

A high-speed photograph of water splashing, creating a dynamic and textured background. The water is captured in mid-air, with numerous droplets and bubbles visible. The color palette is primarily shades of blue and white, with the water appearing clear and bright against a white background.

Rethink water. Reinvent business.

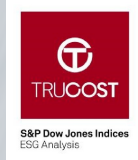
Reframing the way businesses value water



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Transforming
business by
transforming
water
management



Water-related business risks:



PHYSICAL IMPACT
Quantity & Quality



**REGULATORY
CHANGES/
INFLUENCES**

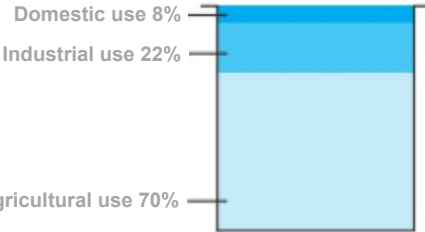


**REPUTATIONAL
CONSIDERATIONS
& Consumer Demand**

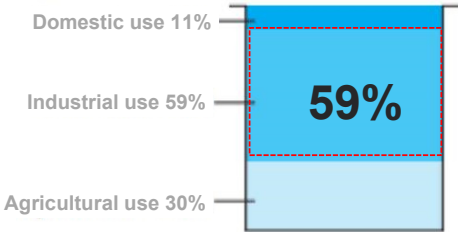


Industry is main water user in high-income countries

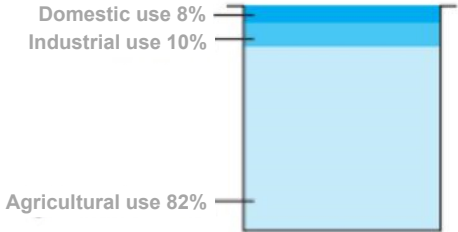
World



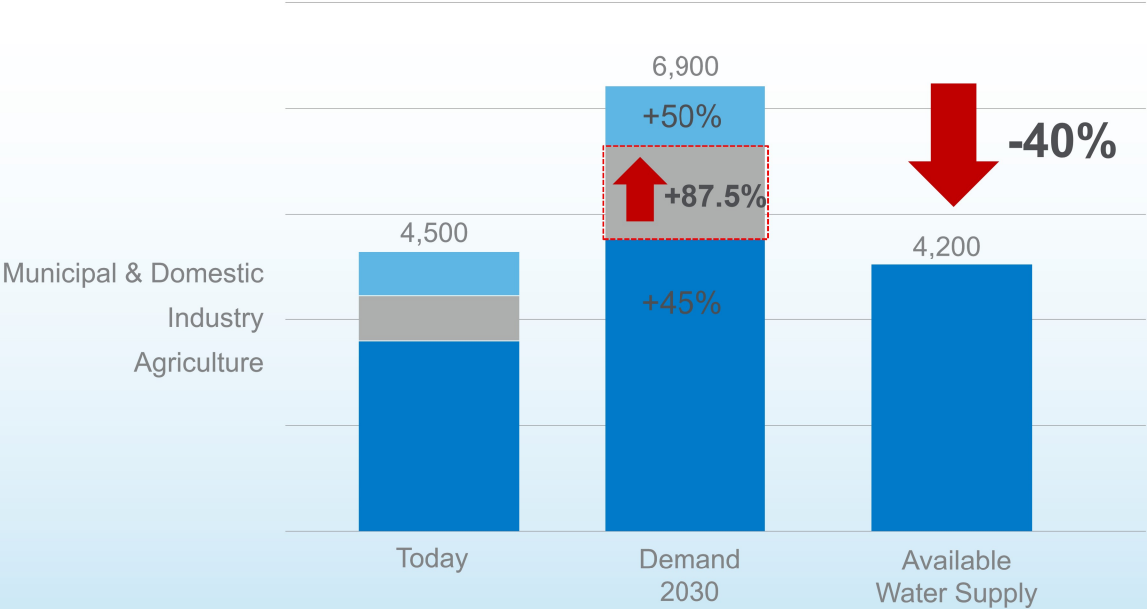
High-income Countries



Low- and Middle-income Countries



Industrial demand grows as supply falls



Conservation is not enough

10%
DECLINE IN
INDUSTRIAL
WATER USE
SINCE 2011

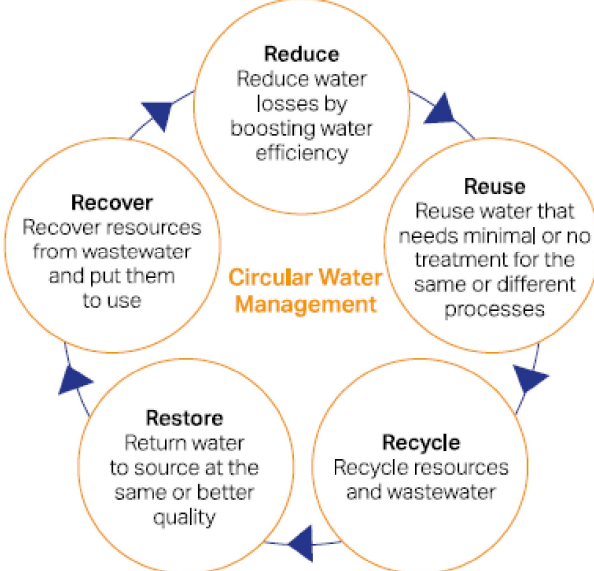
40%
GAP IN SUPPLY BY 2030

ECOLAB®

Shifting from Linear to Circular Water Management

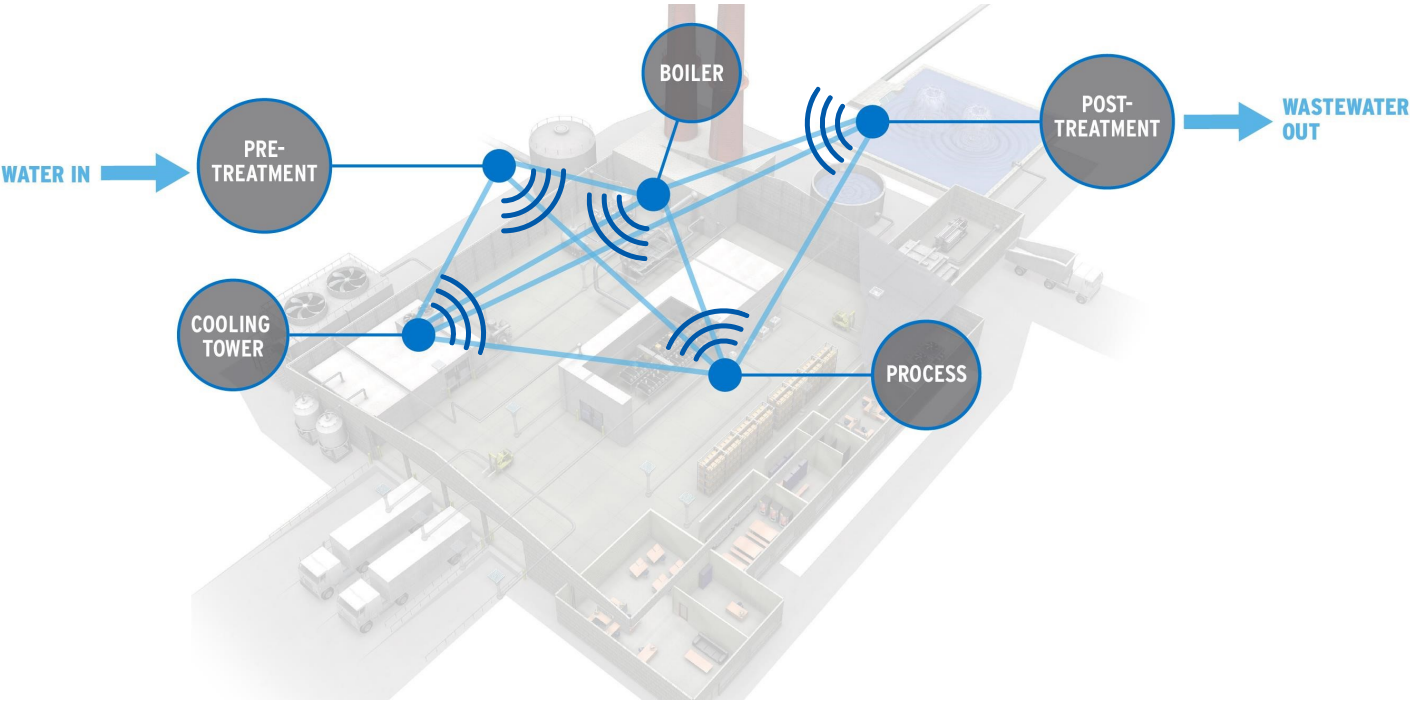
Industrial water consumption can be reduced by up to 50%

Circular economy could save 400 billion m3 of water annually (equivalent to 11% of global water demand and almost the entire water consumption in the US.)

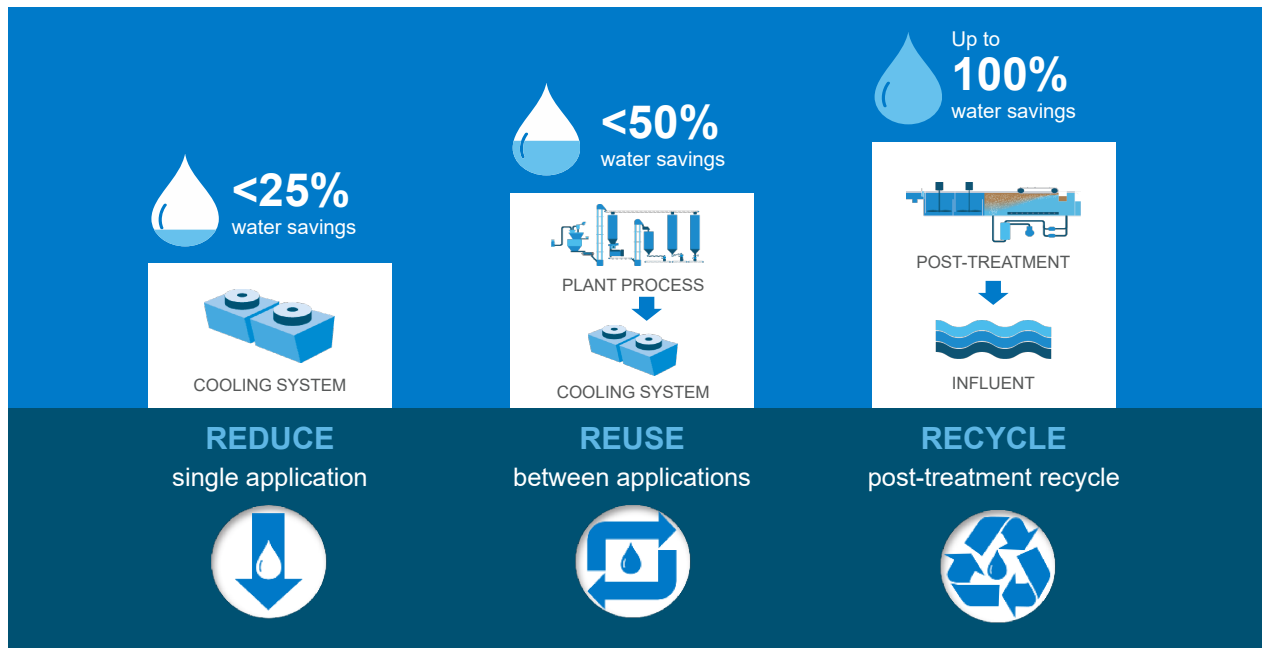


Sources: Andrews, M., Berardo, P. and Foster, D. (2011). The sustainable industrial water cycle – a review of economics and approach. Water Science and Technology: Water Supply, v 11 (1).
ING Circular Economy Report

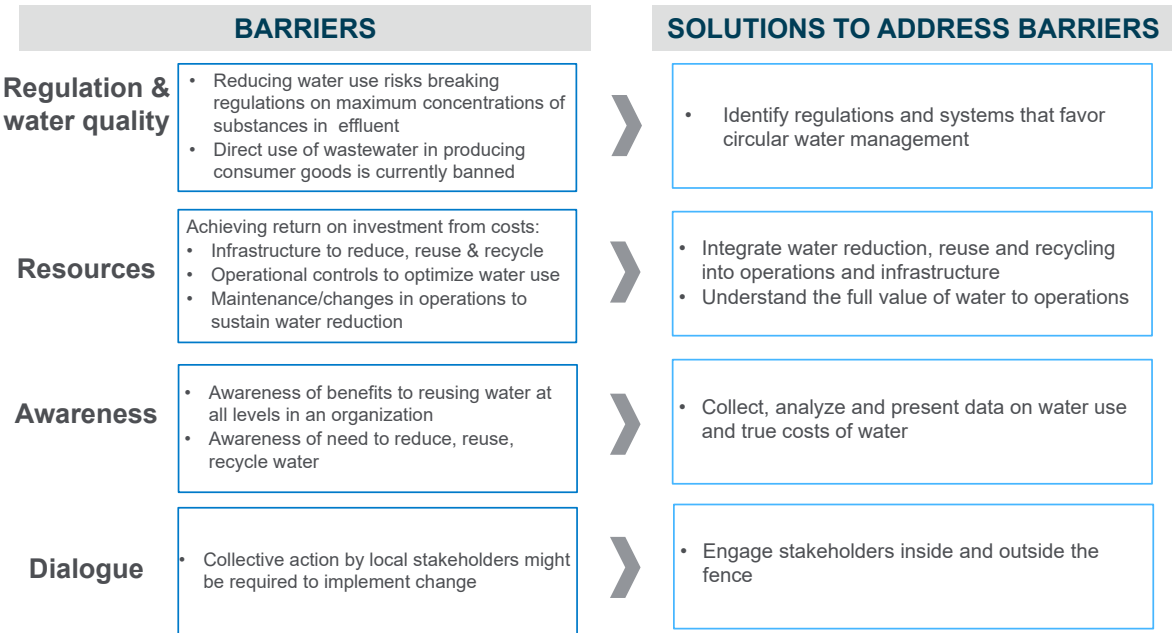
Change Mindsets & Practices: Water as a Recyclable Good



Total Water Management for 100% Reuse



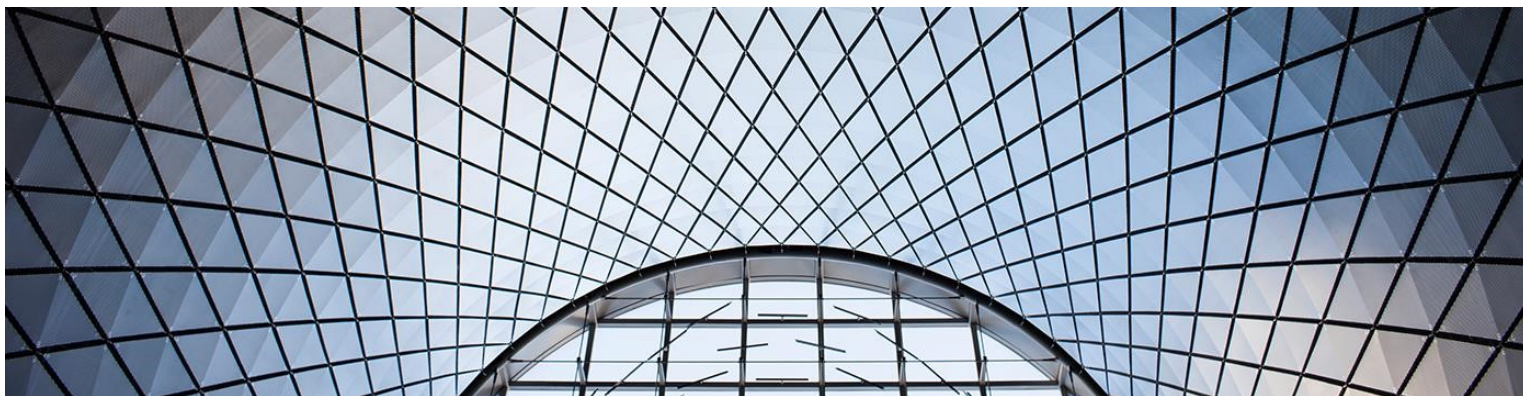
Barriers and solutions to circular water management



Valuing Water, Managing Risk

 **Trucost by
S&P Dow Jones Indices**
ESG Analysis

Libby Bernick, Global Head of Corporate Business
Stockholm World Water Week
August 2017

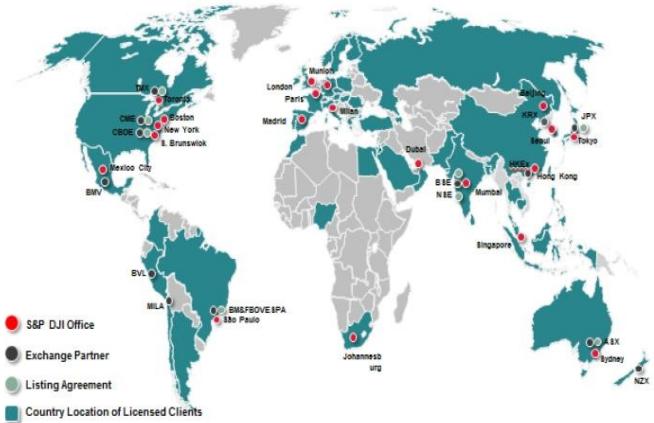


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Sources:
 * S&P Global, Investor Factbook 2015
 **SustainAbility, 'Rate the Raters' Survey, 2012

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S&P Global

S&P Global*

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(+5% increase from 2014)

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- **Long-Term Track Record:**
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 - US\$7.8 trillion of global assets benchmarked to the S&P 500 (12/2015)*
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Trucost provides sustainability data and insight to drive resilient, profitable business models and investment strategies and identify transformative solutions of tomorrow



Investor Portfolios & Bank Loan books



New Business Models



Corporate supply chains



Commodities



Net benefit of new products or technologies

ESG analytics and data for footprinting, target setting, shadow pricing, scenario analysis, positive impact assessment

- **17 years** Trucost has been researching, standardizing and validating the world's most comprehensive natural capital data
- **93%** coverage of global equity markets by market cap.
- **10,000** companies and their supply chains researched annually by Trucost analysts
- **\$20 T** in investment funds analyzed

500+ environmental metrics in six major categories



Greenhouse Gases



Air Pollutants



Water



Land and Water Pollutants



Waste



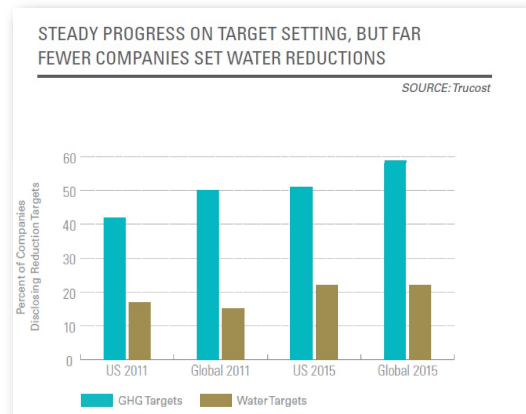
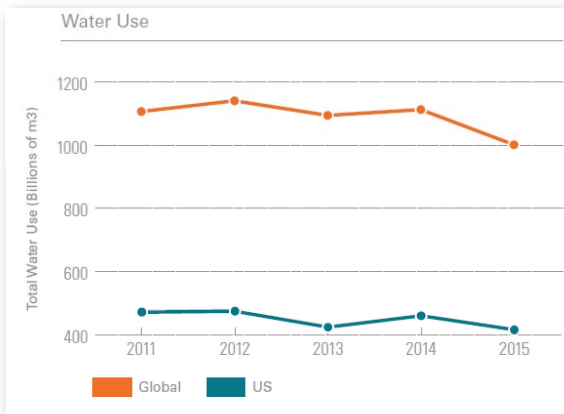
Natural Resource Usage

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Trend 1: Corporate Water Use and Reduction Targets

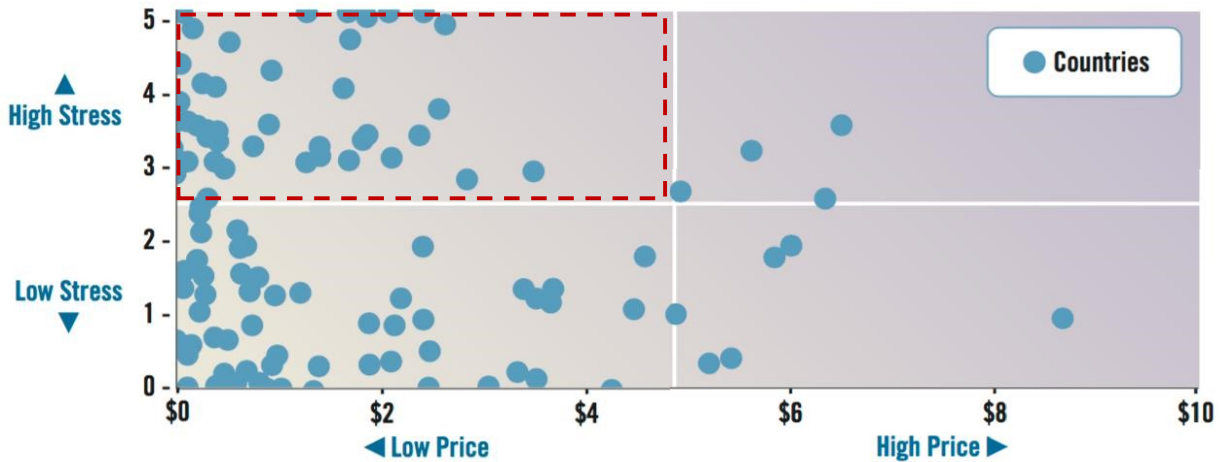
Steady progress on reducing corporate water use, but not enough to bridge the projected 40% gap in freshwater supply and demand by 2030



Sources: Trucost. State of Green Business Report, 2017. <https://www.trucost.com/publication/the-state-of-green-business-2017/>; OECD Outlook to 2030 Report..

Trend 2: Externalities and Market Failures

In many countries facing high water stress, water prices are underpriced or subsidized and fail to reflect the full value of water to businesses



Sources: 2014 GWI Water Tariff Survey, Global Water Intelligence data www.globalwaterintel.com/tariff-survey/; 2013 WRI Aqueduct data, World Resources Institute; <http://www.wri.org/resources/data-sets/aqueduct-country-and-river-basin-rankings>

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Trend 3: Investors Assessing Unpriced Water Risks

 Trucost by
S&P Dow Jones Indices
ESG Analysis

ICBC 

27 April 2017

HSBC 
Global Research

Internalization of
Environmental Costs and
Investment Stress Testing:
Aluminum Sector in China

Water stress and credit

Mining and power generators at risk

- ▶ Population growth, aquifer depletion and climate change are making it harder for key industries to access water
- ▶ We examine the potential credit impact on 12 mining and power firms, assuming they pay the social cost of water
- ▶ Bulk miners (such as Rio, Vale) score well in our scenario analysis; base metal miners (such as Vedanta) and generators in water stress regions (such as Eskom, Huaneng) score poorly

Source: Trucost Analysis for ICBC <https://www.trucost.com/trucost-news/icbc-and-trucost-develop-environmental-stress-testing-framework-for-china/>; HSBC, 2017.

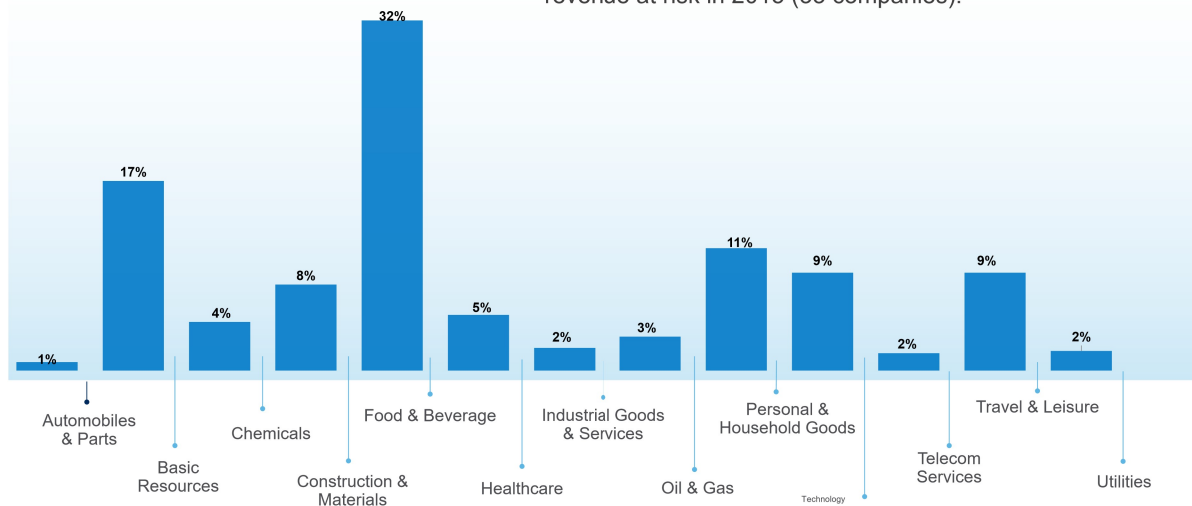
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Trend 4: More companies reporting on financial implications of water stress

CDP Disclosed Revenue at Risk (2016)

202 companies publicly disclosed to investors that water scarcity (declining availability and incoming water quality) threatens 1–6% of their annual revenue. The number of companies that disclosed revenue at risk in 2016 is over six times more than the number of companies that disclosed revenue at risk in 2015 (33 companies).



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Source: Trucost; CDP Water Disclosure Data, 2016

Valuing Water Scarcity and Quality Risks

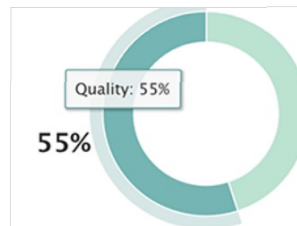


Publicly available on-line tool for asset level valuation of potential revenue loss or increased operating costs from local water scarcity or quality



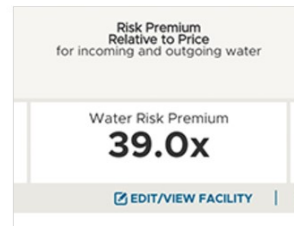
Inform

Corporate water strategies to mitigate risk and enable growth



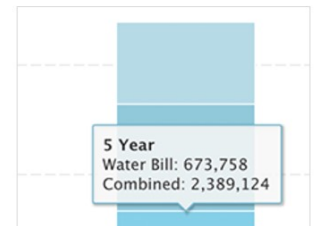
Assess

Water quantity and quality risks at a site and/or enterprise level



Quantify

Water risks in financial terms to understand the full value of water to our business



Calculate

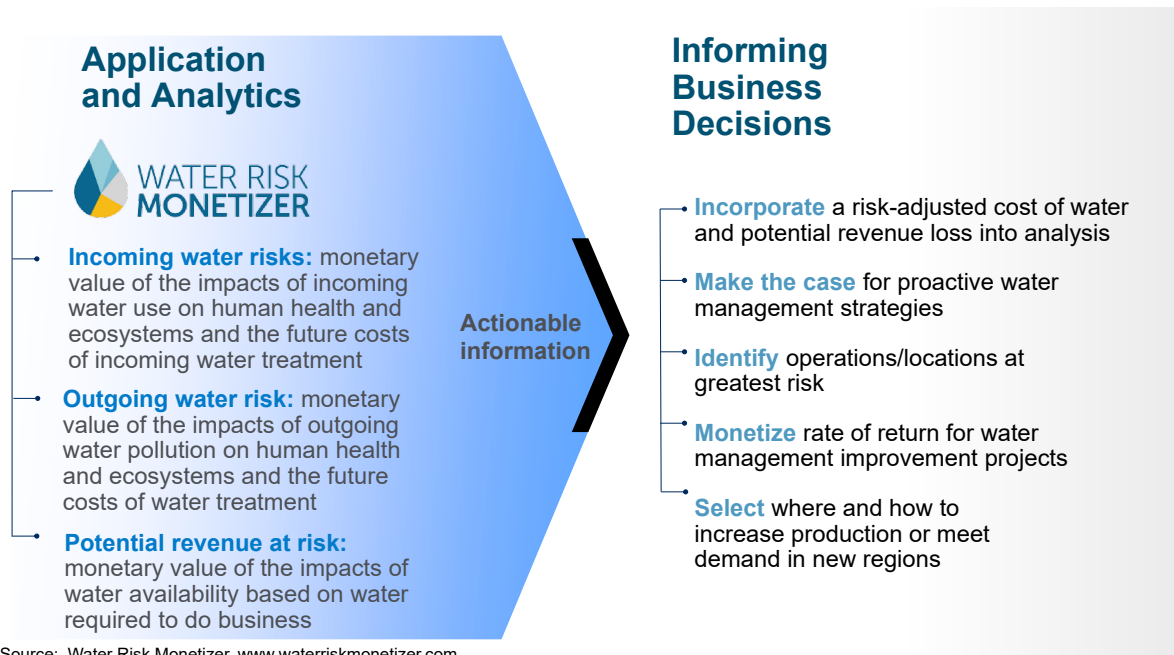
Return on investment of different water management strategies and prioritize action

Source: Water Risk Monetizer, www.waterriskmonetizer.com

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Essential insights based on data: globally relevant, basin specific



Source: Water Risk Monetizer, www.waterriskmonetizer.com