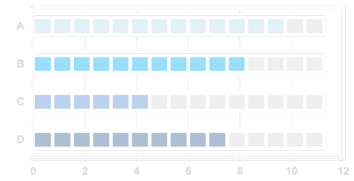
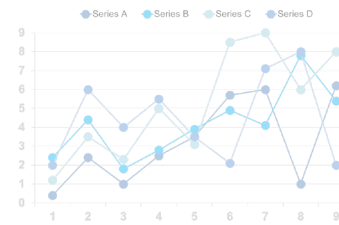
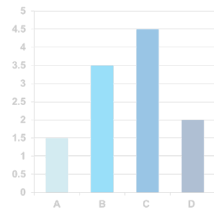
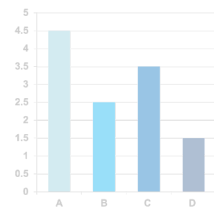
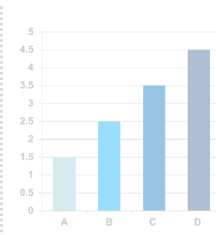


REPORT SAMPLE

The Digital Water Revolution: Global Digital Water Market Forecast, 2022–2030

June 2022



Setting the Pace of Change – Global Digital Water Market Drivers & Inhibitors

Amid mounting economic, environmental, and regulatory pressures, digital technology enables utilities to monitor and manage assets and operations as never before, maximizing service quality, efficiency, and sustainability.

Digital Water Market Drivers & Inhibitors



Demographic Shifts

- Rapid urbanization in emerging markets spurs greenfield infrastructure buildout, creating leapfrogging opportunities
- Utility staffing shortages, high retirement rates drive demand for technology, but limit bandwidth for innovation



Financial Pressures

- Water sector faces chronic underinvestment and artificially low rates, straining utility budgets / resources
- Water conservation / reuse, population declines in mature economies result in financial imbalances for utilities



Aging Infrastructure

- Aging / deficient infrastructure results in major operational challenges (water loss, sewer overflows, quality issues)
- Growing maintenance / rehabilitation backlog creates demand for proactive, data-driven asset management



Climate & Environmental Risks

- Climate change exacerbates key water sector challenges (drought / water scarcity, water quality issues, flooding)
- Growing awareness of climate risks spurs investment in sustainability, resilience for utility assets and operations



Regulatory & Policy Drivers

- Global utilities face mounting regulatory pressure to address perennial quality, reliability, affordability concerns
- Emerging challenges (PFAS, cybersecurity) evoke new regulatory responses, increasing utility risks / liabilities



Technology Change

- Evolving tech landscape (AI, IoT, cloud, mobile) provides new data-driven solutions for key utility pain points
- Increasingly “on-demand” economy drives customer / stakeholder expectations for real-time data, services

Defining the Market – What is Digital Water?

Bluefield takes a broad view of the digital water market, covering the full ecosystem of technologies and services used by water, wastewater, and stormwater utilities to collect, transmit, manage, analyze, and use data.

Digital Water Forecast Scope

Included in Forecast

- 34 common digital water product segments, including:
 - Established / mature water management technologies (e.g., SCADA, GIS, meters)
 - New applications of cutting-edge technology to the water market (e.g., AI, IoT, cloud computing)
- Four product types:
 - Hardware (meters, sensors, telemetry devices)
 - Software (on-premise and cloud platforms)
 - Services (installation / implementation services for digital water hardware and software)
 - Connectivity (telecommunication / data transmission services for connected hardware)
- Two types of expenditure:
 - CAPEX (upfront capital investments in hardware, perpetual software licenses, installation services)
 - OPEX (recurring annual operating expenses for software support, SaaS licenses, connectivity)

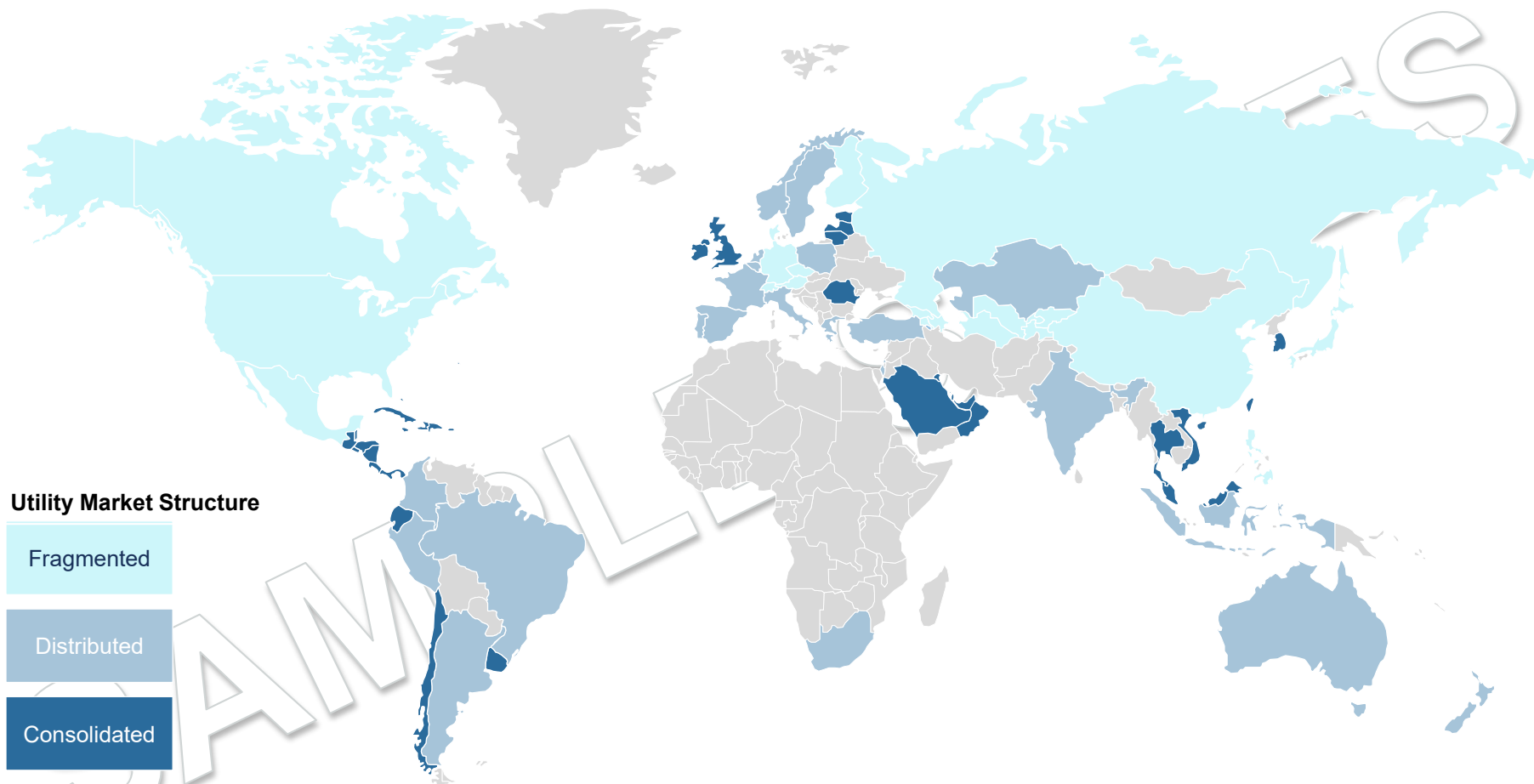
Not Included in Forecast

- Digital technology expenditure by third-party industry consultants for services provided to utilities:
 - Water infrastructure design and engineering software purchased by engineering firms
 - CCTV inspection equipment purchased by third-party CCTV service providers
- Spend on digital technologies for water, wastewater, and stormwater management outside the utility sector:
 - Domestic / “smart home” technology
 - Commercial / “smart building” technology
 - Agricultural / “smart irrigation” technology
- Investment in digital solutions at industrial treatment facilities (e.g., food & beverage plants, data centers):
 - SCADA systems
 - Water and wastewater flow / quality monitoring equipment
 - Plant optimization platforms

Navigating a Fragmented Landscape – Global Water Market Structure

Market attractiveness, sophistication of utility procurement often hinge on system size distribution – most markets of interest host a tiered set of utilities offering diverse supply opportunities but divergent digital maturity levels.

Global Water Market Structure by Country



Utility Market Structure

- Fragmented
- Distributed
- Consolidated

Source: Bluefield Research

Segmenting the Ecosystem – Digital Water Market Taxonomy

Bluefield provides in-depth forecasts for 34 digital water technology segments across four key product categories.

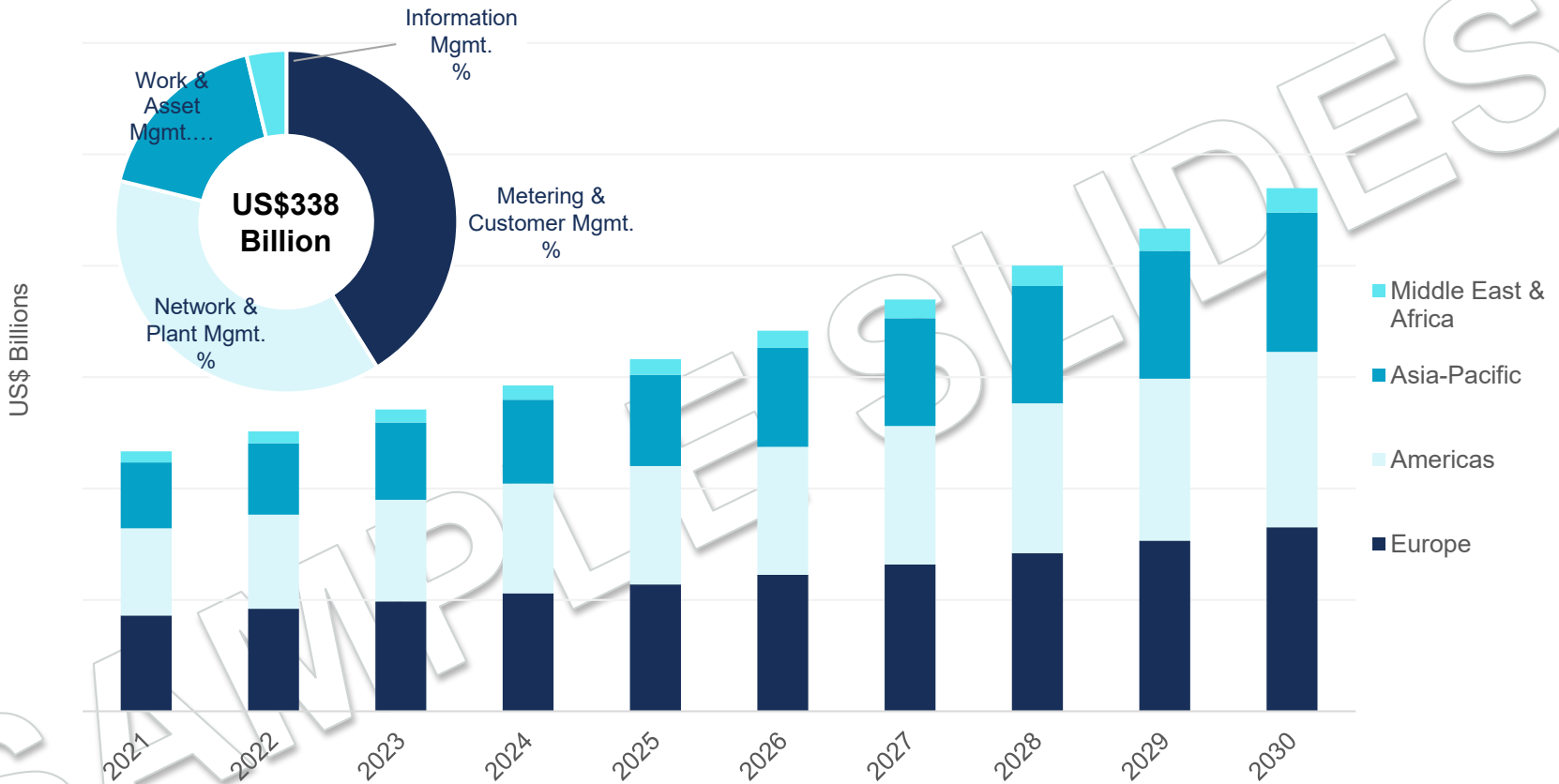
Product Category	Technology Segments	
Metering & Customer Management	<ul style="list-style-type: none"> • Mechanical Meters • Static Meters • Automatic Meter Reading (AMR) • Advanced Metering Infrastructure (AMI) 	<ul style="list-style-type: none"> • Meter Data Management (MDM) • Utility Billing / Customer Information System (CIS) • Customer Engagement
Work & Asset Management	<ul style="list-style-type: none"> • Computerized Maintenance Management System (CMMS) • Enterprise Asset Management (EAM) • Geographic Information System (GIS) • Network Modeling • Plant Design 	<ul style="list-style-type: none"> • Pipeline Condition Assessment Service • CCTV Inspection • Plant Asset Monitoring • Pump Asset Monitoring • Asset Failure Analysis • Asset Investment Planning (AIP)
Network & Plant Management	<ul style="list-style-type: none"> • Plant SCADA • Remote SCADA • Plant RTUs • Remote RTUs • Dataloggers • Fixed Leak Detection • Leak Detection Service 	<ul style="list-style-type: none"> • Flow Monitors • Quality Monitors • Level Monitors • Pressure Monitors • Network Operations Management / Decision Support • Network Optimization • Plant Optimization
Information Management	<ul style="list-style-type: none"> • Data Management & Integration 	<ul style="list-style-type: none"> • Compliance Management

Source: Bluefield Research

Pockets of Opportunity – Digital Water Spend for Top 45 Global Markets

Digital water spend in the 45 key markets covered in Bluefield’s forecast is expected to grow at an X% CAGR from US\$X billion in 2021 to US\$X billion in 2030, for a cumulative 10-year total of US\$337.9 billion.

Global Digital Water Forecast by Region & Solution Category, 2021–2030



Source: Bluefield Research



bluefield
RESEARCH

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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