

**SPE-179968-MS**

## **Integrating Planning, Financial and Economic Data - Closing the Integrity Gap**

Diego Trivino, Natyuliz Lazarde, Elena Rincon, and Luisa Uribe, Schlumberger; Ivan Leon, Ecopetrol; Cesc Batlle, 3esi-Enersight

Copyright 2016, Society of Petroleum Engineers

This paper was prepared for presentation at the SPE/IAEE Hydrocarbon Economics and Evaluation Symposium held in Houston, Texas, USA, 17–18 May 2016.

This paper was selected for presentation by an SPE program committee following review of information contained in an abstract submitted by the author(s). Contents of the paper have not been reviewed by the Society of Petroleum Engineers and are subject to correction by the author(s). The material does not necessarily reflect any position of the Society of Petroleum Engineers, its officers, or members. Electronic reproduction, distribution, or storage of any part of this paper without the written consent of the Society of Petroleum Engineers is prohibited. Permission to reproduce in print is restricted to an abstract of not more than 300 words; illustrations may not be copied. The abstract must contain conspicuous acknowledgment of SPE copyright.

---

### **Abstract**

Alianza Casabe, a Technical Collaboration venture between Ecopetrol and Schlumberger in Colombia, was finding that ensuring data integrity between the planning, finance and economic models being used by different stakeholders for investment decisions required a substantial amount of interaction and data reconciliation. Economic scenarios were only appraised at a high level of granularity, reducing the ability to factor in economic metrics at the individual well or projects level, as part of the selection of the best possible portfolio. At the same time, existing systems were turning all planning milestones into protracted exercises demanding very high effort by all participants to deal with the intense manual data manipulation, reconciliation and quality control required. Alianza Casabe set out to enhance and simplify the planning processes, to improve efficiency in annual work plan preparation, facilitate performance tracking during execution and most important improve overall investment decisions quality.

The deployment presented several challenges to the planning team including: alignment of expectations across the Organization, rationalization of existing processes, definition of roles and responsibilities over the new solution, natural resistance to change, and the sheer technical complexity and breadth of the multiple integrations with incumbent systems that the deployment entailed.

Post deployment, Alianza Casabe experienced numerous benefits: Planning, finance, and economic models were now based on the exact same source data; the permanent availability of an "evergreen" view of the project portfolio enabled a faster reaction time to deviations from plan during execution and a faster reassessment of the portfolio in front of changing market conditions; increased execution efficiency due to better pre-requisites planning, rig scheduling and control; the unavoidable changes introduced to the plan due to rig scheduling, and their business ramifications, were visible with a much higher frequency and quality; trust in plan data and its successive updates across the stakeholder community was greatly increased; there was a substantial reduction in the effort required to handle data, due to the system integrations deployed; the generation of plan variants and what-if scenarios was significantly enhanced; quality of decisions enriched with dynamic economic information.

In conclusion, over a three years cycle, Alianza Casabe has seen a substantial improvement in its planning processes: the effort involved in the generation of a single version of the plan was halved, while providing much greater confidence in the plan data and a very substantial reduction in QC time; the

integrity gap they experienced between the planning, finance and economic models was eliminated; the use of economics for project high grading was utilized at a higher granularity level; robustness, traceability and reliability of planning data was greatly improved, leading to a more timely availability of reliable information; better support for the PDCA cycle (Plan, Do, Check, Act), enabled continuous improvement of the planning process. Management is now empowered to carry out faster and more frequent reappraisals of the project portfolio, with full consideration of the economic impact of business decisions.

The full paper is available for purchase at <https://www.onepetro.org/> or by contacting:  
3esi-Enersight  
[info@3esi-Enersight.com](mailto:info@3esi-Enersight.com)