

## Quarterly Activities Report – 31 March 2018

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### Highlights

- Rapid commercial expansion continues in Australia and Singapore – with multiple new contract wins announced during the March quarter
- Significant revenue increase forecast for calendar year 2018 with expected revenues of \$8m-\$10m – represents a ca. 245% increase year-on-year
- Key milestones achieved in technology development – successful validation of proprietary nanofiltration membrane in commercial scale pilot projects
- Proprietary technology portfolio expanded through innovative hollow fibre forward osmosis technology developed at NTU, Singapore
- Company remains well funded to execute on growth plans

Monday, 30 April 2018: **Water and waste water treatment company De.mem Limited (ASX: DEM)** (“De.mem” or the “Company”) is pleased to provide an update on the Company’s significant progress for the quarter ended 31 March 2018.

### De.mem continues expansion across Australia and Singapore

During the quarter, De.mem continued with its growth in the Australian and Singaporean markets respectively. As announced 6 March 2018, the following new contract wins, worth approximately \$340,000 were achieved during the period:

- Delivery of a containerized water treatment plant to El Questro Wilderness Park, Queensland, Australia;
- Provision of additional equipment to Bechtel Australia Pty Ltd (“Bechtel”), related to the order received from the customer in December 2017 (ASX announcement: 4 December 2017);
- Delivery of a membrane-based water treatment system to Aromatec Pte Ltd, a Singaporean company focused on the food and beverage industry.

The Company advises that these contracts refer to De.mem’s projects business and do not reflect long-term, established Build, Own, Operate (“BOO”) and Operations & Maintenance (“O&M”) agreements in Singapore and Australia, which further underpin revenue for the period.

The Company also advises that order uptake during January and February is less frequent, however with a robust order pipeline established across Australia and the Asia-Pacific region, DEM expects to realise additional contracts during the coming months.

### Revenue forecast of \$8m-\$10m for calendar year 2018

As announced 13 March 2018, the Company advised that revenues for calendar year 2018 were expected to be between \$8 million to \$10 million, compared to CY 2017 revenues of \$2.9 million and representing a 245% uplift.

This revenue forecast is based on:

- Existing orders received prior to 31 December 2017, yet to be executed;
- New orders received to date;
- The sales pipeline for the remainder of the Calendar Year 2018;
- Revenues to be generated from the existing BOO and O&M business in Singapore and Australia, which alone are expected at approx. A\$ ~3 million.

## Key Milestone Achieved with Successful Validation of Nanofiltration Membrane

As announced 20 February 2018, De.mem made substantial progress during the quarter by bringing its proprietary Nanofiltration (“NF”) membrane technology to commercial readiness. The NF membrane technology was in-licensed from Nanyang Technological University, Singapore (NTU), in June 2016 and delivers significantly lower operating costs and reduced investment relative to other conventional water treatment technologies.

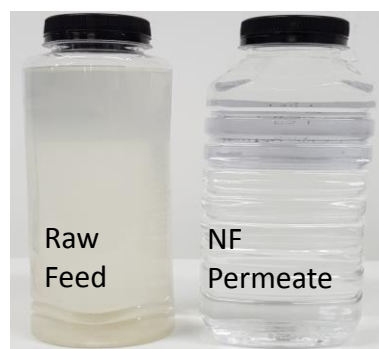
In particular, the Company completed an initial round of commercial scale test projects using the NF membrane in Singapore and Vietnam. Initially, a NF water treatment system was deployed at a municipal water treatment facility in Vietnam to filter river water from the Mekong River and another project was completed in the factory of a multinational corporation from the electronics industry in Singapore.

The trial conducted in Vietnam confirmed that the new membrane technology boasts superior rejection performance when compared to other offerings. The rejection of certain key parameters such as bacteria was confirmed at ‘6-log’, which implies that out of one million bacteria, less than one is able to pass through the membrane – this is vastly superior to other hollow fibre membranes available. Other key criteria for the treated water such as Turbidity or Total Dissolved Solids (TDS) also fell within World Health Organisation (WHO) drinking water standards.

The trial in Singapore was performed to treat the waste water from production at the corporation’s factory. The objective was to confirm the potential use of the new membrane for applications in industrial waste water treatment and recycling. Key criteria which measure the strength of industrial waste water, such as Chemical Oxygen Demand (COD), Turbidity or Total Dissolved Solids (TDS), could be reduced substantially, to below discharge requirements imposed by the Singapore government. Furthermore, the customer confirmed that the treated water can be recycled for re-use in its production, significantly reducing operating costs.

The membranes have been run at a low operating pressure of 1.5 bar in both trials, which implies a relatively low power consumption relative to other technologies.

The pilot projects also served De.mem to test the stability of its membranes and to optimise both the operating cycle and procedures.



**Image:** Raw feed and/or industrial waste water (left) and Nanofiltration membrane permeate (right)

While the first commercial orders of the NF membrane were announced subsequent to the end of period (refer ASX release: 3 April 2018), De.mem continues to witness a strong pipeline of potential orders for the new technology in Australia and the broader Asia-Pacific region.

## New License on Innovative Hollow Fibre Forward Osmosis Technology Signed

In a further positive development during the period, De.mem secured the exclusive rights in a new hollow-fibre Forward Osmosis (“FO”) technology originally developed by NTU for applications in industrial waste water treatment, particularly focused on the de-watering of reject/concentrate generated by membrane based water treatment plants.

FO is an osmotic process that uses a semi-permeable membrane to effect separation of water from dissolved solutes. The hollow fibre FO membrane developed by NTU promises to deliver high flux

(=high concentration of feed), low salt back flux (=low draw solution leakage) and is easy to be manufactured and scaled up.

The FO technology substantially reduces the volumes of concentrated liquid (“reject”), which is generated by membrane-based water treatment plants. The disposal of such reject is an enormous cost factor for the operators of these plants and represents significant costs of up to \$400 per tonne.

De.mem has demonstrated that the FO technology can reduce the volumes of reject by up to two thirds, providing substantial cost savings for clients. The technology can be utilised in place of current ‘Zero Liquid Discharge’ processes and evaporators, which are expensive to purchase and operate, leaving De.mem well positioned to capitalise on the market, which is cited to be worth approximately A\$400 million per annum (source: ForwardOsmosis Tech).

The technology is complimentary to De.mem’s current product offering as it can be manufactured on the Company’s existing equipment in its Singapore production facility. The new technology also meets a strong market demand amongst De.mem’s existing customer base outlining further opportunities.

### **Additional activities**

The Company also participated in a new initiative by the Singapore government to promote the membrane industry (refer ASX announcement: 6 February 2018), called SG-MEM. The objective of the initiative is to further promote and intensify collaboration between reputable Singaporean research institutions such as NTU or National University of Singapore (NUS) with SMEs (Small and Medium Sized Enterprises) like De.mem.

De.mem is a founding member of the initiative and expects to benefit from the activity in view of the Company’s strong track record in taking innovations to the commercial stage.



**Image:** De.mem CEO Andreas Kroell presents at the launch event for the Singapore government’s SG-MEM initiative on 5 February 2018

### **Financial highlights**

The Company witnessed an increase in receipts from customers for the period, which were approximately \$2.6m (Q4 2017: \$2.4m). This underpins the revenue forecast of A\$ 8 to 10 million for the calendar year 2018 which the Company released on 13 March 2018 (please see the details above).

Further, De.mem remains well funded for growth, with a cash balance of \$2.5m as at 31 March 2018.

Net cash used in operations for the period amounts to \$713,000. Net cash used in investing activities amounted to approximately \$136,000, which included a one-off milestone payment to the vendor of Akwa-Worx Pty Ltd of \$125,000.

The Company advises that it has also received a payment of \$520,000 from a customer on 3 April 2018, which is not included in the above totals.

Please refer to the attached Appendix 4C Filing for further details.

**Management commentary:**

**Andreas Kroell, CEO of De.mem said:** “De.mem has begun the year with great momentum and the Company looks to continue this growth through a number of initiatives.

“The Company continues to expand and commercialise its proprietary product suite and looks to progress its relationship with NTU to ensure it is covering all possible industry verticals.

“Particularly, the successful validation of our nanofiltration membrane technology as well as the expansion of our proprietary technology portfolio with the in-licensing of our new hollow fibre forward osmosis membrane for applications in industrial waste water treatment are incredibly exciting and potentially lucrative from an industry standpoint.

“De.mem is also witnessing an extensive tendering pipeline build in Australia and the Asia-Pacific region across its projects business and looks forwards to capturing these opportunities in the near term generating additional revenues for the Company.

“Our balance sheet remains strong, with a healthy cash balance of approximately \$2.5 million to underpin our growth prospects. We have largely completed the required one-off investments such as the set up of our membrane manufacturing in Singapore or the acquisition of Akwa-Worx Pty Ltd and can now focus on growing the revenue base and striving towards cash flow positivity in the near term.

“We look forward to updating shareholders around a number of pending developments in the coming months.”

**-ENDS-**

**For further information, please contact:**

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**About De.mem Limited**

De.mem Limited (ASX:DEM) is a Singaporean-Australian decentralised water and waste-water treatment business that designs, builds, owns and operates water and waste water treatment systems for its clients. De.mem operates in the industrial segment providing systems and solutions to customers from the mining, electronics, chemicals, oil & gas and the food & beverage industries and in the municipal and residential segments. De.mem has licensed proprietary technologies from its partner in research & development, Singapore’s Nanyang Technological University (NTU), including an exclusive worldwide license for a revolutionary low-pressure hollow fibre nanofiltration membrane. Through its wholly owned subsidiary Akwa-Worx Pty Ltd, De.mem has a strong presence in Australia. Akwa-Worx has a market reputation for building high quality Australian designed and manufactured products and has long-term customers in the Australian mining industry. To learn more please visit: [www.demembranes.com](http://www.demembranes.com)

**Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of De.mem Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

## Appendix 4C

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

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

**Name of entity**

De.mem Limited

**ABN**

12 614 756 642

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

31 March 2018

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	2,556	2,556
1.2 Payments for		
(a) research and development	-	-
(b) product manufacturing and operating costs	(1,875)	(1,875)
(c) staff costs	(971)	(971)
(d) advertising and marketing	(64)	(64)
(e) administration & corporate costs	(353)	(353)
(f) leased assets	(5)	(5)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	2	2
1.5 Interest and other costs of finance paid	(1)	(1)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other receipts	(2)	(2)
<b>1.9 Net cash from / (used in) operating activities*</b>	<b>(713)</b>	<b>(713)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(11)	(11)
(b) businesses (see item 10)	(125)	(125)
(c) investments	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
(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 (provide details if material)	-	-
<b>2.6 Net cash from / (used in) investing activities*</b>	<b>(136)</b>	<b>(136)</b>

<b>3. 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	-	-
3.4 Transaction costs related to issues of shares, convertible notes or options	-	-
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 Net cash from / (used in) financing activities*</b>	<b>-</b>	<b>-</b>

<b>4. 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	3,300	3,300
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(713)	(713)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(136)	(136)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	3	3
<b>4.6</b>	<b>Cash and cash equivalents at end of quarter</b>	<b>2,454</b>	<b>2,454</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	2,154	3,000
5.2	Call deposits	300	300
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>2,454</b>	<b>3,300</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 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

**Current quarter  
\$A'000**

97

-

Relates to salary and fees paid to Directors.

Also includes payments to Ventnor Capital Pty Ltd, a company associated with Director Stuart Carmichael as consideration for Company Secretarial services and accounting services.

**7. Payments to related entities of the entity and their associates**

- 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

**Current quarter  
\$A'000**

-

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8. <b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
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.		

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9. <b>Estimated cash outflows for next quarter</b>	\$A'000
9.1 Research and development	60
9.2 Product manufacturing, employee and operating costs	1,890
9.3 NF membrane plant setup	30
9.4 Advertising and marketing	30
9.5 Administration and corporate costs	300
<b>9.6 Total estimated cash outflows</b>	<b>2,310</b>


10. <b>Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)</b>	Acquisitions	Disposals
10.1 Name of entity	Aqua Worx Ltd	-
10.2 Place of incorporation or registration	Caboolture, QLD	-
10.3 Consideration for acquisition or disposal	(125)*	-
10.4 Total net assets	-	-
10.5 Nature of business	-	-

\* Vendor milestone payment made following achievement of revenue target as announced to the ASX on 20/02/18



**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.

Sign here: .....  
  
(Director/Company secretary) Date: ....30 April 2018.....

Print name: ....Brett Tucker.....

**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.