parameters of our baseline ReRAM technology while also progressing the development of a discrete memory solution."



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### **Demo chips complete functional testing**

In early April 2022, Weebit moved closer to delivering a commercial product with the demonstration (demo) chips integrating its embedded ReRAM module successfully completing functional testing. Weebit received the silicon wafers containing the demo chips from manufacturing in December and together with CEA-Leti, sliced the wafers into chips, packaged and extensively tested them.

Testing included set and reset programming and reading of the entire ReRAM array using smart algorithms and various data manipulations. Weebit and CEA-Leti also tested the advanced features of the memory module and the operation of the entire subsystem, confirming the demo chips perform as expected.

Customers can use these demo chips to begin designing Weebit's ReRAM into their SoCs. The demo chips, manufactured at Leti, have now moved to the next step— characterisation and qualification.

### **Scaling down embedded ReRAM to 22nm**

During the quarter, Weebit commenced scaling its embedded ReRAM technology down to 22nm – an advanced process node for IoT, AI and 5G applications, which only a few of the world's leading fabs support. The Company is working with development partner CEA-Leti to design a full IP memory module integrating a multi-megabit ReRAM block targeting an advanced 22nm Fully Depleted Silicon On Insulator (FD-SOI) process.

This new 22nm program follows the achievement of production-level parameters at 28nm on 300mm wafers last October. Weebit is leveraging its strong balance sheet to accelerate development plans to scale its technology to smaller geometries where existing embedded flash technology is no longer viable, enabling future customers to create new products in advanced geometries.

### **Technology transfer to SkyWater's US fab on track**

Weebit's transfer of its embedded ReRAM technology to SkyWater's US production fab is on track to tape-out the first demo ReRAM chips by mid-year. While Weebit's technology uses industry standard materials, the semiconductor manufacturing process is complex, requiring adaptation to the specific tools used by each fab.

Following tape-out of the demo chips, technology qualification will begin, which entails extensive testing of manufacturing processes to ensure the repeatability of Weebit's embedded ReRAM at scale. SkyWater will then add Weebit's ReRAM to its 130nm Process Design Kit, enabling SkyWater customers to license Weebit's technology and embed it within new product designs they develop and mass-produce at SkyWater's fab.



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### **Demonstrated Weebit's first crossbar ReRAM arrays**

In January, Weebit achieved a key technical milestone with CEA-Leti in the development of discrete (stand-alone) NVM chips, demonstrating its first operational Kilobit (Kb) crossbar arrays that combine Weebit's ReRAM technology with a selector. Weebit's crossbar arrays were developed using 1S1R (one selector one resistor) architecture, which in future will enable Weebit's arrays to be stacked in 3D layers to deliver even higher densities.

Weebit's 1S1R crossbar ReRAM architecture has the potential to be used as storage class memory, persistent memory and as a NOR flash replacement, and is also ideal for Machine Learning in-memory computations and neuromorphic computing (Artificial Intelligence).

### **Evaluations with potential partners and customers**

Technical evaluations and business discussions with potential customers and partners are ongoing. The functional demo chips enable Weebit to demonstrate its embedded ReRAM to potential customers, supporting adoption prior to qualification by enabling potential customers to test and evaluate the technology within their applications and designs.

### **Summary of Q3 FY22 cash flows**

In Q3 FY22, Weebit Nano received \$8.5 million from the exercising of options. A further \$300K was raised via the issuing of Placement shares to three directors, following shareholder approval as part of last November's capital raising. R&D expenses were offset by a GST refund in France, totaling \$1.9 million, resulting in a cash inflow from R&D of \$759K. Payments to related parties over Q3 FY22 were \$752K, which included fees paid to directors and the CEO's cost of payroll and bonus for the period.

### **Industry events**

Over Q4 FY22, Weebit will participate at prestigious industry events, including:

- May: Weebit's Chief Scientist Gabriel Molas will present at the International Memory Workshop (IMW) 2022 on ReRAM's high temperature reliability. At the same event, Weebit's CTO Ishai Naveh will participate in a panel session.
- June: Weebit's VP of Marketing & Business Development Eran Briman will present at the New Paradigms for Computing Workshop at CEA-Leti's flagship Leti Innovation Days event on the state of ReRAM.
- June: Weebit's VP Technology Development Amir Regev will discuss emerging materials and technologies for ReRAM at CIMTEC in Italy.

Details about these and other invited papers and events are listed on Weebit's website at [www.weebit-nano.com/events](http://www.weebit-nano.com/events).

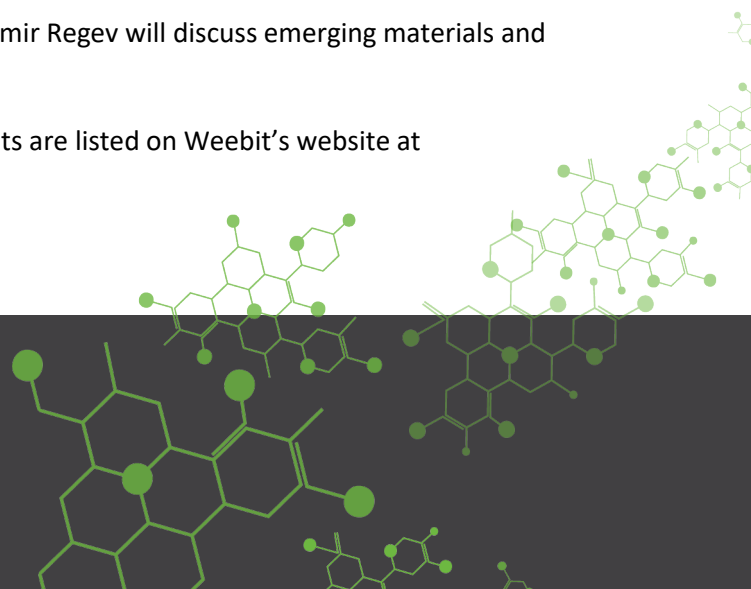


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## Looking forward

Weebit remains focused on commercialising its embedded ReRAM memory technology, and is on track to achieve the following milestones by the end of CY22:

- Technology transfer of its technology to SkyWater's US fab and being in advanced stages of qualification;
- Demonstrating the functionality and performance of its embedded ReRAM module;
- Signing new licensing agreements with partners and customers; and,
- Continue scaling its embedded ReRAM to 22nm.

In parallel, Weebit continues to work with CEA-Leti on the development of a solution for the discrete memory market.

## Investor briefing details

CEO Coby Hanoch will participate in a quarterly investor webinar at **4pm AEST on Monday, 2 May 2022**. Participants will have an opportunity to ask questions.

To attend, please pre-register at:

[https://us02web.zoom.us/webinar/register/WN\\_hvW0matQSGWg1ZjOFo\\_-g](https://us02web.zoom.us/webinar/register/WN_hvW0matQSGWg1ZjOFo_-g)

- ENDS -

*This announcement has been authorised for release by the Board of Weebit Nano Limited.*

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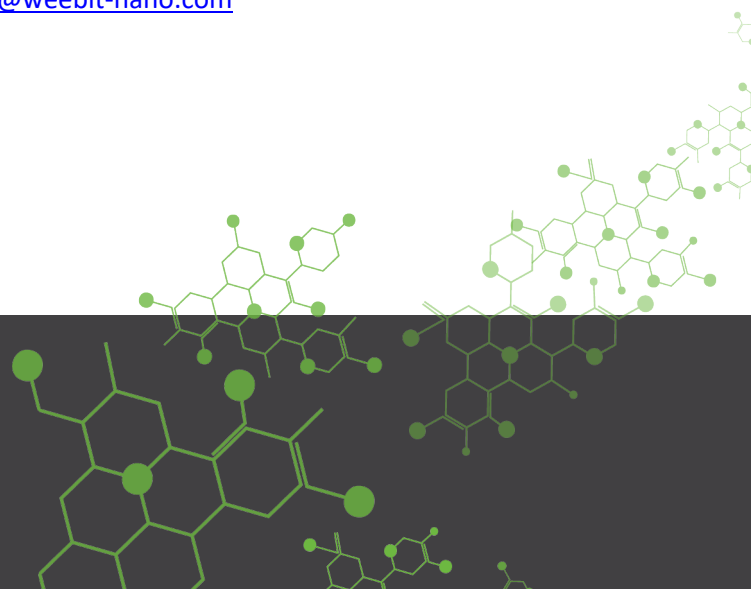


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### **About Weebit Nano Limited**

Weebit Nano Ltd. is a leading developer of next-generation semiconductor memory technology. The company's ground-breaking Resistive RAM (ReRAM) addresses the growing need for significantly higher performance and lower power memory solutions in a range of new electronic products such as Internet of Things (IoT) devices, smartphones, robotics, autonomous vehicles, 5G communications and artificial intelligence.

Weebit's ReRAM allows semiconductor memory elements to be significantly faster, less expensive, more reliable and more energy efficient than those using existing Flash memory solutions. Because it is based on fab-friendly materials, the technology can be quickly and easily integrated with existing flows and processes, without the need for special equipment or large investments.

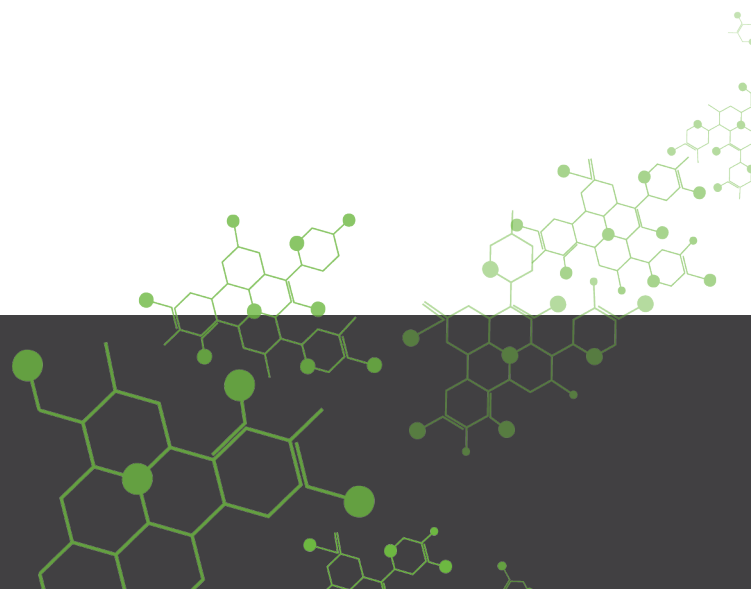
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## Appendix 4C

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

**Name of entity**

Weebit Nano Limited (ASX: WBT)

**ABN**

15 146 455 576

**Quarter ended ("current quarter")**

31 March 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) research and development	759	(13,077)
(b) product manufacturing and operating costs	-	-
(c) advertising and marketing	(277)	(529)
(d) leased assets	(59)	(219)
(e) staff costs	(2,682)	(4,510)
(f) administration and corporate costs	(253)	(943)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	7
1.5 Interest and other costs of finance paid	(21)	(24)
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>(2,532)</b>	<b>(19,295)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(130)	(216)
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(130)</b>	<b>(216)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	301	35,476
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	8,476	16,531
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(277)	(1,220)
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 (cash received in relation to tax withheld on ESOP)	-	579
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>8,500</b>	<b>51,366</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 period	47,662	21,725
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,532)	(19,295)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(130)	(216)

Appendix 4C  
Quarterly cash flow report for entities subject to Listing Rule 4.7B

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
4.4	Net cash from / (used in) financing activities (item 3.10 above)	8,500	51,366
4.5	Effect of movement in exchange rates on cash held	(307)	(387)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>53,193</b>	<b>53,193</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	53,193	47,662
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>53,193</b>	<b>47,662</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	769
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

*Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.*



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

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>		
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 <b>Total financing facilities</b>	-	-
7.5 <b>Unused financing facilities available at quarter end</b>		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(2,532)
8.2 Cash and cash equivalents at quarter end (item 4.6)	53,193
8.3 Unused finance facilities available at quarter end (item 7.5)	-
8.4 Total available funding (item 8.2 + item 8.3)	53,193
8.5 <b>Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	21
<i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i>	
8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: The company received a significant GST (R&D related) refund of AUD 1,900,000 from the French Government this quarter generating cash from operating activities.	
8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer:	
8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer:	
<i>Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.</i>	

## 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.

Date: 29/04/2022  
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Authorised by: Board of Directors  
(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow 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 cash flow 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.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.