Singapore Water

Sector Note

Date: 27 September 2018

FTSE ST Utilities Index

Source: SAC Advisors, SGX (as at 18th September 2018)

Companies mentioned

Company	Market cap (S$ m)	P/BV (x)	P/E (x)
Hyflux Ltd	164.9	0.29	-
Sanli Environmental Limited	51.9	2.09	16.15

Source: SAC Advisors, SGX (as at 18th September 2018)

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The growing water sector

Increasing demand & sustainable supply. Global water demand is increasing due to population and economic growth. In Singapore, demand for water is set to double to 860 million gallons a day in 2060. One of the main strategies of ensuring a sustainable source of water supply is through water treatment. Facing the strain to her water supply due to the expiring Water Agreement and other short-term uncertainties, Singapore is putting in enormous resources and effort in the water sector to ensure it will achieve water self-sufficiency in the shortest possible time.

Many municipal projects in the pipeline. In order to achieve water self-reliance, Public Utilities Board ("**PUB**") centered its effort around desalination and reclamation. Singapore opened her 3rd desalination plant recently and 2 more plants are currently in the midst of construction to improve her desalination capacity. At the same time, the Deep Tunnel Sewerage System ("**DTSS**") is developed to improve Singapore's water reclamation capabilities. So far, S$5.8 billion has been spent on its construction and an estimated additional S$4 billion is required to complete it. Also, there are numerous other projects ongoing and in plan to improve Singapore's water network.

Government's effort in building the water sector. Identified as a strategic growth area, S$670 million has been funded to develop Singapore as a leader in the water industry. Today, Singapore houses over 200 companies and 25 research centers with an aim to further develop her water technologies through various research and development projects. R&D efforts have amounted to S$453 million. So far, the water sector has contributed S$2.5 billion to the Singapore economy and created 14,400 jobs.

Global expansion by Singapore's companies. Between 2004 to 2015, Singapore companies have secured S$12.2 billion worth of overseas water projects. Singapore's footprint can be found in Asia, the Middle East, Latin America and Africa. As global demand for sustainable water technology increases, Singapore's reputation and capability in the water sector would allow more local companies to win projects from around the world.

Bright sector outlook. Driven by the demand for sustainable water supply, the water sector is likely to continue to experience growth. This is especially so for Singapore given that she possesses the technologies and expertise in the water treatment that the world is looking for. Yet, despite the seemingly bright outlook, stocks in the water sector have failed to perform. Part of this could be attributed to Hyflux's woe. Synonymous with the water sector, Hyflux's trouble has cast some doubts over the water industry. However, the distress faced by Hyflux is mainly due to its involvement in the loss-making power sector and overexpansion. It should not be a reflection of overall outlook of the water sector.

Demand & Supply

Currently, water demand in Singapore approximates 430 million gallons a day (mgd), 45% due to home consumption and 55% contributed by the non-domestic sector. Despite Singapore's effort to curb household water consumption, the need for water will only increase in the future as demand for water continues to grow in tandem with population and economic growth. It is estimated that, by 2060, Singapore's total water demand will double and the non-domestic sector will account for about 70% of water usage.

On the supply side, the "Four National Taps" form the cornerstone in ensuring a sustainable and reliable supply of water in Singapore. At present, imported water from Johor satisfies about 50% of the water demand, NEWater and desalination can meet up to 30% and 20% respectively and local catchments make up the rest.

With the only remaining Water Agreement with Malaysia set to expire in 2061, the main source of Singapore's water supply would cease to exist. As such, to counter the increase in demand and the decrease in supply in the future, heavy emphasis is put in place to secure an adequate and affordable supply of water for future generations and to ensure Singapore becomes water self-sufficient. According to the Public Utilities Board ("**PUB**"), reclaimed water and desalinated water are expected to meet 85% of the future water demand.

While Singapore is preparing to increase her self-sufficiency in the future, potential threats that could undermine the supply of water in the short term must not be overlooked.

I) Dispute Over The 1962 Water Agreement

The water pricing issue has been a constant topic of disagreement between Singapore and Malaysia over the course of the years. Supplemented by the 1990 agreement, the 1962 Johor River Water Agreement gave Singapore the right to draw 250 million gallons of raw water per day from the Johor River at the price of 3 sen per 1000 gallons. On the other hand, Johor is entitled to a supply of treated water from Singapore up to 2% of the raw water it supplied at 50 sen per 1000 gallons. In addition, the agreement provided a price review after 25 years, with arbitration being the agreed course of action if bilateral price negotiations failed.

Differences in opinion over the price has strained the relationship between Singapore and Malaysia, particularly between 2000 and 2002, during which water price was the focal point of discussion between Singapore and Malaysia among many other issues. Several rounds of price negotiation took place but the discussion ended before an agreement could be reached. Besides water price review, a new agreement was also in discussion to allow Singapore to continue to draw water after 2061. However, inability to come to a consensus on the water price led to a breakdown on the talk and a new deal also fail to materialize.

In June 2018, Malaysia Prime Minister Mahathir Mohamed stated his intentions of renegotiating the agreement. In an exclusive interview with Channel NewsAsia, he said *"I think it is manifestly ridiculous that we should sell water at 3 sen per thousand gallons. That was okay way back in 1990s or 1930s. But now what can you buy with 3 sen? Nothing".*

Singapore argues that Malaysia has lost its right to review the water prices since it did not seek a revision when the 25-year period was reached in August 2002. Conversely, Malaysia believes that it is timely that a review be undertaken now and does not think that not doing so earlier should construe as Malaysia's disinterest in seeking a fair and just review of the price.

To date, neither clear solution is in sight nor is there an indication of which interpretation is right and just. As the issue remains unresolved, it will continue to pose a threat to the water security, especially since Singapore still relies substantially on imported water from Malaysia.

II) Drying Dam

On top of the ongoing threat pertaining to her neighbor, Singapore's water security is also dependent on natural circumstances. In 2016, Prime Minister Lee Hsien Loong revealed that the Linggiu Reservoir, which supplements the flow and enables reliable abstraction of raw water, was only 22% full. In 2017, while water level had gone up to 27%, Minister for Foreign Affairs Vivian Balakrishnan warned that there was still risk that the reservoir may run dry if it turns out to be a dry year. Warning was even given that if water stock in Linggiu Reservoir did not recover, there would be restriction of water use for non-critical activities. In fact, from August 2015 to January 2016, water rationing was imposed just 30km across from the causeway in Pasir Gudang and Kota Tinggi. While Linggiu Reservoir had replenished its water levels back up to 63% due to heavier rainfall and completion of the Johor River Barrage, there is no guarantee that the reservoir would not run dry in the future. Drought conditions are likely to become more pronounced with the changing climate which could pose as another threat to Singapore water security.

Projects In The Pipeline

Faced with so many uncertainties over its water supply, Singapore is accelerating the process to ensure that she will become water self-sufficient. By 2030, it is expected that reclaimed water will meet 50% of the water demand and desalinated water will contribute up to 30%. Over the past 24 months, 125 contracts worth over S$3.7 billion have been awarded to 80 companies for different projects to meet this target.

Expansion of the capacity from desalination facilities are in full force. Singapore's third desalination facility and the only one held by a national agency was recently opened. The S$217 million Tuas Desalination Plant is the first to be owned and operated by national water agency PUB. It is expected to improve Singapore's water needs through desalination by 5%. The fourth desalination plant, owned and operated by Keppel Infrastructure Holdings and the fifth one, built by a Tuas Power-Singapore Technologies Marine consortium are expected to commence operation in 2020.

One of the key reclamation water projects in the pipeline is the Deep Tunnel Sewerage System ("**DTSS**"). Proposed by PUB, DTSS is a cost-efficient and sustainable solution to meet the long-term needs for used water collection, treatment, reclamation and disposal in Singapore. Phase 1 of the DTSS, which comprises a 48km tunnel running from Kranji to Changi, a centralized water reclamation plant at Changi, two 5km deep sea outfall pipe and 60km link sewers, was completed at a cost of S$3.4 billion in 2008.

DTSS phase 2 ("**DTSS2**"), which extends the existing deep tunnel system to the western and south parts of Singapore, is underway. It is estimated to cost S$6.5 billion and consists of of 60km link sewer, 40km deep tunnels and Tuas Water Reclamation Plant. Of the S$3.7 billion of contracts awarded in the past 2 years by PUB, 64% or S$2.4 billion of the contract sum was spent on the twelve DTSS2 projects.

Contract Awarded For Deep Tunnel Sewerage System Phase 2 Project Over The Past 24 Months			
Contract	**Contractor**	**Contract Sum (S$)**	**Commencement Date**
Instrumentation and Monitoring Works - Contract T - 10	Ryobi Geotechnique International Pte Ltd	7,990,390	22-Jan-18
Instrumentation and Monitoring Works - Contract T - 11	Fosta Pte Ltd	10,086,100	22-Jan-18
Design and Construction of Sewer Tunnels - Contract T-10	Nishimatsu Construction Co Ltd	340,118,000	1-Dec-17
Design and Construction of Sewer Tunnels - Contract T-11	Shanghai Tunnel Engineering Co (Singapore) Pte Ltd	472,168,000	1-Dec-17
Instrumentation and Monitoring Works T-07, T-08 & T-09 - Sch I (Contract T-07)	Ryobi Geotechnique International Pte Ltd	8,395,600	16-Oct-17
Instrumentation and Monitoring Works T-07, T-08 & T-09 - Sch II (Contract T-08)	GeoApplication Engineers Pte Ltd	7,920,061	16-Oct-17
Instrumentation and Monitoring Works T-07, T-08 & T-09 - Sch III (Contract T-09)	Geomotion (Singapore) Pte Ltd	7,931,950	16-Oct-17
Design, Supply, Supervision of Installation, Testing and Commissioning of Roller Gates	Smitech Engineering Pte Ltd	48,310,860	29-Sep-17
Design and Construction of Sewer Tunnels - Contract T-07	Ed Zublin AG, Singapore Branch	499,390,000	25-Sep-17
Design and Construction of Sewer Tunnels - Contract T-08	Penta-Ocean Construction Co Ltd & Koh Brothers Building & Civil Engineering Contractor (Pte) Ltd JV	520,000,000	25-Sep-17
Design and Construction of Sewer Tunnels - Contract T-09	Leighton Contractors (Asia) Limited (Singapore Branch)	494,581,448	25-Sep-17
Provision of Shaft and Tunnel Excavation Monitoring System	Maxwell Geosystems Pte Ltd / Geomotion (Singapore) Pte Ltd	8,324,000	11-Sep-17

Source: SAC Advisors, PUB

Through a Joint Venture with Japanese construction firm Penta-Ocean Construction Co Ltd, Koh Brothers Eco Engineering Limited is the only Singapore listed company that was awarded a DTSS2 project in the last 24 months. This is an expansion to their involvement in the water sector, adding to the subcontract won from Keppel Seghers for the building of the Marina East Desalination Plant and the contract secured for the maintenance of Changi Water Reclamation Plant.

Looking ahead, a remaining sum of about S$4 billion of contracts for DTSS2 will be up for tender from now to the targeted completion of the project in 2025. For the second half of 2018 alone, there are 8 upcoming tenders relating to the DTSS2 project.

Upcoming Tenders 2H2018		
Likely Month of Purchase	**Project**	**Department**
Aug-18	Link Sewers for the Deep Tunnel Swerage System - Contract Sch II - 2	DTSS2
Aug-18	Link Sewers for the Deep Tunnel Swerage System - Contract Sch III - 3	DTSS2
Sep-18	Link Sewers for the Deep Tunnel Sewerage System - Contract Sch I - 1	DTSS2
Sep-18	Link Sewers for the Deep Tunnel Sewerage System - Contract Sch II - 4	DTSS2
Sep-18	Influent Pumping Stations for Tuas Water Reclamation Plant	DTSS2
Nov-18	Link Sewers for the Deep Tunnel Sewerage System - Contract Sch I - 5	DTSS2
Dec-18	Tuas WRP Industrial Liquid Module	DTSS2
Dec-18	Link Sewers for the Deep Tunnel Sewerage System - Contract Sch I - 6	DTSS2

Source: SAC Advisors, PUB

Upcoming Tenders From 1 Jul 2018 - 30 Sep 2019	
Project Type	
Construction	
Catchment and Waterways	3
Deep Tunnel Sewerage System 2	9
Water Reclamation (Network)	32
Water Reclamation Plant	3
Water Service Plan	2
Water Service Network	3
Catchment and Waterways & Water Service Network	3
Goods, Services & Maintenance	
Water Reclamation (Network)	3
Water Reclamation Plant	17
Water Service Plan	5
Water Service Network	5

Source: SAC Advisors, PUB

Other than the DTSS2 projects, there are 76 other upcoming tenders, each worth above S$200,000, available over the next 15 months. All these present a wealth of opportunities to the companies in the water sector in Singapore. Based on the past contracts awarded, this is especially so for the local small-medium engineering, procurement and construction ("**EPC**") enterprises with an expertise in the water segment. For example, **Sanli Environmental Limited** won 8 contracts worth a total of S$48,940,000 in the past 24 months.

PUB Contracts Awarded To Singapore Listed Companies Over Past 24 Months			
Company	**Ticker**	**No. of projects**	**Total Contract Sum (S$)**
Koh Brothers Eco Engineering Limited	5HV	2	551,300,000*
Sembcorp Industries Ltd	U96	1	73,456,000
OKP Holdings Limited	5CF	3	63,070,000
Sanli Environmental Limited	1E3	8	48,940,000
Ley Choon Group Holdings Limited	Q0X	5	47,749,447
Wee Hur Holdings Ltd.	E3B	1	22,800,000
Swee Hong Limited	QF6	1	11,356,353
Tritech Group Limited	5G9	1	9,998,000

Source: SAC Advisors, PUB
**sum includes contract won in the DTSS2 joint venture*

Government Support

Singapore has identified the environment and water industry as a strategic growth area to help diversify the economy. Under the Research, Innovation and Enterprise 2020 plan, the water sector is expected to create 15,000 jobs and generate S$2.85 billion to the economy. Since 2016, the water industry has generated 400 jobs and added S$300 million to the economy annually. As of today, 14,400 jobs were created and S$2.5 billion was contributed to the economy, putting the water industry on track in meeting its targets.

With an aim to supply technology and products to 3% of the global water market within the next decade, Global Hydrohub is a key initiative to grow the water segment. A joint effort by PUB and Singapore Economic Development Board ("**EDB**") started in 2006, Global Hydrohub is a project to unite the government organizations, private companies and research institutes to promote water research and development, grow the water industry and position the country as the global Research and Development ("**R&D**") house for water solutions. The project aims to encourage companies to develop new technologies and export Singapore's capabilities to the world. Thus far, the National Research Foundation has granted S$670 million for the initiative.

The entire water value chain can be broadly classified into 3 categories: upstream, midstream and downstream. Upstream players consist of components (e.g. pumps, valves, membranes sensors, pipes) suppliers. Midstream players are those who provide water treatment systems and water integrators. Downstream players are usually EPC companies, turnkey engineering solution providers, project developers and utility operators.

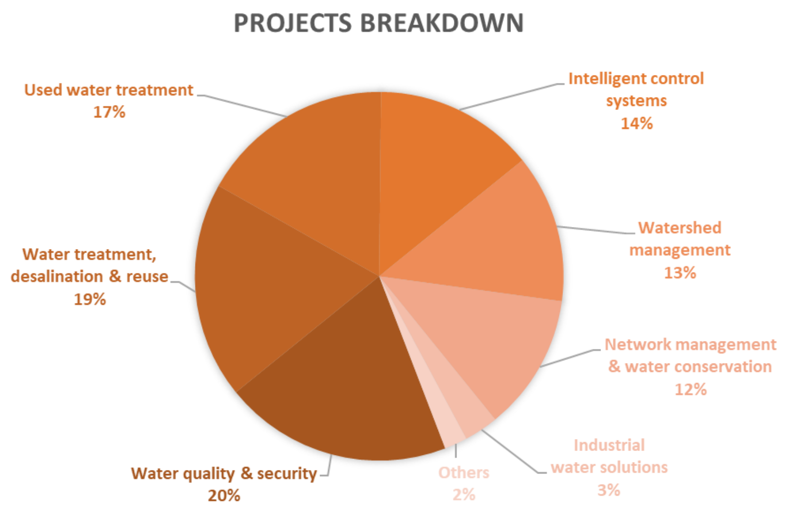
Today, Singapore is home to a vibrant and thriving ecosystem of more than 200 water companies and over 25 water research centers across the whole water value chain. Some of the recent notable collaborations include:

- PUB and United States-based Evoqua Water Technologies (formerly Siemens Water) successfully piloted the Electro-deionisation technology, which reduces desalination's energy use and cost. This technology is to be put to use in Tuas by the end of 2018.

- PUB, the National University of Singapore and United States-based GE Water and Process Technologies are currently piloting an Electrodialysis reversal-reverse osmosis (EDR-RO) system at the Ulu Pandan Water Reclamation Plant.

- PUB and Canada-based energy firm Anaergia announced a new co-digestion plant, which can treat 40 tones of combined food waste and used water sludge, and does not utilize oxygen to convert them into biogas. Used water treatment plants could therefore become energy self-sufficient with the help of this technology.

Since 2002, Singapore has embarked on 613 R&D projects in collaboration with partners from 27 countries. A total of S$453 million was invested in these projects. One in every two projects is able to progress to implementation or the next development phase. Research focus often centered around increasing water quality and increasing water resources. This is exemplified by the projects breakdown in which water quality & security, used water treatment and water treatment desalination & reuse constitute 56% of the projects. Without a doubt, resources will continue to be channeled to further improve the technologies and capabilities in these areas.



Source: SAC Advisors, PUB

Two other areas which could potentially lead the next wave of R&D projects are the intelligent control systems and industrial water solutions. Recently, PUB launched the SMART PUB roadmap in a move to digitalize the entire water system. The aim is to achieve smarter water quality management, network improvements, integrated customer engagements and smarter work processes. The integration of smart water technology will be essential in achieving greater efficiencies and faster response time in planning, operations and service delivery. Likewise, non-domestic water demand is set to increase to 70% in the future. Globally, UN Water estimates that 70% of industrial wastewater is dumped untreated in developing countries and this is likely to increase as more regions experience rapid population and economic growth. Industrial water solutions will be another key driver in managing the water resource.

At first glance, many of these projects seem to benefit only the MNCs with the resources and capabilities to participate in such collaborations. However, Singapore is often used as a test-bed for trial on these new innovations, which allow smaller local companies to also reap benefits through other involvements, such as construction and upgrading of facilities. With the continuous R&D effort, more projects could be available to the Singapore water sector.

Exporting Singapore's Water Capability

Renowned for her prominent water expertise and innovation, Singapore's success in the water sector is a model for countries all around the world to follow. Many countries who are exploring options to build and manage their water treatment facilities are hoping to adopt Singapore's technologies. With the demand from all these countries, Singapore's companies would in turn benefit from potential expansion into other countries.

Singapore companies have successfully secured numerous projects in Asia, the Middle East, and even further afield to Latin America and Africa. According to the Water Progress Report 2006 – 2015, the average annual value of projects secured by Singapore companies has increased from S$340 million (2004 – 2005) to S$1.4 billion (2006 – 2012). In 2013 and 2014, Singapore companies was involved in 13 projects per year totaling S$274 million and S$490 million respectively. And in 2015, Singapore companies managed 7 overseas projects worth more than S$1 billion.

The global demand for Singapore's water expertise is demonstrated by Singapore-based Hyflux Ltd ("**Hyflux**"). In March 2015, they signed a water purchase agreement with the Oman Power and Water Procurement Company to build a desalination plant in Qurayyat, Oman. This is in addition to their operations in Singapore, China and Algeria. They also secured a S$65 million contract to build a desalination system in Saudi Arabia but Hyflux had to exit due to financial constraints. Hence, the global footprint is a testament to Singapore's and Hyflux's reputation and capability in the water industry.

Even non-water companies that are involved in water projects have also benefited. An example would be Keppel Seghers, who built the Ulu Pandan NEWater Plant in the early 2005. Since then, they have also developed the Doha North Sewage Treatment Work in 2015. This landmark project is the largest greenfield wastewater treatment, water reuse and sludge treatment plant in Qatar. They are also currently building the Keppel Marina East Desalination Plant.

A key driver that helps to drive the global expansion by local companies is the public-private-partnership ("**PPP**") policy. PPP is often used in building large water facilities, such as desalination plants or NEWater plants. This framework enables PUB to benefit through cost-effectiveness and innovation offered by the private sector. At the same time, it allows local companies to enhance and showcase their competencies when they bid for other overseas projects. Both Hyflux and Keppl Seghers are beneficiaries of the PPP policy.

According to the World Health Organization, by 2025, 50% of the world's population will be living in water-stressed areas worldwide. Re-use of wastewater is becoming an important strategy to ensure self-sufficiency and sustainability. Furthermore, Asia's water infrastructure market is set to reach US$400 billion by 2020 as modernization and industrialization pick up pace. As Singapore possesses knowledge and expertise in this field, there would potentially be more project opportunities for local companies.

There are currently four water utilities stocks on the Singapore Exchange listing. All of them operate water treatment facilities. With the exception of the homegrown company Hyflux, the other three companies conduct their business primarily in the China. There are also five other Singapore stocks that operate in the water sector. Out of these five companies, Sanli Environmental Limited and Koh Brothers Eco Engineering Limited are more EPC focused while the rest operate water treatment facilities outside of Singapore.

Despite managing water treatment facilities, corporations such as AnnAik Limited, Keppel Corporation Limited, SembCorp Industries Limited and Singapore Technologies Engineering Ltd are not considered to be in the water sector. This is because their main focus of business is not the water sector. The same applies for other companies, such as Ley Choon Group Holdings Limited, OKP Holdings Limited and Wee Hur Holdings Ltd, even though they have won PUB contracts over the past 24 months.

Water Utilities Stocks	Ticker	Company Description	Water-Related Projects Areas
China Everbright Water Limited	U9E	China Everbright Water Limited, an investment holding company, provides integrated environmental water services in the People's Republic of China. It offers waste water treatment services; and constructs and maintains pipeline network.	China
China International Holdings Limited	BEH	China International Holdings Limited, an investment holding company, engages in water supply services and land development businesses in the People's Republic of China. The company's Water Supply Services segment constructs water pipelines and supplies gray water.	China
Hyflux Ltd	600	Hyflux Ltd provides various solutions in water and energy areas worldwide. The company operates through two segments, Municipal and Industrial. The Municipal segment supplies a range of infrastructure solutions, including water, power, and waste-to-energy to municipalities and governments. The Industrial segment supplies infrastructure solutions for water to industrial customers.	Algeria, China, Eygpt, Oman, Singapore
SIIC Environment Holdings Ltd.	BHK	SIIC Environment Holdings Ltd., an investment holding company, engages in water treatment, water supply, solid waste treatment, and other environment-related businesses primarily in the People's Republic of China. It operates through four segments: Construction, Water and Sludge Treatment, Water Supply, and Waste Incineration.	China
Other Water-Related Stocks	**Ticker**	**Company Description**	**Water-Related Projects Areas**
CITIC Envirotech Ltd.	CEE	CITIC Envirotech Ltd. provides water and wastewater treatment, water supply, and recycling services in the People's Republic of China, Singapore, the United States, and Malaysia. It operates through Environmental Engineering, Water Treatment, and Membrane Manufacturing and Sales segments.	China
Darco Water Technologies Limited	BLR	Darco Water Technologies Limited, an investment holding company, designs, builds, operates, and maintains water and wastewater treatment systems. It operates through three segments: Engineered Environmental Systems, Water Management Services, and Trading.	China, Taiwan
Koh Brothers Eco Engineering Limited	5HV	Koh Brothers Eco Engineering Limited provides engineering, procurement, and construction services for water and wastewater treatment, hydro-engineering, bio-refinery, and bio-energy projects. The company operates in two segments, Engineering and Construction; and Bio-Refinery and Bio-Energy. It undertakes various civil engineering and building construction projects.	Singapore
Moya Holdings Asia Limited	5WE	Moya Holdings Asia Limited, an investment holding company, invests in, develops, and operates water treatment facilities in Indonesia. It offers a range of water treatment solutions to government, including commissioning, operation, and maintenance of various water treatment plants on design, build, operate, and transfer arrangements.	Indonesia
Sanli Environmental Limited	1E3	Sanli Environmental Limited operates as an environmental engineering company in the field of water and waste management primarily in Singapore. The company operates through two segments, Engineering, Procurement and Construction; and Operations and Maintenance.	Singapore

Source: SAC Advisors, SGX

Market Outlook

Homegrown water company Hyflux Ltd ("**Hyflux**") was the epitome of the successful Singapore water story. Started in 1989, Hyflux (then known as Hydrochem) saw the potential in the water treatment as an up and coming business. Hyflux dived deep into membrane technologies, which was relatively new to the industries at that time. They obtained the exclusive rights to distribute membranes and membrane filtration plants and established a reputation in the area of membrane filtration technology for the water industry. As the water industry continued to grow, Hyflux was in a leading position and successfully produced their own version of membranes through in-house R&D. In 2001, Hyflux became the first water treatment company to be listed in Singapore and was promoted to the SGX mainboard in 2003. Synonymous with the growth of the water industry in Singapore, Hyflux was in its prime between 2001 to 2014, achieving many firsts in the process.

Year	Event
2001	Awarded its first municipal water treatment project in Singapore to supply and install the process equipment for the Bedok NEWater Plant, the country's first NEWater plant which would mark the launch of the Third National Tap.
2002	Secured another project to design, construct and commission the country's third NEWater plant in Seletar.
	Won its third PUB project, Chestnut Avenue Waterworks, Singapore's first waterworks that uses membrane-based filtration to produce potable water.
2003	Named the preferred bidder by PUB to build, own and operate Singapore's first seawater reverse osmosis (SWRO) desalination plant and also first Public-Private-Partnership project.
2004	Awarded the contract to design, build, own and operate a SWRO desalination plant on 30-year concession in the Dagang District of Tianjin in northern China.
2006	Secured the first project in Algeria in 2006 – a 200,000m3/day SWRO desalination plant with a 25-year concession located in Tlemcen.
	Ventured into India.
2008	Won an international tender to build Africa's largest SWRO desalination plant in Magtaa, Algeria, which would add 500,000m3/day of water supply to the country when fully operational.
2009	Expanded its presence in the MENA region with a contract to design and supply a desalination plant for the Salalah Independent Water and Power Project in Oman.
2011	Secured Singapore's second and largest seawater desalination project, Tuasoring plant, with an innovative proposal to incorporate an on-site 411 MW combined cycle power plant to produce electricity for the desalination plant and power grid.
2014	Won its largest project in the Sultanate of Oman – a 200,000m3/day SWRO desalination plant with a 20-year concession located in Qurayyat.
	Secured a contract from the Saline Water Conversion Corporation to design, build and supply a containerised desalination system to the Kingdom of Saudi Arabia.

Source: SAC Advisors, Company Website

In 2010, Hyflux saw its market capitalization peak at S$2.1 billion. However, in recent years, the homegrown Singaporean company is struggling to stay afloat. Hyflux's stock has tumbled to about S$0.20 a share, one-tenth of the price in its heyday and even resorted to seek court protection to reorganize its business and deal with liabilities. In return for refraining from enforcement proceedings, Hyflux has reached an agreement with Malaysian state-owned lender Malayan Banking Bhd. to sell its interest in subsidiary Tuaspring's integrated water and power project by mid-October.

Once the jewel in the crown, Hyflux has now run into financial distress. One wonders if the Singapore water sector will, too, be in trouble. While Hyflux is synonymous with the Singapore water sector, its financial problem was mainly caused by its foray into the energy business.

Hyflux's woe is a result of its investment in Tuaspring, which is a integrated water and power project. The oversupply of gas in the Singapore market has resulted in depressed electricity prices which has adversely impacted Tuaspring's financial performance in 2017 and in the first quarter of 2018. Hyflux reported its first-ever annual loss, amounting to S$116 million, in 2017. Operating in a capital intensive industry, over-expansion into the unprofitable energy sector has resulted in a short-term liquidity constraints with a knock-on effect to the firm's overall cash position. In short, the difficulties Hyflux is facing should not be attributed to the water sector.

While the future of Hyflux remains uncertain, the water industry looks set to continue its growth. The 1H2018 financial performance generally improved as compared to 1H2017 for most of the companies in the Singapore water sector. 6 out of the 9 companies identified achieved revenue growth. Many companies are still winning contracts locally and abroad. At the Singapore International Water Week 2018, nearly S$23 billion worth of projects awarded, tenders, investments and memoranda of understanding were announced.

According to Global Water Intelligence, the global water industry is estimated to be worth more than US$850 billion in 2017 and it is expected to grow at a rate of 4% annually till 2020. The global water sector is also generally on the uptrend as reflected in the S&P Global Water Index, which shows an annual returns of 3.63% as of 10th September 2018. The growth of the water market looks set to continue.

Water Utilities Stocks	Financial Performance
China Everbright Water Limited	Profit for 1HFY2018 increased by 39% yoy to HKD401 million compared to the previous corresponding period. The increase was mainly attributable to the increase in construction revenue due to the expansion and upgrading of several waste water treatment plants as well as the construction of the water supply project and several water environment management projects.
China International Holdings Limited	The Group recorded an after tax loss of RMB0.30 million in 1H 2018 compared to a profit of RMB25.74 million in 1H 2017. The loss was mainly attributed from lower revenue on construction of water pipeline.
Hyflux Ltd	Hyflux Ltd reported loss after tax and minority interest of S$22.2 million in 1Q2018, compared with a near breakeven position in 1Q2017. The weak Singapore electricity market recorded an uptick in wholesale electricity prices in March 2018, resulting in lower loss of S$23.2 million for the Tuaspring Integrated Water and Power Project (Tuaspring). Excluding results from Tuaspring, profit after tax and minority interest was S$1.0 million for 1Q2018, versus S$27.0 million in 1Q2017 which included S$16.5 million gain on disposal arising from the Group's divestment of its Galaxy Newspring portfolio in March 2017.
SIIC Environment Holdings Ltd.	Gross profit rose 13.6% to RMB804.3 million, mainly on contribution from increased construction activities and newly acquired entities. The increase was partially offset by listing expenses related to the Group's dual primary listing in Hong Kong incurred in the first quarter of the year.
Other Water-Related Stocks	**Financial Performance**
CITIC Envirotech Ltd.	Net profit for the six months ended 30 June 2018 jumped 134.1% YOY to S$85.3 million on revenue which expanded 134.7% to S$550.2 million. Revenue growth in 2Q2018 was led by the engineering segment and membrane systems sales, which expanded 111.1% and 431.6% YOY to S$112.5 million and S$122.8 million respectively.
Darco Water Technologies Limited	Revenue of the Group increased from $24.8 million in 1H2017 to $28.3 million in 1H2018, due to higher contribution from the Group's delivery of projects in China and Singapore. Revenue from the Engineered Environmental Systems segment increased from $14.0 million in 1H2017 to $17.5 million in 1H2018 mainly due to the higher contribution from the Engineering, procurement, and construction ("EPC") projects in China and Singapore during the financial period.
Koh Brothers Eco Engineering Limited	For the 3-month period ended 30 June 2018 ("2Q 2018"), Group's revenue amounted to S$66.2 million, an increase of 33% as compared to S$49.8 million recognised in the corresponding period a year ago ("2Q 2017"). The increase was primarily contributed by the Engineering and Construction division. The Group's revenue for the half year ended 30 June 2017 ("1H 2017") decreased marginally from S$120.4 million to S$119.0 million for the half year ended 30 June 2018 ("1H 2018"). Overall, the Group's profit before income tax increased by 142% from S$1.0 million in 2Q 2017 to S$2.4 million in 2Q 2018 and increased by 18% from S$2.5 million in 1H 2017 to S$2.9 million in 1H 2018.
Moya Holdings Asia Limited	The Group's gross profit increased by 252% when compared to HY2017. The increase in gross profit was mainly due to full six-month water sales contribution from the Acuatico Group in HY2018 as compared to only one-month water sales contribution in HY2017 and and an increase of water sales in the Tangerang and Bekasi BOT projects.
Sanli Environmental Limited	Gross profit increased by 4.5% to S$10.9 million in FY2018, mainly attributable to the increase in contribution from its Engineering, Procurement and Construction segment, partially offset by a decrease in revenue from the Operations and Maintenance segment. The Group recorded profit before tax of S$3.8 million in FY2018, compared to S$6.3 million in FY2017. Included in FY2018 results are one-off IPO expenses of S$1.2 million. Excluding the one-off IPO expenses, profit before tax in FY2018 would have been S$5.1 million.

Source: SAC Advisors, Company Announcement

Despite the seemingly bright future of the water sector, stocks in the market have not been performing well over the past year. Eight out of the nine identified stocks have posted a year-to-date ("**YTD**") loss on their share prices.

Stocks	Ticker	Last Px (SGD)	YTD % Change
China International Holdings Limited	BEH	0.39	69.57%
SIIC Environment Holdings Ltd.	BHK	0.28	-45.63%
Hyflux Ltd	600	0.21	-44.74%
Koh Brothers Eco Engineering Limited	5HV	0.045	-40.71%
Sanli Environmental Limited	1E3	0.193	-25.93%
CITIC Envirotech Ltd.	CEE	0.565	-24.16%
Darco Water Technologies Limited	BLR	0.48	-18.64%
China Everbright Water Limited	U9E	0.37	-14.94%
Moya Holdings Asia Limited	5WE	0.084	-6.67%

Source: SAC Advisors, SGX *(as at 18th September 2018)*

While some of the effects could be attributed to the state of the overall stock market performance (the Straits Time Index fell 9.38% YTD), the lingering effect of Hyflux's trouble could also have contributed to part of the negative outlook for the water sector. Undoubtedly, the fall of Hyflux will have a rippling effect on the overall Singapore water sector. Investor's confidence is likely to sink for the water sector given that an large establishment could still run into such financial troubles.

Fundamentally, clean and drinkable water scarcity remains a problem the world faces. As the population and economy grow, the demand for water will simply increase in tandem. Water conservation alone will not be able to solve the problem. An increase in clean water supply is the only solution to satisfy the increase in demand. As such, water treatment technologies to reuse water are highly sought after to ensure a sustainable clean water supply. In ensuring water self-sufficiency over the years, Singapore has developed top-notch water technologies and innovation and has grown to be a leader in the water sector. At the same time, companies in the water sector have benefited through the numerous government initiatives and projects. They have also built a reputation for their capabilities. This, in turn, has helped local companies to expand and showcase their abilities in overseas projects.

Driven by solid market demand and strong government support, the Singapore water industry is likely to continue its growth. Established and reputable player could profit through global expansion, especially as global demand for water treatment is on the rise. Similarly, smaller local companies with water construction capability could benefit through the numerous municipal projects awaiting in the pipeline.

Singapore water companies comparison (as at 18th September 2018)

Name	Ticker	Mkt Cap (S$'M)	Last Px (SGD)	Revenue: Latest FY (S$'M)	Gross Profit: Latest FY (S$'M)	GM: Latest FY	EBITDA: Latest FY (S$'M)	Net Income: Latest FY (S$'M)	PM: Latest FY	EV/EBITDA: LTM (X)	P/E: LTM (X)	P/B: Latest FY (X)	Dividend Yield: LTM
CITIC Envirotech Ltd.	CEE	1,367.0	0.6	908.8	325.4	35.8	229.1	115.9	12.8	6.0	9.4	0.8	2.7%
China Everbright Water Limited	U9E	980.5	0.4	614.3	210.5	34.3	177.5	87.8	14.3	8.9	8.8	0.7	1.4%
SIIC Environment Holdings Ltd.	BHK	729.8	0.3	952.9	284.7	29.9	262.1	110.0	11.5	12.3	6.6	0.5	3.6%
Moya Holdings Asia Limited	5WE	352.9	0.1	132.0	54.8	41.5	46.5	7.6	5.7	8.6	10.9	1.9	-
Hyflux Ltd	600	164.9	0.2	353.6	133.0	37.6	-68.8	-34.5	-9.7	-	-	0.3	-
Sanli Environmental Limited	1E3	51.9	0.2	64.3	10.4	16.2	6.8	5.2	8.0	8.2	16.2	2.1	1.3%
Koh Brothers Eco Engineering Limited	5HV	47.1	0.0	298.4	19.4	6.5	9.9	7.0	2.4	7.3	6.7	0.7	2.2%
Darco Water Technologies Limited	BLR	45.0	0.5	60.7	14.6	24.1	3.5	0.6	1.0	8.6	87.7	0.9	-
China International Holdings Limited	BEH	27.8	0.4	18.7	11.1	59.2	7.0	4.1	21.8	11.5	-	0.4	-
Average		**418.5**		**378.2**	**118.2**	**31.7**	**74.8**	**33.8**	**7.5**	**8.9**	**20.9**	**0.9**	**2.2%**

Source: SAC Advisors, SGX

Stock Coverage

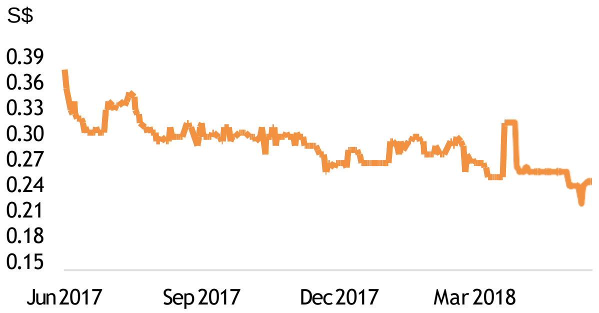
Sanli Environmental Limited

Date: 25 May 2018

BUY
(Maintained)

Target Price: S$0.360 (+44%)

SANLI SP
Price: S$0.250 (as at 24 May 2018)



Price performance	1M	3M	6M	1Y
Sanli	0.0%	(14.2%)	(14.2%)	N/A
Catalist Index	-8.3%	-10.6%	-14.4%	1.7%

Market capitalization	$64.5 million	
Current Price	S$0.240	
Shares outstanding	268.7 million	
Free Float	20.2%	
Major shareholder	Management Heliconia Capital Management	75% 8%
Recommendation of other brokers	N/A	

Source: Company data, Bloomberg, SAC Advisors

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Hiring ramped up in view of S$6.5 billion in potential contracts roll-out

Sanli Environmental reported FY18 results that saw revenue continue to be challenged by the challenging O&M environment. The Group registered a full year revenue of S$75.6 million for FY18, a reversal from the decline seen in their HY18 results when revenue declined by 8.9% y-y. For the FY18, revenue registered a 17.6% increase on a y-y basis. The increase in the Group's turnover was mainly attributed to the increase in contribution from its EPC segment of S$12.3 million, or a 28.1% y-y growth, partially offset by a 5.0% decline in the O&M segment.

Profit before tax excluding one-off IPO tax expenses declined by 19.1% as management ramped up hiring in view of potential contract roll out by PUB. The weaker top-line also translated into a weaker profit before tax of 19.1% when we strip out one-off IPO expenses of S$1.2 million. The decrease was also contributed mainly by an increase in employees' remuneration of S$1.2 million as a result of an increase in headcount and salaries. During our meeting with the management at the FY18 results briefing, the management team talked about the increased hiring that the Group has embarked on in view of the potential contracts that PUB will be rolling out, impacting their bottom-line in the near-term.

Sanli has ramped up hiring in view of the potential S$6.5 billion in contract value to be rolled out by PUB. The PUB is expected to roll out a total of 14 contracts at the end of this year and 2019 for the Deep Tunnel Sewerage System (Phase 2). Management has guided that they intend to bid for 12 out of the 14 contracts with a contract value of S$6 billion. The management is optimistic that they will win 1 to 2 contracts from this, with contract values ranging from S$200 million to S$500 million.

Key risks: Reliant on Singapore public sector projects.

Key Financials

Year ended March (S$'mn)	FY2015A	FY2016A	FY2017A	FY2018A	FY2019E	FY2020E
Revenue	37.3	57.3	64.3	75.6	99.2	122.0
% Growth	92.4%	53.3%	12.3%	17.6%	24.0%	23.0%
Gross profit	6.4	11.2	10.4	10.9	15.9	19.5
Gross profit margin (%)	17.1%	19.6%	16.2%	14.4%	16.0%	16.0%
Profit attributable to owners (before IPO expenses)	3.2	5.9	5.2	3.1	7.1	8.8
Profit attributable to owners	3.2	5.9	5.2	4.3	7.1	8.8
% Growth	84.6%	82.0%	(13.0%)	(17.3%)	49.1%	23.2%
Profit after tax margin (%)	8.7%	10.4%	8.0%	4.0%	7.2%	7.2%
EPS (S$ cents)*	1.5	2.7	2.4	1.2	2.6	3.3
P/E (x)	19.5	10.8	12.3	20.0	9.2	7.5
EV/EBITDA (x)	13.4	7.3	8.1	8.7	6.0	4.9
Net Debt/Equity			Net cash	Net cash	Net cash	Net cash
Dividend yield	N/A	N/A	N/A	1.2%	1.8%	2.2%

**EPS for FY15, FY16 and FY17 were calculated based on the pre-Invitation share capital of 216,657,813 shares*

N/A: Not applicable

O&M segment shows sign of recovery

Business Overview:

Sanli is an environmental engineering company with more than 10 years of track record in water and waste management. Leveraging its technical know-how and industry knowledge, it aprovides total solutions and services to customers in an efficient and cost-effective manner. Its expertise is in the design, supply, delivery, installation, commissioning, maintenance, repair and overhaul of mechanical and electrical equipment as well as instrumentation and control systems in wastewater treatment plants, water reclamation plants, NEWater plants, waterworks, service reservoirs, pumping stations and incineration plants.

Revenue	FY18	FY17
EPC	**56,115**	43,793
O&M	**19,494**	20,521
Total	**75,609**	64,314

Source: SAC Advisors, Company data

Sanli Environmental reported FY18 results that saw revenue continue to be challenged by the challenging O&M environment. The Group registered a full year revenue of S$75.6 million for FY18, a reversal from the decline seen in their HY18 results when revenue declined by 8.9% y-y. For the FY18, revenue registered a 17.6% increase on a y-y basis. The increase in the Group's turnover was mainly attributed to the increase in contribution from its EPC segment of S$12.3 million, or a 28.1% y-y growth, partially offset by a 5.0% decline in the O&M segment.

The decrease in the Group's turnover follows management's prior guidance of weakness seen in its O&M segment arising primarily from keen competition during the period. We have already seen the effects of this throughout FY18, and the challenging environment seems to have continued to persist in their latest HY18 results. Despite this, we think the worst days of the O&M sector may be over. During the FY18 results briefing, we got a sense from management that the landscape is now more favourable, and Sanli no longer find themselves

Profit before tax excluding one-off IPO tax expenses declined by 19.1% as management ramped up hiring in view of potential contract roll out by PUB. The weaker top-line also translated into a weaker profit before tax of 19.1% when we strip out one-off IPO expenses of S$1.2 million. The decrease was also contributed mainly by an increase in employees' remuneration of S$1.2 million as a result of an increase in headcount and salaries. During our meeting with the management at the FY18 results briefing, the management team talked about the increased hiring that the Group has embarked on in view of the potential contracts that PUB will be rolling out, impacting their bottom-line in the near-term. We see this however, as a temporary phenomenon as management builds up capacity to prepare for the new contracts to be rolled out.

The profit was also impacted by the higher depreciation of PPE, which increased by 17.1% due to depreciation and capex spending of the Group's new leasehold property at 28 Kian Teck Drive.

Sanli ramped up hiring in view of the potential S$6.5 billion in contract value to be rolled out by PUB. The PUB is expected to roll out a total of 14 contracts at the end of this year and 2019 for the Deep Tunnel Sewerage System (Phase 2). Phase 1 of the DTSS contract worth S$1.51 billion has already been awarded, and management has guided that they intend to bid for 12 out of the 14 contracts with a contract value of S$6 billion. The management is optimistic that they will win 1 to 2 contracts from this, with contract values ranging from S $200 million to S$500 million. We also understood from management that the hiring was for specialists and engineers.

FY18 results review

Sanli has made small steps in entering Myanmar. Management has so far made cautious steps in Myanmar given that this is a relatively new market for them. Given the profile of the management team, we think they will proceed cautiously overseas given their traditional strengths in the local market. Management did not dwell too much on their latest overseas venture, but did hint that they are breaking even on the operating level in Myanmar.

Sanli has an outstanding order book of S$110.2 million as of 31 March 2018, representing 1.5x FY18 revenue. Sanli announced earlier this year that it has secured four new contracts worth a total of S $8.1 million, from both the public and private sector, bringing the Group's order book to S$112.3 million. The contracts comprise projects in both the EPC and O&M segments. Under the EPC contracts, Sanli will supply, install, commission and test, equipment at a water reclamation plant as well as a hydrated lime storage facility, and replace treatment process equipment at a salinity plant. Under the O&M contract, Sanli will provide maintenance services for sewerage pumping and treatment system.

Maintain BUY with an unchanged target price of S$0.360. We are keeping our rating and target price unchanged. Sanli has declared a final dividend of S$0.0025 per share for FY2018, translating to a payout ratio of 21.9%

SAC Advisors Forecast Summary

Revenue by segment (S$'000)	Fiscal Year Ended FY2014	FY2015	FY2016	FY2017	FY2018E	FY2019E	FY2020E
Engineering, Procurement and Construction	12,305	23,897	31,975	43,793	56,000	69,440	85,411
Operations and maintenance	7,102	13,448	25,289	20,521	24,000	29,760	36,605
Total Revenue	**19,407**	**37,345**	**57,264**	**64,314**	**80,000**	**99,200**	**122,016**

Revenue % (Y-Y)	Fiscal Year Ended FY2014	FY2015	FY2016	FY2017	FY2018E	FY2019E	FY2020E
Engineering, Procurement and Construction	N/A	94.2%	33.8%	37.0%	27.9%	24.0%	23.0%
Operations and maintenance	N/A	89.4%	88.1%	-18.9%	17.0%	24.0%	23.0%
Total Revenue	**N/A**	**92.4%**	**53.3%**	**12.3%**	**24.4%**	**24.0%**	**23.0%**

Revenue breakdown (%)	Fiscal Year Ended FY2014	FY2015	FY2016	FY2017	FY2018E	FY2019E	FY2020E
Engineering, Procurement and Construction	63.4%	64.0%	55.8%	68.1%	70.0%	70.0%	70.0%
Operations and maintenance	36.6%	36.0%	44.2%	31.9%	30.0%	30.0%	30.0%
Total Revenue	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Gross profit	Fiscal Year Ended FY2014	FY2015	FY2016	FY2017	FY2018E	FY2019E	FY2020E
Gross profit growth	N/A	59.5%	76.2%	-7.5%	35.7%	24.0%	23.0%
Gross profit margin	20.6%	17.1%	19.6%	16.2%	16.0%	16.0%	16.0%
Gross Profit (S$'000)	**4,004**	**6,385**	**11,248**	**10,399**	**12,800**	**15,872**	**19,523**

Operating profit**	Fiscal Year Ended FY2014	FY2015	FY2016	FY2017	FY2018E	FY2019E	FY2020E
Operating Profit margin	10.9%	10.3%	12.8%	10.1%	7.5%	8.9%	8.8%
Operating Profit growth y-y	N/A	80.8%	91.9%	-11.6%	-8.1%	47.2%	22.6%
Operating Profit (S$'000)	**2,120**	**3,833**	**7,357**	**6,503**	**5,975**	**8,795**	**10,780**

Profit Growth (%) (Y-Y)	Fiscal Year Ended FY2014	FY2015	FY2016	FY2017	FY2018E	FY2019E	FY2020E
Profit before tax	N/A	81.7%	92.9%	-12.7%	-8.4%	49.1%	23.2%
Profit after tax*	N/A	84.6%	82.0%	-13.0%	-7.9%	49.1%	23.2%
Profit before tax (S$'000)	**2,049**	**3,724**	**7,185**	**6,269**	**5,741**	**8,561**	**10,546**
Profit after tax (S$'000)	**1,748**	**3,211**	**5,898**	**5,214**	**4,765**	**7,106**	**8,754**

Profit margin (%)	Fiscal Year Ended FY2014	FY2015	FY2016	FY2017	FY2018E	FY2019E	FY2020E
Profit before tax	10.6%	10.0%	12.5%	9.7%	7.2%	8.6%	8.6%
Profit after tax*	9.1%	8.7%	10.4%	8.0%	6.0%	7.2%	7.2%
Profit after tax (excl. one off IPO expense) (S$'000)	**1,748**	**3,211**	**5,898**	**5,214**	**6,075**	**7,106**	**8,754**

Source: Company data, SAC Advisors

** Profit attributable to owners of the Company*

*** In-house estimate*

Company Background

- Sanli is an environmental engineering company with more than ten years of experience in the field of water and waste management. Leveraging on its technical know-how and industry knowledge, it provides total solutions and services to customers in an efficient and cost-effective manner.

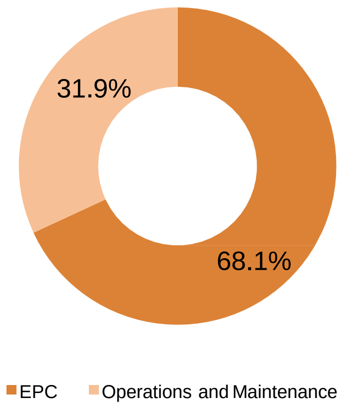
- Its expertise lies in the design, supply, delivery, installation, commissioning, maintenance, repair and overhaul of mechanical and electrical equipment as well as instrumentation and control systems. The types of infrastructure include wastewater treatment plants, water reclamation plants, NEWater plants, waterworks, service reservoirs, pumping stations and incineration plants.

- Sanli has two main business segments:

(a) Engineering, Procurement and Construction ("**EPC**"): Sanli undertakes EPC work for water and waste management. Its services include process upgrading of water treatment plants, upgrading of pumping station capacities, replacement of aged M&E equipment, and design and build of various treatment process systems. These turnkey contracts are higher in value due to equipment procurement, but margins are lower compared with maintenance business.

(b) Operations and Maintenance: Sanli provides operation and maintenance services for the equipment used in water and waste management infrastructure. It maintains a workshop to undertake major repair and overhaul of the equipment. It provides round the clock corrective maintenance services to the customers when the facility encounters equipment problems.

Revenue Breakdown (FY2017)



Source: Company data, SAC Advisors

Business Segment	Products / Services
Engineering, Procurement and Construction	• Water Management • Waste Management
Operations and Maintenance	• Corrective and preventive maintenance services

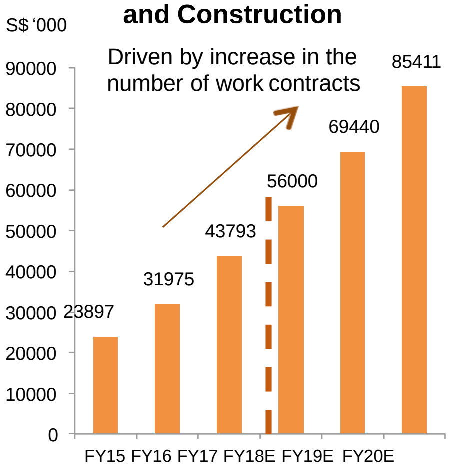
Financial Summary

Revenue model

- The core business can be categorised into two business segments:

(a) Engineering, Procurement and Construction: Sanli provides EPC within the field of water and waste management. Its services include process upgrading of existing water treatment plants, upgrading of existing water treatment plants, upgrading of pumping station capacities, replacement of aged M&E equipment, and design and build of various treatment process systems.

Engineering, Procurement and Construction



Source: Company data, SAC Advisors

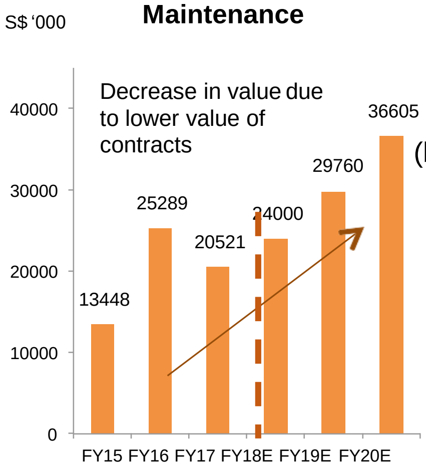
In the field of water management, Sanli provides engineering solutions and services to customers for the treatment of raw water before it is channelled to residences, businesses and industries. It also provides engineering solutions and services to customers for the treatment of used water released from residences, businesses and industries where pollutants and toxins in wastewater are eliminated or reduced to an acceptable level before it is safely discharged into the environment or used by industrial users.

In the field of waste management, Sanli provides engineering solutions and services to their customer in the public sector for the treatment of refuse in incineration plants in Singapore.

Revenue in this segment is recognised based on the stage of completion of the contract activity at the end of the reporting period. The duration of each contract is between one and three years.

Revenue from this segment accounted for S$43.8 million or 68.1% of FY17 revenue.

Operations and Maintenance



Source: Company data, SAC Advisors

(b) Operations and Maintenance: It provides operation and maintenance services for installed equipment in water and waste management infrastructure. It maintains a workshop to perform major repair and overhaul of these equipment. These corrective maintenance services are available 24 hours a day and seven days a week, to their customers when their facility experiences equipment problems.

Revenue in this segment is recognised when the service is delivered. In FY17, this segment accounted for S$20.5 million or 31.9% of total revenue.

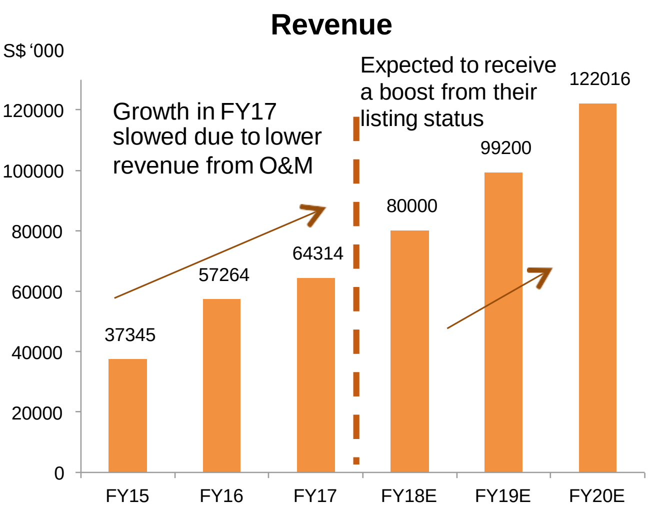
Revenue Breakdown (%)	FY16	FY17	FY18E	FY19E	FY20E
Engineering, Procurement and Construction	55.8%	68.1%	70.0%	70.0%	70.0%
Operations and Maintenance	44.2%	31.9%	30.0%	30.0%	30.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company data, SAC Advisors

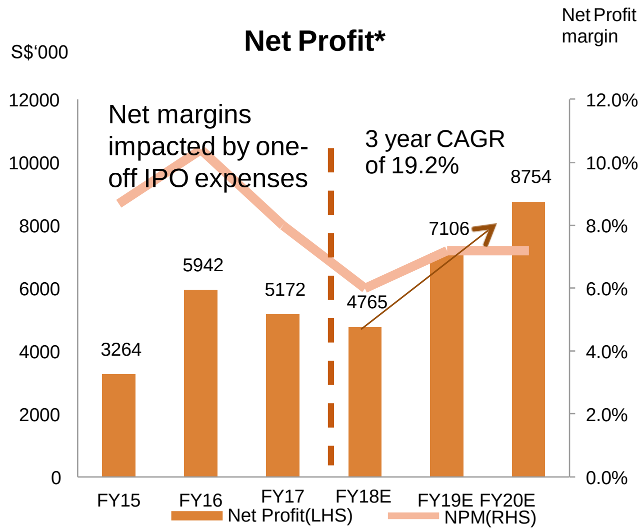
Financial Summary

Revenue expected to receive a boost from new listing status

Sanli's revenue increased by an compounded annual growth rate ("**CAGR**") of 31.2% from FY15 to FY17, due to increases in revenue for both EPC and their operations and maintenance ("**O&M**") segment. The increase over the years is mainly due to an increase in the number of contracts secured and the recognition of revenue for work done in relation to contracts secured in prior years.



Source: Company data, SAC Advisors



Source: Company data, SAC Advisors

**Profit after tax attributable to owners of the Company*

The slow down in revenue growth in FY17 was attributed to a decline in the O&M segment due to the lower value of contracts recognised during this period, though this was mitigated by an increase in revenue from the EPC segment. We think investors should not be unduly worried about the decline in the O&M segment as the execution of service and maintenance contracts actually increased in the last financial year. Moreover, we expect that Sanli will be better able to secure new and larger contracts moving forward due to their listing status and L6 certification.

Moving forward, we expect that net margins for Sanli will dip in FY18E due to one-off IPO expenses of about S$1.3 million. However, this is expected to remain stable at about 7.2% moving forward, and we expect net profit to increase by a three year CAGR of 19.2% driven by new contract wins from a higher imputed win rate.

Income Statement (S$'000)

FYE 31 Mar	2016	2017	2018F	2019F	2020F
Revenue	**57,264**	**64,314**	**80,000**	**99,200**	**122,016**
Cost of contracted works	(46,016)	(53,915)	(67,200)	(83,328)	(102,493)
Gross Profit	**11,248**	**10,399**	**12,800**	**15,872**	**19,523**
Other income	172	164	165	165	165
Administrative expenses	(3,512)	(3,437)	(6,190)	(6,250)	(7,687)
Other operating expenses	(551)	(623)	(800)	(992)	(1,220)
Finance	(172)	(234)	(234)	(234)	(234)
Profit/(Loss) before tax	**7,185**	**6,269**	**5,741**	**8,561**	**10,546**
Income tax	(1,287)	(1,055)	(976)	(1,455)	(1,793)
Profit/(Loss) for the year/period	**5,898**	**5,214**	**4,765**	**7,106**	**8,754**
Profit/(Loss) attributable to owners of company	**5,942**	**5,172**	**4,765**	**7,106**	**8,754**
Earnings/(Loss) per share:					
-Basic (cents)	**2.24**	**1.93**	**1.77**	**2.64**	**3.26**
-Diluted (cents)	**2.24**	**1.93**	**1.77**	**2.64**	**3.26**

Cash Flow Statement (S$'000)

FYE 31 Mar	2016	2017	2018F	2019F	2020F
Profit/(Loss) before tax	**7,185**	**6,269**	**5,741**	**8,561**	**10,546**
Depreciation & amortisation	414	492	492	462	432
Change in working capital	(4,336)	8,029	(1,363)	(971)	(1,153)
Others	(142)	(397)	(790)	(1,269)	(1,607)
Net Cash (used in)/ from operations	**3,121**	**14,393**	**4,080**	**6,783**	**8,218**
Purchase of PPE	(695)	(429)	(625)	(525)	(475)
Others	(483)	58	48	48	48
Net Cash (used in)/ from investing	**(1,178)**	**(371)**	**(577)**	**(477)**	**(427)**
Net change in debt	1,518	(928)	(2000)	0	0
Net change in equity	0	0	11,100	0	0
Dividends	(900)	(8.000)	(1,184)	(1,707)	(2,082)
Others	(172)	(234)	(234)	(234)	(234)
Net Cash (used in)/ from financing	**446**	**(9,162)**	**7,913**	**(1,655)**	**(1,985)**

Balance Sheet (S$'000)

FYE 31 Mar	2016	2017	2018F	2019F	2020F
As at 31 Mar					
Cash and bank balances	6,624	11,484	22,900	27,551	33,358
Trade, other receivables and others	7,011	6,665	9,066	10,749	12,749
Contract work-in-progress in excess of billings	8,218	5,812	6,400	7,936	9,761
Available for sale investments	257	257	257	257	257
Total current assets	**21 ,853**	**24,218**	**39,363**	**48,333**	**59,239**
Property, plant and equipment	5,747	5,648	5,781	5,844	5,887
Available for sale investments	524	267	267	267	267
Total non-current assets	**6,271**	**5,915**	**6,048**	**6,111**	**6,154**
Total assets	**28,124**	**30,133**	**44,671**	**52,064**	**62,279**
Trade and other payables	8,020	12,556	14,182	16,430	19,103
Borrowings	2,847	854	854	854	854
Other current liabilities	1,857	5,063	4,224	4,224	4,224
Total current liabilities	**12,724**	**18,473**	**19,260**	**21,508**	**24,181**
Borrowings	3,730	2,882	2,882	2,882	2,882
Finance leases	355	268	268	268	268
Total non-current liabilities	**4,085**	**3,150**	**3,150**	**3,150**	**3,150**
Total liabilities	**16,809**	**21,623**	**22,410**	**24,658**	**27,331**
Share Capital	1,500	1,500	13,270	13,270	13,270
Translation reserves	(16)	(35)	(35)	(35)	(35)
Retained earnings	9,873	7,045	9,026	14,711	21,714
Net equity	**11,357**	**8,510**	**22,261**	**27,946**	**34,949**
Total liabilities and equity	**28,124**	**30,133**	**44,671**	**52,064**	**62,279**

Ratios

FYE 31 Mar	2016	2017	2018F	2019F	2020F
Profitability (%)					
Gross margin	19.6%	16.2%	16.0%	16.0%	16.0%
Operating margin	12.8%	10.1%	7.5%	8.9%	8.8%
Pretax margin	12.5%	9.7%	7.2%	8.6%	8.6%
Liquidity (x)					
Current ratio	1.7	1.3	2.0	2.2	2.3
Quick ratio	1.7	1.3	2.0	2.2	2.3
Interest coverage ratio	42.8	27.8	25.5	37.6	46.1
Net Debt to Equity	Net cash	Net cash	Net cash	Net cash	Net cash
Valuation (x)					
P/E	10.8	12.3	16.6	11.2	9.1
Core P/E	13.2	15.3	13.0	11.2	9.1
Core P/E at target price	16.4	18.6	15.9	13.6	11.1
P/B	7.0	9.3	3.6	2.8	2.3
EV/EBITDA	7.3	8.1	8.7	6.1	5.0
Cash Conversion Cycle					
Trade receivable days	31	32	32	32	32
Inventory days	N/A	N/A	N/A	N/A	N/A
Trade payable days	55	47	51	51	51
CCC days	-24	-15	-19	-19	-19
Returns					
Return on equity	52.3%	60.8%	21.4%	25.4%	25.0%
Return on capital employed	33.1%	42.2%	18.3%	22.4%	22.6%
Dividend payout ratio			20.0%	20.0%	20.0%
Dividend yield	N/A	N/A	1.2%	1.8%	2.2%

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