Executive summary

The global water industry is on the verge of massive change. On the one hand, demands on the performance of the sector are greater than ever. On the other, the model for delivering that performance is broken.

The increased demands on the sector are driven by three global mega-trends:

- Urbanisation
- Scarcity
- Environmental protection

In order to meet these challenges, utilities will need to invest more in infrastructure, and businesses will need to invest more in water technology.

In 2010, capital expenditure on water infrastructure is estimated to be $90 billion, rising to $131 billion by 2016 (a compound annual growth rate of 6.4%). Total capital expenditure on wastewater infrastructure is $83 billion, rising to $115 billion by 2016 (a CAGR of 5.6%). Water and wastewater treatment equipment sales to industrial water users is thought to be $14 billion in 2010, and is expected to reach $22 billion by 2016 (a CAGR of 7.5%).

This additional investment will be driven by a new financial model for the municipal water sector. Hitherto, utilities have generated less than half the money they invest from their own operations. With public finances under pressure as never before, this is no longer sustainable. Governments and municipalities will increasingly expect water utilities to finance themselves. We anticipate the proportion of capital expenditure generated from operating cashflow to rise from 44% in 2010 to 62% in 2016.

It may be a painful political process, but greater financial independence for water utilities will be a liberation for the sector. There is an emerging group of high-performance utilities which are self-financing, and are leading the way for others.

The financial crisis will also have the effect of increasing the opportunities for private investors in the sector. During the 2000s there was a swing away from private water finance, but as more municipalities struggle to balance their budgets, the pendulum will swing the other way. The private water operations sector will grow more slowly.

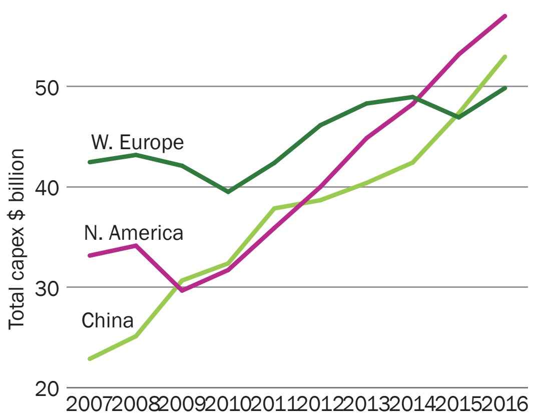
Private sector participation in the water sector will benefit from greater demand for advanced water and wastewater technologies, especially those involved in desalination and water reuse. 57% of currently proposed large-scale desalination plants are expected to be privately financed, compared to less than 10% a decade ago. Total capital expenditure on desalination will rise from $11 billion in 2010 to $18 billion in 2016. Total capital expenditure on water reuse will rise from $4.9 billion to $8.4 billion over the same period.

The potential for water reuse will also drive expenditure in the industrial water market. Perhaps the greatest opportunity is in treating produced water from the oil and gas industry to process water quality. This represents a paradigm shift for the energy industry, and will generate significant revenues for water technology companies.

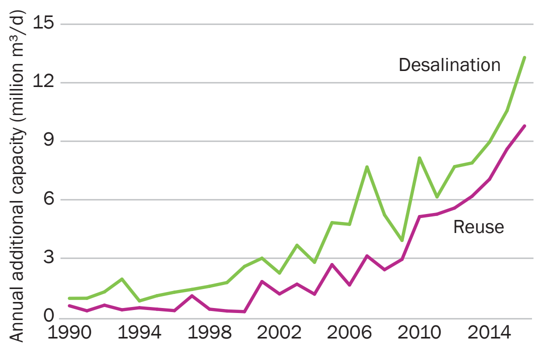
The opportunities for desalination and water reuse in both the industrial and municipal sectors will ensure that the North American market remains buoyant, while the market in Western Europe becomes more mature. China, which is currently enjoying a massive spurt on stimulus-based expenditure, will briefly overtake the US as the largest market in the world in terms of capital expenditure.

The water industry has been a latecomer to globalisation, and the local nature of the business is made abundantly clear in the country chapters of this report. It is technology and finance that are driving change.

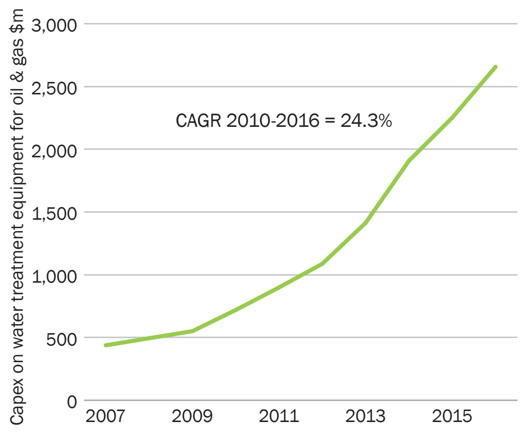
China and America overtake Europe



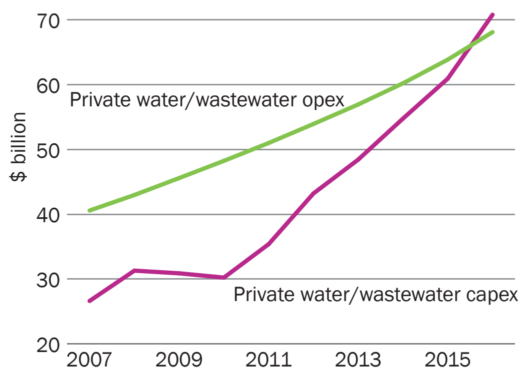
Desal and reuse rise to the challenge



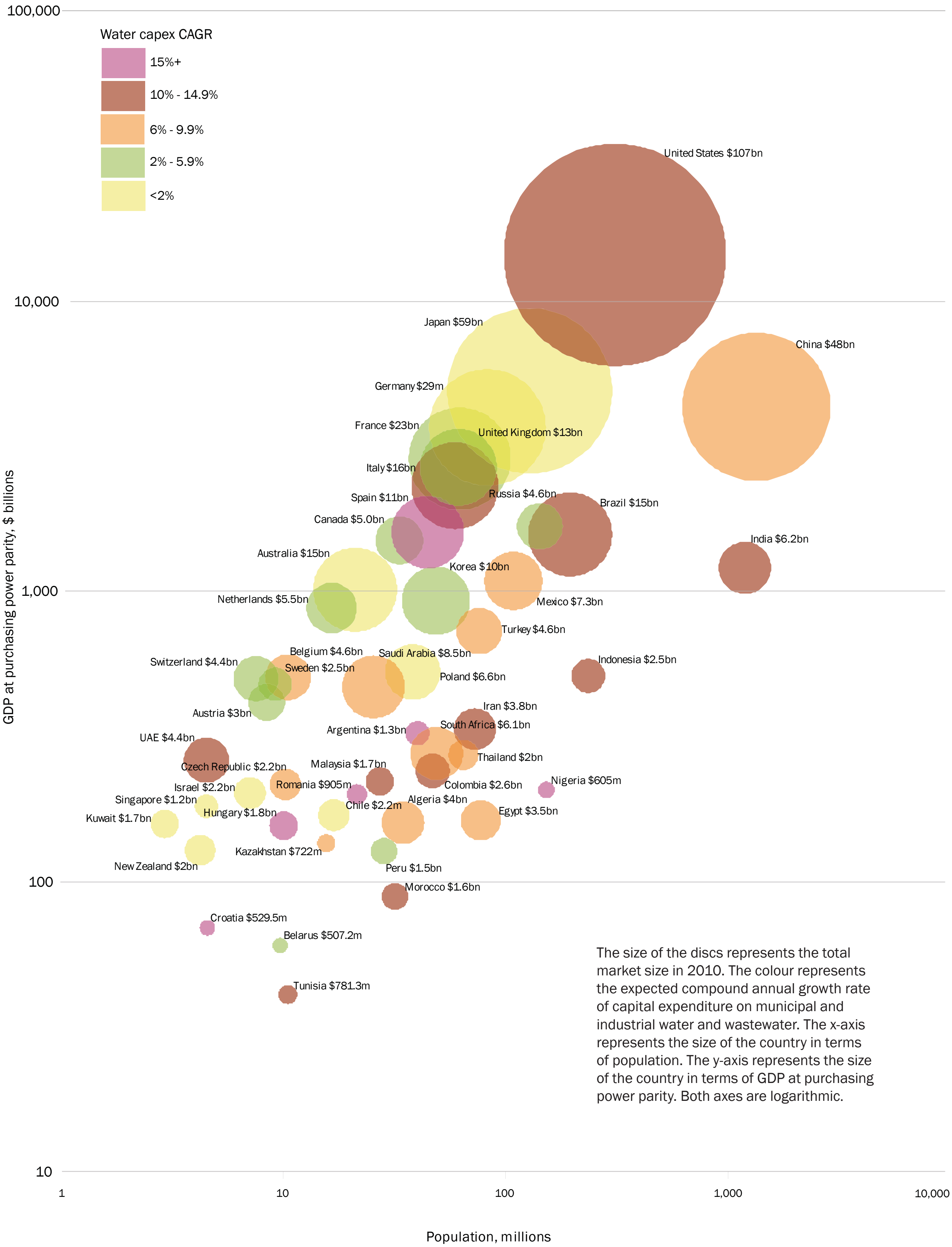
Water reuse changes the game for oil & gas



Private finance beats private operations



Total water market size according to population and GDP (with capex growth)



The size of the discs represents the total market size in 2010. The colour represents the expected compound annual growth rate of capital expenditure on municipal and industrial water and wastewater. The x-axis represents the size of the country in terms of population. The y-axis represents the size of the country in terms of GDP at purchasing power parity. Both axes are logarithmic.

Unit conversion factors used in this publication

1 US gallon = 0.003785 m^3
1 MGD = 3,785 m^3/d
1 MIGD = 4,546 m^3/d
1 Acre-foot = 1,233 m^3/d
Totals may not add up to 100% due to independent rounding of figures.

Exchange rates used in this publication

$1 =	Currency
3.86	ARS Argentine Pesos
1.10	AUD Australia, $
1.78	BRL Brazil, Brazil Real
2,940.00	BYR Belarus, Rubles
1.03	CAD Canada, $
515.00	CLP Chile, Pesos
1,900.00	COP Colombia, Pesos
6.80	CNY Chinese Yuan Renminbi
72.40	DZD Algerian Dinar
5.50	EGP Egypt, Pounds
0.73	€Euro Member Countries, Euro
0.67	GBP UK, Pounds
5.84	HRK Croatia, Kuna
195.00	HUF Hungary, Forint
9,200.00	IDR Indonesia, Rupiahs
45.00	INR Indian Rupee
89.94	JPY Japan, Yen
1,163.50	KRW Korea (South), Won
147.00	KZT Kazakhstani Tenge
8.20	MAD Morocco, Dirhams

$1 =	Currency
12.60	MXN Mexico, Pesos
3.34	MYR Malaysia, Ringgits
150.00	NGN Nigeria, Nairas
3.65	NIS New Israeli Shekels
1.40	NZD New Zealand, $
2.84	PEN Peru, Nuevos Soles
2.84	PLN Poland, Zlotych
4.00	QAR Qatar, Rials
3.03	RON Romania, New Lei
29.89	RUB Russia, Rubles
4.00	SAR Saudi Arabia, Riyals
7.11	SEK Sweden, Kronor
7.23	SEK Swedish Krona
1.40	SGD Singapore, $
1.05	Swiss Franc (CHF)
32.75	THB Thailand, Baht
1.38	TND Tunisia, Dinars
1.48	TRY Turkey, New Lira
32.15	TWD Taiwan, New $
7.45	ZAR South Africa, Rand