

VATW IN

VA TECH WABAG

INDIA / WATER UTILITIES

**BUY**

TARGET	INR481.00
PRIOR TP	N/A
CLOSE	INR390.15
UP/DOWNSIDE	+23.3%

## HOW WE DIFFER FROM THE STREET

	BNPP	Consensus	% Diff
Target Price (INR)	481.00	553.45	(13.1)
EPS 2012 (INR)	25.78	26.70	(3.4)
EPS 2013 (INR)	28.27	32.86	(14.0)
	Positive	Neutral	Negative
Market Recs	4	1	0

## INDUSTRY OUTLOOK ↔

## Water, water everywhere...

## ↓↑ CHANGE

Wabag well-placed to exploit the Indian water investment story

We estimate VA Tech Wabag's global addressable water market size at USD424b, growing at 4-5% pa, while the addressable India market of USD5.0b is growing at 10-15% pa, implying a large potential opportunity. Wabag is one of the very few pure-play water companies in the country with a 15-year track record of executing water projects.



## CATALYST

Foreseeable catalysts on the horizon

Key catalysts for Wabag:

- Net cash (INR87/share) to be used for inorganic growth;
- Commissioning of desalination plant (INR10.3b, 80% complete);
- Order inflows in O&M segment could result in margin expansion; and
- Increase in order inflows over and above our FY12 estimate of INR18b.



## VALUATION

DCF-based TP of INR481.00, implies 7.1x FY13E EBITDA

Our target price of INR481 is based on a three-stage DCF valuation. It implies EV/EBITDA multiples of 7.9x/7.1x for FY12/FY13E, whereas Wabag's stock is currently trading at 5.4x/4.6x. Key risks to our TP include: 1) contingent liabilities of INR300m, 2) client concentration risk, and 3) risk to profitability due to aggressive bidding.



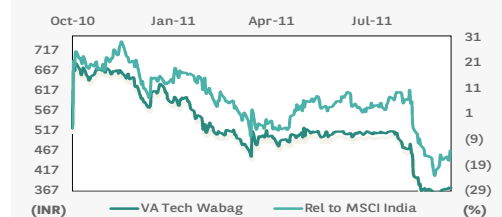
## COMMENT

Key highlights and channel checks

- Our checks with various industry experts and policy makers support our view that the Indian water industry is at an inflection point with strong growth prospects.
- Details of the Chennai (Nemmeli) desalination project along with key takeaways from our recent site visit.
- We like VA Tech Wabag for its sustainable 10-12% revenue growth profile, strong order book (2.4x FY12E revenue), strong presence in India (a key growth market), technological superiority over other domestic players, and a strong balance sheet (net cash of INR87 per share).

## KEY STOCK DATA

YE Mar (INR m)	2012E	2013E	2014E
Revenue	13,889	15,364	16,833
Rec. net profit	681	746	814
Recurring EPS (INR)	25.78	28.27	30.82
Prior rec. EPS (INR)	-	-	-
Chg. In EPS est. (%)	N/A	N/A	N/A
EPS growth (%)	5.3	9.7	9.0
Recurring P/E (x)	15.8	14.4	13.2
Dividend yield (%)	0.0	0.0	0.0
EV/EBITDA (x)	5.8	5.4	4.6
Price/book (x)	1.7	1.5	1.4
Net debt/Equity (%)	(33.7)	(36.8)	(40.2)
ROE (%)	11.3	11.0	10.8



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(20.7)	(21.2)	-
Relative to country (%)	(6.2)	(9.0)	-
Next results	October 2011		
Mkt cap (USD m)	217		
3m avg daily turnover (USD m)	0.5		
Free float (%)	70		
Major shareholder	Promoters (31%)		
12m high/low (INR)	685.98/347.20		
3m historic vol. (%)	30.3		
ADR ticker	-		
ADR closing price (USD)	-		
Issued shares (m)	26		

Sources: Bloomberg consensus; BNP Paribas estimates



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*Please see India Research Team list on page 25.*

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# RISK EXPERTS

## Key Earnings Drivers & Sensitivity

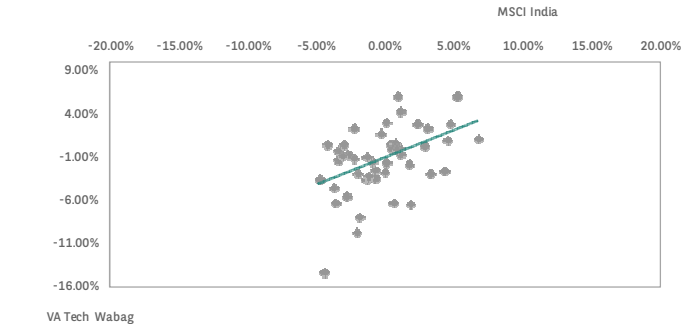
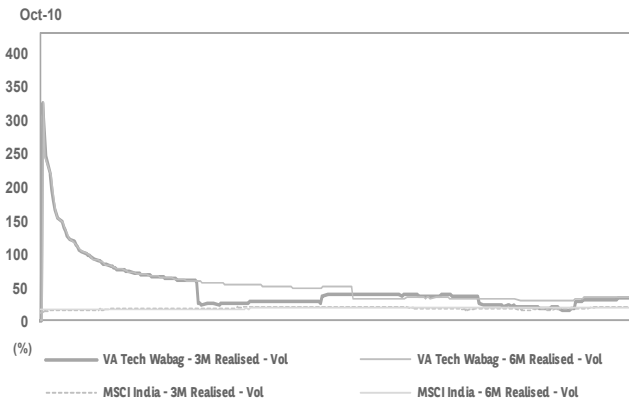
- A 1% increase in our cost of equity assumption results in an 8.1% decline in our fair value estimate.
- A 1% decrease in our cost of equity assumption results in a 9.8% increase in our fair value estimate.

Year-end 31 Mar	----- 2013E -----		
	Worst	Base	Best
Average cost of equity (%)	14.8	13.8	12.8
Fair value (INR)	442	481	528
Implied EV/EBITDA (x)	8.8	7.1	7.9
Implied P/E (x)	15.6	17.0	18.7

Sources: BNP Paribas estimates

## VA Tech Wabag and MXIN Index (3M and 6M Realised-Vol)

## Regression – VA Tech Wabag to MXIN Index



VA Tech Wabag = 94 + 0.7015 \* MXIN Index  
 R Square = 0.2091  
 Regression based on 49 observations of 5 years weekly data. Please refer to Appendix 1 for the explanation of R-square  
 Sources: Bloomberg; BNP Paribas

Sources: Bloomberg; BNP Paribas

## India Sector Correlation Matrix at 25 July 2011

	Autos	Banks	Engineering &	Metals &	Oil & gas	IT services	Telecom	Utilities	Property
Autos	1.00	0.67	0.64	0.66	0.50	0.43	0.36	0.58	0.62
Banks		1.00	0.71	0.70	0.58	0.46	0.36	0.63	0.66
Engineering & construction			1.00	0.71	0.58	0.46	0.41	0.65	0.68
Metals & mining				1.00	0.66	0.50	0.40	0.69	0.72
oil & gas					1.00	0.40	0.30	0.57	0.57
IT services						1.00	0.27	0.45	0.38
Telecom							1.00	0.43	0.43
Utilities								1.00	0.63
Property									1.00

Source: BNPP Paribas Sector Strategy

## The Risk Experts

- Our starting point for this page is a recognition of the macro factors that can have a significant impact on stock-price performance, sometimes independently of bottom-up factors.
- With our Risk Expert page, we identify the key macro risks that can impact stock performance.
- This analysis enhances the fundamental work laid out in the rest of this report, giving investors yet another resource to use in their decision-making process

## Long/Short Chart



Sources: Bloomberg; BNP Paribas

Sources: Bloomberg, BNPP Paribas

## Company overview

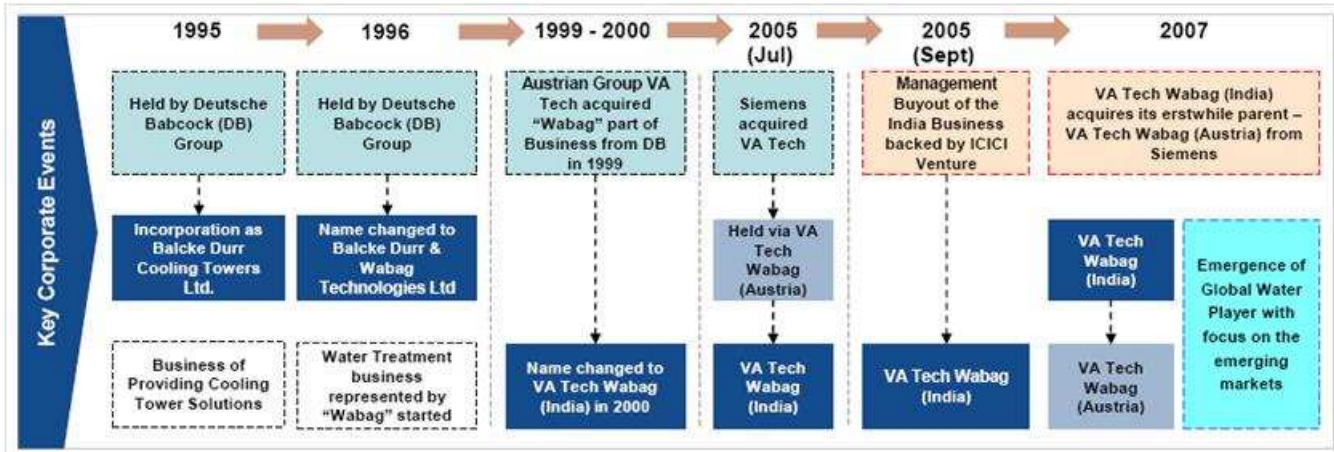
### The business

VA Tech Wabag (Wabag) is a water technology solutions provider present across the various water sub-sectors, including sewage treatment, drinking and industrial water projects, industrial wastewater treatment, and desalination and recycling. Wabag does the design, installation, supply and operational management of drinking water and waste water treatment plants across the industrial and municipal water segments. The company has a global footprint – it is present in 19 countries across the globe. The current order book of INR33b (USD77m) represents 2.4x FY12E revenue and provides revenue visibility. Approximately 73% of the orders are from India while the rest are from overseas.

### A brief history

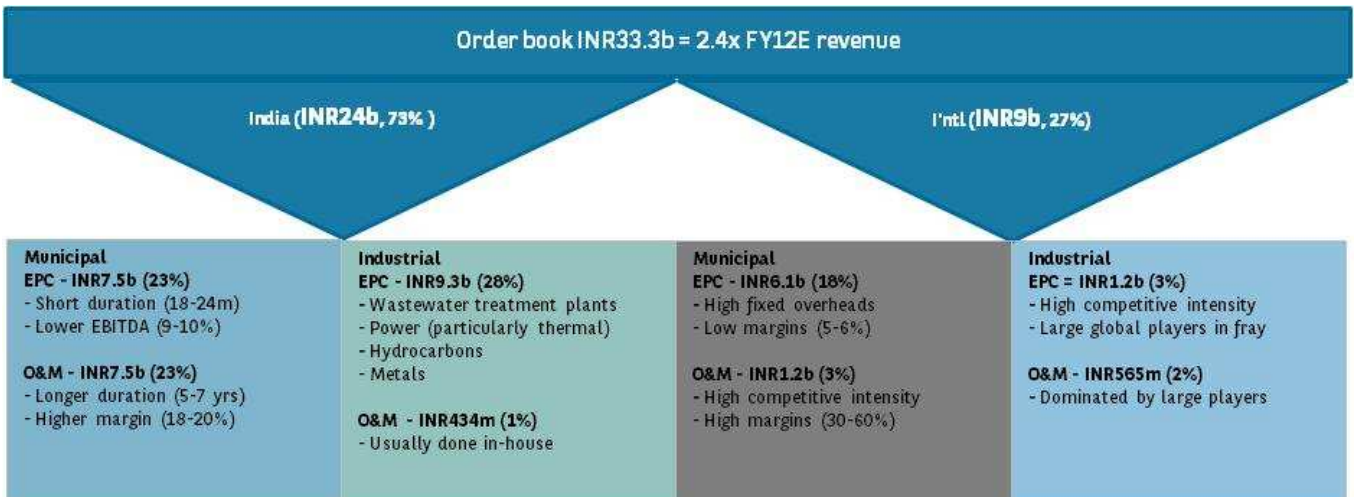
It was initially the water division of the Deutsche Babcock group, and was acquired by the Austrian group VA Tech in 1999. Siemens then acquired VA Tech in 2005 and VA Tech Wabag (India) was a subsidiary held via VA Tech Wabag (Austria). In late 2005, management bought out the India business with the backing of ICICI Venture Capital. Later in 2007, VA Tech Wabag (India) acquired its erstwhile parent, VA Tech Wabag (Austria), from Siemens. The current entity therefore has a global footprint in some of the key markets in the water sector.

EXHIBIT 1: Key corporate milestones



Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 2: Business structure



Sources: VA Tech Wabag; BNP Paribas Research

## Strong demand for water projects domestically

### The need for water solutions

Globally, the scarcity of usable water looms large. Approximately 97.5% of all the water worldwide is salt water. Of the 2.5% that remains, only 0.76% (2.5%\*(30.1% + 0.4%)) is readily available for human use. Globally, over 900m people have no access to clean water; 2.6m do not have access to adequate sanitation, particularly in developing countries. The situation is further exacerbated by the disproportionate geographical distribution of usable water, resulting in large pockets of scarcity particularly in the developing world. Rapid urbanization, industrialization and expanding food production globally add to the problem.

EXHIBIT 3: Only 0.76% of total water resources readily accessible

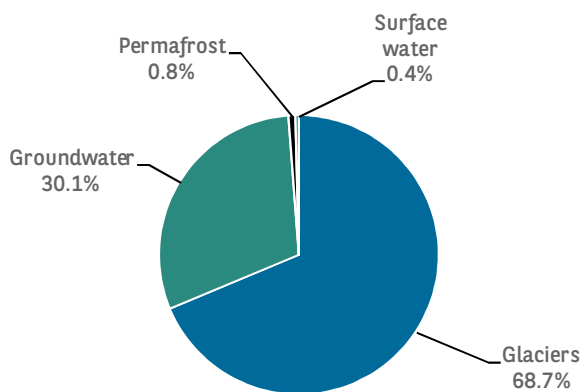
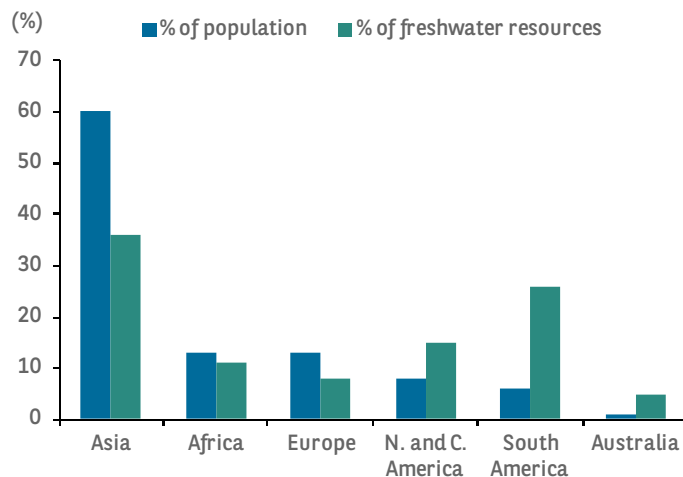


EXHIBIT 4: Inequitable distribution of water resources



Sources: VA Tech Wabag; BNP Paribas

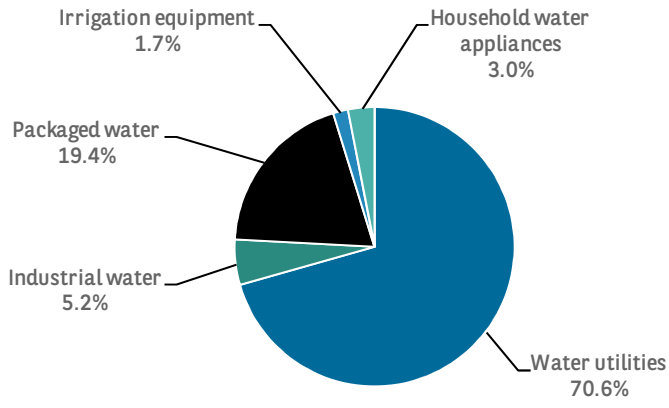
Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 5: Fastest growing water markets

Country	Market size		CAGR (%)
	2007 (USD b)	2016E (USD b)	
Saudi Arabia	2,455	9,103	15.7
Romania	507	1,839	15.4
Algeria	933	2,704	12.6
India	2,531	6,870	11.7
Oman	343	921	11.6
Egypt	1,352	3,490	11.1
China	32,662	80,714	10.6
Libya	835	1,959	9.9
Spain	5,045	11,606	9.7
Iran	1,203	2,638	9.1
UAE	1,908	4,113	8.9
Turkey	1,949	3,910	8.0
Mexico	2,591	5,142	7.9
Hungary	762	1,469	7.6
Taiwan	2,078	3,876	7.2
<b>Total</b>	<b>57,154</b>	<b>140,354</b>	<b>10.5</b>

Sources: Global Water Markets 2008; VA Tech Wabag; BNP Paribas

EXHIBIT 6: Total estimated market of USD559b, addressable market of USD424b (industrial + utilities)

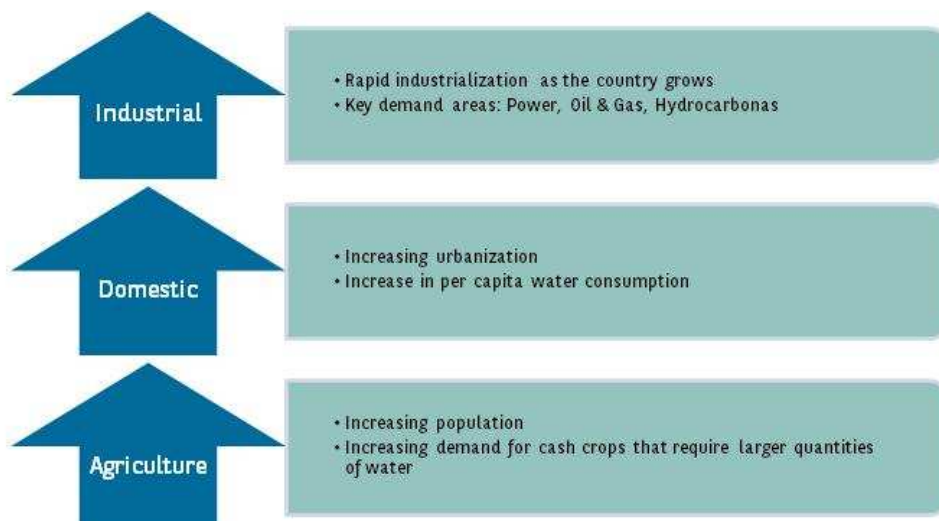


Sources: VA Tech Wabag; BNP Paribas



## India is a key market for the water industry

EXHIBIT 7: Demand drivers in India



Source: BNP Paribas

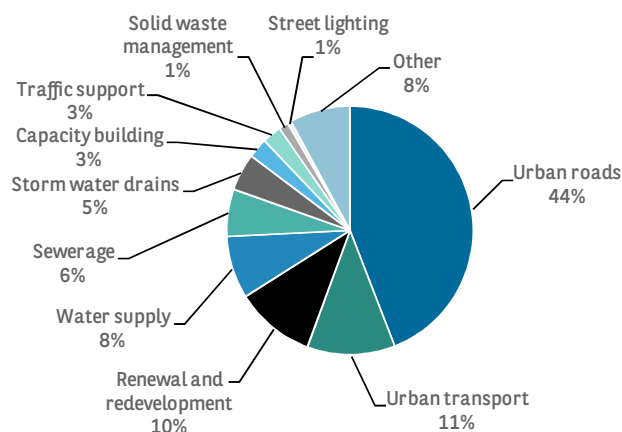
### Key statistics that highlight the need for water solutions in India

- In India, 85-89% of the usable water is consumed for irrigation by the agricultural sector. The increasing population along with the demand for crops like wheat and rice that require a greater quantity of water will put increasing pressure on the available water resources.
- India has 26% of the world's population but only 4% of the total usable water resources.
- A McKinsey study "2030 Water Resources Group" estimates that India's demand for water will be around 1.5t m3 by 2030, compared with the current available water resources of 740m m3, putting a severe strain on the available water resources.
- On the wastewater treatment front, urban conglomerations generate 26,254mld of wastewater of which only 6,955mld or 25% is treated; industrial wastewater generation is 15,438mld of which approximately 9,300mld or 60% is treated. The daily generation of wastewater is increasing along with increasing urbanization and industrialization in India.

### Municipal water sector in India

The World Health Organisation (WHO) estimates that around 500,000 people die every year in India due to water-related diseases resulting from a lack of access to clean water; the World Health Organization (WHO) estimates that over USD2.5b is spent on healthcare to treat water-related diseases every year in India alone. After the initial focus on power and roads infrastructure, the Central and State Governments are now focusing their attention on ensuring access to safe water for the entire country.

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is the key vehicle for developing urban infrastructure. However, the progress on urban water supply has been relatively slow; only 45-50% of the funds under this programme have been used. JNNURM is a seven-year programme that ends in 2012. To continue the push on urban infrastructure development, the Government of India formed a High Powered Expert Committee led by Dr. Isher Judge Ahluwalia to chart the roadmap for the urban infrastructure sector in the country. The committee submitted its report in February 2011. Apart from the focus on the overall urban infrastructure, the Committee indicated in its report that water supply and waste-water treatment projects are of utmost importance. The committee envisages a spending of USD174b over FY12-31 across water supply, sewerage, and drainage.

**EXHIBIT 8: Ahluwalia Committee envisages investments of USD871b**

The Committee recommended total investments of USD871b, of which water supply, sewerage and drainage constitute 20% or USD174b over FY12-31.

Sources: Ahluwalia Committee report; BNP Paribas

**Industrial water sector in India**

In India, the industrial demand is likely to be driven by the 100GW of power capacity that the country is expected to add during the 12<sup>th</sup> Plan period over FY13-17, of which approximately 70% would be thermal power plants. Additionally, we estimate that 65% of the planned capacity addition will be complete by the end of the 12<sup>th</sup> Plan. We value a water treatment plant for a power project at INR1.5b-1.7b. Consequently, we arrive at our estimated market size of INR100b-110b (USD2.2b-2.5b).

**EXHIBIT 9: Value of total water orders from power sector in India**

Planned capacity addition in 12 <sup>th</sup> Plan (GW)	100
Thermal plants (GW)	70
Completion (%)	65
Total thermal capacity addition (GW)	45
Number of plants (average 700MW/plant)	65
Cost of water facility per plant (INR b)	1.5-1.7
<b>Total opportunity (INR b)</b>	<b>100-110</b>

Sources: Plan Documents; Planning Commission; BNP Paribas estimates



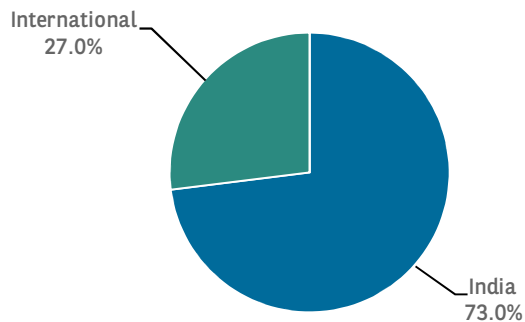
## Why VA Tech Wabag?

VA Tech Wabag is one of very few companies that specialise in water solutions technology in India. The company has an execution track record of over 15 years in the country. It has a strong order book of INR33.3b (as of June 2011) which represents 2.4x FY12E revenue; the order book provides revenue visibility for the next two fiscal years. Wabag operates on an asset light model; consequently, the company has a healthy balance sheet with INR2.3b of net cash on the books (as of 30 June 2011). Additionally, the company has entered into three alliances in order to bid for larger BOT projects, to establish itself in foreign markets and to offer turnkey water solutions for the balance-of-plant portion for power projects.

### Order-book strength – 2.4x FY12E revenue

The current order book of INR33.3b (as of June 2011) represents 2.4x FY12E revenue. The Chennai desalination project (unexecuted portion of INR7.4b) contributes approximately 22% of the order book. Other large orders include the water treatment plant and distribution system in Sri Lanka (INR3.6b) and balance-of-plant projects at Kakatiya and Rayalseema for APGENCO (INR2.9b). Additionally, the order book contains an INR3.0b project in Libya, which is currently stagnant due to the prevailing uncertainty in that region. Orders of INR11.4b are not yet included; advances or letters of credit are awaited, and upon their receipt the company will formally induct these into the order book. However, these contracts (referred to as framework contracts by the company) also include an order from Libya worth INR5.4b, which we believe will not be included in the order book in the near future.

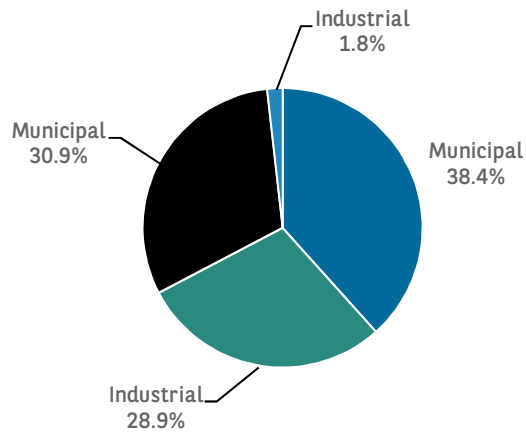
### EXHIBIT 10: Order book of INR33.3b (as of June 2011)



Sources: VA Tech Wabag; BNP Paribas

### Strong presence in India, a key growth market for the water sector

Around 73% of Wabag's current order book is from India. Management has indicated that the Indian market remains the biggest opportunity, due to the company's relative technological dominance, established track record of doing business with municipal bodies and its ability to implement solutions across the range of water projects (O&M, EPC, Industrial projects, municipal projects). EPC contracts contribute 67% of India orders with the remaining contributed by Operation and Maintenance (O&M) contracts.

**EXHIBIT 11: India order-book breakdown (INR24.3b or 73% of total order book)**

Sources: VA Tech Wabag; BNP Paribas

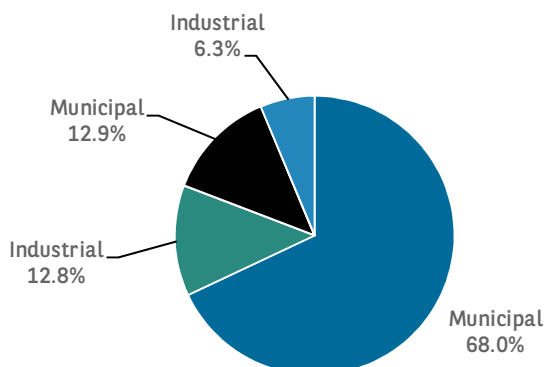
In India, the company caters primarily to the municipal and industrial sectors. Wabag undertakes EPC contracts as well as O&M contracts.

O&M contracts are typically smaller in size (up to INR500m) but have much higher EBITDA margins (range of 18-20%). These are predominantly municipal projects (95%). These contracts are typically longer duration (5-7 years) compared with EPC contracts (18-30 months) and provide a steady revenue stream.

On the EPC side, 57% of the contracts are from municipal bodies while 43% are industrial. EPC contracts typically have EBITDA margins in the 10-12% range, and durations of 18-30 months (significantly shorter than O&M contracts), including the time taken for the detailed design and engineering work for the project. Wabag typically takes the entire EPC contract, does the detailed design and engineering work and then sub-contracts the construction portion of the contract to local construction players. Consequently, the company sidesteps the major issues faced by construction companies – working capital management and interest costs. As a result, it is able to maintain its working capital to revenue ratio in the 12-14% range (compared to an average of 44% for construction companies).

**Recent forays into new geographies could be key to international business**

Wabag has recently forayed into various foreign countries including the Philippines and Sri Lanka, along with inroads to other emerging markets such as China. We believe the emerging markets are key for growth of the international business of the company, as these markets have a significantly higher growth rate than the developing markets. We expect the emerging markets to grow at 10-15% compared with the global growth rate of about 5% per annum.

**EXHIBIT 12: International order book of INR9.0b**

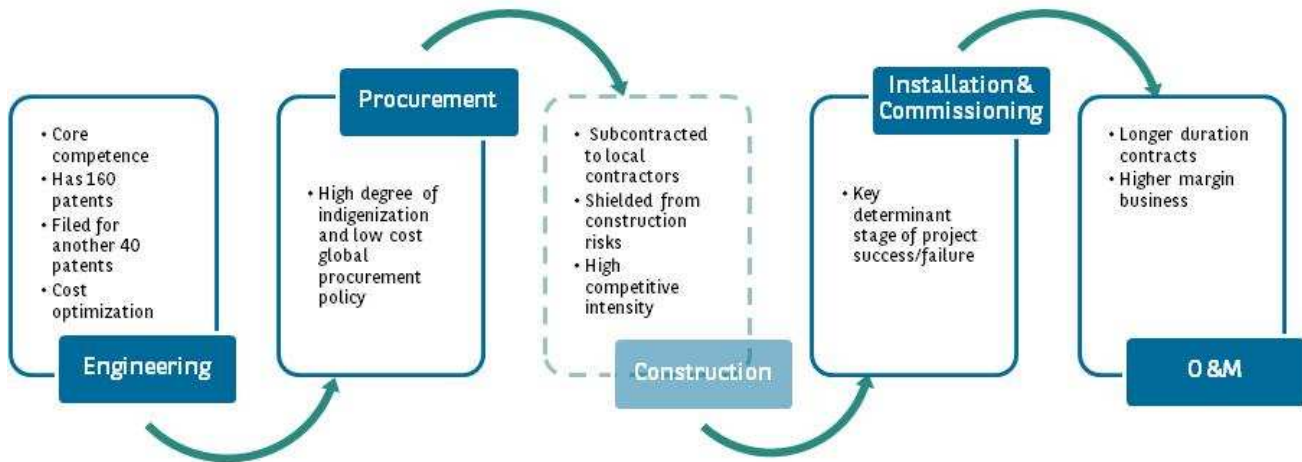
Sources: VA Tech Wabag; BNP Paribas

Management is also keen to explore the prospects emerging from the Middle East and North Africa (MENA) region. Oil-rich countries flush with funds are investing heavily in infrastructure. Water infrastructure is a priority area in each of these countries. Management believes that the key countries that could contribute to order inflows are Oman, Saudi Arabia, Egypt, Turkey and Iran.

## The competitive edge

Wabag's competitive edge is in the Indian market. The company's technological expertise and superior project management skills enable it to offer lower-cost solutions at every stage of the project life-cycle.

EXHIBIT 13: Turnkey water solutions development stages; Wabag is present across the value chain, except in construction



Sources: VA Tech Wabag; BNP Paribas

**Engineering & Design** – In the first stage itself, Wabag's long execution track record enables it to create the most cost-effective designs. In certain cases, the company has been able to cut costs by as much as 50% compared to preliminary estimates. The company has 160 patents and has filed for another 40; most of these are process patents that allow for the most cost-efficient processes.

**Procurement** – Wabag's global presence gives it access to a global network of equipment suppliers. Additionally, its design team makes the highest efforts to indigenize a project to the greatest possible extent. This typically results in 10-15% cost saving compared to other players that have to import equipment.

**Construction** – As the company is free to choose from a long list of civil contractors, it can bargain for the best possible construction price. Wabag has the liberty to sub-contract construction work to the lowest bidder. Typically these are small, unlisted contractors who are willing to undertake projects at margins lower than the construction majors. Consequently, Wabag's pricing is usually low compared to most of the construction companies.

**Commissioning & Installation** – Expertise in implementing projects is critical at this juncture in the project life-cycle. The installation of technically complex equipment is a challenge for many of the smaller players and has been the cause of delays in certain cases. Wabag's experience of more than 15 years in executing projects in India (over nine decades globally) is a critical factor during the installation and commissioning phase.

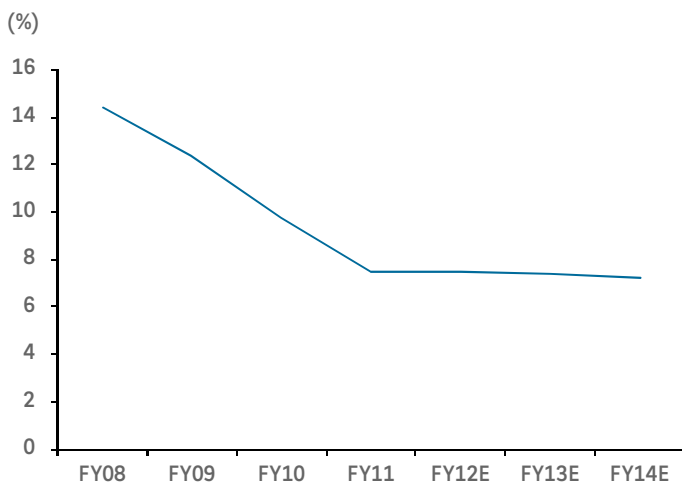
## Strong balance sheet, net cash of INR87 per share

The company has a strong balance sheet with around INR2.7b in cash and cash equivalents as of 30 June 2011; net cash (after deducting outstanding debt) is INR2.3b or INR87/share. Management has indicated that it is scouting for opportunities for inorganic growth. The company has an asset-light model where the construction portion of the EPC contract is sub-contracted to local construction companies.

### Balance sheet strength a key positive in the current scenario

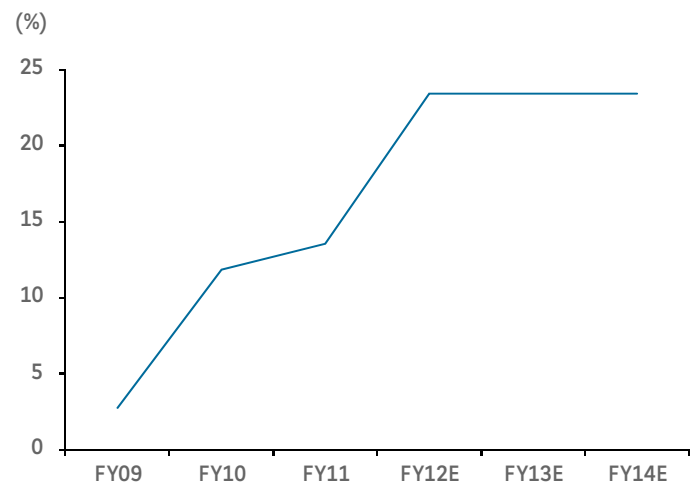
The asset-light model on which the company operates is particularly appealing, especially in the current scenario where cash is king. The company is relatively sheltered from the issues faced by typical construction companies – working capital management and interest cost. The construction portion of the contract is sub-contracted to local construction players while the company concentrates on its core competence of design and engineering. As a result, Wabag's investment in the business is limited to spending on research and development.

EXHIBIT 14: Gross debt to equity (net cash positive)



Sources: VA Tech Wabag; BNP Paribas estimates

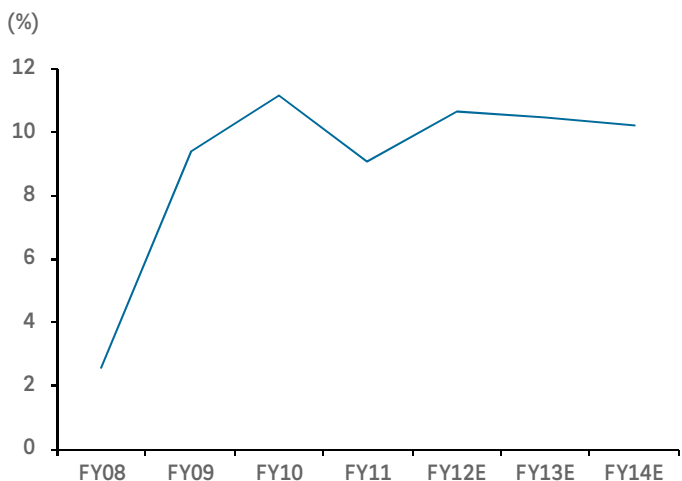
EXHIBIT 15: Working capital to revenue



Sources: VA Tech Wabag; BNP Paribas estimates

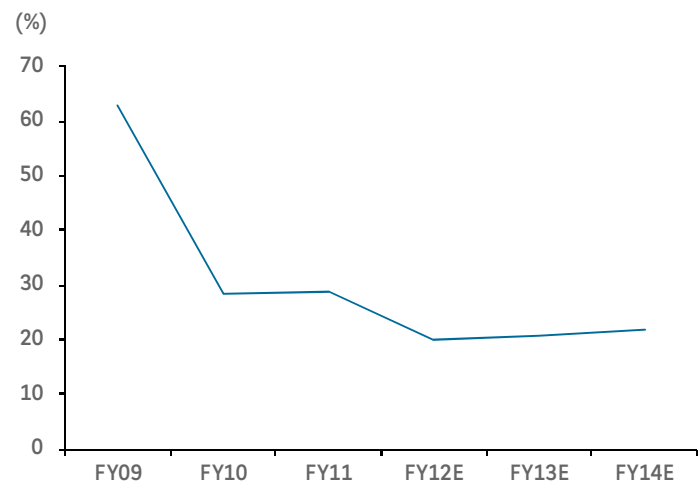
Return on equity is subdued at around 10%, primarily due to the large cash balance. Return on invested capital is a better metric to assess the capital efficiency, in our view. On an ROIC basis, Wabag manages a much more respectable 20% return.

EXHIBIT 16: Return on equity



Sources: VA Tech Wabag; BNP Paribas estimates

EXHIBIT 17: Return on invested capital



Sources: VA Tech Wabag; BNP Paribas estimates

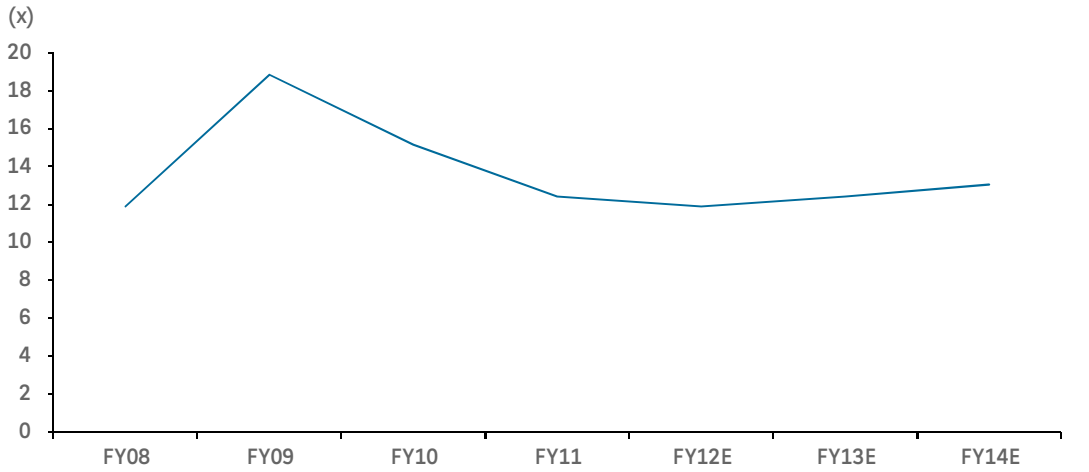
### Cash to be utilised for inorganic growth

The company has around INR2.3b in cash and cash equivalents on the balance sheet as of 30 June, 2011. Adjusting for debt and cash required for operations (~10% of sales), Wabag still has around INR1.1b of cash balance. Management indicated that this cash could be utilized to make a tuck-in acquisition. The target company would be either a company that has technology that Wabag does not possess or a company that provides access to a market where Wabag is not present.

### Asset-light model

As Wabag sub-contracts the construction portion of the EPC contracts, the investment in assets is typically low. Management has indicated that maintenance capex should be INR40m-50m annually. By following this model, the entire construction risk is passed on to the sub-contractor. Additionally, this allows the company to pick and choose civil contractors. Consequently, Wabag has been net cash positive and is likely to remain so. The company had an asset turnover ratio of 12.5x in FY11 (15.9x in FY10); the decline was due to the expenditure on the office building and computer software. We estimate that the ratio should increase to 15.0x by FY14.

### EXHIBIT 18: Asset turnover ratio



Source: VA Tech Wabag; BNP Paribas estimates

## Three key alliances to expand the reach of the company

Wabag has entered into three alliances so as to jointly bid for various types of projects.

### Sumitomo Corp – Advantage: financial muscle to bid for large-size BOT projects

Wabag is partnering with Sumitomo Corp (8053 JT, Not rated) of Japan to bid for BOT projects in India. Sumitomo will provide the financial muscle to Wabag's technical expertise and local know-how. This is a step further in de-risking the balance sheet. While bidding for BOT projects, Sumitomo will have the majority equity stake, with Wabag as a minority partner. The exact shareholding distribution will be decided on a case-by-case basis. This way, Wabag can bid for larger BOT projects without being tied down by equity infusion considerations.

The Sumitomo partnership was further cemented when the residual stake held by ICICI Ventures (not listed) in Wabag (~4.7%) was acquired by Sumitomo Corp.

### Tecpro and Gammon India – Advantage: capability to bid for turnkey balance-of-plant power projects

The Wabag-Tecpro-Gammon combine was conceptualised to bid for balance-of-plant (BOP) projects for power plants. BOP projects are typically tendered as a single package. Each of these companies individually does not have the capability to bid for the entire package. In this alliance, Tecpro (TPRO IN, Not rated) will execute the coal and ash handling portion, Gammon (GMON IN, Not rated) will build the chimney and Wabag will undertake water handling. The combine has already secured orders from Andhra Pradesh Generation Co (APGENCO) for BOP at their plants located at Rayalseema and Kakatiya.

### Zawawi JV in Oman – Advantage: leveraging local business expertise

Oman is a key country for the company in the international arena. The Global Water Markets (2008) report estimates the opportunity to be around USD343b, growing at approximately 12% per annum; by 2016, Oman represents a USD921b market. Wabag inked a joint venture agreement with Zawawi Trading Co LLC (ZTC) (Not listed) in January 2011 to bid for operation and maintenance projects in the country. The JV is likely to target contracts for O&M of water and waste-water treatment plants, sewage and water networks and pumping stations.

## The view from the ground – What our channel checks say

We highlight key takeaways from our interactions with industry experts, consultants and competitors about the prevailing scenario in the water sector in India. We segregate our takeaways into the industrial and municipal sectors. Experts believe that there are roadblocks that hinder private sector participation, but that the potential dire consequences of inaction will force the hand of policymakers to address these issues sooner rather than later. Initially, private participation may be restricted to smaller O&M contracts with low investment, but experts believe the industry must graduate to a level where private investment drives growth.

In the industrial water sector, experts believe the opportunity size is large due to the impending addition to power generation assets. However, the development of generation assets in the power sector is mired in three major issues – environmental clearances, land acquisition, and fuel supply. Our channel checks with experts indicate these issues are likely to be resolved only over a 12-18-month period. The order of resolution is likely to be environmental clearances, followed by land acquisition, followed by fuel supply.

We met experts who participated in the Ahluwalia Committee report on Urban Infrastructure. The experts believe that the interim period between the present day and the time of commencement of the Ahluwalia Committee recommendations is unlikely to see many major project awards. Consequently, many orders may not be tendered in the near term. However, given the sheer size of the required water infrastructure, the government has no alternative but to implement a large-scale infrastructure build-out in the water sector. Experts opine that project awards stemming from the recommendations of the Ahluwalia Committee are likely to start only after 9-12 months.

### Roadblocks to development of urban water projects in India

#### Lack of political will to charge for water services

Conventional wisdom suggests that the argument for not charging for water is that the common man views water as a right of life and hence is unwilling to pay for it. However, our checks with industry experts and the results of various pilot water projects indicate that local government authorities are unwilling to charge for water as they believe it will not be politically expedient. Additionally, people already pay significantly higher prices for water that is procured from private sources (e.g. water tanker services are abundant in cities like Mumbai and Chennai and the rates charged are upwards of 20-30x the municipal charge). Therefore, changing the political mindset is more important than dwelling on the people's ability to pay.

#### No standardisation of contracts

The lack of watertight agreements is a key challenge for private sector participation in the water sector. The quality of the detailed project reports (DPR) prepared by most of the cities in the country is poor, and it is very difficult to structure the concession contracts on the basis of these DPRs. Even basic information such as the number of connections required or the existing pipeline network is not present in many cases. As a result, for each bid, developers have to conduct due diligence prior to bidding. In some cases, developers have had to renegotiate bids with municipal corporations as new information came to light during project implementation (eg, Mysore city water supply bid had to be renegotiated). Therefore, there is clearly a need to improve the quality of DPRs. In another case, after the bidding and implementation, the local municipal corporation refused to collect the water charges and the developer was forced to supply water while dues piled up.

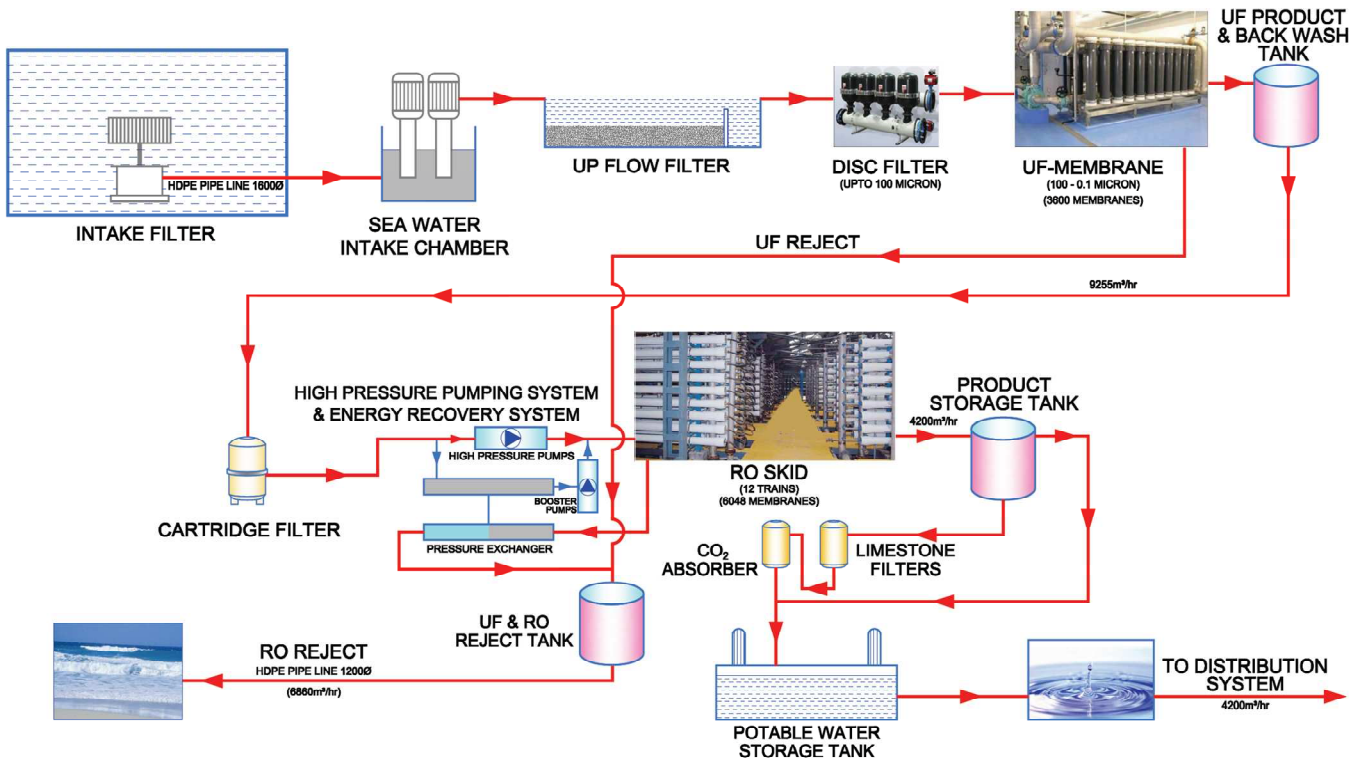


## Nemmeli Desalination – INR10.3b (80% complete)

The company secured the Nemmeli Desalination project in December 2009, awarded by the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB), to supply 100MLD drinking water to the city of Chennai. The total project cost is around INR10.3b divided into the EPC contract (INR5.3b) and a seven-year O&M contract (INR5.0b). The project is financed largely by the Central Government (INR8.7b) and the rest will be funded by the CMWSSB. The large contribution of funds by the Central Government mitigates the financial risk to a large extent. The O&M charges for the company will be borne by the CMWSSB, so the risk of collection of distribution charges does not impact Wabag.

The plant will provide 100m litres of potable water every day, which will then be distributed to the Chennai population. The pipeline project to distribute the water to the city has been awarded to Larsen & Toubro (LT IN, BUY, CP: INR1,491.55) and has a project cost of INR1.2b.

EXHIBIT 19: Nemmeli Desalination schematic diagram



Sources: VA Tech Wabag; BNP Paribas

The plant uses a two-stage process to desalinate seawater. Ultrafiltration is used to filter out the large impurities, followed by the reverse osmosis process to remove the smaller particles. Chemicals are further added to the treated water to impart taste.

### Status – Site visit reveals that 80% of civil construction work is complete

Our recent site visit to the plant revealed that around 80% of the civil construction work on the plant was complete. Norit (Netherlands) and Hydranautics (US) have supplied the ultrafiltration and reverse osmosis membranes, respectively, that have been delivered and are likely to be installed in the near future. The large storage tanks are also nearing completion. Management indicated that construction work should be complete by January 2012; however, the plant is likely to be commissioned only by June 2012 due to the short time window for laying the intake and reject pipelines.

Timely installation of the pipelines is a key risk for the project. Rough seas in the Bay of Bengal make laying the pipeline a difficult task. Additionally, this was likely to be a problem even after the laying, as turbulence can damage the pipeline. Consequently, the company has decided to lay the pipeline under the ocean floor so that it is unaffected by turbulence. The months of January to April typically have calmer seas and are likely to be used for dredging and laying of the pipeline.

EXHIBIT 20: Ultrafiltration and reverse osmosis units



Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 21: Ultrafiltration filtrate storage tank



Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 22: Ultrafiltration skids



Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 23: Reverse osmosis filtrate storage tank



Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 24: Intake unit



Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 25: Filtrate storage tanks



Sources: VA Tech Wabag; BNP Paribas



EXHIBIT 26: HDPE intake and reject pipelines - 1



Sources: VA Tech Wabag; BNP Paribas

EXHIBIT 27: HDPE intake and reject pipelines - 2



Sources: VA Tech Wabag; BNP Paribas

## Valuation

We use a three-stage DCF model over a 15-year period to value Wabag's stock, which gives us our fair value of INR481. We assume a 25bp increase in EBITDA margin in the second and third five-year periods, as more O&M contracts that typically have higher EBITDA margins start contributing to revenue. Additionally, we assume average cost of equity of 13.8% and a terminal growth rate of 2.0%.

### EXHIBIT 28: DCF assumptions

	Stage I 1-5 years	Stage II 6-10 years	Stage III 11-15 years
Revenue growth (%)	10.5	7.5	5.0
EBITDA margin (%)	10.00	10.25	10.50
Interest cost (as % of revenue)	1.92	2.00	2.00
Net profit margin (%)	4.81	4.69	4.86
Cost of debt (%)	10.4	10.0	10.0
Cost of equity (%)	14.5	13.5	13.5
WACC (%)	14.2	13.2	13.2
Debt : equity (x)	0.08	0.08	0.08
Terminal growth (%)	2.0		

Source: BNP Paribas estimates

### EXHIBIT 29: DCF valuation

	(INR m)
EV	8,353
Less: Net debt	(1,125)
Add: Terminal value	3,237
Market value	12,715
<b>Target price (INR)</b>	<b>481</b>

Source: Bloomberg; BNP Paribas estimates

### EXHIBIT 30: Implied multiples

Year-end 31 Mar (x)	2011	2012E	2013E	2014E
Implied EV/EBITDA	9.0	7.9	7.2	6.3
Implied P/E	24.5	18.7	17.0	15.6

Source: BNP Paribas estimates

## EXHIBIT 31: Relative valuation

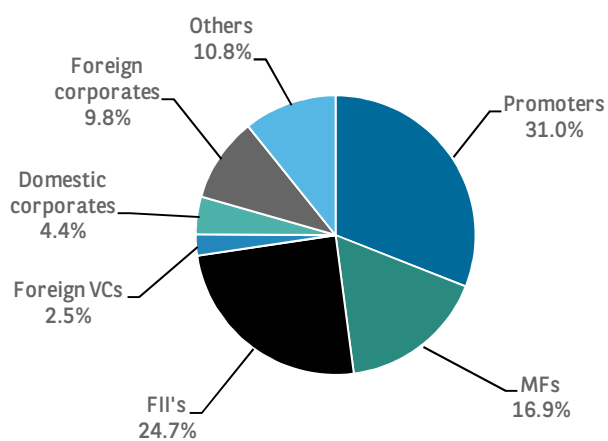
BBG code	Company	Share price (LC)	Market cap (USD m)	EV/EBITDA				2-yr CAGR	P/E				2-yr CAGR
				0FY	1FY	2FY	3FY	EBITDA (%)	0FY	1FY	2FY	3FY	EPS (%)
MWC PM	Manila Water	19.32	888	7.6	6.9	6.1	5.5	12.1	11.9	10.5	9.7	9.5	10.7
TTW TB	Thai Tap Water Supply	4.98	644	7.6	7.4	7.0	6.6	4.7	9.7	9.4	9.3	9.7	2.5
EASTW TB	Eastern Water Resources	5.70	307	6.5	6.3	5.7	4.8	6.7	9.9	9.6	8.6	7.0	7.1
PNH MK	Puncak Niaga Holding Bhd	1.05	136	3.8	5.1	3.6	3.5	2.8	2.8	(14.2)	3.2	3.4	(6.1)
	<b>Mean</b>			<b>6.4</b>	<b>6.4</b>	<b>5.6</b>	<b>5.1</b>	<b>6.6</b>	<b>8.6</b>	<b>3.8</b>	<b>7.7</b>	<b>7.4</b>	<b>3.6</b>
	<b>Median</b>			<b>7.0</b>	<b>6.6</b>	<b>5.9</b>	<b>5.1</b>	<b>5.7</b>	<b>9.8</b>	<b>9.5</b>	<b>8.9</b>	<b>8.2</b>	<b>4.8</b>
VIE FP	Veolia Environnement SA	9.95	6,979	6.1	6.4	6.0	5.7	0.5	8.4	10.2	8.7	7.7	(1.5)
SEV FP	Suez Environnement Co	10.14	6,960	6.3	5.7	5.3	5.0	9.7	10.7	11.5	10.2	9.2	2.2
EYDAP GA	Athens Water Supply & Sewage Co	3.08	443	7.9	6.8	5.7	5.3	17.7	17.8	14.0	10.3	8.6	31.7
	<b>Mean</b>			<b>6.8</b>	<b>6.3</b>	<b>5.7</b>	<b>5.3</b>	<b>9.3</b>	<b>12.3</b>	<b>11.9</b>	<b>9.7</b>	<b>8.5</b>	<b>10.8</b>
	<b>Median</b>			<b>6.3</b>	<b>6.4</b>	<b>5.7</b>	<b>5.3</b>	<b>9.7</b>	<b>10.7</b>	<b>11.5</b>	<b>10.2</b>	<b>8.6</b>	<b>2.2</b>
CWT US	California Water Service Grp	16.98	709	8.3	7.5	7.2	7.0	7.0	17.7	15.6	14.8	14.5	9.6
AWR US	American States Water	32.52	608	7.4	7.2	7.0	6.5	3.3	17.0	15.3	14.7	14.1	7.7
SIW US	SIW Corp	21.16	393	11.5	8.5	7.7	7.1	22.5	21.6	20.9	19.1	17.3	6.3
MSEX US	Middlesex Water	16.94	265	11.9	11.6	10.6	10.1	5.7	18.4	18.6	17.1	15.7	3.7
CTWS US	Connecticut Water Service	25.00	218	12.7	12.2	10.5	10.5	10.1	20.5	19.5	18.9	18.8	4.2
YORW US	York Water Co	16.26	207	12.0	11.4	10.9	10.7	4.8	22.9	21.6	20.5	19.7	5.8
ARTNA US	Artesian Resources	16.42	127	9.8	9.9	8.3	7.6	8.5	15.7	18.0	14.8	14.3	3.1
	<b>Mean</b>			<b>10.5</b>	<b>9.8</b>	<b>8.9</b>	<b>8.5</b>	<b>8.8</b>	<b>19.1</b>	<b>18.5</b>	<b>17.1</b>	<b>16.3</b>	<b>5.8</b>
	<b>Median</b>			<b>11.5</b>	<b>9.9</b>	<b>8.3</b>	<b>7.6</b>	<b>7.0</b>	<b>18.4</b>	<b>18.6</b>	<b>17.1</b>	<b>15.7</b>	<b>5.8</b>
371 HK	Beijing Enterprises Water Grp	1.33	1,178	19.6	11.5	8.8	7.3	48.8	16.4	12.1	10.2	9.0	26.7
HYF SP	Hyflux Ltd	1.62	1,075	12.7	11.4	8.9	7.5	19.4	15.9	16.9	12.7	11.3	12.0
855 HK	China Water Affairs Group	2.38	468	8.8	8.7	7.8	7.2	6.5	10.3	10.3	9.2	7.3	5.9
	<b>Mean</b>			<b>13.7</b>	<b>10.5</b>	<b>8.5</b>	<b>7.4</b>	<b>24.9</b>	<b>14.2</b>	<b>13.1</b>	<b>10.7</b>	<b>9.2</b>	<b>14.9</b>
	<b>Median</b>			<b>12.7</b>	<b>11.4</b>	<b>8.8</b>	<b>7.3</b>	<b>19.4</b>	<b>15.9</b>	<b>12.1</b>	<b>10.2</b>	<b>9.0</b>	<b>12.0</b>
HDOR IN	Hindustan Dorr Oliver	41.95	61	4.4	5.4	5.0	5.1	(6.4)	4.6	8.2	7.4	6.0	(20.6)
PRIL IN	Pratibha Industries	48.45	97	4.6	3.8	3.1	na	20.6	7.4	5.8	4.8	na	24.0
<b>VATW IN</b>	<b>VA Tech Wabag Ltd</b>	<b>390.15</b>	<b>209</b>	<b>6.9</b>	<b>5.4</b>	<b>4.8</b>	<b>4.4</b>	<b>19.5</b>	<b>18.5</b>	<b>15.0</b>	<b>13.6</b>	<b>12.5</b>	<b>16.6</b>
	<b>Mean</b>			<b>5.3</b>	<b>4.9</b>	<b>4.3</b>	<b>4.8</b>	<b>11.3</b>	<b>10.2</b>	<b>9.7</b>	<b>8.6</b>	<b>9.2</b>	<b>6.6</b>
	<b>Median</b>			<b>4.6</b>	<b>5.4</b>	<b>4.8</b>	<b>4.8</b>	<b>19.5</b>	<b>7.4</b>	<b>8.2</b>	<b>7.4</b>	<b>9.2</b>	<b>16.6</b>
				8.9	8.1	7.1	6.8	10.8	13.7	12.3	11.8	11.3	7.1
	<b>Mean (ex VATW)</b>			<b>7.9</b>	<b>7.4</b>	<b>7.0</b>	<b>6.8</b>	<b>7.0</b>	<b>15.7</b>	<b>12.1</b>	<b>10.2</b>	<b>9.6</b>	<b>5.9</b>
	<b>Media (ex VATW)</b>	<b>19.32</b>	<b>888</b>	<b>7.6</b>	<b>6.9</b>	<b>6.1</b>	<b>5.5</b>	<b>12.1</b>	<b>11.9</b>	<b>10.5</b>	<b>9.7</b>	<b>9.5</b>	<b>10.7</b>

Priced close of 23 September 2011

Sources: BNP Paribas estimates for VA Tech Wabag; Bloomberg consensus for all other stocks (NR)

## Shareholding pattern

EXHIBIT 32: Shareholding pattern (as of 30 June 2011)



Sources: National Stock Exchange; BNP Paribas

## Devil's advocate: risks to our thesis

- 1 Revocation of the 80-IA benefit – the company was claiming tax deduction under section 80-IA of the Income Tax Act as a developer of infrastructure projects in India since FY03. However, the Finance Act of 2009 retrospectively amended the provisions to include only developers of infrastructure. Consequently, Wabag is liable to pay INR300m as retrospective payment of tax deductions claimed earlier (including accrued interest). The company has challenged the retrospective amendment in Madras High Court. An unfavourable decision in the matter would have a 4.6% negative impact on our book value estimate for FY12.
- 2 Concentration risk – Approximately 60% of the order book is contributed by the top 5 clients. A failure to execute any of the large projects could have a material impact on revenue and earnings.
- 3 An effort to bid for large projects could adversely impact profitability. If the company bids aggressively for large projects, it would be difficult to sustain the current margin due the high competitive intensity in the sector.



## Financial statements

## VA Tech Wabag

Profit and Loss (INR m) Year Ending Mar	2010A	2011A	2012E	2013E	2014E	
Revenue	12,237	12,330	13,889	15,364	16,833	2011-14E revenue CAGR   of 10.9%
Cost of sales ex depreciation	(8,574)	(8,820)	(9,932)	(10,979)	(12,022)	
<b>Gross profit ex depreciation</b>	<b>3,664</b>	<b>3,510</b>	<b>3,957</b>	<b>4,384</b>	<b>4,811</b>	
Other operating income	60	88	100	100	100	
Operating costs	(2,551)	(2,388)	(2,658)	(2,938)	(3,217)	
<b>Operating EBITDA</b>	<b>1,173</b>	<b>1,210</b>	<b>1,399</b>	<b>1,546</b>	<b>1,693</b>	2011-14E EBITDA CAGR of 11.8%
Depreciation	(139)	(100)	(130)	(145)	(152)	
Goodwill amortisation	0	0	0	0	0	
<b>Operating EBIT</b>	<b>1,034</b>	<b>1,111</b>	<b>1,269</b>	<b>1,401</b>	<b>1,541</b>	
Net financing costs	(259)	(148)	(253)	(287)	(326)	
Associates	0	0	0	0	0	
Recurring non operating income	0	0	0	0	0	
Non recurring items	(31)	(129)	0	0	0	
<b>Profit before tax</b>	<b>744</b>	<b>834</b>	<b>1,016</b>	<b>1,114</b>	<b>1,215</b>	
Tax	(304)	(316)	(335)	(368)	(401)	
<b>Profit after tax</b>	<b>441</b>	<b>518</b>	<b>681</b>	<b>746</b>	<b>814</b>	
Minority interests	0	0	0	0	0	
Preferred dividends	0	0	0	0	0	
Other items	7	0	0	0	0	
<b>Reported net profit</b>	<b>448</b>	<b>518</b>	<b>681</b>	<b>746</b>	<b>814</b>	
Non recurring items & goodwill (net)	31	129	0	0	0	
<b>Recurring net profit</b>	<b>479</b>	<b>647</b>	<b>681</b>	<b>746</b>	<b>814</b>	
<b>Per share (INR)</b>						
Recurring EPS *	20.46	24.48	25.78	28.27	30.82	
Reported EPS	19.14	19.61	25.78	28.27	30.82	
DPS	0.00	0.00	0.00	0.00	0.00	
<b>Growth</b>						
Revenue (%)	8.0	0.8	12.6	10.6	9.6	
Operating EBITDA (%)	43.5	3.2	15.6	10.5	9.5	
Operating EBIT (%)	41.1	7.4	14.3	10.4	10.0	
Recurring EPS (%)	21.8	19.6	5.3	9.7	9.0	
Reported EPS (%)	14.0	2.5	31.5	9.7	9.0	
<b>Operating performance</b>						
Gross margin inc depreciation (%)	28.8	27.7	27.6	27.6	27.7	
Operating EBITDA margin (%)	9.6	9.8	10.1	10.1	10.1	EBITDA margin should remain stable for the next 2-3 years.
Operating EBIT margin (%)	8.4	9.0	9.1	9.1	9.2	
Net margin (%)	3.9	5.2	4.9	4.9	4.8	
Effective tax rate (%)	40.8	37.9	33.0	33.0	33.0	
Dividend payout on recurring profit (%)	0.0	0.0	0.0	0.0	0.0	
Interest cover (x)	4.0	7.5	5.0	4.9	4.7	
Inventory days	19.1	22.5	33.5	38.1	38.3	
Debtor days	180.4	203.8	210.7	215.7	216.5	
Creditor days	247.2	244.3	235.6	223.8	224.8	
Operating ROIC (%)	77.2	53.6	41.5	34.9	36.0	
Operating ROIC - WACC (%)	-	-	-	-	-	
ROIC (%)	69.9	50.3	39.7	33.7	34.9	
ROIC - WACC (%)	-	-	-	-	-	
ROE (%)	12.4	13.3	11.3	11.0	10.8	
ROA (%)	6.6	6.5	6.6	6.8	6.8	
*Pre exceptional, pre-goodwill and fully diluted						

Sources: VA Tech Wabag; BNP Paribas estimates

## VA Tech Wabag

Cash Flow (INR m) Year Ending Mar	2010A	2011A	2012E	2013E	2014E
Recurring net profit	479	647	681	746	814
Depreciation	139	100	130	145	152
Associates & minorities	(8)	(2)	0	0	0
Other non-cash items	414	376	335	368	401
<b>Recurring cash flow</b>	<b>1,023</b>	<b>1,120</b>	<b>1,146</b>	<b>1,259</b>	<b>1,367</b>
Change in working capital	(1,352)	(294)	(1,595)	(350)	(348)
Capex - maintenance	(160)	(196)	(180)	(70)	(50)
Capex - new investment	0	0	0	0	0
<b>Free cash flow to equity</b>	<b>(488)</b>	<b>630</b>	<b>(629)</b>	<b>840</b>	<b>969</b>
Net acquisitions & disposals	0	0	0	0	0
Dividends paid	0	0	0	0	0
Non recurring cash flows	270	(402)	(335)	(368)	(401)
<b>Net cash flow</b>	<b>(219)</b>	<b>228</b>	<b>(964)</b>	<b>472</b>	<b>568</b>
Equity finance	5	1,224	0	0	0
Debt finance	(16)	35	50	50	50
<b>Movement in cash</b>	<b>(230)</b>	<b>1,488</b>	<b>(914)</b>	<b>522</b>	<b>618</b>

Minimal maintenance capex capex required as company sub-contracts the construction portion of contracts.

Per share (INR)					
Recurring cash flow per share	43.73	42.41	43.40	47.68	51.76
FCF to equity per share	(20.88)	23.86	(23.81)	31.79	36.68

Balance Sheet (INR m) Year Ending Mar	2010A	2011A	2012E	2013E	2014E
Working capital assets	7,989	9,571	11,134	12,157	13,177
Working capital liabilities	(6,539)	(7,894)	(7,861)	(8,535)	(9,207)
<b>Net working capital</b>	<b>1,450</b>	<b>1,677</b>	<b>3,272</b>	<b>3,622</b>	<b>3,970</b>
Tangible fixed assets	458	561	611	536	434
<b>Operating invested capital</b>	<b>1,908</b>	<b>2,238</b>	<b>3,883</b>	<b>4,158</b>	<b>4,404</b>
Goodwill	0	0	0	0	0
Other intangible assets	0	0	0	0	0
Investments	134	137	137	137	137
Other assets	0	0	0	0	0
<b>Invested capital</b>	<b>2,041</b>	<b>2,375</b>	<b>4,020</b>	<b>4,295</b>	<b>4,541</b>
Cash & equivalents	(2,185)	(3,545)	(2,630)	(3,152)	(3,770)
Short term debt	0	0	0	0	0
Long term debt *	391	427	477	527	577
<b>Net debt</b>	<b>(1,794)</b>	<b>(3,118)</b>	<b>(2,154)</b>	<b>(2,626)</b>	<b>(3,194)</b>
Deferred tax	(181)	(216)	(216)	(216)	(216)
Other liabilities	0	0	0	0	0
Total equity	4,016	5,710	6,390	7,137	7,951
Minority interests	0	0	0	0	0
<b>Invested capital</b>	<b>2,041</b>	<b>2,375</b>	<b>4,020</b>	<b>4,295</b>	<b>4,541</b>

\* includes convertibles and preferred stock which is being treated as debt

Per share (INR)					
Book value per share	172	216	242	270	301
Tangible book value per share	172	216	242	270	301

Financial strength					
Net debt/equity (%)	(44.7)	(54.6)	(33.7)	(36.8)	(40.2)
Net debt/total assets (%)	(16.7)	(22.6)	(14.8)	(16.4)	(18.2)
Current ratio (x)	1.6	1.7	1.8	1.8	1.8
CF interest cover (x)	(0.9)	5.3	(1.5)	3.9	4.0

Company is net cash positive and is likely to remain so.

Valuation	2010A	2011A	2012E	2013E	2014E
Recurring P/E (x) *	19.9	16.6	15.8	14.4	13.2
Recurring P/E @ target price (x) *	23.5	19.6	18.7	17.0	15.6
Reported P/E (x)	21.2	20.7	15.8	14.4	13.2
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0
P/CF (x)	9.3	9.6	9.4	8.5	7.9
P/FCF (x)	(19.5)	17.0	(17.1)	12.8	11.1
Price/book (x)	2.4	1.9	1.7	1.5	1.4
Price/tangible book (x)	2.4	1.9	1.7	1.5	1.4
EV/EBITDA (x) **	5.7	6.3	5.8	5.4	4.6
EV/EBITDA @ target price (x) **	7.1	7.9	7.2	6.7	5.8
EV/invested capital (x)	3.8	3.2	2.1	1.9	1.7

\* Pre exceptional, pre-goodwill and fully diluted

\*\* EBITDA includes associate income and recurring non-operating income

Sources: VA Tech Wabag; BNP Paribas estimates

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Hold	141	Hold	2.80
Reduce	57	Reduce	1.75

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