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Digital Water Initiatives To Drive Digital Twin Adoption In The Global Water Industry

This research aims to explore a company's 'Growth Zone' in the water industry through digital twin opportunities. It analyses digital twin architecture, competitive landscape, evaluates potential OPEX savings, and pinpoints the key drivers and restraints influencing the market growth. The study presents a digital water index for 21 countries, highlights the top three strategic imperatives for participants in the water industry, and discusses competitors' various solutions and projects. It also lists ten key growth opportunities for market participants to capitalize on in this high-growth market. The global water industry's digital twin market was estimated at \$415.7 million in 2019 and will grow at a CAGR of 32.0% until 2026. A digital twin is an emerging technology-based application in the water industry; however, its adoption has some barriers. One of the main obstacles that Frost & Sullivan identifies is the lack of concrete evidence about the state of water infrastructure in different countries from a technological standpoint. This makes it difficult for stakeholders to decide on geography-based future investments. Frost & Sullivan developed an indicator in the form of a Digital Water Index, which gauges the sustainability of a country's water infrastructure and its adoption of transformative technologies such as AI, IoT, and cloud.

The digital water index comprises two indexes:

1) Water Index 2) Technology Index.

The water index is evaluated based on three sub-indexes:

1) Resiliency

2) Efficiency

3) Quality

Resiliency is evaluated based on a country's water resources, water-related disasters, risks, and vulnerabilities. • Efficiency covers water leakages, water metering and charges, service continuity, and water and wastewater reuse capabilities. • Quality considers water health, sanitation, water pollution, and environmental effects. The technology index is evaluated based on a country's strengths and opportunities indicated by four categories and 12 indicators.