

KDD052 - Sales Pricing Process

Status	Approved
Owner	KUTANI-ext, Karunakar
Stakeholders	

Issue

Syensqo's current pricing solution is a commercial initiative from the CEM team designed to meet the requirements of the different business units and to support their different pricing requirements. The solution architecture is currently in disparate systems or tooling landscapes and has components that are not natively designed for pricing.

The tooling combines:

- a backend pricing data lake.
- a tailored optimization engine.
- a customized frontend.

The current architecture fulfils the immediate business requirement but has some drawbacks in that it does not easily support any scalability, interoperability, and maintainability.

Furthermore, the solution remains in project mode, as not all Global Business Units (GBUs) have been fully onboarded.

Several customizations have been implemented against the recommendation of the CRM platform team, which conflicts with Syensqo's strategic objectives of simplification and standardization. Therefore, as part of the ERP Rebuild program where the Lead to Cash Lifecycle is fully in scope, there is an opportunity to refresh the pricing solution in accordance with the project principles.

Resolution

It is important to acknowledge that the recommendation presented was not endorsed or approved. Instead, we will proceed with the option D that integrates with the existing pricing solution, which will be further refined during the Detail Design phase as requested by the business.

This note serves as a record of the decision taken and ensures transparency in the approach.

[Sales Pricing Process KDD Decision.pdf](#)

Recommendation

The recommendation is to implement Option A: Implement PriceFx as the price optimization engine, frontend, and analytical tool, and integrate it with S/4HANA.

Following the split between Solvay and Syensqo, all Global Business Units (GBUs) have unified around a common vision of innovation, exploration, and growth presenting an opportunity to rationalize the pricing infrastructure, optimize pricing strategies and enhance cross functional collaboration that support these strategic objectives.

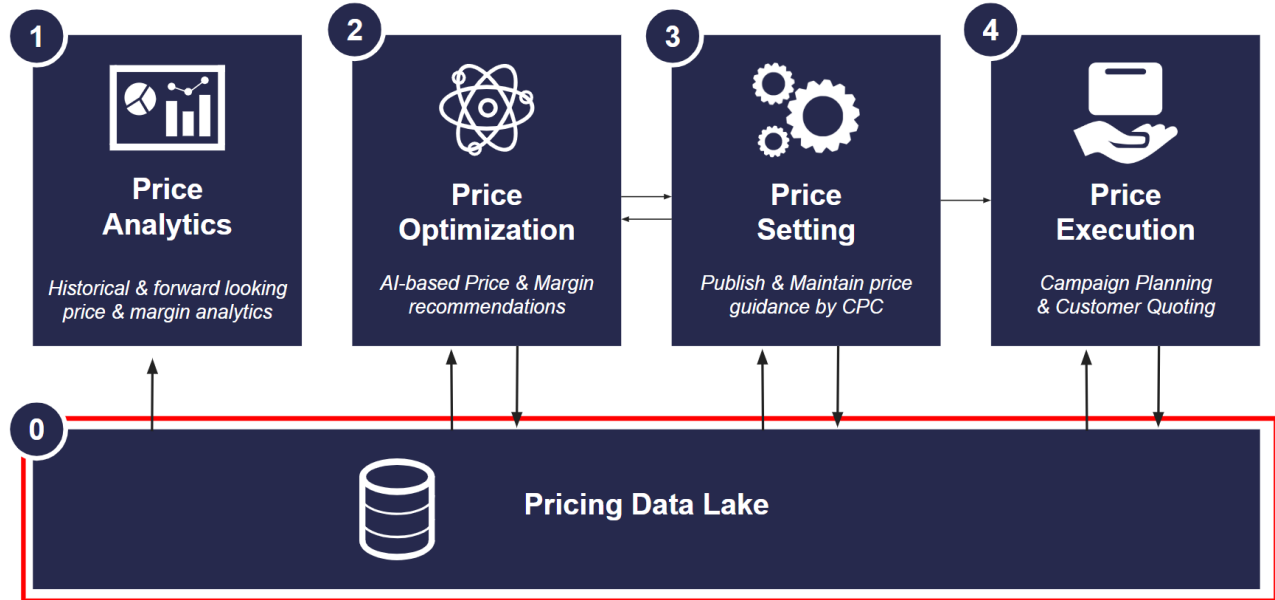
Recommendation highlights

- **Simplify Pricing Tools, Systems and Infrastructure:** Implement a cloud-based price optimization and management solution to support the end-to-end pricing process, including price setting, publishing, approvals, and execution with the aim to simplify the pricing infrastructure
- **Pricing Strategy:** Prebuilt pricing algorithms, data sets, guidance, templates, and models can be readily utilized to match the GBU's requirements. Additionally, individual pricing models specific to the nature of each GBU's business can be supported and implemented natively:
 - a. Predictive Commodity Pricing using market data, feedstock prices, industry inventory levels, and macroeconomic data to predict price changes.
 - b. Dynamic Transactional Pricing using a business-specific pricing algorithm by selecting and combining the right analytic tools, rules, and guardrails to frequently update and set precise target prices.
 - c. Value Based Pricing using regular segmentation of customer-product combinations, insights on key buying factors, perceived value and market conditions to set prices.
- **Pricing Transparency and Execution:** The impact on the bottom-line can be monitored using price and variance waterfalls, which provide visibility into the effects of pricing strategies and changes in financial performance. Additionally, tracking price deviations and assessing their commercial impact enables data-driven decisions.
- **Improved Collaboration:** A unified platform facilitates seamless collaboration among sales teams, pricing administrators, and customer service teams with the intention of streamlining communication and minimizing errors throughout the pricing lifecycle. From price setting to approval and then tracking the status of commercial pricing actions.
- **Simplified Integration:** Standard APIs facilitate seamless integration, simplifying setup and maintenance, while enabling real-time data synchronization for up-to-date and consistent information across source and target systems. Additionally, robust security measures, including encryption and authentication, ensure the protection of commercially sensitive data.
- **Common Reporting:** Ability to have data-driven insights with a unified and "out of the box" reporting and analytics platform, providing transparency into price, margin, volume, dispersion, leakage and other such metrics. Enables informed decision-making with the intention of refining pricing strategies, reducing costs, and boosting revenue.

Background & Context

The current pricing architecture is designed based on the following building blocks:

1. Pricing Analytics - Dashboards providing analysis of historical sales, volume, price, and margin evolution, as well as forward-looking cost and margin projections.
2. Price Optimization - AI machine learning model to optimize price targets and floor prices.
3. Price Setting - Module where frontline employees view pricing recommendations from Pricing Managers, review and commit price guidance.
4. Price Execution - Supports price setting and delivering the price to customers.



This architecture presents several challenges, including the following:

- **Integration Challenges:** The current architecture uses multiple connections to diverse systems, including numerous non-standard XLS files (e.g., production rates, freight costs etc.), to meet data requirements. Furthermore, it utilizes outdated technologies, such as OLEDB, which hinder efficient data management. The pricing optimization output is manually uploaded to custom applications (Pricing Campaign/WebApp) for price review and approvals, this process lacks seamless integration between the different pricing tools and operational systems, significantly delaying the price update process and hindering operational excellence.
- **Customization Complexity:** Modules designed for both backend and frontend tools are bespoke applications, including Pricing Campaigns, Regional Market Policies, Freight & Duty Guidance, and OneQuote. These customized applications result in significant technical debt, making maintenance and future enhancements increasingly challenging and costly.
- **Limitations of homegrown optimization:** The machine learning approach, which employs multiple independent models for each product family, requires significant resources and maintenance. However, complex machine learning models are difficult to interpret, making it challenging to understand the relationships between price levers and pricing decisions. Furthermore, relying on median price for recommendations fails to capture nuanced market dynamics. The approach is also vulnerable to data quality issues, model performance variability, and potential biases in pricing features value calculation.
- **Lack of Pricing Visibility:** There is a lack of transparency beyond the net price at the sales execution transactional level, with key price components missing (e.g. transportation costs). Additionally, discounts and rebates are not readily available, making it challenging to understand the true breakdown of the final price. This lack of transparency hinders a clear understanding of the pricing strategy, leading to potential errors, compliance issues, and missed opportunities for optimization at the sales execution level.
- **Data Quality Issues:** Ensuring data accuracy, completeness, and consistency is a challenge because the architecture relies on multiple sources. Furthermore, its reliance on XLS for specific data sets (e.g., Product Taxonomy, Variable Costs, Freight, Duties, Production rates etc.), requires manual validation which is resource-intensive and prone to human error.
- **Pricing Updates:** There is a delay between the release of a quotation and the implementation of new prices for pending orders. This delay can lead to revenue leakage, pricing inconsistencies, and customer dissatisfaction.
- **Misalignment with Strategic Objectives:** The current pricing process architecture does not readily align to the simple and standardized approach. The reliance on a homegrown solution, combined with bespoke enhancements and custom integrations, hinders data-driven decision making and could affect revenue growth, profitability, and operational efficiency throughout the sales cycle.

Assumptions

- Alternative solutions in this space, such as PROS, Vendavo, and Zilliant, have already been assessed in previous evaluations and therefore will not be re-evaluated in this current assessment.
- SAP S/4HANA will serve as the ERP (Enterprise Resource Planning) application for managing and executing customer records, sales contracts, sales orders, logistics, warehousing, transportation, billing, and rebates.
- Recommended approach is agnostic to the CRM solution implementation (ie. the options considered should be able to integrate with any best of breed CRM solution)

Constraints

- Gaining buy-in from stakeholders who may be attached to existing customizations and interfaces.
- Securing proper sponsorship and executive support to drive transformational change, ensure resource allocation, and champion the initiative across the organization.
- A clear and strong governance framework is essential for achieving agreement among Global Business Units (GBUs) on adopting standard solutions offered by the PriceFx cloud provider.

Impacts

- Any chosen solution will necessitate substantial implementation effort, but it's essential to recognize the significance of pricing as a key commercial lever that converts product value into sales revenue, directly impacting business profitability.
- System and Process streamlining will impact certain GBUs, requiring change management efforts to ensure a smooth transition.
- Ongoing projects
 - Price Optimization is being introduced to Novacare
 - Pricing Module Improvement: Expected in October 2024, this change will unify List Price and Recommended Price into a single field, reducing complexity.

Business Rules

- A quotation or contract is required before creating a sales order to ensure that accurate prices are reflected in the transactional processing. The latest prices in the quotation or contract are derived from the optimization engine's recommendation.

Further assessments will be done in detailed design phase.

Options considered

Option A: Implement PriceFx as the Price Optimization Engine, Frontend & Analytical tool and integrate it with **S/4HANA** including as a replacement of Dataiku.

Objective: This solution leverages PriceFx as a price optimization engine, frontend, and analytical tool to manage the end-to-end sales pricing process, integrating with **S/4HANA**.

Key Advantages:

- Provide pre-defined mappings that outline the fields, formats, and transformations required to ensure data consistency and accuracy during the integration process.
- Quickly respond to changing market conditions and customer needs through simple and intuitive interactions, enabling faster time-to-market and increased competitiveness.
- Automating pricing calculations and eliminating manual errors, helps to reduce costs and optimize pricing operations.
- Enables real-time collaboration among price teams and stakeholders, streamlining pricing decisions and ensuring alignment across the organization.
- Pricing conditions will be available in S/4HANA allowing other peripheral systems to source the pricing information from S/4HANA
- Advanced analytics and reporting capabilities, enabling data-driven pricing decisions and improved business outcomes.

Key Challenges:

- Strategic change management and executive sponsorship are required to drive adoption and alignment.
- High stakeholder involvement is needed to design and agree on across diverse Global Business Units (GBUs).
- Complex data migration and system integration is expected as many price drivers are maintained in custom objects and XLS sheets.

Option B: Implement PriceFx as the Price Optimization Engine, Frontend & Analytical tool and integrate it with **CRM** including as a replacement of Dataiku.

Objective: This solution leverages PriceFx as the price optimization engine, frontend, and analytical tool to manage the end-to-end sales pricing process, integrating with **CRM**.

Key Advantages:

- Aligns with the existing architecture of having pricing in CRM and available for Quotation management for customer negotiations.

Key Challenges:

- Pricing conditions will be integrated with CRM and only when the Quotations are created and released, the pricing will be available in the S/4HANA for Sales Order creation.

Option C: Refine and streamline existing Pricing Optimization and Frontend tool and integrate them with **S/4HANA**

Objective: Refine and streamline existing pricing optimization and frontend tools, integrating the outcome of pricing optimization recommendations with S/4HANA to develop and optimize pricing processes, improve system efficiency, and maximize the value of existing investments. This approach enhances pricing agility while leveraging S/4HANA's capabilities to support business growth.

Key Advantages:

- Utilize S/4HANA pricing capabilities to dynamically determine prices in Sales Orders, enabling a detailed breakdown of the final price composition.
- Avoids the high costs and disruptions associated with major system changes or redesigning efforts.
- Allows for focused resource allocation on necessary S/4HANA adaptations rather than widespread Pricing process changes.

Key Challenges:

- Continued management of existing pricing systems, processes and integration, leading to ongoing operational complexity and potential inefficiencies.
- Increased technical debt over time as the homegrown optimization solution needs constant updates tuning to internal and external impacts.
- Limited ability to standardize and optimize processes across GBUs, which may lead to inefficiencies and hinder collaboration.

Option D: Refine and streamline existing Pricing Optimization and Frontend tool and integrate them with **CRM**

Objective: Enhance and optimize existing homegrown Pricing Optimization solution, integrating it with CRM to further refine pricing processes, boost system efficiency, and capitalize on our current investment.

Key Advantages:

- Aligns with the existing architecture of CRM and prices available in CRM Quotation management for customer negotiations.
- Avoids the high costs and disruptions associated with major system changes or redesigning efforts.
- Maintains continuity by keeping existing processes and systems in place, minimizing the learning curve and operational disruptions.

Key Challenges:

- Pricing conditions will be integrated with CRM and only when the Quotations are created and released, the pricing will be available in the S/4HANA for Sales Order creation.
- Limited ability to standardize and optimize processes across GBUs, which may lead to inefficiencies and hinder collaboration.
- No alignment with ERP Rebuild program objectives to standardize & simplify the IT ecosystem, potentially leading to strategic misalignment and missed opportunities for synergies.

Evaluation

	Option A: Implement PriceFx as the Price Optimization Engine, Frontend & Analytical tool and integrate it with S/4HANA including as a replacement of Dataiku.	Option B: Implement PriceFx as the Price Optimization Engine, Frontend & Analytical tool and integrate it with CRM including as a replacement of Dataiku.	Option C: Refine and streamline existing Pricing Optimization and Frontend tool and integrate them with S/4HANA	Option D: Refine and streamline existing Pricing Optimization and Frontend tool and integrate them with CRM
Alignment with Simplification principle	+ Simplifies pricing architecture, removes bespoke developments, and streamlines integration, reducing complexity and enhancing collaboration.	+ Simplifies the pricing architecture, removes bespoke developments and streamlines integration.	- Simplification will only reach its full potential if bespoke applications and frontend tools are optimized.	- Retaining current complex architecture leads to missed opportunities and pricing efficiencies.
Alignment with Standardization Principle	+ Maximize the use of out-of-the-box strategies, while customizing them to meet the specific needs of each Global Business Unit (GBU).	+ Apply out-of-the-box strategies as much as possible however with customization option to fit to GBU's needs.	- Retaining bespoke developments for both backend and frontend pricing tools prevents standardization.	- Retaining bespoke developments for both backend and frontend pricing tools prevents standardization.
Integration Complexities	+ Utilize PriceFX's out-of-the-box APIs to integrate with S/4HANA and CRM, enabling seamless data exchange and streamlined workflows	+ Leverage out of the box APIs to integrate with S/4HANA & CRM.	- Redirecting the integration touchpoints to S/4HANA without fully optimizing existing architecture will increase complexity and overall TCO.	- Without optimizing existing architecture in the to-be setup will increase complexity and overall TCO.

		The pricing details will be available in S/4HANA only when CRM Quotations are created and released.		
Data Management	Unifies price setting and analytics processes with a single, harmonized data set, enabling accurate and informed decision-making.	Provides single data set for both Price Setting and Analytics processes	S/4HANA & DataSphere to be the single source of truth for both price setting and analytics	Continuing the existing architecture with fragmented data and XLS inputs will create data inconsistencies.
Collaboration	Streamlines price setting and execution by enabling cross-functional collaboration between CEM, GBU, and CSR teams, boosting efficiency and productivity.	Enables streamlined collaboration between CEM, GBU and CSR teams, improving efficiency in managing price setting and execution process.	Having separate pricing backend and frontend tools will continue to hinder collaboration	Data fragmentation hinders collaboration and efficiency in managing pricing approvals and execution.
Reporting & Insights	Provides actionable insights with out-of-the-box reports and dashboards, offering in-depth analysis and customizable Global and GBU level filters to inform targeted actions.	Out of the box reports and interactive dashboards to provide In-depth analysis for Global and GBU level filters to drive targeted actions	Empower informed pricing decisions with SAP Analytics, combining S/4HANA and CRM data for deeper insights.	Customized dashboards provide actionable insights tailored to GBU-specific requirements.
User Adoption and Experience & Change Management	Requires significant change management, impacting adoption.	Significant change management is required, which can impact adoption.	The business process will remain largely unchanged, resulting in a minimal impact on user adoption	Tailored experiences for each business unit with minimal change management required.
Pricing Process Validation	Significant testing required to fine tune the algorithms to fit to the GBU specific pricing strategies.	Algorithm optimization through comprehensive testing for GBU specific pricing strategies.	Already aligned BU's will adopt the pricing strategies and execution mechanism.	Already aligned BU's will adopt the pricing strategies and execution mechanism.

See also

Change log

Version	Published	Changed By	Comment
CURRENT (v. 36)	Sept 07, 2024 04:23	KUTANI-ext, Karunakar	
v. 35	Sept 06, 2024 15:15	NARAHARI-ext, Bhargavi	
v. 34	Sept 05, 2024 10:23	KUTANI-ext, Karunakar	
v. 33	Sept 05, 2024 07:23	KUTANI-ext, Karunakar	
v. 32	Sept 05, 2024 07:18	KUTANI-ext, Karunakar	
v. 31	Sept 05, 2024 07:14	KUTANI-ext, Karunakar	
v. 30	Sept 05, 2024 07:12	KUTANI-ext, Karunakar	
v. 29	Sept 05, 2024 07:05	KUTANI-ext, Karunakar	
v. 28	Sept 05, 2024 07:02	KUTANI-ext, Karunakar	
v. 27	Sept 04, 2024 14:39	GONZALVEZ-ext, Antonio	

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Workflow history

Title	Last Updated By	Updated	Status
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There are no pages at the moment.

Workflow history

This view shows the 5 most recent entries. The complete workflow log is available from the 'Document Activity' menu item.

Sept 11, 2024	Actor	Type	Activity	Version
Approved	 FALL-ext, Cheikh	State	changed state to Approved at 8:35 am	v36
Pending SteerCo Review	 FALL-ext, Cheikh	State	gave <i>Final Approval</i> approval at 8:35 am	
		State	changed expiry date to '25 Sept, 2024 08:35 am' at 8:35 am	
		State	changed state to Pending SteerCo Review at 8:35 am	v36
Edited following Stakeholder Review	 FALL-ext, Cheikh	State	gave <i>Minor change</i> approval at 8:35 am	
Sept 07, 2024				
	KUTANI-ext, Karunakar	Edit	updated the page at 4:23 am	
		State	changed state to Edited following Stakeholder Review at 2:24 am	v36
Sept 06, 2024				
Pending SteerCo Review	 NARAHARI-ext, Bhargavi	Edit	updated the page at 3:15 pm	
		State	changed expiry date to '20 Sept, 2024 01:18 pm' at 1:18 pm	
		State	changed state to Pending SteerCo Review at 1:18 pm	v35