



## Optimizing Work Quantities: Streamlining Calculations for Cost-Efficiency through Enhanced Traceability

### Challenge organisation

[Coninsa](#), a prominent Colombian firm, distinguishes itself through an extensive service portfolio encompassing Design, Construction, and Real Estate, both nationally and internationally. Specializing in the development, construction, and commercialization of premium projects, we contribute significantly to the country's progress.

Our projects cater to diverse needs, from residential and office spaces to warehouses and commercial premises. With expertise in Architecture, Engineering, Construction, and Real Estate Services, we deliver comprehensive, competitive, and reliable solutions across Housing, Commerce, Industry, Institutional, and Infrastructure sectors.

### Full description

At Coninsa, we embrace the BIM methodology, integrating it seamlessly into project structuring—from design and coordination to budgeting and planning. Our commitment extends to construction, where we leverage BIM for digital drawings and models, change management (RFI), work quantities, and AS-BUILT models. This not only enhances efficiency but also ensures precision throughout the process.

We tackled the challenge of advancing the BIM methodology for enhanced cost and schedule control, seamlessly integrating systems and workflows across diverse areas to mitigate unforeseen events and bolster productivity. During project execution, we grapple with issues stemming from manual information management, hindering the seamless comparison and timely analysis of data, thereby impacting budgets. Our goal is to implement a robust cost control system ensuring traceability among projections, consumption, and execution, crucial given that 95% of projects introduce budgetary changes.

Currently, Coninsa conducts monthly budget controls, a process spanning 8 to 12 days and involving 4 construction personnel. Challenges include projecting when budget availability falls short, difficulties in allocating and tracking costs, issues in accurately determining the executed value against the budget, and obstacles in maintaining real-time validations, inventories, and minutes. Moreover, it grapples with challenges such as fluctuating prices, delayed updates in the procurement database, and a lack of tools to promptly identify deviations from the planned schedule in relation to actual work execution.

A notable limitation is the absence of an alert system to assess the quality and reliability of budget control.

To address these issues, the proposal advocates leveraging digital technology to elevate construction productivity, streamline administrative tasks, and slash time spent on these activities by 50%, all while ensuring information reliability. This will be achieved by enhancing the timeliness of material orders through the automated linkage of budget quantities with BIM models. Anticipated improvements encompass a decrease in contingencies and errors in quantity extraction, seamless integration of Budget projected,

consumed and executed, quantities with BIM models at an accuracy surpassing 99%, as well as enhanced precision in cost allocation and contractor payments. Furthermore, the initiative aims to link quantities from BIM models to real-time price updates, optimizing change management and cost projection by connecting change quantities (RFI) directly to BIM models.

### **What we are looking for**

To effectively address the current challenge through digital technologies, the designated solver should possess specific capabilities and expertise in the following areas:

- **Data Reliability:** Proven experience in implementing solutions that ensure the reliability of data, guaranteeing both timeliness and accuracy in presentation.
- **Process Digitization and Automation of Budget Activities:** Proficiency in digitizing processes and automating activities related to budget management, with the goal of optimizing efficiency and minimizing potential human errors.
- **Simplification of Input Price Updates in ERP:** The selected solution should streamline the process of updating prices for crucial inputs in construction, such as cement, iron, concrete, and PVC. Integration with the ERP platform is essential for seamless implementation.
- **Automation and Continuous Information Flow:** Capability to implement automation and establish a continuous flow of information to address challenges related to the timely updates of costs and quantities. This automation should positively impact budgets, execution, and projection processes.
- **Robust Testing on Varied Budget Complexities:** The solution's efficacy must undergo rigorous testing across budgets of diverse complexities, encompassing varying activity levels. A pivotal aspect involves evaluating its performance on non-affordable housing budgets, ensuring its adaptability to more challenging scenarios.
- **Seamless Integration with ERP:** The system must exhibit compatibility and seamless connectivity with the ERP, ensuring smooth data synchronization. This integration is pivotal for the cohesive functioning of project-related data.
- **Integration with Impera for Enhanced Project Management:** Mandatory is the system's compatibility with Impera, the project management and control software based on the Last Planner methodology. Establishing a robust connection between Impera and the ERP is imperative, aiming to elevate the overall efficiency of project management.
- **Connection with Progress and Standardized Parameters:** The system should facilitate seamless integration with project progress and adhere to standardized parameters. This ensures a harmonious and consistent flow of information in alignment with the defined project standardization.
- **Seamless Integration with ERP Modules and Processes:** The proposed solution must seamlessly integrate with diverse ERP modules, including Financial and Administrative, quantity recording, Electronic Invoicing, and processes such as Accounting Management, Treasury, Legal, administrative document center and Supply Chain.
- **Comments and Approvals Centralization:** The system should facilitate the input of comments and approvals from on-site personnel, consolidating this information in a centralized platform for efficient communication and transparent follow-up. This centralized approach enhances collaboration and ensures clarity in the decision-making process.

- **Monthly Process Automation:** The implementation should feature functionality that automates monthly processes, swiftly identifying opportunities and facilitating well-informed decisions.

Additionally, it aims to record the actions taken for each decision, enabling retrospective analysis for continuous improvement. This automation not only enhances efficiency but also provides a structured and documented approach to decision-making and analysis.

### What we offer

Coninsa could offer the following Benefits to the Solving Entity:

- **Strategic Collaboration:** Forge a strategic collaboration allowing the solver to deeply understand the specific needs and processes of Coninsa Real-time.
- **Feedback and Validation:** Provide a testing environment with continuous feedback throughout the solution development, ensuring optimal alignment with the unique requirements and challenges of the construction sector.
- **Access to Real Data and Use Cases:** Grant access to authentic data and concrete use cases from CONINSA, enabling the solver to test and refine the solution in a real-world setting.
- **Showcase Opportunity:** Extend the opportunity to showcase the implemented solution as a case study, demonstrating its effectiveness in the construction industry.
- **Recognition as a Strategic Partner:** Publicly acknowledge and highlight the solver as a strategic partner that has significantly contributed to enhancing efficiency and productivity in construction project management.
- **References and Recommendations:** Supply positive references and recommendations endorsing the developed solution, which can be pivotal for other companies in the sector considering the adoption of the technology.
- **Present the chance for sustained collaboration to expand and continually enhance the solution in response to evolving needs and challenges within the dynamic construction environment.**

In essence, CONINSA provides an extensive and valuable partnership, enabling the technology company to cultivate and perfect a solution tailored to the intricate complexities of project management in the construction industry.

### Other

<b>Opportunity area</b>	Smart production
<b>Looking for partners in</b>	Europe; Caribbean
<b>Specific Areas</b>	Construction
<b>Technologies</b>	Big Data Analytics; IoT; Connectivity & 5G; Modelling & Digital Twin; Machine Learning

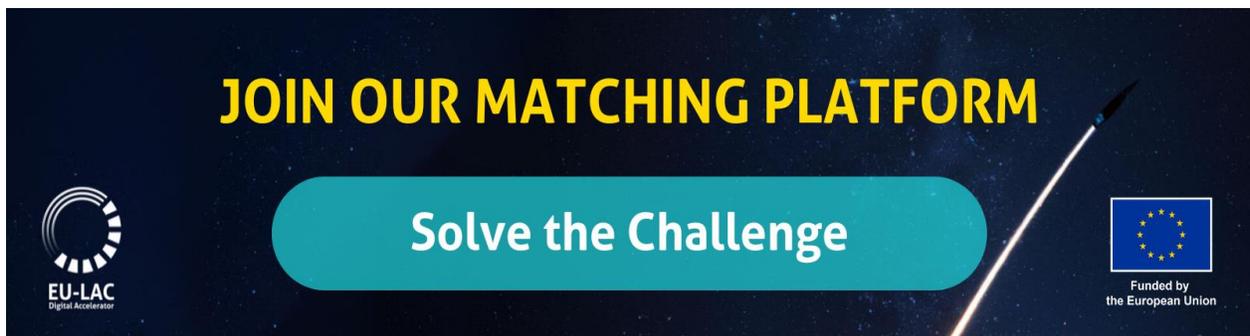
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If you are a startup with a digital solution willing to explore collaboration opportunities with this corporate, [join our matching platform](#) and let the open innovation game start!

If you are called by this challenge but have questions, do not hesitate to [contact us](#).

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