



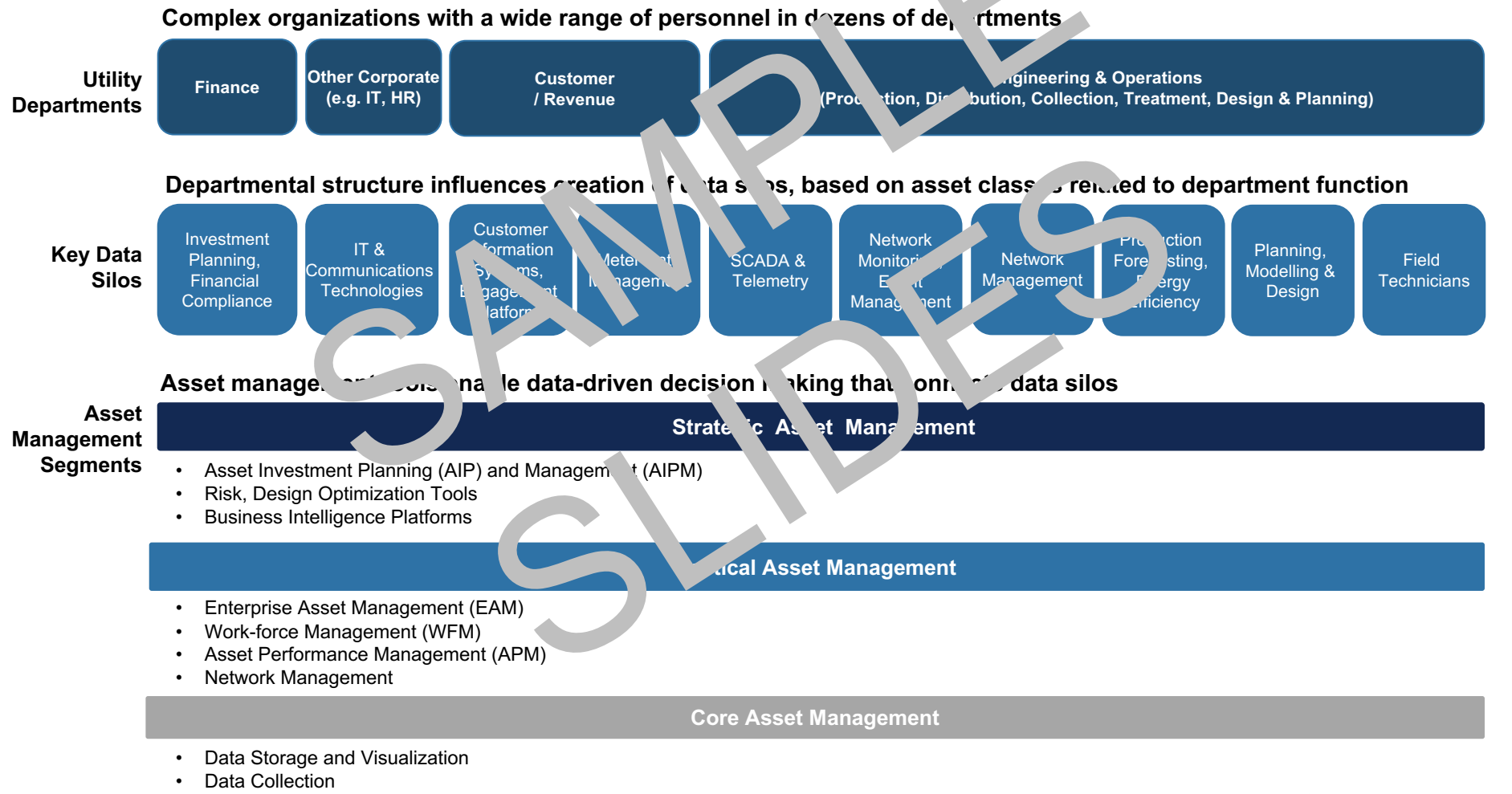
FOCUS REPORT (SAMPLE SLIDES)

Advanced Asset Management for Municipal Water: Global Trends & Strategies, 2018 - 2027

May 2018

The Asset Management Eco-System of Municipal Water Utilities - Overview

Municipal water utilities include dozens of departments managing disconnected data silos to make complex operational and strategic decisions. Asset management software tools enable them to connect these silos and optimize decision-making.



Yorkshire Adopts a Six Capitals Approach to its Value Framework (1/2)


Asset Management Summary

Utility	Yorkshire Water
Country	United Kingdom
State/Province/Region	Yorkshire, Humberside
Population Served	5,000,000
Connections	2,273,810
Asset Classes Managed	Water, Wastewater
Assets Under Management (Value, million USD)	US\$14,350 (fair value, tangible fixed assets, land and buildings, infrastructure assets, plant and equipment, under construction)
Water Mains (km)	31,300
Wastewater Mains (km)	76,250
Stormwater Mains (km)	-

Source: Yorkshire Water, Natural Capital Coalition, Bluefield Research.


Summary of Asset Management Solutions

Strategic Asset Management




- Asset Investment Planning, Decision Making Analytics

Tactical Asset Management



- Network Monitoring, Data Historian and Analytics

Core Asset Data

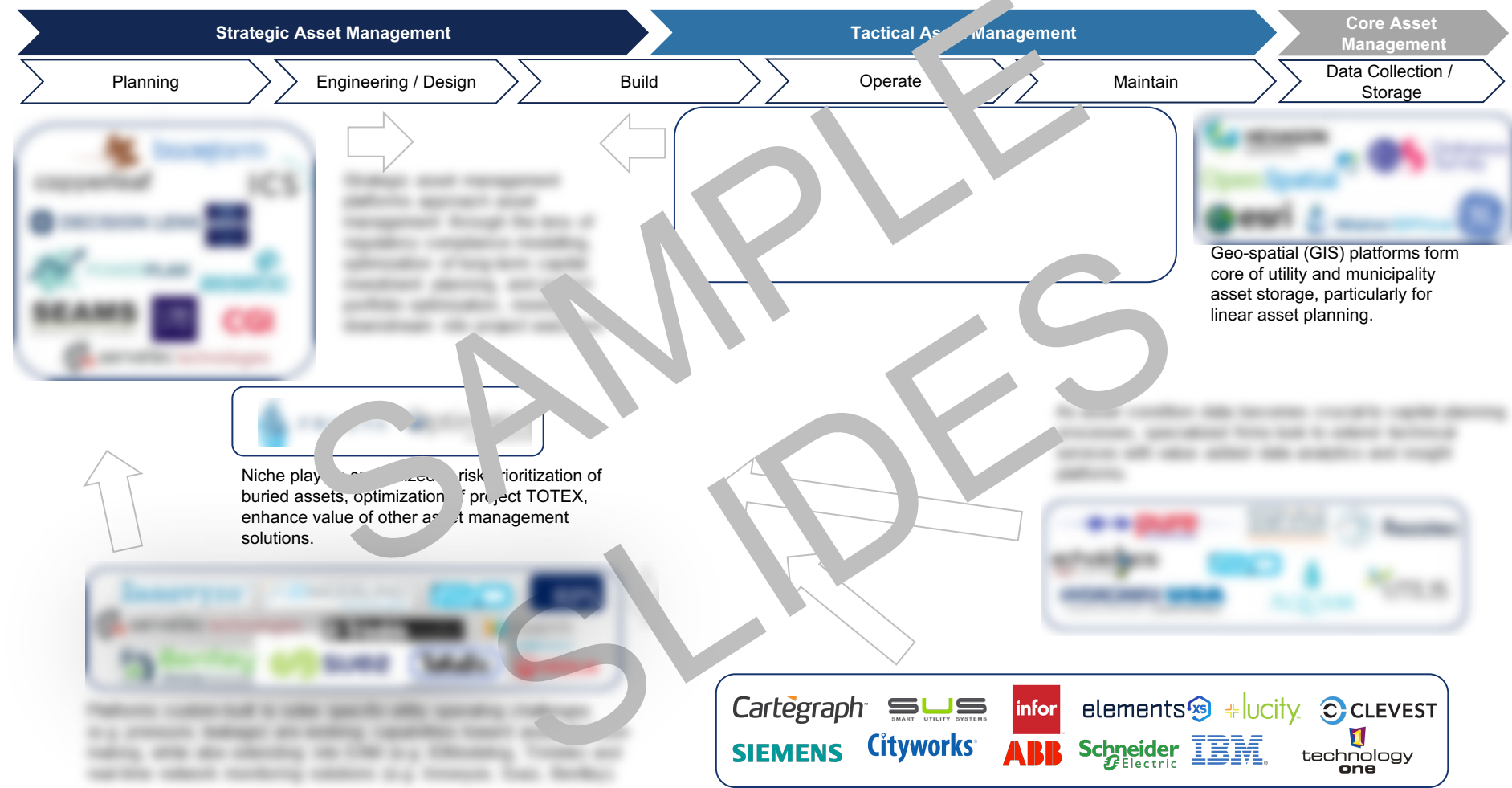


- Geospatial Platforms (GIS)
- Data Collection, Asset Condition Assessment

Key Contracts/Recent Announcements

Asset Management Value Chain Along the Lifecycle

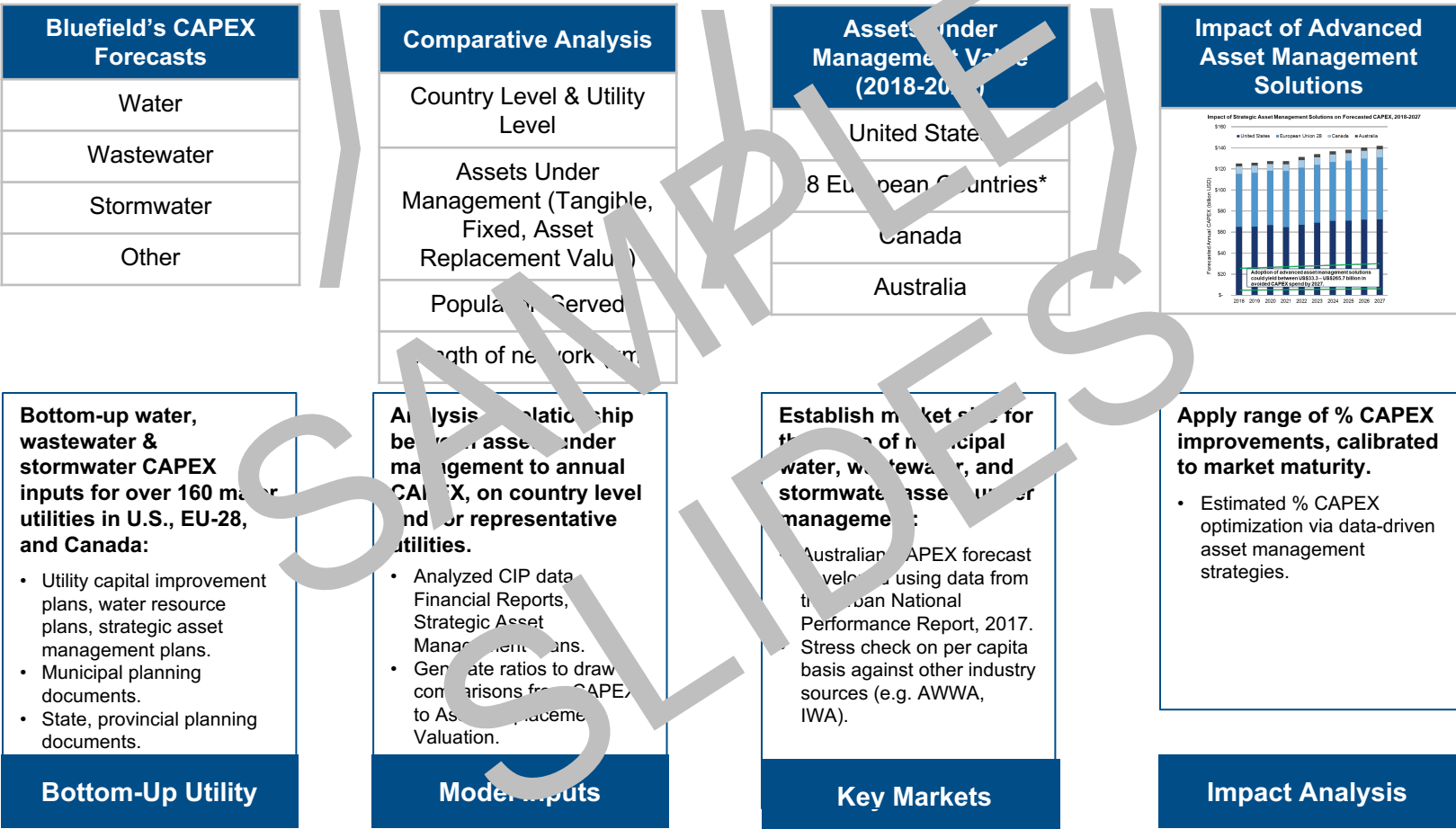
Solutions providers across the value chain look to extend into utility asset decision making processes.



Note: IIoT = Industrial Internet-of-Things. Representative logos exhibited;
Bluefield's data included a more exhaustive list of companies.
Source: Bluefield Research.

Forecasting the Valuation of Municipal Water Assets: Methodology

Bluefield has sized the value of assets under management in key asset management markets, extrapolating on bottom-up forecasts of capital expenditures (CAPEX) at municipal water utilities.



Note: *European Union 28 includes the United Kingdom.
More information on Bluefield's CAPEX forecasts available at the links provided below.

- [U.S. Municipal Water Infrastructure: Utility Strategies & CAPEX Forecasts, 2018-2027](#)
- [Europe Municipal Water Infrastructure: Utility Strategies & CAPEX Forecasts, 2016-2025](#)
- [Canada Municipal Water Infrastructure: Utility Strategies & CAPEX Forecasts, 2016-2025](#)

PowerPlan (Company Profile)

Strategic Asset Management

Company Background & Positioning

PowerPlan provides a suite of software solutions addressing strategic asset management, investment planning and modelling, fixed assets, rate case management, tax, and budgeting processes, to cities, municipal governments, and water utilities across North America and Australia.

PowerPlan has over 30 city and municipal clients, with some extending applications to water department planning. In addition, the company has approximately 15 water utility clients, to date in the US, Canada and Australia. These include; Water NSW, American States Water, Aqua Service, Los Angeles Department of Water and Power, Connecticut Water, Washington Suburban Sanitary Commission (WSSC), and Suez North America.

Headquarters	Atlanta, Georgia, United States
Revenues / Employees	>US\$100 million / >300
Smart Water Segment	Asset Investment Planning, Asset Management, Financial Services
Business Model	Consulting Software-as-a-service

Recent Smart-Water Activity

- November 7, 2017 PowerPlan announced a strategic partnership with MACS EU, one of Europe's largest IBM business partners for its core enterprise asset management solution, Maximo. This partnership will offer the Maximo users enhanced asset investment planning and analysis PowerPlan.
- February 8, 2018 PowerPlan announced its acquisition of River Modeling Systems Inc. for approximately US\$17.5 million (CAD\$50 million). The deal expanded PowerPlan's core offerings to include tax, and budgeting solutions, into advanced asset investment planning and modelling solutions. The company will look to provide an integrated solution across the full lifecycle of asset management.
- June 25, 2018, River Modeling Systems (now PowerPlan) announced a strategic partnership with UMS Group Europe B.V., to offer its asset management solutions to organizations in Europe and the Middle East.

Key Clients & Strategic Partners

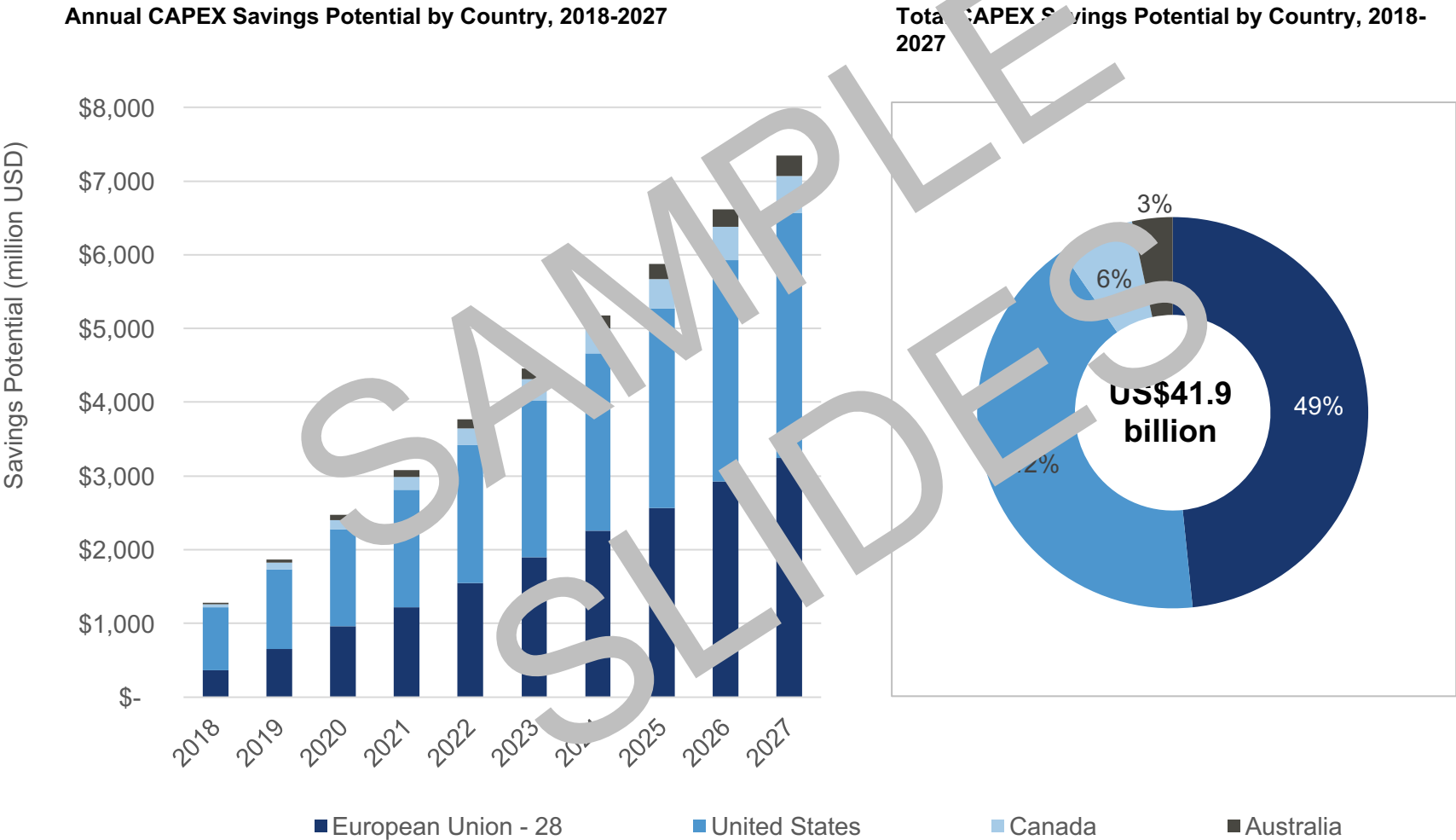
- Clients**
 - American States Water (U.S.)
 - Aqua Service (U.S.)
 - City of Canada (Canada)
 - City of Virginia Beach (Virginia, U.S.)
 - Connecticut Water (Connecticut, U.S.)
 - EDWD (California, U.S.)
 - WSSC (Maryland, U.S.)
 - Water NSW (Parramatta, Australia)
- Partners**
 - IBM
 - MACS EU
 - SAP
 - UMS Group Europe B.V.
 - Vesta Partners

Key Contracts

- March 11, 2014, American States Water extended its 4-year relationship with PowerPlan, expanding to include its Tax Repairs solution. This new addition will allow American States Water to manage the entire tangible repair process as well as comply with the new regulations effective this year.
- In 2012, WSSC sought the support of PowerPlan to optimize its US\$20 million asset management planning process, over a four-year period. PowerPlan's asset management planning suite was integrated into WSSC's new IBM WebSphere 8.5 and Oracle Exadata framework – the first application at WSSC to be deployed to this highspeed framework.

Advanced Solutions Have Potential to Improve Long-term CAPEX Outlook

Strategic Asset Management could avoid US\$41.9 billion in CAPEX spend by 2027, in key markets.



About the Report

Utilities are increasingly turning to advanced asset management solutions to gain efficiencies in operational and capital expenditures. While the concept of asset management has been around forever, new more advanced solutions are impacting how utilities plan, design, operate and maintain critical water, wastewater and stormwater infrastructure.

At the core of this shift to more advanced asset management solutions is the increasing use, and understanding of data, analytics, and visualization.

A host of companies -- including technology vendors, EPC firms, diversified industrial companies and venture-backed startups, are looking to increase their wallet share of key utility asset planning processes.

This report is essential for companies offering capital, equipment, software platforms, and service offerings across the full lifecycle of municipal water assets.

Sections include:

- 1. Water Asset Management Definition and Structure
- 2. Policy and Market Environment
- 3. Utility Approaches (includes 11 case studies)
- 4. Competitive Landscape and Trends
- 5. Company Profiles (41 companies offering tactical, strategic, and core asset management solutions)

WHO SHOULD BUY THIS REPORT

- **Utilities** looking to benchmark their asset management strategies and understand global innovations
- **Supply chain companies** evaluating demand trends in asset management segments
- **Technology companies & vendors** seeking to identify market opportunities and partners
- **EPC firms** looking to understand digital strategies of peers, adapt to shifting business models, find opportunities to differentiate
- **Infrastructure Investors** looking for guidance to support infrastructure investment decisions
- **Financial organizations** seeking analysis of water industry challenges and growth drivers.

The complete report (120 slides + data appendix) is now available for download. Purchase includes company-wide access and the ability contact our water market experts with questions.

Order online and receive immediate access at <https://bit.ly/2HBZAKK>.

(Contact us if you prefer to pay by invoice).

This report draws from Bluefield Research's annual insight service and team of water experts

INSIGHT SERVICE

INSIGHT REPORTS INSIGHT SERVICES CONSULTING



Global Municipal Water INSIGHT SERVICE

CLIENT FOCUS: designed for vendors, operators and investors addressing global municipal markets as a business, supporting:

- Business development and strategy executives at manufacturers and integrators of water and wastewater treatment systems.
- EPC and water project developers seeking new supply relationships or strategic or vertical partnerships.
- Critical infrastructure investors evaluating and seeking addressable opportunities to own & operate municipal networks.

RESEARCH COVERAGE: a 12-month cycle of data and analysis research provided in multiple formats, covering:

- Capital improvement plans (CAPEX & OPEX) trends, shaping utility budgets & forecasts.
- Wastewater reuse outlooks– indirect & direct– by state and application.
- Private participation in water, including utility concessions, PPPs, and alternative financing models.

METRICS: primary research and analysis is supported by proprietary market, project and company databases:

- Public Private Partnerships
- Desalination Capacity & Pipeline
- Capital improvement plans
- Quarterly M&A deal-flow
- Smart Water contracts
- Private Utility Ownership

INSIGHT SERVICE OFFERING

Annual membership providing a steady stream of deliverables and analyst advice:

MARKET & DATA INSIGHT REPORTS– deliverables covering unique market segments, providing rich data, and market analysis.

FOCUS REPORTS– Deep-dive analyses of markets, competitive trends, and growth drivers.

MARKET FORECASTS– data-backed outlooks of the municipal infrastructure market segments, including methodology, drivers, sub-segments, and geographies.

RESEARCH NOTES– executive intelligence briefings on relevant market and competitive developments.

QUARTERLY BRIEFINGS– updates of market segment and competitive developments, change drivers, opportunities, M&A, and forecasts.

ANALYST SUPPORT– Dedicated analysts on-call to meet client enquiries, review forecast methodologies, or clarify proprietary data and analysis.

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Featured Research

Global Smart Water: Market Trends, Competitive Shifts and Project Activity: In 2017, Bluefield tracked 264 smart water projects globally. The metering, asset and network...

Leakage Management in Europe: Water Utilities Develop Multi-Vendor Strategies: Lost revenue to leaks and improper billing for Europe's water utilities exceed US\$10 billion annually.

Water Mergers and Acquisitions: Key Trends in a Changing Global Landscape Water related M&A activity has been robust over the last three years, surpassing US\$57 billion, globally, since the start of 2014.



Global companies across the value chain are developing strategies to capitalize on greenfield opportunities in water -- new build, new business models, and private investment. Bluefield Research supports a growing roster of companies across key technology segments and industry verticals addressing risks and opportunities in the new water landscape.

Companies are turning to Bluefield for in-depth, actionable intelligence into the water sector and the sector's impacts on key industries. The insights draw on primary research from the water, energy, power, mining, agriculture, financial sectors and their respective supply chains.

Bluefield works with key decision-makers at utilities, project development companies, independent water and power providers, EPC companies, technology suppliers, manufacturers, and investment firms, giving them tools to define and execute strategies.

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