

Leading Argentinian oil & gas company documents over 300 processes to ensure compliance and visibility for onsite workers in high-risk scenarios



Tecpetrol needed a way to document business processes in a standardized fashion to help replicate successful projects while ensuring compliance and efficiency. This was particularly important for onsite workers based at drill sites and oil & gas processing facilities who needed clarity to ensure safety and protect the local environment.

Tecpetrol established a BPM team to lead the project and used Bizagi to successfully document over 300 business processes across 10 departments in the space of a year. All processes are stored in a central web repository, offering transparency across the business and improving overall efficiency and environmental care.

Once all processes were captured, they established a culture of continuous improvement by using process models as a baseline and to identify bottlenecks and areas for improvement.

"Bizagi became a tool to communicate processes, improve and reengineer. During the shift in focus from documentation to improvement, Bizagi was instrumental."

Manuel Caride,
Process Management Project Engineer

Over 300

processes
documented



Established BPM
team

Objectives

- Document business processes in standardized manner
- Capture knowledge only known to project managers
- Enable workers to access process information
- Create clarity and ensure compliance for onsite workers
- Use processes to improve efficiency across business

Achievements

- Over 300 processes documented and stored in web repository
- Visibility and transparency across business processes
- Clarity for onsite workers in high-risk scenarios
- Established culture of continuous improvement, led by BPM team
- Ensure compliance and effectively manage risk
- Improved overall efficiency and environmental care

Overview

Tecpetrol, a leading Argentinian Oil & Gas Company with 6,400 employees and contractors, who have over 750 wells in production, had an ad hoc approach to business process management and documentation. A request came from directors of the company to create a standardized process documentation project. This would help to replicate success and ensure compliance and efficiency across the business.

Once the process documentation was complete, they used the process models to help drive continuous improvement and aid the company reach their goals of efficiency, safety and environmental care.

Challenge

Tecpetrol had recently seen success with a new development project in Vaca Muerta Basin, which in the space of 18 months saw them leap to producing 10% of all the natural gas in Argentina. The shareholders wanted to capitalize on the knowledge and success of the project and replicate it in other parts of Argentina. The decision was taken by the directors of the company to start documenting processes so they could easily be replicated.

Tecpetrol created a BPM department to manage the new initiative and ensure compliance and process quality. They had not previously used BPM in the business, so documentation used to take place with no formal rules, and each department had their own way of doing things, usually in Word Documents, but some used Visio if they needed to visually represent a workflow.

Visibility and transparency proved an issue for Tecpetrol when it came to process documentation. The information needed to perform processes was often stored across different departments and devices, or even just in people's heads. So the information needed to be uncovered, registered and documented. This would help to improve efficiency and safety.

"There were lots of changes that needed to be made and we saw that there was lots of value a BPM initiative could add to our business."

Manuel Caride,
Process Management Project Engineer

The initial requirement was to properly document processes, but once this project was complete, they then turned their attention to process improvement. In the oil & gas industry, the culture of continuous improvement is very important as new technologies and initiatives are always being launched. Tecpetrol were able to use their process models as a baseline for improvement projects.

Solution

The process documentation project was initially based on an APQC framework. The BPM team used this to fulfil processes for user experience. The more operational processes, such as those in the drilling and completion department who are responsible for building new wells, required a more tailored approach as they had special considerations, such as risk assessment.

Managing risk and assuring compliance was a major motivator for Tecpetrol to document their technical processes. While the processes do not detail how to work a specific machine onsite, they focus on key monitoring points, such as which risks need to be assessed before drilling begins.

The team used Bizagi's web repository to store all the documented processes and models. They were able to make use of the revision history feature and publish different versions of the same diagram based on revision comments when establishing new processes.

"Revision history and comments clarify a lot of confusion in documentation, so you can be sure you always have the latest version. It can get messy, so that feature clarifies a lot."

Manuel Caride

Results

The BPM team documented over 300 different processes across 10 different departments. Some were very technical, whereas some were more management focused. All processes are now standardized with all information officially documented in a web repository, so there is no guesswork onsite or relying on information that was previously only in supervisors' heads.

"It's easy to see the quantitative impact process documentation has had on operations. It can be difficult for engineers and supervisors in the field to know what information they were missing. But having processes documented and properly communicated makes everyday operations a lot easier. It guarantees that nobody misses any important checkpoints and standardizes the decisions of frontline employees."

Manuel Caride

Tecpetrol produces a commodity whose cost will always be driven by the oil & gas market, so customer experience is not their focus. Instead, their primary drivers are efficiency, safety and environmental care. Now that their processes are documented, they can ensure they meet these standards and also use them as a baseline for improvement. Process models mapped out in Bizagi allows them to identify bottlenecks and areas for improvement

The BPM team work on a daily basis with the performance monitoring team to work on process innovations and monitor performance with a focus on KPIs and consumption needs. They also use lean management and periodically evaluate improvement opportunities as part of a formal process assessment between the BPM department and process stakeholders. They would print out the process, stick it on the wall to walk through it and identify any weak points for improvement. During the COVID pandemic, they shared models over Zoom and discussed them while sharing screens.

"Now nobody doubts the way Tecpetrol writes and stores processes, so performance discussions always involve someone from the BPM team. It's an enlightenment in the improvement project."

Manuel Caride

The project is backed by the Managing Director E&P, and there is a company-wide effort to help people understand that process documents are not just something to be filled out, but a live document; there to back their efforts and decisions and to aid continuous improvement.

"When using Bizagi, our priority went from documenting and modeling to promoting a culture of BPM and continuous improvement. Bizagi became a tool to communicate processes, improve and reengineer. During that shift in focus from documentation to improvement, Bizagi was instrumental."

Manuel Caride