De.mem Limited (DEM.ASX)

Initiating Coverage Report

Australia | Water Utilities

29 JUNE 2023

De.mem Limited

De.mem Limited (De.mem) offers a wide range of water and waste water treatment products and services around its portfolio of proprietary hollow fibre membrane technology. Its offering includes the supply of water treatment equipment – in particular membrane- based filtration systems, specialty chemicals and consumables required for the ongoing operations of those systems, as well as operations & maintenance and build, own, operate services. The company has positioned itself as a "one stop shop" for industrial water treatment needs.

De.mem, supplies mainly to industrial customers through its six locations in Australia (Brisbane, Perth, Melbourne, Launceston), Singapore, and Germany. Customers include corporates from the mining & resources, food and beverage, heavy manufacturing and other industrial segments. Its solutions cover industrial process water requirements, industrial wastewater treatment, recycling & reuse, potable water supply and seawater desalination.

The company originally started operations in Singapore in 2015 and is headquartered in Melbourne, Australia, since 2017. Approx. 80% of the revenues are generated from the Australian market. It employs approx. 70 staff across the different locations. In Singapore, De.mem operates a facility for the production of hollow fibre membranes, which often serve as a key component for the company's solutions.

Key investment points:

Some of key investment points for the company includes:

- Large number of blue-chip clients
- Scalable business model with diverse product offering
- Portfolio of innovative hollow fibre membranes incl. the company's newly developed Graphene Oxide enhanced membrane and hollow fibre nanofiltration membrane
- Stringent regulations driving wastewater management industry
- Strong track record of successful strategic acquisitions
- Significant revenue growth over the past few years in the company's recurring revenue segments

Some of the **key risks** for the company includes:

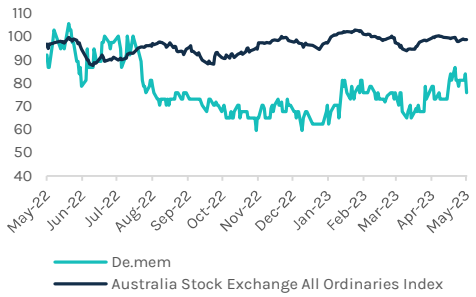
- Availability of cheaper alternatives in a highly competitive industry
- Fragile macroeconomic situation
- Rising inflation leading to a rise in prices of raw materials and components.

Valuation

We valued De.mem using the blended valuation method based on the DCF, EV/Sales and Price/Sales multiple approaches; we arrived at a target price of AUD 0.37, representing an upside of 143.5% from the current market price of AUD 0.15.

CMP (29 June 2023)	AUD 0.15
Target price	AUD 0.37
Upside/(Downside)	143.5%

De.mem share price



Price performance	De.mem
1m	11.1%
3m	11.1%
12m	-21.1%
52 Week Range (AUD)	0.11 – 0.20

Forecasts

	2021	2022	2023E	2024E
Sales (AUD in mn)	18.08	19.64	24.60	29.29
EBITDA (AUD in mn)	(2.94)	(1.70)	(0.60)	0.29
EPS (AUD)	(2.15)	(1.51)	(0.91)	(0.51)

Key ratios

	2021	2022	2023E	2024E
Gross margin	33.7%	34.6%	36.1%	37.6%
Operating margin (Calculated)	(20.6%)	(14.4%)	(8.1%)	(3.7%)
EBITDA margin	(16.3%)	(8.7%)	(2.4%)	1.0%
Underlying EBITDA margin	(12.1%)	(6.1%)	(2.4%)	1.0%
Net margin	(24.7%)	(17.8%)	(8.5%)	(4.0%)

Source: Bloomberg,

De.mem Limited (DEM.ASX)

Initiating Coverage Report

vested

Australia | Water Utilities

29 JUNE 2023

Table of Content

Investment Thesis

- **Strong portfolio of proprietary hollow fibre membrane technology –** The company's offering is backed by its hollow fibre membrane technology, which often serve as a key component in its membrane systems & equipment, giving the products a "competitive edge". In recent projects awarded to the company (see for example the Build, Own, Operate contract with Givaudan in Singapore, announced to the ASX on 29 August 2022), De.mem's hollow fibre membranes serve as the key treatment process deployed. The hollow fibre membrane market is a particularly interesting segment within the water treatment industry, which is projected to grow far above market average - at approx. 14% p.a. CAGR between 2023 and 2030, according to a study by Grand View Research. De.mem appears well positioned to benefit from these trends with its membrane portfolio, including its newly developed Graphene Oxide enhanced polymer membrane which is currently undergoing NSF approval (the US regulatory approval for usage in drinking water treatment applications) and its hollow fibre Nanofiltration membrane.

- **Diverse Portfolio Offering -** De.mem has a scalable business strategy and offers a wide array of industrial wastewater treatment solutions. Its portable, independent systems transport, treat, and either recycle or dispose the effluent from industrial units. All significant water treatment applications, including potable, sewage, industrial waste, and process water, are covered by De.mem's solutions. The business sells a variety of membrane- based water treatment technologies that are protected, including microfiltration, ultrafiltration, hollow-fibre nanofiltration, and forward osmosis. Additionally, the business sells chemicals for the treatment of water, including flocculants, membrane cleansers, and anti-scalants. De.mem also offers a range of additional services, including operations and maintenance, consulting, and engineering, as well as finance via a build-own-operate model or equipment leasing. De.mem is well positioned to have a balanced mix of reliable and high-margin business segments thanks to its full-service approach, which involves numerous customer solutions. The business rewards customers by giving them more control over their business operations.

- **Client base of blue-chip firms -** With a focus on the industrial area, De.mem has demonstrated exceptional momentum in attracting business from numerous blue-chip clients. Global mining firms, substantial infrastructure builders, local governments, water utilities, and multinational corporations are among its clientele. In the mining sector, De.mem has a large clientele that includes both domestic and international market leaders like RioTinto, Morobe Mining, and Pilbara Minerals, to name a few. It has also succeeded in building a footprint in the infrastructure market through agreements with project or development firms and general contractors. Acciona Infrastructure, Fleetwood Corporation, and St. Hilliers are just a few of the clients in this industry. De.mem acquired major contracts with large players from the F&B market like Givaudan, one of the world's top suppliers of flavors, perfumes and active cosmetic components. Coca-Cola Krones AG and Treasury Wine Estates are some additional significant clients in this market, plus a range of clients in Tasmania, where De.mem has a strong presence through its office in Launceston. Additionally, the company's client base is well-diversified in terms of revenue contribution. A solid clientele base across a variety of end markets not only favors the company's growth and reputation, but it also presents potential for cross-selling and raising the proportion of repeat business from existing customers.

- **Increasing awareness about the benefits of clean water -** As populations continue to grow and water supplies become scarce, there is a growing awareness of the need for clean water, the water crisis, and the desire for efficient and sustainable water management systems. Decentralized water treatment systems allow communities to take charge of their own water supply and ensure that everyone has access to clean water, especially in locations where centralized treatment is unfeasible. Particularly in regions with low water demand, decentralized water treatment systems are intended to be more cost-effective than centralized treatment. De.mem is in a good position to benefit from the growing awareness because of its established presence across a variety of industries and locations.

- **Stringent regulations to drive the industry -** Recent years have seen a substantial increase in the amount of wastewater produced due to technological developments in production processes. If improperly treated before being dumped into fresh water sources, effluent from companies that produce chemicals, insecticides, rare metals, and other toxic substances and materials is detrimental to the environment and may have catastrophic impacts. As a result, before these compounds are disposed of into the environment, international organizations have established regulatory limitations on their presence in effluents. Governments all over the world are developing stringent rules to best manage wastewater, which is now a necessity. The need for wastewater management is projected to increase as the world adopts more environmentally friendly laws, significantly enhancing De.mem's prospects for success in the near future.

- **Substantial growth in usage of water in several industry sectors -** The wastewater management industry is primarily driven by an increase in the demand for clean water for municipal and industrial uses, strict rules governing the disposal of wastewater, and rapid industrial sector expansion and investment. The market is anticipated to develop significantly because of the significant increase in water usage across a number of industrial sectors, including oil & gas, pharmaceuticals, and chemicals. The main factors influencing the growth of the industrial wastewater treatment market are rising urbanization and industrialization, dwindling freshwater resources, rising energy demand globally, increasing attention being paid to public health and water quality, rising prevalence of water-borne diseases, rising industrial demand, and strict governmental regulations on treating industrial wastewater. De.mem has worked for customers including Rio Tinto, BHP/South 32, Givaudan, Alcoa, AGL and Tanaka Electronics, which have helped the company to establish its position in the mining and industrial waste-water segments.

- **Growing focus on recurring revenue segments -** The company has been concentrating on attaining significant revenue growth in its recurring revenue divisions over the last few years. The company's service (Build, Own, Operate and operations & maintenance) and specialty chemicals offerings make up a large portion of its recurring revenue segment. In 2022, the company's recurring revenue sector accounted for more than 90% of total revenue, up 34% from the previous year, while it only accounted for 38% of total revenue in 2018. As a result, the business has been able to reduce its exposure to one-time, lower profit initiatives. Going forward, the company is probably going to use a similar strategy, which will help it increase its top line.

- **Strategic acquisitions with a strong track record -** De.mem has been aggressively making small bolt-on acquisitions over the past few years in an effort to grow their company. Stevco Seals & Pumps (Victoria) Pty Ltd, a reputable supplier of pumps, small water treatment equipment, and related operations & maintenance services to industrial and municipal clients in Victoria, was bought by the firm in 2022. A broad, well-established industrial client base in Victoria was added to the De.mem group as a result of the acquisition, and there was a significant possibility to cross-sell De.mem's extensive product line and cutting-edge membrane technology, resulting in significant operational synergies. De.mem also purchased the final 25% of the company's shares in its German affiliate, De.mem-Geutec GmbH. In order to commercialize De.mem's innovative Graphene Oxide enhanced membrane technology, the company recently announced a cooperation with Canadian Purafy. Through the partnership, De.mem aims to launch its membrane products into the market for domestic water treatment products. The company is targeting North America initially, and other countries later on. This is expected to result in demand for significant volumes of membrane cartridges for this application.

About the company

Overview

De.mem Limited is an international water and wastewater treatment business, headquartered in Melbourne, Australia. De.mem specializes in decentralized (=on site) water and waste water treatment equipment, in particular containerized and small/modular plants, and offers related operations & maintenance services as well as the supply of chemicals & consumables for the ongoing operations of the equipment. The Company has offices in Singapore, Perth (Australia), Brisbane (Australia), Launceston (Australia), Epping/Melbourne (Australia) and Velbert (Germany). It is listed on the Australian Stock Exchange since April 2017.

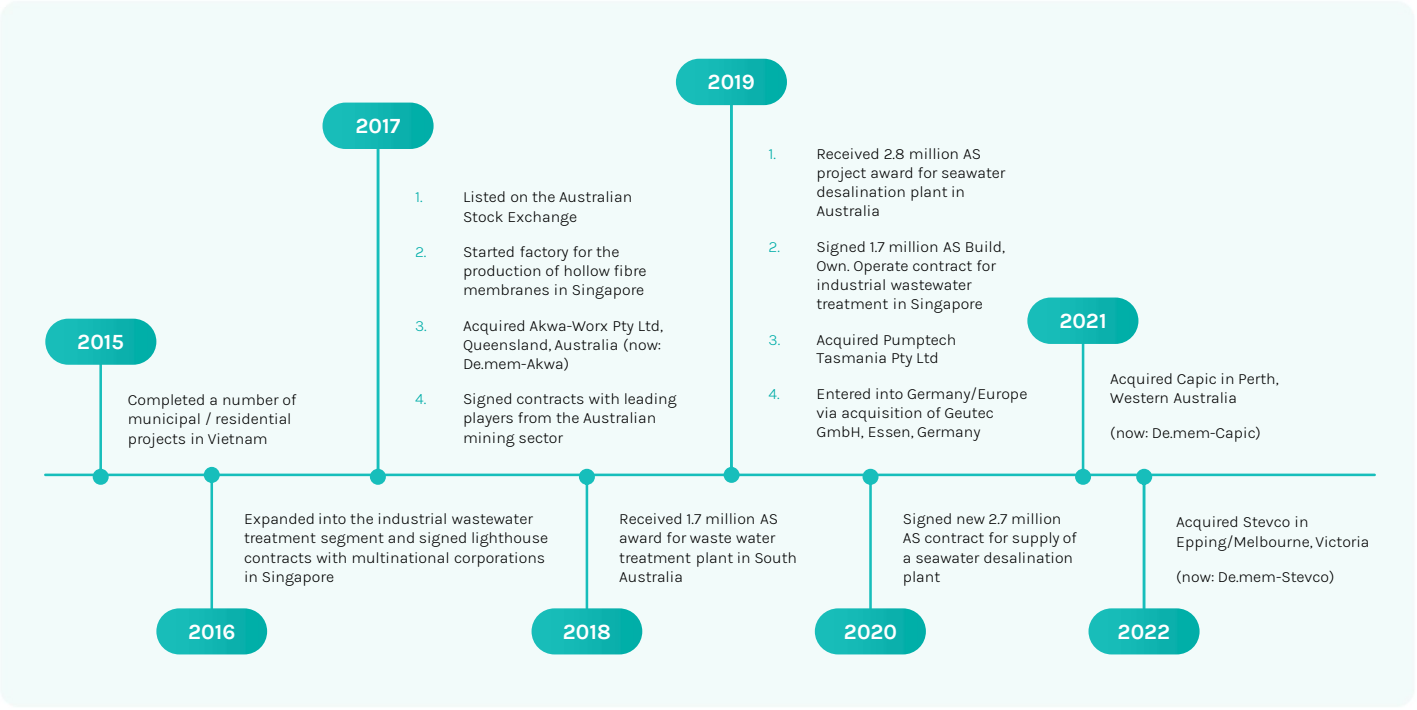
De.mem primarily targets industrial customers. Within a fragmented industry where competitors typically have a highly specialized offering, the company has positioned itself as a “one stop shop” for industrial water treatment needs. Long-term customers include corporates from the mining & resources, food and beverage, heavy manufacturing and other industrial segments. According to the company, it has worked with, for example: Rio Tinto, BHP/South 32, Pilbara Minerals from the mining & resources segment; Givaudan, Coca Cola, from the food & beverage segment; Alcoa, AGL, TechnipFMC, Tanaka Electronics from the other industrials segment.

Based on its innovative hollow fibre membrane technology, De.mem offers solutions for industrial process water requirements (i.e. for companies that require high quality treated water for their production), industrial waste water, recycling & reuse, seawater desalination and potable water supply.

Industrial waste water treatment and recycling/re-use applications are of particular relevance, as these are highly subject to regulatory supervision. Companies are under legal and regulatory obligations to treat their waste water to a certain quality. Using its membrane technology, De.mem is able to generate high quality treated water, helping customers to cope with stringent legal requirements.

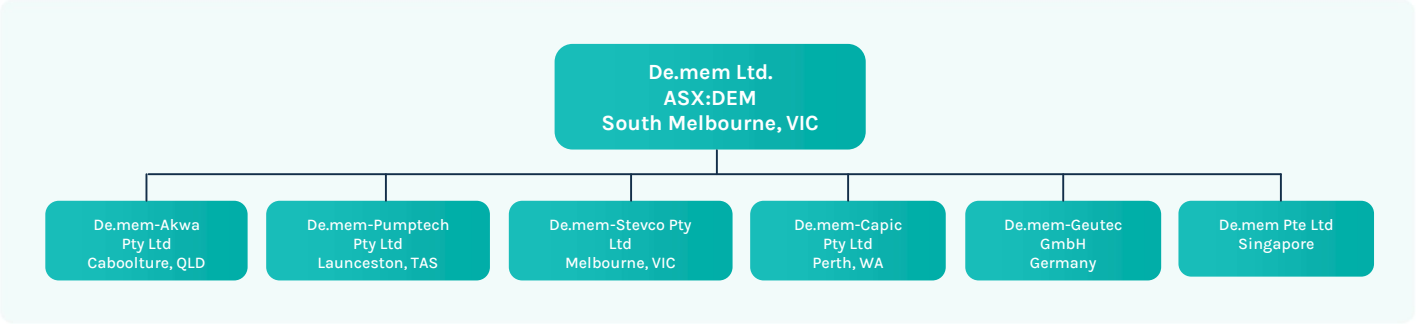
De.mem has a scalable business model. Its membranes are manufactured in a relatively lean process (i.e. no clean room required), which is easily scalable with limited capital expenditure. The production of the systems requires mostly variable cost factors but only minor fixed cost and overhead.

Key Milestones



Source: Company Website

Group Structure

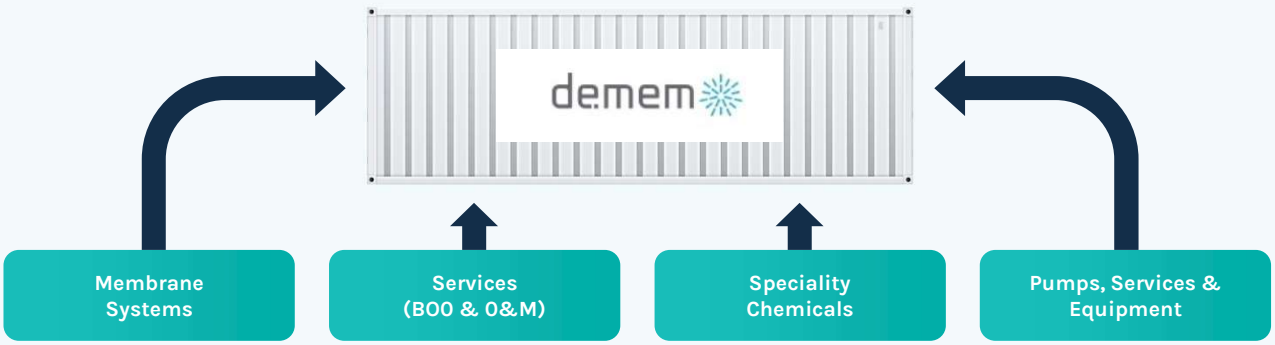


Source: Company Website

Business segment

De.mem Ltd operates through 4 business segments: Membrane Systems, Services, Specialty Chemicals and Pumps & Small Water Treatment Equipment. Through the 4 segments, the Company offers a "one stop shop" of high-quality supplies to industrial customers. Customers typically have demand for products/services from all 4 divisions with De.mem's sales strategy being focused on cross-selling of its wider product range from all 4 divisions into its customer base and in particular, industrial key accounts.

The latter 3 segments – Services, Specialty Chemicals and Pumps & Small Water Treatment Equipment – form De.mem's recurring revenue segments. Those have been in the focus of the company's growth initiatives.



Membrane Systems

- **Provide containerized waste water treatment plants to solve customers water requirements**
- Systems leverage De.mem proprietary hollow fibre membrane technology
- Revenue is project based and usually recognized / paid in instalments

Services (BOO & O&M)

- **Operations & maintenance (O&M) of water treatment plants**
- Plants require regular maintenance to facilitate effective operations
- Build, Own, Operate (BOO) offering where the plant is supplied under a leasing arrangement
- Revenues are recurring and highly predictable

Speciality Chemicals

- **Specialty chemicals for the operation of the water treatment plants and stand alone applications**
- Products include scale and corrosion inhibitors, membrane cleaning aids, and processing additives
- Revenues are recurring in nature and highly predictable as products are necessary for plant operations

Pumps, Services & Equipment

- **Supply pumps, equipment and related maintenance services which are required for plants operations**
- Revenues are recurring in nature and highly predictable as products are necessary for plant operations

Membrane Systems

Through its Membrane Systems division, De.mem designs, manufactures and commissions water and waste water treatment equipment. Typically, the plants are containerized for easy “plug and play” deployment. The division usually engages under a projects-based business model and wins work through tenders or bids. The nature of the business is largely “one-off”, however, with a strong repeat customer base and repeat work generated from existing customers, and also supporting the Company’s other business segments.

De.mem supplies equipment such as hollow fibre membrane based (mostly Ultrafiltration) systems, Reverse Osmosis systems, Membrane Bioreactors (MBRs), chemical dosing systems and other specialized equipment for specific customer needs. De.mem engineers the systems according to the specific requirements while usually making use of its proprietary hollow fibre membrane technology, which is deployed as a key treatment process within the engineered plants.

Services (Build, Own, Operate & Operations and maintenance)

De.mem provides Build, Own, Operate ("BOO") or Build, Own, Operate, Transfer ("BOOT") as well as Operations & Maintenance (“O&M”) services. Under a BOO or BOOT arrangement, De.mem leases out equipment to a customer, and operates and maintains it on the customer’s behalf. The Company believes it is ideally positioned as a supplier of BOO/BOOT services to industrial customers in Australia thanks to its broad range of capabilities. De.mem has never lost a material BOO or O&M contract. De.mem also offers Operations & Maintenance services, which means that De.mem operates & maintains water treatment equipment which is owned by the customer. The work is typically based on long term contracts – with a fixed term that is usually ranging from 5 to 10 years (BOO) or 1 to 3 years (O&M).

Specialty Chemicals

De.mem's specialty chemicals division includes the company's operations in Perth through its De.mem-Capic subsidiary, and in Velbert, Germany, through De.mem-Geutec. In both locations, De.mem is equipped to blend a range of specialty chemicals formulations. Through the segment, the company manufactures and supplies specialty chemicals such as anti-scalants, corrosion inhibitors, membrane cleaners, process additives as well as flocculants & coagulants, which are frequently needed during or in conjunction with the ongoing operations of membrane-based water treatment facilities. According to De.mem, given the focus on non-commodity type products, the specialty chemicals division generates high margins above the average gross margin of the overall business. It is considered a key segment for the further growth of the group. It benefits from strong customer demand for the cross-selling of the products i.e. into sites under existing Build, Own, Operate or Operations & Maintenance contract. The revenues are generated from individual purchase orders, which however are highly recurring in nature as the chemicals require "top up" after usage.

Pumps, Services & Small Water Treatment Equipment

This division complements De.mem's offering with the supply of pumps and small water treatment equipment, and the servicing & maintenance of the same. It fulfils an important demand from the company's existing customer base and hence, fits well into the group's overall "cross-selling" strategy.

Revenues are very stable and highly recurring in nature as equipment supplied leads to demand for maintenance services.

Technology

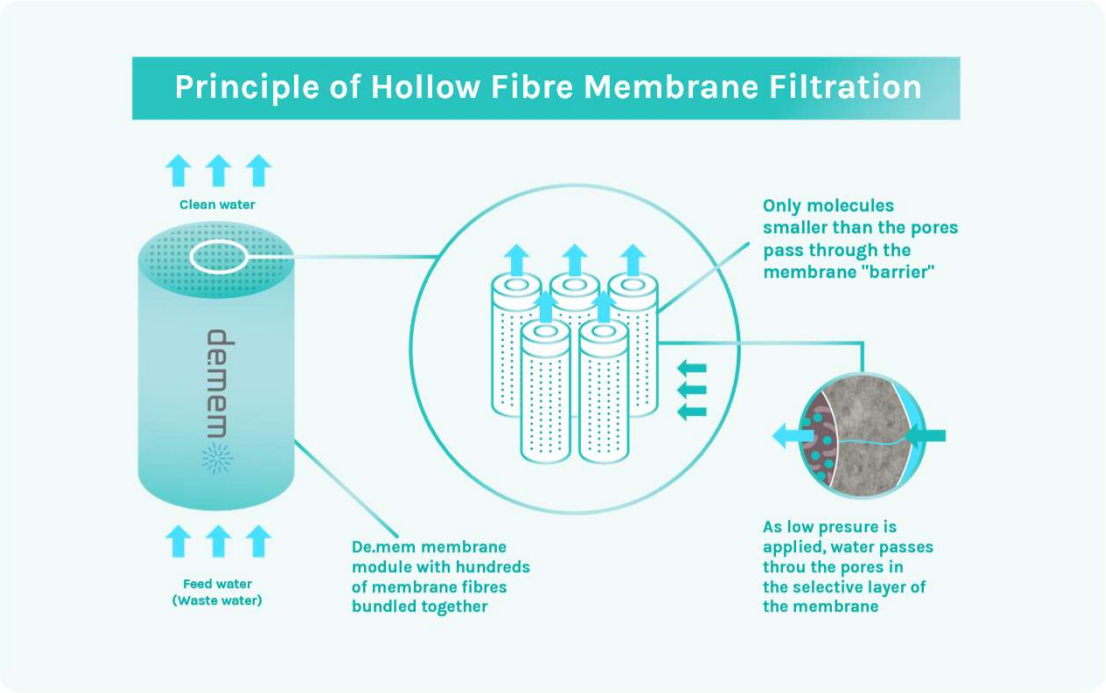
Hollow Fibre Membranes - Overview

De.mem specialises in hollow fibre membrane technology, which the company develops and manufactures at its facility in Singapore.

Within water treatment, membrane technology covers a broad range of filtration applications which are based on a physical separation process. The membranes are used to separate water from contaminants, based on a sieving process. Common membrane processes are Micro-, Ultra- and Nanofiltration and Reverse Osmosis. The processes relate to the pore size of the contaminants removed from a water stream or liquid; with microfiltration aiming at the largest, and Reverse Osmosis at the smallest contaminants or molecules.

De.mem focuses on a range of hollow fibre membranes, which span across the Micro-, Ultra- and Nanofiltration range. Reverse Osmosis typically comes at a flat sheet, which operates under much higher pressure than a hollow fibre membrane.

A hollow fibre membrane is a straw shaped structure similar to a tennis string, typically made from polymer materials. The membrane is hollow in the interior, while the material itself is microporous. By controlling the pore size, De.mem can manufacture a membrane that lets water molecules pass through, while filtering contaminants such as bacteria, viruses or small solids. Key products of De.mem are the company's Ultrafiltration (UF) membrane range and its hollow fibre Nanofiltration (NF) Membrane.



De.mem - UF Membrane

De.mem has developed a range of hollow fiber UF membranes. The membranes are based on different types of polymers, mainly PES and PVDF.

The company's proprietary PES-UF membrane is based on polyether sulfone (PES). It is specifically designed to remove particles causing turbidity, as well as small organics such as bacteria and viruses. The membrane has been deployed in various installations and also been used for the domestic filter cartridges which De.mem offers in Singapore.

De.mem also sells a PVDF-UF membrane, which is particularly robust and designed for simple maintenance and cleaning.

More recently, in 2021, De.mem presented an in-house developed technology which is unique within the global market for hollow fibre membranes – a standard polymer membrane enhanced by the addition of Graphene Oxide nanoparticles. With the new technology, De.mem is able to achieve water flux (throughput) that is up to 40% higher compared to the standard polymer membrane. This implies that the filtration process becomes cheaper, or the membrane cartridge can be smaller, while being able to treat the same amount of water. According to De.mem, the membrane is technically validated and currently undergoing NSF regulatory approval for deployment in potable/drinking water applications in the USA.

Further updates are provided below in the section Continued Expansion and Validation of Hollow Fibre Membrane IP Portfolio.

Hollow-fibre NF membrane

De.mem has developed its own proprietary hollow fibre nanofiltration membrane at the company's facility in Singapore. Nanofiltration relates to the small pore size of the membrane, in the range of a few nanometers.

Nanofiltration is a process that traditionally deploys a flat sheet membrane, which operates at much higher pressure, consuming a lot more energy than a hollow fibre membrane; and requires some sort of pretreatment. The hollow fibre NF membrane aims to replace flat sheet NF and for selected applications, potentially also flat sheet Reverse Osmosis.

De.mem's membrane operates in a pore size range that targets to remove small molecules such as dyes (for example, found in textile industry waste water), herbicides/pesticides, small solids, and selectively, larger salt molecules.

The Technology operates at a lower pressure and energy consumption compared to Reverse Osmosis, and does not require the more expensive system set up including, for example, high pressure pumps. This significantly reduces operating costs and capital expenditure

Business model

The core of De.mem's strategy is to offer a comprehensive "one stop shop" to its sizable industrial customer base, particularly to the Company's industrial key accounts, around a range of products and services required for the supply of industrial process water, potable and industrial water supply, the treatment of industrial wastewater, and the recycling/reuse of water that has previously been used in industrial processes. The Company has been concentrating on expanding its "recurring revenue segments" during the past few years. These segments are all required for the successful operation of a wastewater plant and are hence recurring in nature:

- Build, Own, Operate ("BOO") and Operations & Maintenance ("O&M") contracts.
- Regular maintenance work on water treatment equipment.
- Specialty chemicals sales.
- Sales and maintenance services of pumps.
- Sales of small equipment and consumables.
- Membrane replacement sales into existing facilities.

Since most industrial customers require several or all the aforementioned products and service lines, from the provision of water treatment plants and systems to O&M services as well as chemicals and consumables for ongoing operations, the company's broad product portfolio presents significant cross-selling opportunities. The strategy produces a top-notch revenue/business model and a wide range of goods and services that are unmatched in the water treatment sector. It gives De.mem important customers and long-term, solid client connections, which creates a significant opportunity for cross-selling other De.mem goods and services. This gives the company a solid platform on which to build for future expansion.

Current projects

As of March 2023, De.mem received a number of important contract awards, which highlight the Company's ongoing growth momentum.

- De.mem was awarded a new contract in March 2023 for the provision of a wastewater treatment system to an industrial client in Queensland, Australia. The project has a revenue estimate of AUD 420,000. The majority of the contract's revenue is anticipated to be recorded in 2023.
- De.mem was awarded a contract in March 2023 to supply water treatment equipment to a Tasmanian industrial customer. The new business has a value of about AUD 450,000 in revenues. The revenue is anticipated to be recorded in full during 2023.
- In connection with the original contract awarded for the supply of a water treatment system received in October 2022, De.mem also acquired additional orders from South 32. As a result of the additional orders, the contract's overall revenue has increased from AUD 1.4 million to roughly AUD 1.55 million. The majority of the revenue from this contract is anticipated to be realized in 2023.
- The company and Givaudan (Singapore) agreed to an AUD 2.1 million BOO contract, with a minimum fixed term of 6 years, for the deployment of a membrane-based water treatment facility for the treatment of industrial wastewater in Singapore. The system has already been commissioned in the meantime and is generating revenues for De.mem.
- In addition, De.mem and Rio Tinto agreed to an AUD 1.7 million 3-year service agreement for the management and upkeep of the water treatment facilities at one of Rio Tinto's Queensland mining sites.
- In order to commercialize De.mem's new Graphene Oxide enhanced membrane technology, which will result in significant gains in throughput and, as a result, cost reductions, the company announced a partnership with Canadian Purafy. The new Graphene-Oxide enhanced membrane technology is being certified by NSF and expects to achieve certification in H2 of 2023, which will be the commercial "Kick off" for this partnership.
- With effect from 1 April 2022, De.mem bought Stevco Seals & Pumps (Victoria) Pty Ltd. The acquisition helped the company's operations expand and its EBITDA rose.
- De.mem additionally purchased the remaining 25% of the German De.mem-Geutec subsidiary as of October 1, 2022. This acquisition provides a solid foundation for future expansion in Germany and Europe.

Business strategy

Focus on growth in recurring revenue segments

De.mem's recurring revenue segments comprise of, in particular, the Company's service (Build, Own, Operate and operations & maintenance) and specialty chemicals offerings. The Company's recurring revenue sectors saw significant revenue growth, increasing by 34% from the previous year. More than 90% of all revenues in 2022 came from categories with recurring revenue. Only 38% of revenue in 2018 came from recurring sources.

Expansion of Unique Build, Own, Operate & Service Offering

Based on its wide range of capabilities, De.mem is uniquely positioned as a provider of Build, Own, Operate services to industrial customers. With Givaudan, the market leader in flavors and fragrances worldwide, the company entered into a new BOO contract. The contract has an initial fixed period of six years and a value of AUD 2.1 million. According to the contract, De.mem will purify industrial wastewater from one of the client's Singapore sites so that it complies with legal disposal requirements. De.mem and Rio Tinto further agreed to an operations and maintenance contract for AUD 1.7 million, as part of which De.mem will manage the water treatment facilities at one of Rio Tinto's mining locations in Queensland, Australia. The contract has a three-year minimum term. Additionally, the company completed two previously disclosed Build, Own, Operate projects for the Selwyn Snow Resort and an Australian industrial customer.

Milestone Order from South 32

A new contract was awarded to De.mem for the provision of a membrane-based water treatment facility to a mining location in Australia. The project is estimated to generate income of about AUD 1.4 million, the majority of which is anticipated to be recorded in 2023. Despite the fact that, the contract is a project and therefore one-off in nature, it gives the company the chance to sell operations and maintenance services, chemicals, consumables, and other water treatment products to the same client, potentially creating a larger opportunity in the long run.

Continued Expansion and Validation of Hollow Fibre Membrane IP Portfolio

On September 7, 2021, De.mem unveiled their brand-new membrane improved with graphene oxide. In comparison to conventional polymer ultrafiltration membranes, the new technique provides a 20–40% higher water flux, which results in significant cost savings for the user. De.mem and Purafy Clean Technologies (Purafy) established a partnership in July 2022 for the production, marketing, and distribution of the novel GO membrane technology. Purafy manufactures and markets a variety of portable water treatment devices and household water filtering solutions. Together, De.mem and Purafy want to introduce the newly developed membrane as a component of a residential water filtering system first in North America and then in other nations.

Drinking Water Applications in the USA

De.mem has started the process to have the new membrane NSF (National Sanitation Foundation) certified, which is necessary for the technology to be used in potable water treatment applications in the USA and many other nations. The procedure is still ongoing, but De.mem anticipates completing certification in H2 2023.

Strategic Acquisitions

With the acquisition of Stevco, De.mem maintained its solid track record of value-added acquisitions. For industrial and municipal clients in Victoria, Stevco is a well-known provider of pumps, small water treatment equipment, and related operations & maintenance services. Stevco is known for offering goods and services of the highest caliber. Through the acquisition, De.mem group will have access to Victoria's substantial and well-established industrial customer base of Stevco. Furthermore, there is a sizable chance to cross-sell the extensive product line and cutting-edge membrane technology of De.mem. Along with completing the De.mem group's Australian-wide footprint, it also forges substantial operational synergies with the De.mem-Pumptech business in Tasmania.

Growth Opportunities

De.mem's core focus will be on continued growth of the Company's recurring revenue segments whilst maintaining a focus on profitability and operating cashflow. The company have been following this strategy successfully.

- **Specialty Chemicals:** The company's subsidiaries in Perth (De.mem-Capic Pty Ltd) and Germany (De.mem-Geutec GmbH) produce a variety of unique chemical formulations that De.mem offers. The product line comprises biocides, de- and antifoamers, corrosion inhibitors, antiscalants for water treatment, antiscalants for mining and industrial applications, and other specialty formulations. In comparison to BOO and one-off system sales, these goods have the highest gross margins within the De.mem business and need limited capital for further scale up. The significant cross-selling prospects to current water treatment customers in other company sites, particularly on the Australian East Coast, are the main drivers of the anticipated growth in this area. The company's main goal is to increase sales of specialty chemicals to customers on Australia's East Coast and to increase support services for the region's chemical industry.

- **Hollow fibre membrane:** De.mem's hollow fibre membrane products have been developed and are manufactured at the Company's Singapore facility. The sale of membrane systems and equipment often results in continued recurring income streams for the replacement of the membrane filters as well as the provision of specialized chemicals like antiscalants and membrane cleansers. The key milestone for De.mem in this segment is to achieve NSF certification for the Company's new Graphene Oxide membrane technology, which will serve as the foundation for a more extensive introduction of this innovative membrane technology into the North American and other foreign markets.

- **BOO and O&M Services:** Service agreements typically offer industrial clients a very solid and long-term business relationship with the great potential to cross-sell other items, such as specialized chemicals, and to grow the business into other client sites. A crucial accomplishment for the company continues to be signing new service agreements and upholding the ones that already exist. De.mem will take into consideration loan funding as a possibility to pursue this service, if clients desire a BOO arrangement, which requires upfront capex.

- **Pumps and related maintenance services:** The De.mem-Stevco Pty Ltd and De.mem-Pumptech Pty Ltd businesses in the pump and services segment offer a reliable business segment with a substantial, high-margin component of maintenance revenues. In the most recent fiscal year (CY 2022), it created prospects for cross-selling, leading to the sale of an AUD 280,000 water treatment system to a Tasmanian industrial customer in the food and beverage sector. The goal of De.mem is to organically grow this market segment and cross-sell additional goods for water treatment and specialty chemicals to the existing clientele in these areas.

Customer profile

The Company has built up a solid customer base to date, which speaks well of how highly DEM's technology and capacity to provide frequently highly customized solutions are regarded. Global mining firms, sizable EPC firms, infrastructure development companies, municipalities, water utilities, and multinational corporations are a few examples of the company's clients. De.mem focuses mostly on the industrial market. The company has multiple sites and operations that require wastewater treatment and services. Through a "land and expand" approach, the business is committed to increasing its customer base. The company's customer base includes:

Mining	Infrastructure	Food & Beverage	Other Industrial
• Potable/sewage treatment for mining camps • Waste water • Mining water supply	• Potable • Sewage treatment • Water treatment for industrial facilities	• Waste water • Process water • Ultrapure water • Recycling	• Industrial waste water • Process water • Ultrapure water • Recycling

Competitive Landscape

The company's current client base includes a sizable share of the industrial end market. Due to its full-service business approach, De.mem is able to comfortably meet all the water treatment needs of industrial clients. The mix of services and BOO model provided by De.mem is highly valued by industrial firms, and as a result, the company has a competitive edge.

Technology innovation

Recently, De.mem unveiled their "next generation" hollow-fibre membrane technology, which has the potential to upend the USD 9.4 billion worldwide hollow-fibre membrane market. The company's current polymer membranes, which incorporate graphene oxide nanoparticles as an addition, constitute the foundation of the new technology. The manufacturing procedure is compatible with current production techniques and is highly scalable. The newest "wonder material" is graphene, one of the most durable substances known to humanity. It is also one of the strongest, lightest, most conductive, most transparent substances. In comparison to current state-of-the-art hollow-fiber membranes, graphene oxide (GO), which is produced by combining oxygen groups, promotes quick water permeation, can deliver a significantly higher water flux (throughput), and can increase rejection. It also has a lower tendency to foul the membrane. The new GO enhanced membranes add further value to De.mem's technology and IP portfolio. They are appropriate for a variety of uses, such as the treatment of industrial wastewater and potable water. In order to market its innovative Graphene-Oxide enhanced membrane technology in domestic water filtration devices, the business announced a cooperation with Purafy. The NSF product certification process for De.mem's innovative Graphene-Oxide Enhanced Membrane Technology is progressing and is anticipated to be finished by the second half of 2023.

Swot Analysis

Strength

- De.mem has a strong competitive advantage of proprietary and/or patented technologies, underpinning the Company's unique portfolio of hollow fibre Microfiltration, Ultrafiltration and Nanofiltration membranes.
- Extensive global blue chip customer base.
- De.mem has never lost a BOO or contract once installed.

Weakness

- The company has been reporting net loss for the past five years. EBITDA and underlying EBITDA are also negative over the same period of time.
- Despite a huge addressable market of AUD 2.3bn in Australia, De.mem have only able to capture less than one percent of the same, with revenue standing at AUD 19.6mn.

Threats

- New product technology might continue to develop in the water treatment industry, which could supersede, and render obsolete, the products and services of the Company.
- In a highly competitive industry, competitors coming up with superior or cheaper products remains a major threat.

Opportunities

- De.mem's recently presented its 'next-gen' membrane technology based on Graphene Oxide enhanced polymer membranes which would lead to significantly reduced operating cost.
- De.mem is well positioned to capitalised on growing ESG pressures, which are driving the adoption of wastewater solution and services.
- De.mem has recently reported two quarters with operating cash flow positive, and improved the EBITDA consistently over the past three years.

ESG impact

With its core business model focusing on the treatment, re-use and recycling of industrial wastewater, De.mem is fulfilling an important environmental and social mission. The company's technology is pioneering a revolution to better utilize the environment's limited resources to meet/exceed regulated ESG targets. The company is committed to ESG and believes that it fulfils several of the United Nations' 17 Sustainable Development Goals. Some such goals are as follows:

- **Clean water and sanitation –** Ensure availability and sustainable management of water and sanitation for all.
- **Industry, innovation and infrastructure –** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- **Sustainable cities and communities –** Make cities and human settlements inclusive, safe, resilient, and sustainable.

De.mem's membrane technology and treatment plants clean wastewater, facilitate water discharge and water reuse/recycling. During the March 2023 quarter, De.mem treated a total of approx. 565 million liters of water under industrial BOO and O&M contracts, across 17 sites in Australia and Singapore. De.mem's water treatment systems often facilitate the deployment of a membrane-based separation process using De.mem's proprietary hollow fiber membranes. This process not only relies on lower power consumption, but also meaningfully reduces usage of bulk and other harmful chemicals as only small amounts of high value specialty chemicals are required. De.mem's domestic water filtration products are being used by customers to replace bottled drinking water. Hence, they can help to significantly reduce plastic waste.

Industry Overview

De.mem primarily falls under decentralized water treatment/waste-water treatment industry.

Decentralized water treatment systems

Decentralized water treatment systems convey, treat, and dispose of or recycle wastewater relatively close to where it was generated. Contrarily, centralized water treatment systems gather wastewater in large pipeline networks that send it over great distances to a single or a number of treatment facilities. The conveyance structure is the primary distinction between decentralized and centralized systems. The treatment, disposal, and/or recycling of the effluent occurs close to the point of generation in decentralized systems. This results in a small conveyance network, in some cases limited only to one pipeline. Decentralized systems can be deployed in rural areas with little to no existing infrastructure, require little in the way of infrastructure, represent a network of pre-engineered, small, low-cost plants, and represent lower, just-in-time capex. They are also modular and easily upgradeable. New advances in technology have widened decentralization's potential spread.

The Market for Membranes

From a market perspective, membranes typically cover applications where high quality treated water is required, This is the case for example when potable water is provided, or when industrial process water requirements are to be met. Within the membrane segment, flat sheet membranes (i.e. Reverse Osmosis) have become more of a commodity type product, with competitiveness depending largely on the scale of the production. We believe that the hollow fibre membrane market is a particularly interesting segment, as it is still driven by innovation and new product features. As a result, it is projected to grow far above market average - at approx. 14% p.a. CAGR between 2023 and 2030, according to a study by Grand View Research (Hollow Fiber Filtration Market Size Analysis Report, 2030 (grandviewresearch.com)

Market Size - The global decentralized water treatment market was valued at USD 21.45 billion in 2020, as per Research and Markets.

Pricing

Decentralized wastewater treatment systems are an inexpensive on-site treatment method, but they require continuous operations and maintenance to be sustainable and to keep the plant performing as it should. Decentralized systems typically use small and relatively simple equipment that can be easy and affordable to operate, maintain, and replace. Additionally, these systems may offer significant energy cost reductions because they handle wastewater near to the point of creation and frequently use passive treatment methods such soil dissemination. Decentralized systems often require a less initial investment from a community in comparison to bigger systems for new and improved services. Generally, total per connection cost of a decentralized system will be lower than the equivalent conventional gravity system serving the same area.

Competition

The competitive landscape of the global market indicates a highly fragmented market which is slowly consolidating, with businesses developing a wide portfolio to gain market share while also increasing operational effectiveness. Due to the market's intense competition, companies must cooperate with current market trends in order to serve both local and international markets. Domestic players concentrate on forming strategic alliances with industries to offer them maintenance and repair services for water and wastewater treatment. Businesses must partner with companies in developing nations to increase their geographic reach into other prospective industries. Vendors can increase their profitability by utilizing effective production methods that reduce production costs and reduce associated risks. Some of the key players in the market are as follows:

Fluence Corporation Limited: Fluence Corporation Limited, together with its subsidiaries, provides water and wastewater treatment, and reuse solutions for the municipal, commercial, and industrial markets worldwide. The business provides NIROBOX for the desalination of freshwater and wastewater, as well as for the treatment of brackish and seawater; NIROFLEX systems for desalination, ultrafiltration, and multimedia filtration; and reverse osmosis systems. It also provides wastewater treatment products, such as Aspiral, a wastewater treatment solution; SUBRE membrane aerated biofilm reactor module, EcoBox water reuse systems, Tipton packaged wastewater treatment plants, aeration equipment including aerators, mixers, and diffusers, and dissolved air flotation systems.

Clean TeQ Water Limited: Clean TeQ Water Limited provides metals recovery and water treatment solutions for governments and companies. The business provides membranes for the filtration of water and wastewater, as well as technology solutions for continuous ionic filtration, membrane-free desalination, chemical-free recovery reverse osmosis, encapsulated bacteria lenses, complete nitrate removal, low energy evaporation and crystallization, and metal recovery. Additionally, it works on turnkey projects including water treatment facilities and metals recovery. The business provides services to the municipal, industrial, mining, and surface water wastewater industries.

NX Filtration N.V.: NX Filtration N.V. develops, manufactures, and sells hollow fiber membrane solutions for treating water and other liquids in the Netherlands, rest of Europe, North America, Asia, and internationally. The business provides direct nanofiltration, ultrafiltration, and microfiltration membrane modules that purify water of bacteria, viruses, micropollutants, color, nano plastics, and selective salts without the use of pre-treatment or chemicals. In addition, it offers HYDRAcap ultrafiltration modules to treat wastewater, groundwater, marine, and surface water as a primary treatment or as a pretreatment for reverse osmosis and nanofiltration.

Organica Water, Inc.: Organica Water, Inc. is a wastewater design-build company that provides solutions for the treatment and recycling of wastewater. The business provides products and services that let clients all over the world construct and run biological wastewater treatment facilities in densely populated urban and suburban areas. Software solutions for process control, operational supervision, and design packages are among its goods and services. Other products include Organica Bluehouse, a pre-assembled, containerized wastewater treatment and reuse system powered by FCR; Organica Biomodule, a system that provides support for the plants whose roots serve as the primary biofilm carrier; and Organica Scallop Discfilter, a system that filters out the last of the wastewater's total suspended solids after biological treatment.

Government Policies

The Australian Government have been promoting and regulating wastewater treatment since a past few decades. Several policies have been introduced with an objective of proper treatment of wastewater. Some of those policies are as follows:

Public and Environmental Health Act 2011 and Regulation: The Public and Environmental Health Act 2011 provides a head of power enabling administration of the Public and Environmental Health Regulations 2020. The Public and Environmental Health Regulations 2020 – Part 6 Wastewater Management, detail the legislative requirements with regard to the manufacture, installation, operation and maintenance of Wastewater Management System outside building control areas.

Waste Management and Pollution Control Act: The Waste Management and Pollution Control Act of 1998 (WMPC Act) promotes efficient waste management and pollution prevention and control methods for related objectives, with the goal of protecting the environment. The law specifies the obligations of wastewater end users. According to the WMPC Act, all wastewater users must adhere to the general environmental duty, which means they are accountable for their actions taken that affect the environment.

Water Act: A waste discharge license is required under the Water Act of 1992 for anybody engaging in activity that could jeopardize a declared beneficial use, cause waste to contact water, or cause water to become polluted. Section 74 of the Water Act of 1992 gives the Controller of Water Resources the legal authority to issue waste discharge licenses. Waste discharge licenses are administrative tools used to control the type and volume of garbage discharged into water in the Northern Territory.

Waste Reduction and Recycling Act 2011: The Waste Reduction and Recycling Act 2011 contains a suite of measures to reduce waste generation and landfill disposal and encourage recycling. The legislation creates a fresh framework for resource recovery and waste management procedures. It will stimulate resource recovery and efficiency, waste avoidance, and waste reduction.

Outlook for the industry

The market for water and wastewater treatment equipment is expanding quickly as a result of the rising demand for clean water and the requirement for efficient wastewater treatment. Decentralized water treatment is anticipated to become more widely used as a result of emerging developments including portable water treatment and intelligent water filtration devices. Water contamination has increased due to the economy's rapid growth as well as the acceleration of urbanization and industrialization, which presents a tremendous business opportunity. Expanding urbanization, industrialization, and the depletion of freshwater resources are predicted to increase product demand as well as the need for clean water. By 2026, the market for decentralized water treatment is anticipated to be worth USD 39.48 billion, expanding at a CAGR of more than 10.70% between 2021-2026. The growth in decentralized water treatment market during upcoming years would be driven by:

- **Increasing population and rapid urbanization.**
- **Increasing awareness about the benefits of clean water.**
- **Portability and easy installation**
- **Comparatively low cost of installation and maintenance.**
- **Scarcity of clean water.**

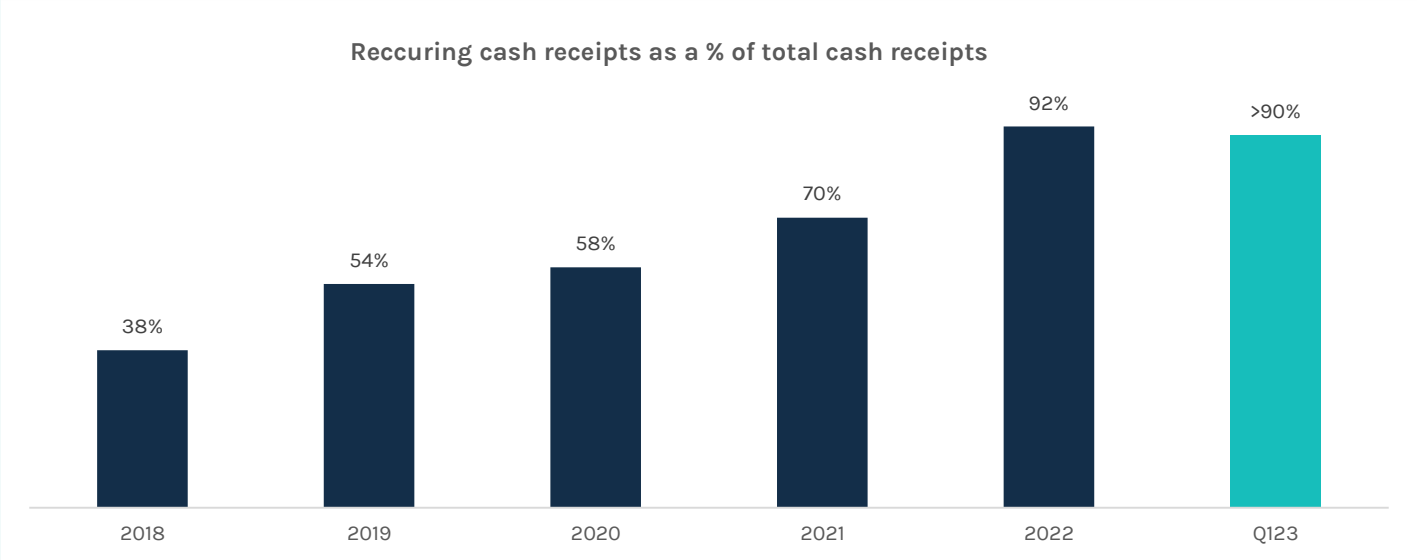
The laws and regulations of the government are also essential for the development of this industry. Strict regulations on the disposal of sewage and the standards for water quality are what are driving the demand for improved treatment technology. The advancement of technology is another factor supporting the industry's expansion. The effectiveness and efficiency of water purification processes have increased with the introduction of cutting-edge treatment methods like reverse osmosis and membrane filtration.

Financial Analysis

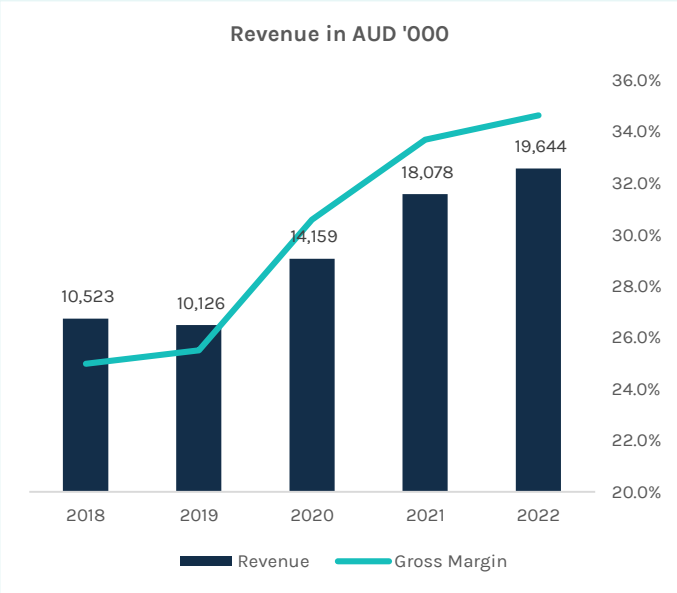
Income Statement Analysis

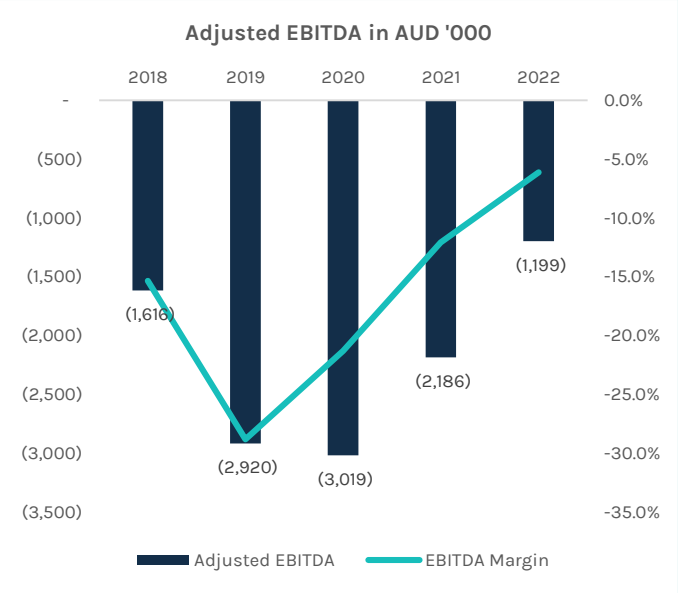
Historical Analysis

Over the last 5 years, De.mem's topline grew at a CAGR of 16.9% (CAGR of 24.7% over the last 4 years). The growth in topline was supported by a rise in recurring revenue for the company. Growth initiatives continue to be concentrated on the Company's recurring revenue streams in accordance with the plan disclosed to the Company's shareholders. Recurring revenue grew from 38% in 2018 to over 90% in 2022. Recurring revenue increased by AUD 13.5 million in 2021 to AUD 18.1 million in 2022, a 34% increase year-over-year. The service (Build, Own, Operate and operations & maintenance) and specialized chemicals sectors of De.mem make up the majority of the company's recurring revenue streams. Recurring revenue continued to represent over 90% of total cash receipts for the company, continuing the smooth shift from a mostly projects-based firm to a reliable, high-margin, high value-add recurring revenue model. The recurring cash receipts growth is driven by the Company's ability to cross-sell.



The rise in the topline was also supported by multiple acquisitions by De.mem over the last 5 years. In 2022, De.mem fully acquired Stevco and purchased the remaining 25% stake in Geutec (initial 75% acquisition in 2019) which allowed them to expand their presence in Europe, boosting revenue. Additionally, gross profit also witnessed a CAGR growth of 26.8% since 2018. The company has been transitioning to its high-margin recurring revenue segments. Consequently, gross margin expanded 965 bps from 25.0% in 2018 to 34.6% in 2022.



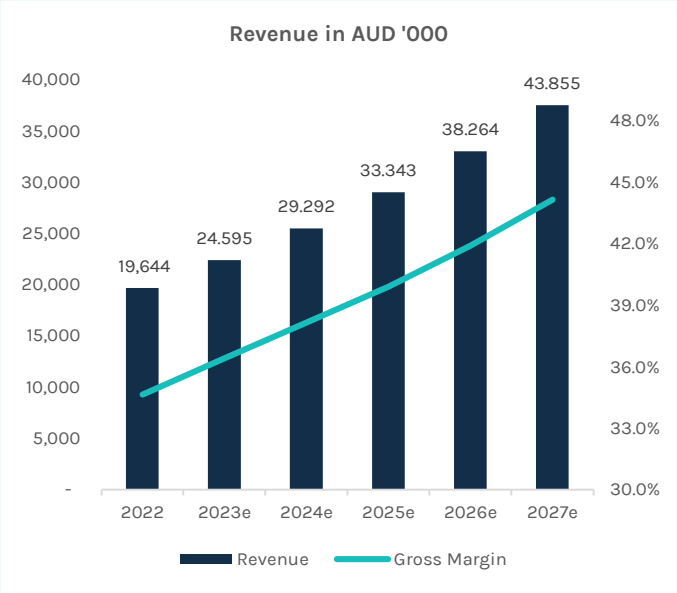


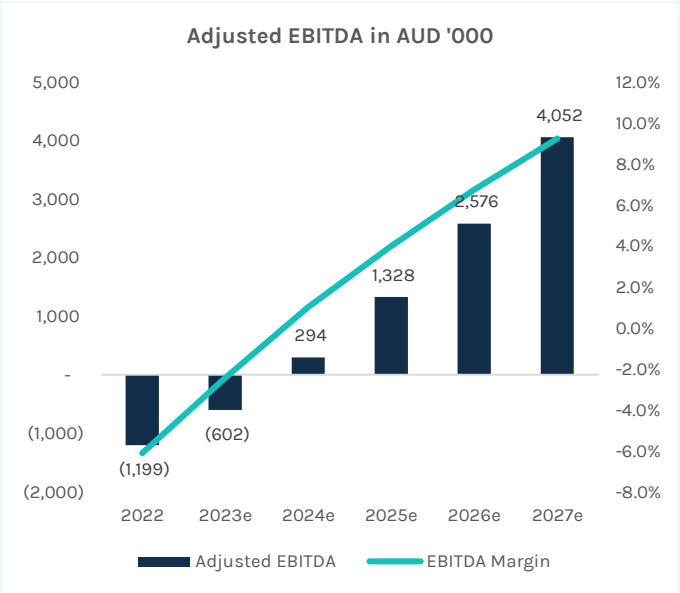
De.mem's reported an EBITDA loss of AUD 1.70mn in 2022 as against as EBITDA loss of AUD 1.68mn in 2018. However, EBITDA loss narrowed significantly from a loss of AUD 2.94mn recorded in 2021. Moreover, adjusted EBITDA loss (EBITDA less business acquisition cost, share based payments expense, and other one-off items) narrowed to AUD 1.20mn in 2022 from AUD 2.19mn in 2021. EBTIDA improvement was supported by Stevco acquisition. Consequently, EBTITDA margin improved from (-)15.9% in 2018 to (-)8.7% in 2022. De.mem net loss widened to AUD 3.49mn in 2022 from AUD 2.05mn in 2018. However, net loss in 2022 narrowed by 21.9% as compared to 2021 primarily due to improved gross margins. Subsequently, net loss margin improved to (-)17.8% in 2022 from (-)19.5% in 2018 (net loss margin in 2019 stood at (-)34.4%).

It is worth noting that the company has amortized intangible assets from its previous acquisitions over a straight 10-year period which impacts the company's bottom line, while there is no further impact on the cash position. Over the last five years the company's net cash from operating activities has been in the negative. However, the company is making efforts to turn it around and is expected to achieve break-even operating cashflow by 1H CY2023. The company's cash from investing activities is also historically negative, primarily due to acquisitions carried out by the company. However, cash from financing activities has been positive 3 out of the last five years due to cash received from proceeds from the issue of shares.

Forecast analysis and model assumptions

The company's topline is projected to grow at a CAGR of 17.4% over the next 5 years to reach AUD 43.9mn in 2027. The growth in the topline is expected to be supported by increase in recurring revenues, operational synergies from recent acquisition, increasing footprint in new geographies and expansion of its Hollow Fibre Membrane IP Portfolio. Additionally, the company's gross profit is projected to grow as a CAGR of 20.8% over the next 5 years (similar to CAGR growth of 26.8% from 2018 till 2022). Gross margins are expected to improve further by 2027, mainly driven by high-margin recurring revenue segments. De.mem is focusing on expansion of unique Build, specialty chemicals and Own, Operate & Service Offering for Industrial Clients, which contributes to recurring revenue segment. Based on its extended range of capabilities, De.mem is uniquely positioned as a supplier of Build, Own, Operate services to industrial customers. Consequently, the company's gross margin is projected to expand to 39.9% by 2027.



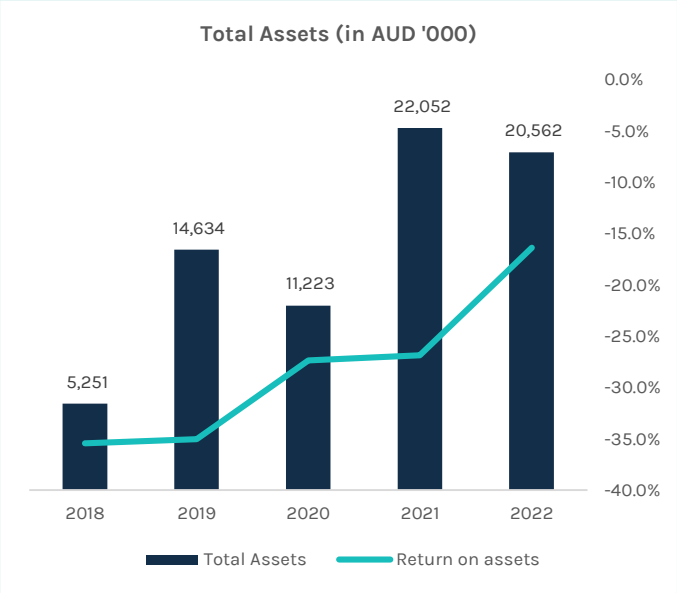


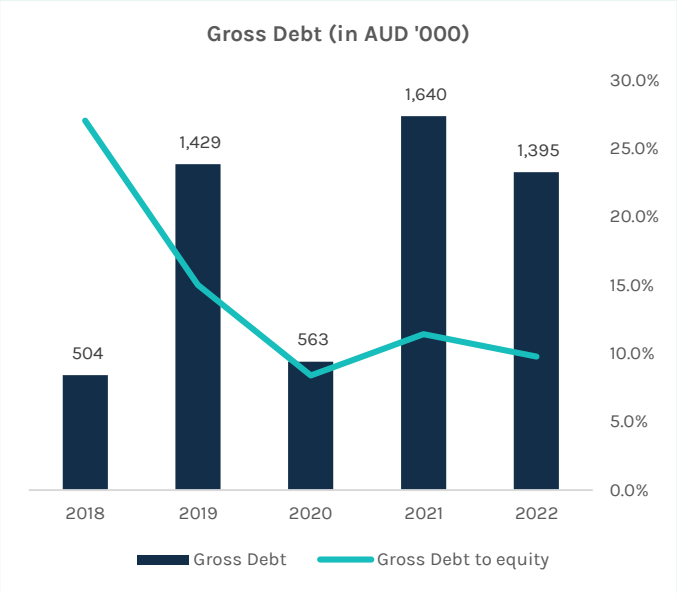
The company's focus on bolt-on acquisitions of profitable businesses with a strong industrial customer base, increasing recurring revenue segments and BOO and service contracts and selective involvement in lower margin projects business are expected to improve its EBITDA going forward. The company expects to achieve break-even EBITDA at approx. AUD 24-26mn in revenues. Subsequently, De.mem is projected to achieve a positive EBITDA by 2024. EBITDA is expected to further expand till 2027, leading to improving margins. De.mem is projected to swing to net profit by 2026, supported by an increase in topline and positive EBITDA.

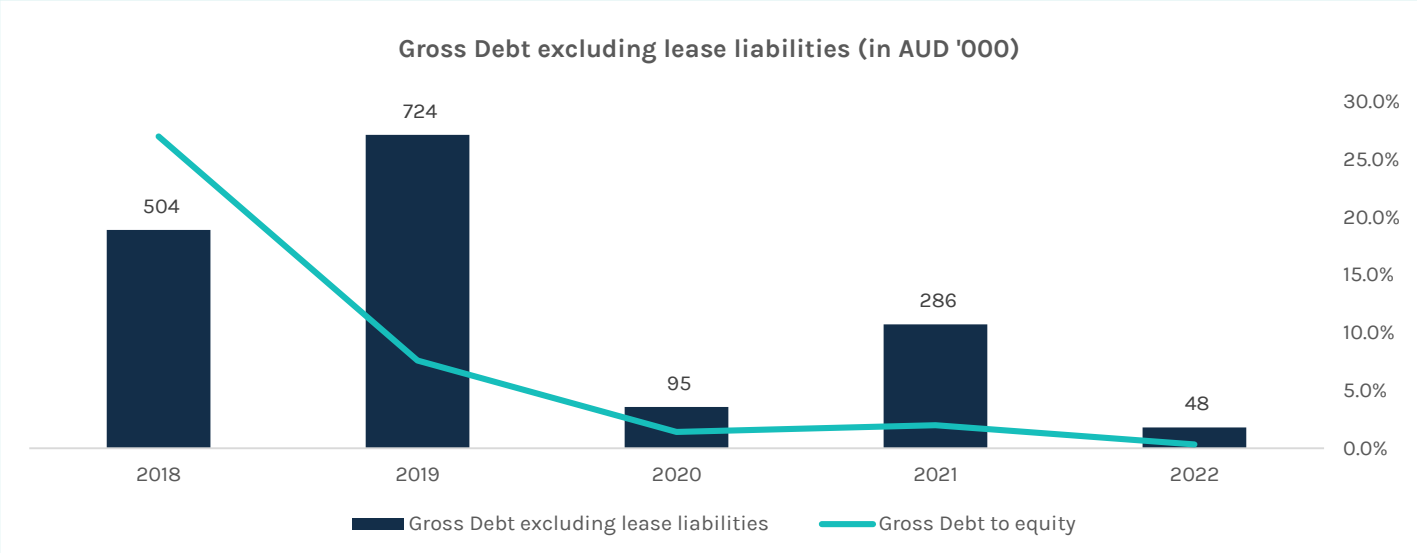
Balance Sheet Analysis

Historical Analysis

Over the last 5 years, De.mem's total assets increased at a CAGR of 40.7% in 2022. The rise in total assets was primarily driven by an increase in plant, property and equipment (PP&E), intangible assets and cash balance. The company has a higher capex, primarily due to various acquisitions over the last five years. The company's PP&E rose at a CAGR of 41.3% over the last 5 years, highlighting the heavy investment and expansion plan of the company. On the other side, the company's total debt (excluding employee benefits) rose at a CAGR of 29.0% in the last few years and stood at AUD 1.40mn in 2022. Nevertheless De.mem's cash balance stood at AUD 5.14mn by end of 2022, which could cover all of company's short term and long-term debt. Debt the equity ratio improved from 27.0% in 2018 to 9.7% in 2022. The company is in a strong cash position to fund any future expansion plan. Return on Assets and Return on Equity improved over the last five years and stood at (-)16.4% and (-)24.3%, respectively.

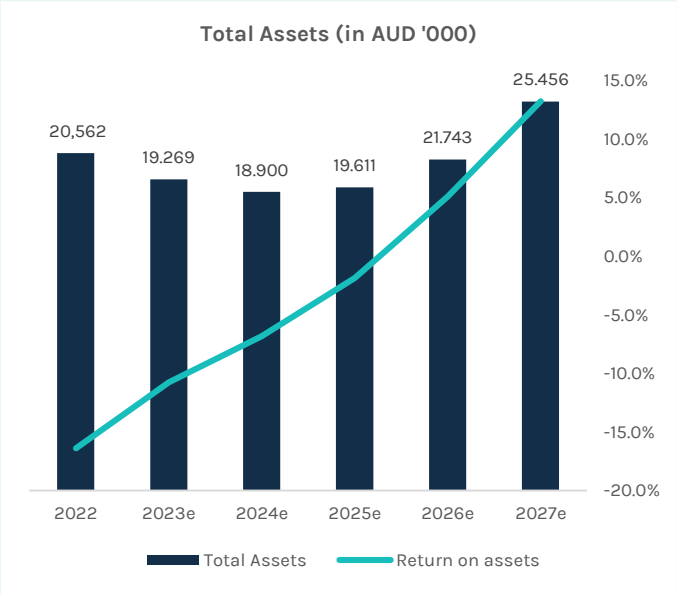


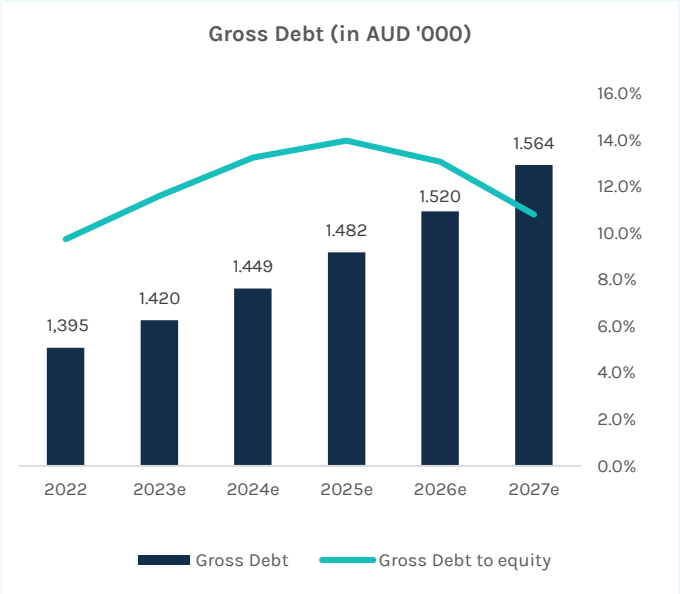




Forecast analysis and model assumptions

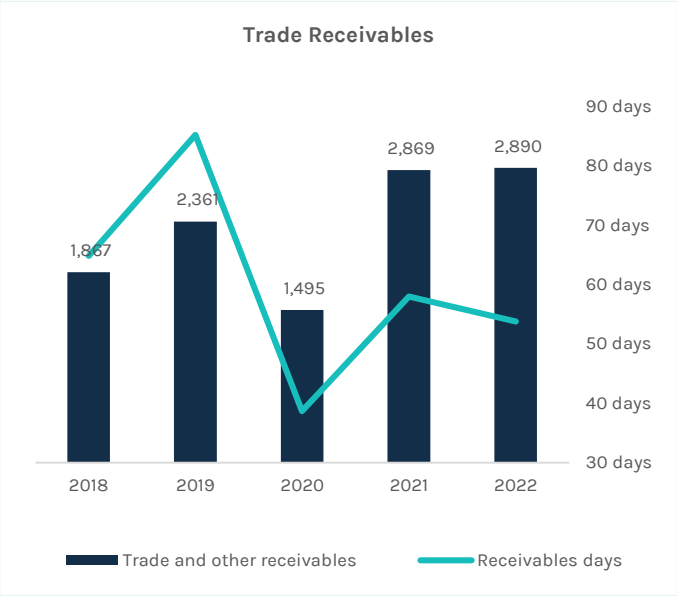
The company's total assets are projected to grow at a CAGR of 4.4% over the next 5 years. The company is expected to continue on its expansion plan in the near future. Consequently, PP&E are projected to increase at a CAGR of 8.7% till 2027, supporting the expansion plan. Gross debt are projected to expand slightly at a CAGR of 2.3% till 2027. However, cash balances are also expected to rise at a CAGR of 2.3%. Gross debt to equity is anticipated to remain range bound over the next five years. The company is expected to remain net debt free in the near future. Return on Assets and Return on Equity are anticipated to improve over the next five years as the company is expected to generate positive returns.



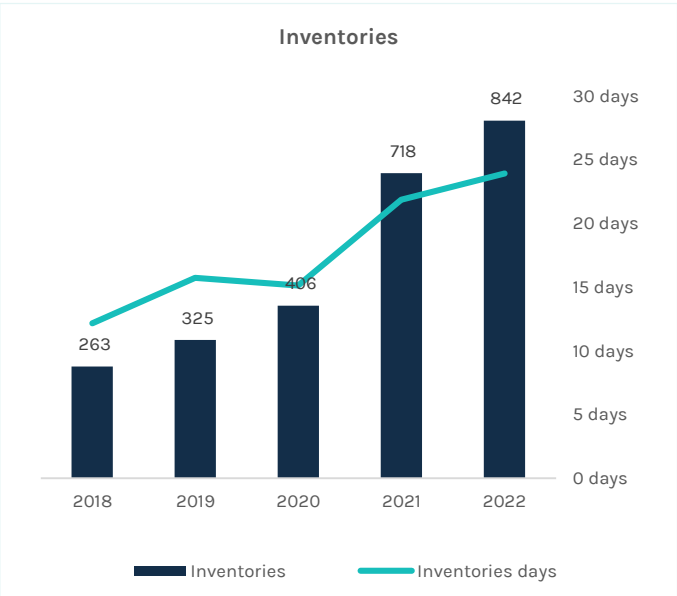


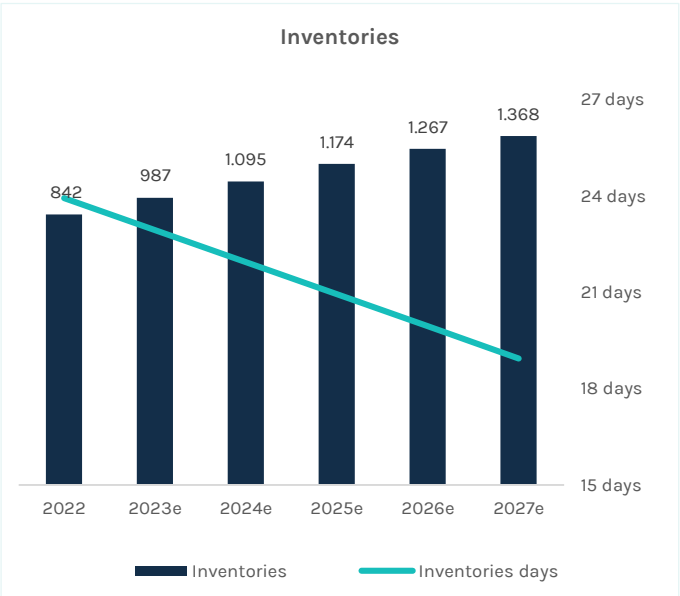
Operating metrics trend analysis

The company's trade and other receivables increased at a CAGR of 11.5% from 2018 to 2022. However, receivables days have improved and stands at 54 days in 2022 from 65 days in 2018. (In 2019, receivables days stood at 85 days, while it dropped to 39 days in 2020). Though receivables are projected to increase at a CAGR of 12.2% over the next five years, receivable days are anticipated to improve further.

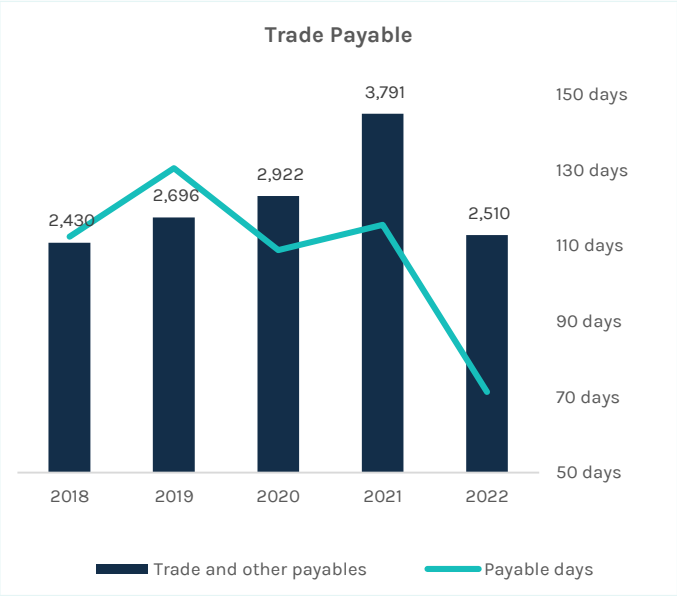


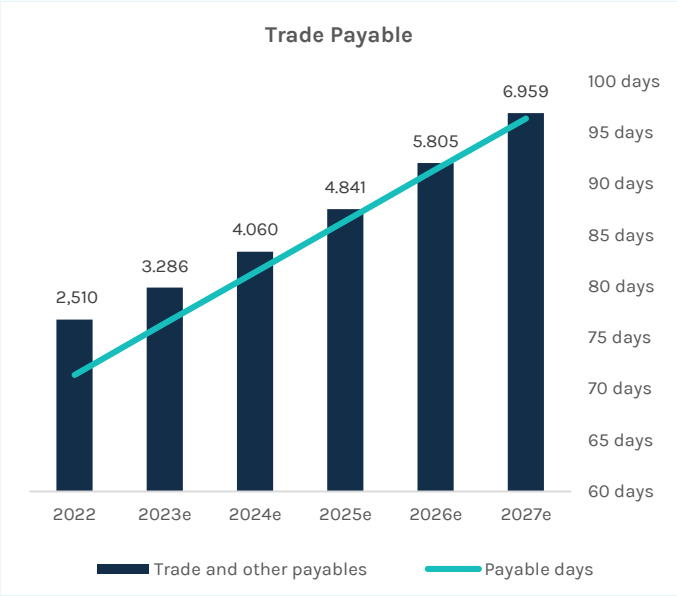
De.mem's inventory grew at a CAGR of 33.8% during the last five years. Consequently, inventory days rose by 12 days in 2018 to 24 days in 2022, indicating a steady rise over the period. Despite inventories projected to rise at a CAGR of 10.2% in the next five years, inventories days are likely to improve.





The company's trade payables rose slightly at a CAGR of 0.8% in the last five years. Trade payable rose to AUD 3.79mn in 2021, before falling to AUD 2.51mn in 2022. Payable days remained above 100 days from 2018 to 2021, before falling to 71 days in 2022. However, payable days are anticipated to improve in the forecasted period. The company's cash conversion cycle was in negative from the period of 2018 to 2021 indicating that De.mem is effectively receiving payments for the goods it sells before paying its suppliers for materials. Despite cash conversion cycle stood at 6 days in 2022, it is projected to remain negative in the upcoming years.





Recent earnings summary

De.mem recently reported its March 2023 quarterly activities report. The company claimed its highest-ever cash receipts in a quarter ending in March, totaling over AUD 5.8 million. Despite the worldwide macroeconomic headwinds in 2022 and 2023, this was the company's 16th consecutive quarter of growing cash receipts relative to a preceding similar period. The March quarter had positive net operating cash flows for the second straight quarter, totaling AUD 19,000 in that period. Despite historical seasonality within the business during the March quarter, which generally only generates around 20% of the total yearly cash receipts, the company had a great performance.

The results showed upheld strong growth momentum and offer a solid foundation for additional considerable growth during the entire 2023. Additionally, the mix of the underlying revenue has been significantly enhanced with a growing portion of recurring revenue. The combined business's margin profile has been improved by the rise of recurring revenue (gross margin increases from 18% in CY 2017 to 35% in CY 2023). The ratio of recurring cash receipts to total cash receipts for the company maintained above 90% during the March Quarter 2023, continuing the company's successful shift from a mostly projects-based business to a stable, high-margin, high value-add recurring revenue model. The capacity of the company to cross-sell or provide a wider range of products and services to its industrial core accounts, is what is driving the growth in recurring cash receipts. De.mem's adjusted EBITDA loss stood at approx. AUD 240,000 for the March 2023 quarter as against an EBITDA loss of AUD 470,000 in the March 2022 quarter.

In March 2023, De.mem received a new contract award for the supply of a waste-water treatment system to an industrial customer in Queensland, Australia, worth approx. AUD 420k in revenue, with revenue expected to be recognized in CY 2023.

Additionally, De.mem also received a contract award for the supply of water treatment equipment to an industrial customer in Tasmania worth approx. AUD 450k in revenues, which is also expected to be recognized in full during CY 2023.

Valuation

DCF Valuation

DCF Valuation							
Valuation date	*29/06/23*						
AUD '000s		FY 2022A	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E
EBIT		(2,835)	(2,000)	(1,078)	(10)	1,243	2,640
Taxes		(43)	(22)	(12)	(3)	(23)	(38)
Depreciation, amortization and impairment		1,613	1,372	1,355	1,326	1,319	1,393
Changes in working capital		(512)	104	186	333	451	609
Net Capital expenditure		(1,769)	(1,857)	(1,211)	(1,337)	(1,872)	(2,540)
Free cash flow to firm			**(1,054)**	**(760)**	**310**	**1,119**	**2,065**
Discount Factor			*1.0*	*0.9*	*0.9*	*0.8*	*0.8*
PV or tree cash rows to Fund at discount rate			**(1,794)**	**(694)**	**267**	**913**	**1,593**
NPV at 5.8% Discount rate			284				
PV Terminal Value with Growth rate @ 3% and 5.8% Discount Rate			58,583				

Assumed Terminal Growth Rate	3.0%
Discount Rate	5.8%

Existing Business - Enterprise Value @ discount rate	58,867
Total Cash	5,138
Total Debt	1,395
Employee Benefits	851
Minority Interest	-

Equity Value	61,759
Number of shares in '000	231,148

Target Price in AUD at Terminal Value of 3% @ 8.4% Discount Rate	0.27
CMP in AUD as on 29 June 2023	0.15
Upside/Down side to CMP	78.1%

We assumed a terminal growth rate of 3.0%. We discounted cash flows at a weighted average cost of capital of 5.8% to arrive at an enterprise value of AUD 58.9mn. We arrived at a fair value of AUD 0.27 per share after adjusting for a cash balance of AUD 5.1mn and total debt (including employee benefits) worth AUD 2.2mn.

Relative Valuation

Company	Country	EV/Sales			Price/Sales		
		2023E	2024E	2025E	2023E	2024E	2025E
De.mem	**Australia**	**1.3**	**1.1**	**1.0**	**1.4**	**1.2**	**1.0**
SciDev Limited	Australia	0.7	0.5	0.4	0.7	0.5	0.5
Fluence Corporation Limited	Australia	0.6	NA	NA	0.7	NA	NA
Clean TeQ Water Limited	Australia	1.1	NA	NA	1.9	NA	NA
NX Filtration N.V.	Netherlands	22.7	9.9	5.3	28.1	12.3	6.5
Aquaporin A/S	Denmark	12.9	4.9	2.5	12.5	4.7	2.5
M Vest Water AS	Norway	105.2	NA	NA	122.7	NA	NA
Mean		**7.6**	**5.1**	**2.8**	**8.8**	**5.8**	**3.2**
Median		**1.1**	**4.9**	**2.5**	**1.9**	**4.7**	**2.5**

EV/Sales multiple	
2023E median multiple	4.9
Discount/premium	-25%
Adjusted 2023E median multiple	3.7
2023E Sales	29,292
Enterprise Value	**107,210**
Less: Net debt	(3,743)
Less: Employee Benefit	851
Equity value	**110,102**
Shares O/S	231,148
Equity value per share	**0.48**
Current share price (AUD)	0.15
% upside/downside	217.60%

Price/Sales multiple	
2023E median multiple	4.7
Discount/premium	-25%
Adjusted 2023E median multiple	3.6
2023E Sales	29,292
Equity Value	**104,099**
Shares O/S	231,148
Equity value per share	**0.45**
Current share price (AUD)	0.15
% upside/downside	200.10%

We compared De.mem with regional and global peers such as SciDev Limited, Fluence Corporation Limited, Clean TeQ Water Limited, NX Filtration N.V., Aquaporin A/S, M Vest Water AS. We arrived at a fair value of AUD 0.48 per share based on the EV/Sales methodology, considering an Adjusted EV/Sales multiple of 3.7 and a fair value of AUD 0.45 per share based on the Price/Sales methodology, considering Adjusted Price/Sales multiple of 3.6.

Target Price

Valuation			
Method	**Value per share**	**% from CMP**	**Weights**
DCF	0.27	78.1%	50%
Price/Sales	0.45	200.1%	25%
EV/Sales	0.48	217.6%	25%
Blended Target Price	**0.37**	**143.5%**	**100%**

We have arrived at a target price of AUD 0.37 per share for the company after using blended valuation method and assigning 50% weight to DCF, 25% to Price/Sale and 25% to EV/Sales multiples.

Compared to the current market price of AUD 0.15 per share, the fair value is at an upside of 143.5%.

Sensitivity Analysis

DCF Target Price		Terminal Growth				
		2.4%	**2.7%**	**3.0%**	**3.3%**	**3.6%**
WACC	**6.2%**	0.20	0.21	0.23	0.25	0.28
	6.0%	0.21	0.23	0.25	0.27	0.31
	5.8%	0.22	0.24	**0.27**	0.30	0.34
	5.6%	0.24	0.26	0.29	0.33	0.37
	5.4%	0.25	0.28	0.31	0.36	0.42

Sensitivity Analysis is based on WACC range of 0.2% and Terminal Growth range of 0.3%.

Key Risks

Some of the key risks for De.mem includes:

- **Availability of cheaper alternatives in a highly competitive industry:** The Company may be reliant upon certain technologies and upon the successful commercialization of these technologies. However, in such a fiercely competitive climate, there is a chance that as marketable technologies continue to develop in the sector, certain product developments may take place that will supersede and render obsolete the company's goods and services.
- **Fragile macroeconomic situation:** Particularly with the beginning of the Ukrainian War in H1 2022, the macroeconomic position in the world appears precarious. De.mem's operations or growth rates could be impacted if the crisis worsens and causes a global macroeconomic recession, which seems to be a possible scenario, especially in Europe.
- **Rising inflation and increase in prices of raw materials and components:** The majority of countries today experience high rates of inflation. De.mem is vulnerable to future price rises because it purchases a sizable quantity of raw materials and components for its operations. Increased costs can have a negative effect on De.mem's margins and profitability.
- **Product quality risks:** The Company's technology and goods might not work properly, might have flaws, or might not live up to customer expectations. This could result in the need for the business to fix or upgrade its products after they are sold and/or installed, which could reduce operating margins or result in losses. Additionally, the company's goodwill will also take a hit.
- **Supplier risk:** The company uses outside suppliers to provide some essential parts for its systems. It's possible for the supply of such components to be delayed or for a particular supplier to be unable to deliver at all, which could lengthen the sales cycle or cause the company to switch suppliers.

Appendix

Income Statement

Particulars	2018	2019	2020	2021	2022	2023e	20243	2025e	2026e	2027e
Revenue	10,523	10,126	14,159	18,078	19,644	24,595	29,292	33,343	38,264	43,855
Cost of sales	(7,894)	(7,544)	(9,829)	(11,988)	(12,840)	(15,707)	(18,268)	(20,461)	(23,193)	(26,363)
Gross Profit	**2,629**	**2,582**	**4,330**	**6,090**	**6,804**	8,888	11,025	12,883	15,071	17,492
Other Income	53	119	935	267	150	276	328	374	429	491
Employee benefits and other related expenses	(2,137)	(2,878)	(4,876)	(6,100)	(5,415)	(6,411)	(7,196)	(7,691)	(8,252)	(8,800)
Superannuation	-	(165)	(269)	(329)	(297)	(429)	(511)	(581)	(667)	(765)
Administrative & corporate expenses	(2,160)	(2,584)	(2,331)	(2,392)	(2,464)	(2,951)	(3,369)	(3,668)	(4,018)	(4,386)
Depreciation and amortisation expense	(217)	(260)	(646)	(1,264)	(1,613)	(1,372)	(1,355)	(1,326)	(1,319)	(1,393)
Operating profit (Calculated)	**(1,831)**	**(3,186)**	**(2,857)**	**(3,728)**	**(2,835)**	(2,000)	(1,078)	(10)	1,243	2,640
Operating profit (Reported)	**2,695**	**(3,174)**	**120**	**(72)**	**1,242**					
Interest expense	(7)	(75)	(112)	159	(98)	(98)	(99)	(101)	(104)	(106)
Finance income	13	16	48	10	23	26	16	12	13	19
Loss before income tax expense from continuing operation	**(1,901)**	**(3,504)**	**(3,535)**	**(4,362)**	**(3,412)**	(2,072)	(1,161)	(99)	1,153	2,553
Income tax expense	-	(13)	(4)	(78)	(43)	(22)	(12)	(3)	(23)	(38)
Loss after income tax expense from continuing operation	**(1,901)**	**(3,517)**	**(3,539)**	**(4,440)**	**(3,455)**	(2,093)	(1,173)	(102)	1,130	2,514
Loss after income tax expense from discontinuing operation	(103)	-	-	-	-	-	-	-	-	-
Loss after income tax expense for the year	**(2,004)**	**(3,517)**	**(3,539)**	**(4,440)**	**(3,455)**	(2,093)	(1,173)	(102)	1,130	2,514
Non-controlling interest	43	(31)	-	33	37	-	-	-	-	-
Owners or De.mem Limited	**(2,047)**	**(3,486)**	**(3,539)**	**(4,473)**	**(3,492)**	(2,093)	(1,173)	(102)	1,130	2,514
EBITDA	**(1,677)**	**(3,168)**	**(2,777)**	**(2,939)**	**(1,701)**	(602)	294	1,328	2,576	4,052
Underlying EBITDA	**(1,616)**	**(2,920)**	**(3,019**	**(2,186)**	**(1,199)**	(602)	294	1,328	2,576	4,052
Weighted average number of issued ordinary shares Weighted average number of ordinary shares used in calculating basic earnings per share	107,672	135,024	175,441	206,939	231,148	231,148	231,148	231,148	231,148	231,148
Weighted average number of ordinary shares used in calculating diluted earnings per share	107,672	135,024	175,441	206,939	231,148	231,148	231,148	231,148	231,148	231,148
Basic EPS (in cents)	(1.77)	(2.58)	(2.02)	(2.15)	(1.51)	(0.91)	(0.51)	(0.04)	0.49	1.09
Diluted EPS (in cents)	(1.77)	(2.58)	(2.02)	(2.15))	(1.51)	(0.91)	(0.51)	(0.04)	0.49	1.09
EPS attributable to equity shareholder (in cents)	(1.90)	(2.58)	(2.02)	(2.16))	(1.51)	(0.91)	(0.51)	(0.04)	0.49	1.09

Balance Sheet

Particulars	2018	2019	2020	2021	2022	2023e	20243	2025e	2026e	2027e
Assets										
Current assets										
Cash and cash equivalents	1,680	7,750	4,639	8,688	5,138	3,234	2,420	2,673	3,740	5,761
Trade and other receivables	1,867	2,361	1,495	2,869	2,890	3,416	3,898	4,266	4,686	5,130
Inventories	263	325	406	718	842	987	1,095	1,174	1,267	1,368
Term deposits	-	423	446	136	253	253	253	253	253	253
Prepayments	-	67	31	137	210	210	210	210	210	210
Contract assets	294	405	407	290	412	412	412	412	412	412
Other current assets	134	149	112	-	-	-	-	-	-	-
Total current assets	**4,237**	**11,481**	**7,536**	**12,838**	**9,745**	8,512	8,287	8,988	10,568	13,134
Non-current assets	-	-	-	-	-	-	-	-	-	-
Investment in associate	88	79	9	-	-	-	-	-	-	-
Term deposits	-	-	357	197	50	50	50	50	50	50
Property, plant and equipment	926	838	1,344	2,658	3,696	3,879	3,883	3,968	4,520	5,597
Right-of-use assets	-	520	430	1,303	1,102	906	754	637	548	482
Intangible assets	-	1,716	1,544	5,056	5,969	5,921	5,925	5,969	6,058	6,193
Other non-current assets	-	-	3	-	-	-	-	-	-	-
Total non-current assets	**1,014**	**3,153**	**3,687**	**9,214**	**10,817**	10,757	10,613	10,623	11,176	12,322
Total assets	**5,251**	**14,634**	**11,223**	**22,052**	**20,562**	19,269	18,900	19,611	21,743	25,456
Liabilities										
Current liabilities										
Trade and other pavables	2,430	2,696	2,922	3,791	2,510	3,286	4,060	4,841	5,805	6,959
Contract liabilities	64	339	110	109	577	577	577	577	577	577
Borrowings	331	724	95	148	48	48	48	48	48	48
Lease labilities	-	251	237	390	461	468	476	486	497	509
Deferred consideration	-	-	150	431	164	164	164	164	164	164
Employee benefits	359	271	572	785	823	823	823	823	823	823
Income tax payable	2	30	-	-	3	3	3	3	3	3
Contingent consideration pavable for business acquisitions	-	-	-	-	-	-	-	-	-	-
Bank Overdraft	-	-	-	-	-	-	-	-	-	-
Other Provisions	-	-	-	-	38	38	38	38	38	38
Total current liabilities	**3,186**	**4.311**	**4,086**	**5,654**	**4,624**	5,407	6,190	6,979	7,955	9,122
Non-current liabilities										
Contract liabilities	-	-	-	634	630	630	630	630	630	630
Deferred consideration	-	300	150	238	79	79	79	79	79	79
Lease liabilities	-	454	231	964	886	904	924	948	976	1,007
Emplovee benefits	26	26	27	43	28	28	28	28	28	28
Lease make good provisions	-	15	14	-	-	-	-	-	-	-
Contingent consideration payable for business acquisitions	-	-	-	-	-	-	-	-	-	-
Borrowings	173	-	-	138	-	-	-	-	-	-
Total non-current liabilities	**200**	**795**	**422**	**2,017**	**1,623**	1,641	1,661	1,685	1,713	1,744
Total liabilities	**3,385**	**5,106**	**4,508**	**7,671**	**6,247**	7,047	7,851	8,665	9,667	10,866
Net assets	**1,866**	**9,528**	**6,715**	**14,381**	**14,315**	12,222	11,048	10,946	12,076	14,591
Equity										
Issued capital	12,868	24,021	24,054	36,243	39,238	39,238	39,238	39,238	39,238	39,238
Reserves	554	551	577	452	881	881	881	881	881	881
Accumulated losses	(11,569)	(15,055)	(17,916)	(22,347)	(25,804)	(27,897)	(29,071)	(29,173)	(28,043)	(25,528)
Equity attributable to the owners of De.mem Limited	**1,854**	**9,517**	**6,715**	**14,348**	**14,315**	12,222	11,048	10,946	12,076	14,591
Non-controlling interest	12	11	-	33	-	-	-	-	-	-
Total equity	**1,866**	**9,528**	**6,715**	**14,381**	**14,315**	12,222	11,048	10,946	12,076	14,591
Total equitv and Liabilities	**5,251**	**14,634**	**11,223**	**22,052**	**20,562**	19,269	18,900	19,611	21,743	25,456

Cash Flow

Particulars	2018	2019	2020	2021	2022	2023e	20243	2025e	2026e	2027e
Cash flows from operating activities										
Loss after income tax expense for the year	(2,004)	(3,517)	(3.539)	(4,440)	(3,455)	(2,093)	(1,173)	(102)	1,130	2,514
Adjustments for:										
Depreciation and amortisation	217	260	646	1,264	1,613	1,372	1,355	1,326	1,319	1,393
Share of loss - associates	15	11	-	-	-	-	-	-	-	-
Share-based payments	61	248	517	60	381	-	-	-	-	-
Bad debt expense	-	-	-	-	81	-	-	-	-	-
Business acquisition costs	-	-	-	125	40	-	-	-	-	-
Write off of inventory	-	-	-	-	23	-	-	-	-	-
Fair value movement of deferred consideration	-	-	-	-	6	-	-	-	-	-
Other gains	-	-	-	(88)	-	-	-	-	-	-
Share of loss - associates	-	-	-	9	-	-	-	-	-	-
Foreign exchange differences	33	(29)	-	-	(42)	-	-	-	-	-
Movements in assets and liabilities:										
Decrease/(increase) in trade and other receivables	(367)	417	837	(1,212)	695	(526)	(481)	(368)	(420)	(444
Decrease/(increase) in contract assets	-	-	-	116	(116)	-	-	-	-	-
Increase in inventories	(27)	(8)	(81)	(10)	86	(145)	(108)	(79)	(93)	(101
(Increase)/decrease in Other assets	228	(483)	6	30	(73)					
Increase in trade and other payables	215	1,512	319	1,170	(1,568)	776	775	780	964	1,155
Decrease in contract liabilities	-	-	(230)	634	464	-	-	-	-	-
Increase/(decrease) in employee benefits	68	(119)	362	37	(57)	-	-	-	-	-
Increase in other provisions	-	15	-	-	38	-	-	-	-	-
Increase/ (decrease in Income tax balances	(24)	13	-	-	3	-	-	-	-	-
Net cash used in operating activities	**(1,585)**	**(1,679)**	**(1.163)**	**(2,305)**	**(1,881)**	(617)	368	1,557	2,900	4,517
Cash flows from investing activities										
Payments for property, plant and equipment	(503)	(200)	(839)	(1,429)	(1,464)	(738)	(586)	(667)	(1,148)	(1,754)
Payments for intangibles	-	-	-	-	(305)	(574)	(625)	(670)	(724)	(785)
Payments for Research & development investments	-	(103)	-	-	-	-	-	-	-	-
Payment for consideration for acquisition of subsidiaries	(125)	(1,429)	(150)	(3,330)	(1,403)	-	-	-	-	-
Payment for investments in Pumptech, Capic and Geutec	-	-	-	-	(829)	-	-	-	-	-
Payment for purchase of Stevco, net of cash acquired	-	-	-	-	-	-	-	-	-	-
Investment in associate	(56)	-	(357)	-	30	-	-	-	-	-
Proceeds from release of security deposits	-	-	-	450	-	-	-	-	-	-
Payment for investments	-	(208)	-	-	-	-	-	-	-	-
Payments for investments in term deposits	-	(423)	-	-	-	-	-	-	-	-
Cash acquired on acquisition of businesses	-	119	-	-	-	-	-	-	-	-
Net cash used in investing activities	**(685)**	**(2,244)**	**(1,346)**	**(4,309)**	**(3,971)**	(1,311)	(1,211)	(1,337)	(1,872)	(2,540)
Cash flows from financing activities										
Proceeds from issue of shares	619	10,198	-	10,610	2,998	-	-	-	-	-
Proceeds from the exercise of share options	-	-	-	990		-	-	-	-	-
Repayment of borrowings	-	(150)	(284)	(65)	(138)	-	-	-	-	-
Proceeds from borrowings	51	121	-	-	-	-	-	-	-	-
Share issue transaction costs	-	-	-	(721)	12551	-	-	-	-	-
Repayment of lease liabilities	-	(151)	(260)	(273)	(78	25	29	33	38	44
Net cash from financing activities	**670**	**10,018**	**(544)**	**10,541**	**2 ,323**	25	29	33	38	44
Net increase/(decrease) in cash and cash equivalents	**(1,600)**	**6,094**	**(3,053)**	**3,927**	**(3,529)**	(1,904)	(814)	254	1,067	2,021
Cash and cash equivalents at the beginning of the financial year	3,271	1,680	7,750	4,639	8,687	5,138	3,234	2,420	2,673	3,740
Effects of exchange rate changes on cash and cash equivalents	9	(24)	(58)	43	58	-	-	-	-	-
Adjustment for overdraft and others	-	-	(0)	78	(78)	-	-	-	-	-
Cash and cash equivalents at the end of the financial year	**1,680**	**7,750**	**4,639**	**8,687**	**5,138**	3,234	2,420	2,673	3,740	5,761

Shareholding Pattern

Largest security holders of quoted equity securities are listed below:

Particulars	Ordinary Shares Number held	Ordinary Shares % of total shares issued
Na Singapore Early-Stage Venture Fund I Pte Ltd	41,295,168	16.9
National Nominees Limited	37,811,752	15.47
BNP Paribas Noms Pty Ltd	32,866,674	13.45
New Asia Investments Pte Ltd	12,785,897	5.23
BNP Paribas Nominees Pty Ltd	12,467,147	5.1
BNP Paribas Nominees Pty Ltd Hub24 Custodial Serv Ltd	4,328,146	1.77
BNP Paribas Noms(Nz) Ltd	4,049,142	1.66
Cipac Holdings Pty Ltd	3,584,731	1.47
J P Morgan Nominees Australia Pty Limited	3,492,259	1.43
Spurgin Smsf Pty Ltd	3,338,285	1.37
Andreas Kroell	3,213,340	1.31
Mr Geoffrey Ian Foley & Mrs Patricia Erika Foley	2,788,123	1.14
Citicorp Nominees Pty Limited	2,643,281	1.08
HSBC Custody Nominees (Australia) Limited - A/C 2	2,505,000	1.02
HSBC Custody Nominees (Australia) Limited	2,347,273	0.96
SLO Concepts Pty Ltd	1,985,000	0.81
Mr Hien Quang Trinh	1,697,035	0.69
F & T Spagnolo Pty Ltd	1,301,208	0.53
Dr Afshin Pour Mirza	1,111,111	0.45
Acmaios Gmbh	1,111,111	0.45
Total	**176,721,683**	**72.29**

Substantial holders in the company are as follows:

Particulars	Ordinary Shares Number held
NA Singapore Early-Stage Venture Fund I Pte Ltd	41,295,168
Perennial Value Management Limited (PVM)	24,937,546
Pathfinder Asset Management Limited, and its related bodies corporate, and each of Gough Investments Limited and Alvarium RE Limited	12,785,897
New Asia Investments Pte Ltd	11,921,611
Mr. Andreas Hendrik De Wit	14,122,387

Management Information

Name	**Cosimo Trimigliozzi**
Title	Non-Executive Chairman
Qualifications	MBA equivalent, University of Basel, Switzerland
Experience and Expertise	Mr. Trimigliozzi looks back at a successful, almost 30-year long career in the feed and food ingredients / flavors and fragrances industry, one of the key target sectors for De.mem Limited. In his last assignment, he was the COO of Wild Flavors International, Germany, responsible in particular for the Asian and South American business expansion. Mr. Trimigliozzi was a member of the key management team involved in the sale of Wild Flavors on behalf of owner Mr. Wild and private equity investor KKR to ADM Group for approximately 2.5 billion USD. Prior to that, Mr. Trimigliozzi had been in other senior management roles, amongst others as Managing Director – Asia for Givaudan, a multinational corporation headquartered in Switzerland.
Interest in Shares	557,764 fully paid ordinary shares
Interest in Options	750,000 unlisted options

Name	**Andreas Kroell**
Title	Chief Executive Officer and Director
Qualifications	MBA equivalent, University of Frankfurt, Germany
Experience and Expertise	Mr. Kroell has been the director and CFO of De.mem Singapore since the company was established and was appointed as the Chief Executive Officer in 2016. Prior to that, Mr. Kroell has been involved in the venture capital and finance industries in Germany and Singapore since 2000. Mr. Kroell has led investments and held board seats in numerous companies within the water, environmental, industrial and other technology related sectors and has managed over 20 venture capital investments throughout his career, including a number of exits by trade sale and initial public offerings. Andreas Kroell has worked with several portfolio companies in management and financial roles.
Interest in Shares	3,213,341 fully paid ordinary shares
Interest in Options	500,000 unlisted options

Name	**David Chua**
Title	Director Technology & Manufacturing
Qualifications	Master of Engineering, Technology Management, Nanyang Technological University, Singapore
Experience and Expertise	David brings in more than 15 years of experience in the membrane industry. He has worked for companies from the water industries such as Mann & Hummel and Hyflux, Singapore, in different departments, with a focus on the membrane and related technologies

Name	**Andreas Hendrik De Wit**
Title	Non Executive Director
Qualifications	Masters Degree, Vrije Universiteit Amsterdam
Experience and Expertise	Mr De Wit is a senior corporate executive who has worked in several locations across the globe. He has been the CEO of Asia Pacific for Fresenius Medical Care Since 2016. In this role, he is also responsible for the company's operations in Australia & New Zealand. In addition, he served as a member of Fresenius Medical Care's management board from 2016 to 2021. Prior to this, Mr De Wit held further senior corporate roles within the healthcare industry, amongst others with Covidien (previously named Tyco Healthcare).
Interest in Options	500,000 unlisted options
Interest in Shares	14,122,387 Fully paid ordinary shares

Name	**Bernd Dautel**
Title	Non-Executive Director
Qualifications	Master of Chemical Engineering, University of Karlsruhe, Germany
Experience and Expertise	Mr. Dautel has been a Venture Capital expert with New Asia Investments Pte Ltd in Singapore since 2012. In this function, he managed investments into companies from the chemicals and electronics sectors. Prior to this, Mr. Dautel was the Managing Director Asia/Pacific for Wieland Metals, a large German manufacturer of semi-finished copper goods. He built the company's business in the Asia/Pacific region from the early stage to approximately 400 million in annual revenues over 20 years, with operations in Singapore, China, India and many other countries in the Asia/Pacific region.
Interest in Shares	800,000 fully paid ordinary shares
Interest in Options	500,000 unlisted options

Name	**Stuart Carmichael**
Title	Non-Executive Director
Qualifications	Bachelor of Commerce, University of Western Australia, Perth
Experience and Expertise	Mr. Carmichael is a Chartered Accountant with over 20 years of experience in the provision of corporate advisory services both within Australia and internationally. Mr. Carmichael is a principal and director of Ventnor Equities & Advisory Pty Ltd and Ventnor Securities Pty Ltd which specialises in the provision of advisory services to ASX listed companies including capital raisings, initial public offerings, corporate restructures and mergers and acquisitions. Mr. Carmichael graduated from the University of Western Australia with a Bachelor of Commerce degree, gaining experience with KPMG Corporate Finance in Perth and London before joining ASX listed property services and engineering company UGL Limited
Interest in Shares	21,500 fully paid ordinary shares
Interest in Options	500,000 unlisted options

Name	**Michael Edwards**
Title	Non-Executive Director
Qualifications	Bachelor of Business (Economics and Finance), Curtin University of Technology, Bachelor of Science (Geology), University of Western Australia, Perth
Experience and Expertise	Mr Edwards is a Geologist and an Economist with over 25 years' experience in senior management roles in both the private and public sectors. He worked for Barclays Australia in their Corporate Finance department before working as an Exploration and Mine Geologist with several companies including Gold Mines of Australia, Eagle Mining and International Mineral Resources. Mr Edwards has worked as a consultant across a range of industries both as a Geologist and Corporate Advisor, predominantly in Australia and Africa. He has been involved in numerous ASX listings, raising seed and IPO capital as well as being intimately involved in several reverse take overs across a range of commodities and industries
Interest in Shares	None
Interest in Options	500,000 unlisted options

Name	**Danny Conlon**
Title	Non-Executive Director
Qualifications	N/A
Experience and Expertise	Mr Conlon is a proven water industry expert and veteran. Most recently, from 2018 to 2020, he was Veolia's CEO and Managing Director for the Australia & New Zealand region. In this role, he oversaw Veolia's broad portfolio of water, waste and energy operations, with a strong focus on driving the growth of recurring revenues and the company's service business. Mr. Conlon was responsible for more than 4,000 employees and 240 locations across the region. Mr. Conlon's long-term career at Veolia started originally with an appointment at Collex Waste Management in 1998. He advanced within Veolia group over more than two decades and held several leadership positions during these years. Prior to being appointed as CEO he was the Executive General Manager of Veolia's East Coast Operations in Australia & New Zealand, a position he held since 2014.
Interest in Shares	None
Interest in Options	500,000 unlisted options

Disclaimer

This document is provided by Vested Equities Pty Ltd (ABN 54 601 621 390; AFSL 478987) ("Vested").

The material in this document may contain general advice or recommendations which, while believed to be accurate at the time of publication, are not appropriate for all persons or accounts. This document does not purport to contain all the information that a prospective investor may require. The material contained in this document is for information purposes only and is not an offer, solicitation or recommendation with respect to the subscription for, purchase or sale of securities or financial products and neither or anything in it shall form the basis of any contract or commitment. This document should not be regarded by recipients as a substitute for the exercise of their own judgment and recipients should seek independent advice.

The material in this document has been obtained from sources believed to be true but neither Vested nor its associates make any recommendation or warranty concerning the accuracy, or reliability or completeness of the information or the performance of the companies referred to in this document. Past performance is not indicative of future performance. Any opinions and or recommendations expressed in this material are subject to change without notice and Vested is not under any obligation to update or keep current the information contained herein. References made to third parties are based on information believed to be reliable but are not guaranteed as being accurate.

Vested does, and seeks to do, business with companies that are the subject of its valuation reports. The analyst(s) hereby certify that all the views expressed in this report accurately reflect their personal views about the companies valuation and future prospects.

Although every attempt has been made to verify the accuracy of the information contained in the document, liability for any errors or omissions (except any statutory liability which cannot be excluded) is specifically excluded by Vested, its associates, officers, directors, employees and agents. Except for any liability which cannot be excluded, Vested, its directors, employees and agents accept no liability or responsibility for any loss or damage of any kind, direct or indirect, arising out of the use of all or any part of this material. Recipients of this document agree in advance that Vested is not liable to recipients in any matters whatsoever otherwise recipients should disregard, destroy or delete this document. All information is correct at the time of publication. Vested does not guarantee reliability and accuracy of the material contained in this document and is not liable for any unintentional errors in the document.