



## Enabling AI in Energy

# Fueling Success: Raizen's Journey to Optimized Operations and AI-Ready Data Estate

Timely access to standardized data for AI and ML integration

Improved data accessibility  
Enhanced efficiency  
Facilitated self-service reporting

### Executive summary:

*Raizen, a prominent energy company and a branded distributor of Shell, has effectively restructured its operations to streamline costs, boost agility, and lay the groundwork for future opportunities in AI and machine learning. Raizen has harnessed valuable insights and elevated customer satisfaction through the consolidation of its Data Warehouse and the democratization of data access. Additionally, this endeavor has established a strong foundation for integrating AI and ML, promoting scalability, flexibility, and a culture centered around data-driven innovation. Raizen's strategic partnership with NowVertical serves as a testament to its unwavering dedication to excellence within the highly competitive energy sector.*

### Business needs:

Raizen, a major player in the energy sector and a Shell distributor, faced the critical challenge of balancing cost efficiency with the aspiration to lead the Latin American energy market. In a fiercely competitive landscape, Raizen recognized the urgent need to streamline operations, improve customer satisfaction, and enhance agility, all while managing the intricacies of data integration. They sought a solution that would consolidate their Data Warehouse, eliminate data access issues, and facilitate better decision-making across diverse business units to stay ahead in the industry.

### Business results after implementation:

- Enhanced data accessibility and democratization, leading to more informed decision-making across all business areas.
- Establishment of an internal "Data Market" for valuable insights, driving customer satisfaction and operational efficiency.
- Increased scalability and flexibility, enabling seamless self-service reporting and advanced analytics capabilities.
- Timely access to standardized data, simplifying AI and ML integration for future opportunities.

## Enabling Data-Driven Decision Making

### Overview:

Raizen is a prominent energy company operating in Brazil and Argentina. As Argentina's second-largest fuel sales company, Raizen serves as a vital distributor for Shell, one of the world's most renowned energy companies. Raizen recognizes the critical need to enhance customer satisfaction, optimize operational costs, and improve agility and scalability to achieve this goal. They sought the expertise of NowVertical, a data integration and analytics solution provider, to help them consolidate their Data Warehouse/Data Lake and leverage AI for operational enhancements.

### Situation:

Raizen, one of the world's largest producers of sugar, ethanol, and bioenergy, faces fierce competition in the energy industry. To maintain its competitive edge and attain industry leadership, Raizen aimed to excel in technological, environmental, and commercial aspects while ensuring cost efficiency and customer-centric operations.

One of Raizen's key challenges was streamlining its data management processes, optimizing costs, enhancing agility, and implementing AI-driven insights across various business areas, including finance, sales, marketing, supply chain, legal, aviation, and more.

### Approach:

NowVertical undertook a comprehensive approach to help Raizen achieve its objectives:

**Data Warehouse Consolidation:** NowVertical designed and implemented an architecture and strategy to consolidate Raizen's Data Warehouse/Data Lake. This consolidation streamlined data access, eliminated duplication,



and improved data trustworthiness.

### Development of Data Analytics Models:

NowVertical worked on developing analytics models across various business functions, including finance, purchase, sales, marketing, supply chain, legal and compliance, aviation, production, and planning. These models enabled Raizen to gain actionable insights for better decision-making.

**KPIs Automation:** NowVertical automated key performance indicators (KPIs) in critical areas such as fuels, logistics, inventory, promotions, market share, and purchase. This automation enhanced Raizen's ability to promptly monitor and respond to changing market conditions.

**Customer Behavior Analysis:** NowVertical implemented AI-driven customer behavior analysis, helping Raizen predict customer preferences and optimize customer experience through targeted marketing and product offerings.

**B2B Sales Predictions:** By leveraging predictive modeling, NowVertical assisted Raizen in accurately predicting B2B sales, ensuring alignment with business plans and key account strategies.

### Outcomes:

The collaboration between Raizen and NowVertical yielded significant and far-reaching benefits, setting the stage for future AI and Machine Learning (ML) opportunities:

## Enabling Data-Driven Decision Making

**Democratized Data:** The integration of the Data Warehouse eliminated access challenges, data duplication, and trust issues. Now, data is democratized across different business areas, empowering teams to make informed decisions. This democratization of data creates a fertile ground for future AI and ML initiatives, as diverse teams can access high-quality data for model development and experimentation.

**Internal "Data Market":** Raizen transformed its data into an internal "Data Market." This approach allows the company to extract valuable insights, enabling better decision-making and enhancing customer satisfaction. Furthermore, this internal data marketplace can serve as a playground for AI and ML projects, where data scientists and analysts can access a variety of datasets to train and test algorithms.

**Scalability and Flexibility:** The Data Warehouse consolidation provided Raizen with scalability and flexibility. This newfound agility facilitates self-service reporting, empowers analytics capabilities, and enhances business intelligence and predictive modeling. These capabilities are instrumental for scaling AI and ML initiatives, allowing Raizen to handle larger datasets and deploy advanced algorithms seamlessly.

**Timely Information:** Raizen now enjoys access to timely information within a standardized architecture for data management in the Data Warehouse/Data Lake. This standardized and structured data environment is essential for AI and ML, as it simplifies data preprocessing and model development.

**Enhanced Data Distribution:** The project improved data governance and sharing practices, ensuring better distribution of information across the organization. This enhanced data sharing is foundational for collaborative AI and ML projects that

require input and expertise from various departments.

**Standardization and Non-Duplication:** Data standardization and eliminating duplication issues have increased data reliability and trustworthiness. In the context of AI and ML, clean and consistent data is paramount for training accurate and reliable models.

**Data as an "Internal Data Market":** By democratizing data and making it accessible to various business units, Raizen has created an environment where data-driven experiments and AI/ML projects can flourish. Teams across the organization can explore data for their unique needs, fostering a culture of innovation. This culture of data-driven innovation sets the stage for future AI and ML endeavors.

### Conclusion:

The comprehensive data integration and analytics efforts undertaken by NowVertical have delivered immediate benefits and positioned Raizen for a future where AI and ML will be integral to optimizing costs, enhancing customer satisfaction, and achieving leadership in the energy sector. The groundwork laid in data quality, accessibility, and scalability has paved the way for Raizen to embrace advanced AI and ML technologies, making data-driven decision-making a cornerstone of its strategic initiatives.

The work completed by NowVertical for Raizen has laid a strong foundation for future Artificial Intelligence (AI) and Machine Learning (ML) opportunities, positioning Raizen to harness the full potential of these technologies in its operations. Here's how the groundwork sets the stage for future AI and ML initiatives.