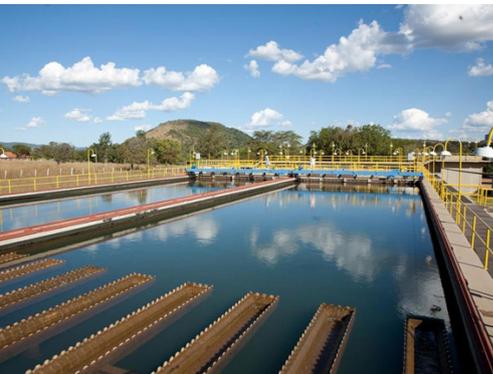


Odebrecht Ambiental (Water Utilities) – Saneatins Unit

Improving Productivity and Reducing Costs



Odebrecht Ambiental is an Odebrecht Group company – Brazil's fourth largest private group – that develops solutions to preserve natural resources and improve people's quality of life through its operations in the segments of water and sewage, utilities and waste. 'Saneatins' Unit has, since 2011, the provision of water supply and sanitation services of 47 municipalities in the state of Tocantins. The population served is 1,067,747 inhabitants and 317,941 water connections at the end of 2014, with a coverage of 99.8% of the water supply system.

“The Renoir Methodology ensured that, from the beginning of the project, the objectives were clearly defined which in turn provided greater sense of ownership of the identified benefits.”

Mario Amaro
Site Director

Key Results

Return on Investment: 4:1

15% increase in productivity of field teams

15% reduction in manpower costs

15% reduction in fuel costs,
6% reduction in fleet costs

PROJECT APPROACH

After successful implementation in Limeira Unit, Renoir Consulting was hired to assist the management team in identifying and implement process improvements, making it possible to increase the productivity of field teams, increase service levels and reduce operating costs in order to preserve its margin. As a result of field analysis, the scope was defined as Water and Sewers Network Maintenance, Billing and Contractors Management.

The project was developed and implemented in a 25-week period to deliver improvements in their management control systems, namely:

- Increased Productivity of Manpower and Equipment.
- Leasing expense reduction and Vehicle Maintenance.
- Reduction of the costs associated with Contractors.

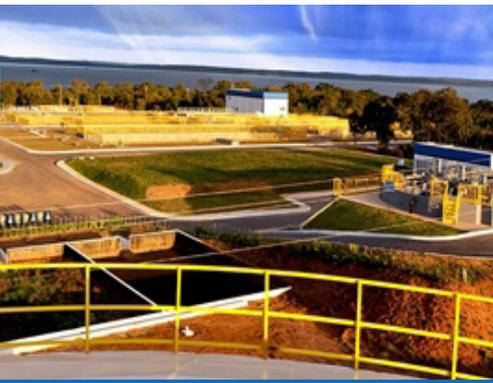
IMPLEMENTATION

Our Program and project schedule was clearly oriented by 3 important topics:

- **Network Management:** Reorganize equipment and maintenance management process, aiming to fulfill requirements, changing profile of execution into more preventative, increasing productivity and maximizing operational reliability, therefore contributing to reduction of volume losses.
- **Commercial Area – Reading and Revenue:** Develop a productivity management system to support commercial field agents, improving effectiveness of collection actions and identifying irregularities (planning targets and tasks, defining standard times and balancing resources, establishing metrics to implement productivity indicators and optimizing operational efficiency).
- **Operational Support / Contract Management:** Develop a management model focused on improve productivity of the operations teams, maximizing efficiency and effectiveness in meeting the business guidelines by reviewing compliance of the required service levels, as well as productivity required in the concessions, redesigning internal and administrative processes, resizing and balancing the activities and work schedules. To reduce services demand and review of payment of outsourced services control criteria.

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Renoir Change Management Methodology is built in order to consider the participation of all employees in the development and implementation of the solutions. Each of the Proposed Management System tool have been designed and developed in collaboration with our internal staff, criticizing and making suggestions on how to make it fit for purpose.

The tools and routines that were created, enabled additional control over the processes, which were supported with specific KPI's, enabling management to make swift decisions based on facts.

With the systems and indicators installed, focus was turned toward effective running of key meetings with the objective of establishing appropriate forums to discuss results and define root causes and corrective actions on a daily basis. During the course of the project the following system deliverables were met:

- Implementation of a management control system with appropriate key performance indicators.
- Transfer of knowledge, toolbox and systems with desired behavioral changes across the operational teams.
- Improved management capability and confidence in meeting established objectives and project mile stones.
- Well-defined roles and responsibilities for all the operational functions and support services.
- Management training and rollout of all developed systems, processes and practices.
- Transfer of all systems and processes related to activity planning, control and reporting, within the integrated management control system.

PROJECT RESULTS

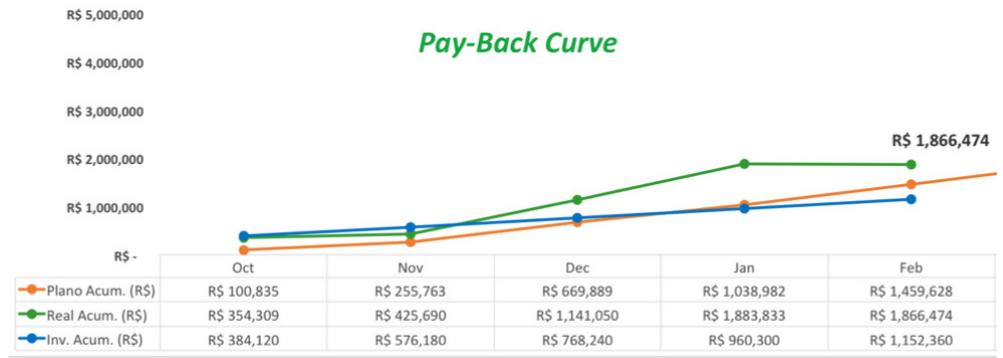
The objectives of the project were qualified and quantified in collaboration and agreement between parties, accordingly Renoir Methodology. This has ensured that from the beginning of the project, the objectives were clearly defined, providing greater sense of ownership of the identified benefits. It was developed with the participation of staff from the finance department, benchmarking a model that allowed reliability and security in proving such benefits.

Some of the benefits obtained out of the partnership between Odebrecht Ambiental Saneatins and Renoir:

Impact Area	Deliverables	Validated Benefits
Manpower	Weekly automated report generation (Productivity and Overtime)	Cost Savings – 15%
Field teams productivity	Utilization, efficiency and productivity of teams management	15% productivity improvement
Costs associated vehicles and equipment	Dimensioning of vehicles and equipment, displacement control and creation of support based on Taquaralto	15% reduction of fuel costs and 6% reduction in the cost of vehicle fleet
Outsourced security services, cleaning and temporary labor contract	Renegotiation of contracts, payment audits and new sheet for control and verification of measurements	6% reduction in the value of contracts
Electromechanical - compliance with preventive maintenance	Utilization, efficiency and productivity of teams management	12% increase in productivity of teams, reaching 100% in preventive water system and 60% in the sewage system
Commercial and physical losses	Planning, dimensioning and balancing of commercial agents and vehicles	Backlog reduction until the end of April

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ROI during the project: 1.5:1

ROI annualised: 4:1

THE RENOIR GROUP

Renoir Consulting is a world leader in sustainable, implemented change. Founded in 1994, Renoir has offices located in North and South America, UK, Europe, Turkey, Middle East, Southern Africa, India, Pakistan, China, South East Asia and Australasia. With over 350 fully employed and highly trained consultants, their work across a wide range of industry sectors gives them a broader perspective of the issues facing your business, allowing them to be sensitive to your unique challenges, culture and specific business issues. This cross-pollination ensures truly effective, rapid and sustainable solutions.

Visit Renoir at www.renoirgroup.com for more information and a complete list of regional contacts or send us an e-mail at: renoir.office@renoirgroup.com

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