



Allianz Global Water strategy

Active is: Investing in sustainable water solutions

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GLOBAL WATER: ASIA UNDER THE INVESTMENT RADAR

At Allianz Global Investors, portfolio managers can rely on a unique and very powerful internal equity research platform. The research team shares and leverages insights from across the globe to support best-in-class investment decisions. The Allianz Global Water investment team deems it crucial to build specialist knowledge, in part by physical exploration of water trends. As part of this work, Alina Donets, Portfolio Manager and Research Analyst, went to Asia, one the largest and fastest growing regions for the water industry, to investigate local water projects and the related perspectives. The focus of her field trip was on two essential and very different countries: Singapore and China. Here she shares some of the key topics of her trip.

Singapore: state of the art, but...

Singapore's water system is state of the art, but further investment is needed. Currently, 60% of Singaporean water is supplied from Malaysia, at a price that has been escalating political tensions. The major supply contract expires in 2061, by which date Singapore targets to become fully

independent thanks to alternative water solutions.

Due to its lack of access to ground water, Singapore needs to tap other sources. The plan is to increase the desalination capacity (aim to meet 30% of water demand by 2060) and the proportion of water that is recycled (from 40% today to 55% by 2060). With expectations of the water demand doubling by the target year, the initiative requires continued investment in water systems.

In addition, Singapore's water regulatory body Public Utilities Board (PUB) has committed to implementing energy recovery systems. This will allow for energy independence or even net energy sales from water treatment plants. The aim is to keep the costs of these plants down to alleviate the pressure on water bills. Achieving these savings requires further upfront and ongoing investments into more energy-efficient water and wastewater solutions. One prominent provider in the segment is the American water technology company Xylem. Its ability to deliver fully customised solutions and its innovative approach put Xylem at the forefront in co-developing the most effective processes together with the PUB.



Alina Donets
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Model of the PUB Tuas
Desalination plant, Singapore
(Credit: Alina Donets)

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China: Full speed ahead !

The situation in China has changed dramatically in the last 10 years, but is still very different from that in Singapore.

Not so long ago, the water infrastructure in China was little developed. A large part of the population was lacking water connection and wastewater discharge. Over the years, the Chinese government has spent major amounts on developing this infrastructure. In order to meet the investment needs, it has also allowed and promoted the PPPs (private-public partnerships) and acquisitions of underperforming municipal networks by private companies.

70%

**of the Chinese population
has access to basic water
services today**

As a result, the water infrastructure coverage in Tier 1 and 2 cities is already at 80-100%. Admittedly, there is still room for improvement to connect Tier 3 and 4 cities, and to consolidate some of the poorly managed systems. But the urgency is substantially reduced, as approximately 70% of the entire population in China already has access to basic services. Consequently, the focus can now shift towards the quality of water. The latest data shows that merely a third of available water in China is acceptable for water supply, with 7% of it below the "grade V" that is, unfit for even irrigation or industrial use.

To take up the water quality challenge in China, most attention is given to the construction and/or upgrade of wastewater and clean-water treatment plants. This becomes a moving target, as government continues to tighten and actively enforce still higher quality standards. Even with the improving quality and expertise of Chinese manufacturing and technologies, track record and experience play an important role for the utilities' decision making. Therefore, global established companies still get the majority of the large projects. This reduces the operational risks and enhances the social returns from the infrastructure build-out. As a consequence, the water treatment equipment and solutions are often provided by companies like Xylem, Suez, or Danaher, all of which have a long history of reliable and most effective solutions globally¹. Not surprisingly, Xylem alone has been growing its sales in China close to +30% year on year in the first half of 2018.

Utilities in China face stringent, unannounced water quality audits, with what has become known as "comeback checks" – officers returning within months after the first inspection to conduct compliance checks. The consequences of poor compliance are high fees, and loss of reputation. This only strengthens demand for the best-in-class technology and the commitment to the investment outlays.



*Logistics planning at the China Water Affairs' drinking water plant, Wuxi, China
(Credit: Alina Donets)*



*A Wedeco (Xylem) installation in a drinking water plant in Wuxi, China
(Credit: Alina Donets)*

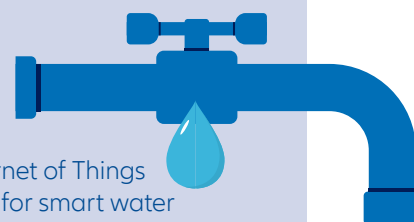
The issue of Non Revenue Water

The higher quality standards and the complexity of the water networks are increasing the demand to reduce Non Revenue Water (NRW), which is water lost before it reaches customers. Losses can be real losses through leaks, or apparent losses, for example through theft or un-metered consumption. The consequences are dire: from environmental footprint of abuse of water resources and contamination of water in the system, to social consequences of higher water cost for the entire network stemming from the lost volume and costs of repairs.

To address the NRW, investments are moving toward higher technological content. Utilities spend an increasing amount of money on

developing and integrating Internet of Things (IoT) solutions: including sensors for smart water metering (at point of use) and monitoring (along the supply flow), and software solutions with capabilities to detect and prevent water leakage.

There are a number of global players that leverage on this opportunity. Mueller Water, among others, presented in Singapore its capabilities with smart water hydrant solutions. Xylem, which recently bought smaller companies with significant digital capabilities, is actively developing integrated solutions that range from meters and sensors down to the Software as a Service proposition¹.



The question of industrial operators and the protection of water sources from industrial waste is looming as the next big focus topic. Industrial users are already facing enforcement tightening, and global companies with operations in China are well placed to offer adapted solutions. For example, Alfa Laval is already working extensively on solutions for its industrial customers – incorporating water- saving and treatment solutions into more complex industrial processes for clients from all industrial areas, from food and beverage down to mining, and oil and gas¹. Suez, a company mostly known for its regulated water activities in Europe and predominantly in France, is further utilising its expertise to address the industrial customers' needs with complex solutions.

How about elsewhere in Asia?

Other Asian countries, while smaller in size, also face extensive needs for water infrastructure improvements. For instance, Malaysia is still facing above 50% leakage rates in certain areas, vs 14% in China and 5% in Singapore.

All in all, the total size of the market opportunity in water is still significant for the decades to come. And, despite the continuous innovation in technology, it is difficult to envisage one solution to fit this wide range of different markets. It is hence imperative to continue developing a focused and specialised expertise in the investments.

Key Investment Takeaways:

The water infrastructure in Asia varies in its state and needs, but important investments are yet to come unilaterally

Global water companies have expertise and quality standards required to meet the pressing needs

Singapore's advanced water systems are still set for investments to enable the full water independence

China continues to face strong economic, social and environmental water challenges, supporting the fundamentals of the sector over the long run

AllianzGI's Global Water Investment Team has extensive sector expertise and regularly runs reality checks in the field. This equips the portfolio managers with the knowledge required to best exploit the existing challenges and perspectives of the water market around the globe.

Want to know more about our Water investment solutions?

Visit: <https://lu.allianzgi.com/allianzglobalwater>

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Sources: AllianzGI, as of September 2018; Singapore-Malaysia water agreements, National Library Board; Reuters: China's water quality improves in first half of 2018: ministry, July 25, 2018; The Straits Times: Singapore's water supply: Where does it come from?, updated June 25, 2018; Public Utilities Board press release: PUB pushes the frontier of water technology to reach future energy and sludge reduction targets, July 3, 2018; World Health Organization; www.data.gov.my.

¹ This is no recommendation or solicitation to buy or sell any particular security.

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