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FROST & SULLIVAN

Excellence in Water Resourcefulness Award:

Network Intelligence

Americas

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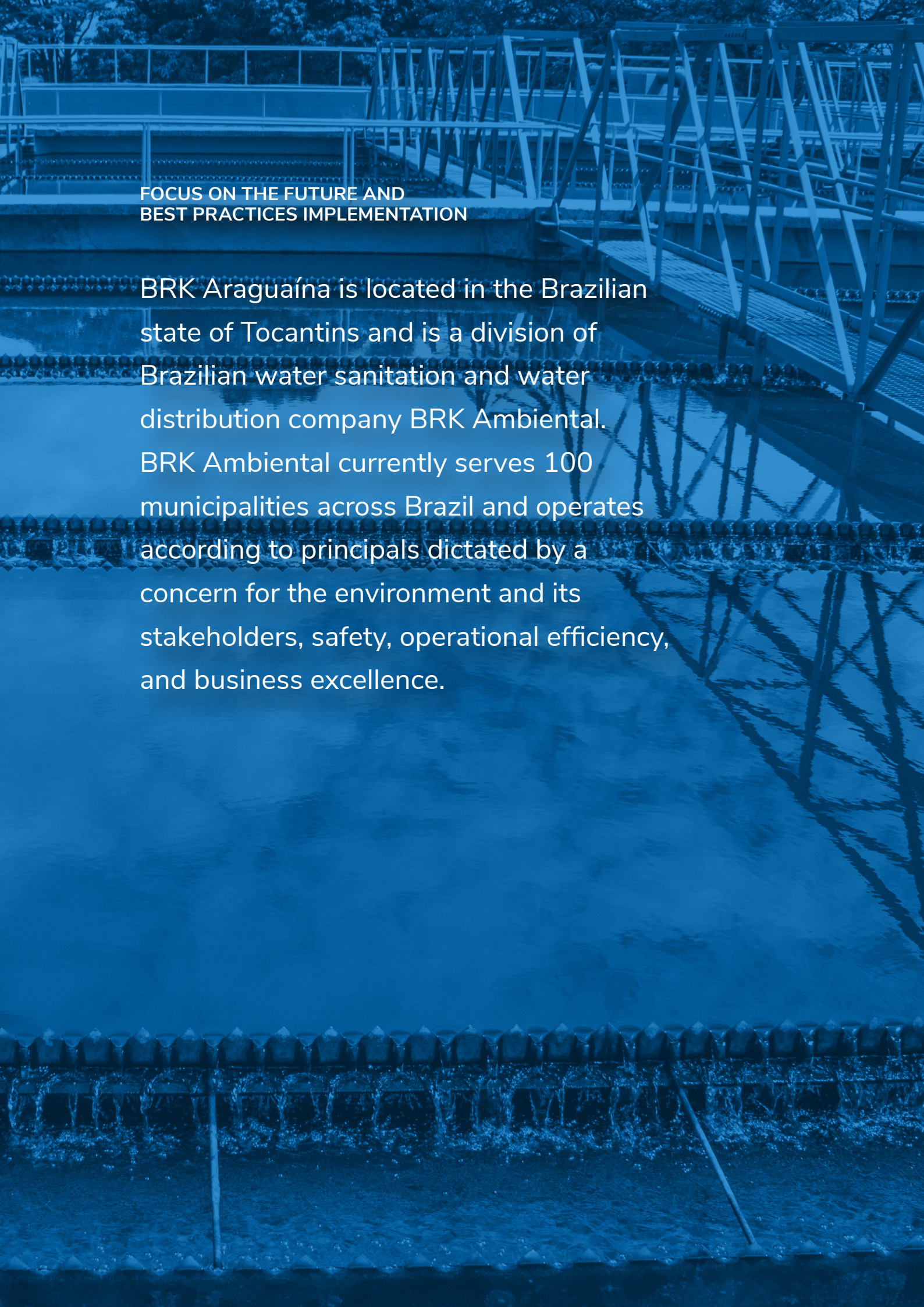
BACKGROUND AND COMPANY PERFORMANCE

Industry Challenges

To address the growing threat of water scarcity, municipalities are actively reevaluating existing water infrastructure with an emphasis on improving situational awareness and minimizing excess water loss.

By deploying an advanced metering infrastructure (AMI) solution, water utilities and residential, commercial, and industrial customers have access to hourly interval water consumption data. This interval data enables all parties to detect and address excessive and unknown water consumption and manage water spend budgets. AMI solutions also allow utilities to tackle non-revenue water loss, which can represent as much as 30% of total losses. This typically consists of main leaks, theft, tampering, unbilled consumption, and inaccurate meters.

Utilities that successfully leverage technology and service solutions can improve their resourcefulness and ensure optimal water use and consumption management. This best practice analysis recognizes a utility's resourcefulness when changing customer behavior and implementing technology that significantly reduced water usage and wastage.



FOCUS ON THE FUTURE AND BEST PRACTICES IMPLEMENTATION

BRK Araguaína is located in the Brazilian state of Tocantins and is a division of Brazilian water sanitation and water distribution company BRK Ambiental. BRK Ambiental currently serves 100 municipalities across Brazil and operates according to principals dictated by a concern for the environment and its stakeholders, safety, operational efficiency, and business excellence.

BRK Araguaína is located in the northern part of Brazil and borders the Amazon Rainforest. It serves 11 district metering areas (DMA), which is equivalent to approximately 1 million residents. The company struggled with major water losses caused by high water pressure issues, inadequate water management culture, and inadequate tools. To control cost and water capacity, the company was occasionally forced to be selective with its water distribution in its 11 water metering districts and consequently suffered high water costs and operational issues. After studying various solutions, BRK Araguaína decided to implement Itron's Water Operation Management solution and experienced immediate improvements. The solution was deployed within 5 months and has detected 31 leaks since February 2020 using Itron's Enhanced Operational Visibility software (part of Water Operations Management). The solution is designed to minimize leaks, reduce labor costs, optimize network operations, and proactively improve customer experience.

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	1-3 Poor	4-6 Fair	7-8 Good	9-10 Excellent
SOCIETAL IMPACT				
Improving customer awareness and participation				✓
Enabling behavioral change for reducing waste through customer engagement and technology-driven programs				✓
Yielding impressive waste reduction that benefits the overall community served				✓
BUSINESS IMPACT				
Drafting a clear vision to address excessive waste through technology implementation				✓
Achieving operational efficiency as a result of a successful sustainability strategy				✓
Strengthening a utility's brand image as a leader in sustainability				✓

Societal Impact

Improving Customer Awareness and Participation

While most customers were already very conscientious about water conservation due to their proximity to the Amazon, BRK Araguaína took it upon itself to further educate customers about the need to invest in enhanced water infrastructure and water conservation methods. This included utilizing Facebook, radio ads, and radio interviews. Further educating customers also helped strengthen its image as a water distributor, which had been damaged in the previous years due to issues with water leakage and high water costs. It has since been able to repair its customer trust and customer retention.

Enabling Behavioral Change for Reducing Waste through Customer Engagement and Technology-driven Programs

Customers are highly engaged and enthusiastic with the results, something that has been particularly regarding water loss reduction. For the past 2 years, BRK Araguaína has seen an annual 2.5% reduction in water loss and expects to bring it down to 4% in the next 2 years.

Yielding Impressive Waste Reduction that Benefits the Overall Community Served

Now using the proper water management tools, the company has successfully budgeted and planned for a consistent water supply across all its communities. BRK Araguaína's mission is to transform people's lives by guaranteeing quality water and sanitation and it will do so by leveraging Water Operations Management to visualize information in its water supply system, prevent leaks, and improve its operations and customer service.

Business Impact

Drafting a Clear Vision to Address Excessive Waste through Technology Implementation

BRK Araguaína is considered a pioneer in integrating water sanitation and distribution technology. It saw the clear value of implementing a water operation management solution that could optimize maintenance and extend its existing water infrastructure by implementing features such as operational visibility, leak management, and advanced pressure management. Through this, the company can reduce non-revenue water by gaining visibility into its network and identifying then prioritizing leaks.

It will also be able to prevent leaks with the ability to control pressure in the network. With access to innovative algorithms and dashboards, BRK Araguaína can holistically manage devices, software, and services to combat apparent and real water losses.

Achieving Operational Efficiency as a Result of a Successful Sustainability Strategy

Operational efficiencies have been a key cornerstone of the project. The project has lowered overall maintenance costs and extended the life of pipes by reducing pipe bursts with pressure management. By doing this, the company can avoid emergency repairs, call center costs, and field verification costs. One of the 31 leaks already detected was considered so large that if ignored, it could have caused a water outage for several thousand customers. Using early failure detection, the company has saved an estimated $121,683 in water recovery and $1.2 million in avoided costs.

Strengthen the Utility's Brand Image as a Leader in Sustainability

BRK Araguaína has become a model for sustainability for the region, setting a precedent for rolling out an effective conservation strategy. Through this it has developed a strong reputation for improving water quality and improving water infrastructure through predictive maintenance measures.

CONCLUSION

BRK Araguaína has delivered exceptional results through its strategic investments in advanced solutions that resourcefully manage its water supplies. With its strong overall performance, BRK Araguaína has earned Frost & Sullivan's Excellence in Resourcefulness Award for Water.

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myfrost@frost.com 877.GoFrost http://www.frost.com

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For information regarding permission, contact Perry Somers at:
Frost & Sullivan
3211 Scott Blvd. Suite 203
Santa Clara, CA 95054

psomers@frost.com

(360) 416-4982