

Fusion Implementation Update

ISSUE

The City is well underway with its implementation of SAP, which is an Enterprise Resource Planning (ERP) system. The City's SAP implementation (which occurred in 2021 and 2022), was internally branded "Fusion" which aimed to modernize and standardize City processes, achieve best practices, improve the City's data, and enhance the City's effectiveness and efficiency.

This report provides an overview of the City's progress as compared to the original business case, the benefits that have been realized, and on-going challenges.

BACKGROUND

In 2016, Deloitte was retained to prepare a business case to assess the viability of an ERP system. An ERP is an integrated system of business processes that organizations use to manage business activities and facilitate the flow of information across business units. It allows for the integration of systems and creates a holistic view of the enterprise to support decision making.

The business case was presented to City Council during the 2017 Preliminary Business Plan and Budget on November 30, 2016 in the [Service Saskatoon - A Technology Update](#) report. The Business Case provided a current state assessment, case for change, target state as well as a preliminary cost/benefit analysis.

It is important to note that Deloitte's business case focused on informing the City's decision-making process and to validate the best options to be considered as the start of the City's business transformation journey.

The recommendation provided by Deloitte was based on select processes to best demonstrate the potential nature of efficiencies that could be achieved by the City. It did not presume the solution/product, the implementation partner, the implementation path and timeline, or the business transformation decisions that would ultimately be selected by the City.

Subsequent updates were provided to City Council to report the progress of the Fusion (ERP) Program:

- Governance and Priorities Committee, at its meeting held on August 24, 2020, received a report called, [Enterprise Resource Planning \(Fusion\) Program Update](#).
- Governance and Priorities Committee, at its meeting held on May 17, 2021, received a report called, [Fusion \(ERP\) Program Update](#).
- Standing Policy Committee on Environment, Utilities and Corporate Services at its meeting held on November 7, 2022, received a report called, [Fusion Project Update and Future Reporting](#).

CURRENT STATUS

The City is in the process of transitioning out of the capital project phase for the ERP implementation and into a normal operating practice to continue supporting the business transformational work, which is critical to the ongoing improvements of the system and City processes overall.

DISCUSSION and ANALYSIS

The Cost/Benefit analysis provided in the Deloitte Business Case outlined a 10-year timeframe of estimated savings and efficiencies less annual operating costs of maintaining the ERP system (starting with the year the ERP system goes live as year one). For the purposes of this analysis, savings and efficiencies are quantified and qualified in three main forms:

- **Hard Cost/Tangible Savings** – These items result in reduced cash outlays and budgetary requirements. Examples are the retirement of old software systems and licensing requirements, reductions in staffing to complete certain processes, or utilizing improved data to advance preventative maintenance or procurement approaches.
- **Soft Cost/Intangible Benefits/Efficiencies** – These items result in intangible savings or efficiencies that do not directly result in reductions in cash outlays or budget requirements; however, would increase organizational capacity and potentially reduce and/or offset future budget requests. An example of this was mentioned in the previous [November 2022 Administrative Report](#) where the automation of the leave report process, which is estimated to have saved approximately \$1.28 million/year in staff time, helped build capacity for future work without additional budgetary requests.
- **Improved Risk Mitigation and Controls** – These items result in better process compliance controls, reduced risks, reduced manual errors, improved decision making, and business process improvement opportunities.

The sections below describe the status of each area of the Deloitte Business Case, and Appendix 1 contains this information in tabular form.

ERP Annual Operating Cost

As Appendix 1 shows, the Deloitte Business Case assumed an annual ERP operating cost of \$2.1M to \$3.3M from Year 1 to 10 post Go-Live, which covered the annual software license and maintenance costs of the ERP system.

One of the major contributing factors to the forecast variance is that the original business case only included annual software and licensing costs, and assumed that any ongoing requirements would be addressed by existing staff. Through implementation, it became evident that a variety of new controls, improved processes, technical expertise, and system requirements were needed to support the SAP system and continue to drive change throughout the City. While the City has been able to address some of these

requirements through redeployment of staff whose work has significantly changed, the new business process requirements and support of the ERP system does require a larger ongoing investment than originally assumed in the business case.

Software and Maintenance Cost Savings

The Business Case assumed software retirement savings of up to \$469,000 starting from Year 4 post Go-Live. To date (Year 3 post Go-Live), the City has been able to retire systems and save approximately \$598,000 annually (based on latest actuals). These savings have been used to help offset the ongoing costs of the Fusion program, including SAP licenses.

Procurement and Inventory Savings

A large portion of the savings (from \$1M to \$5M starting from Year 4 to 10 post Go-Live) identified in the Business Case were not tied to actual system processes themselves. Instead, the business case assumed that the City will have more timely and accurate data and reporting. This can then be used to make better decisions and facilitate the positive shift from a tactical to strategic procurement approach.

Strategic procurement involves identifying key areas of spending within the business. It also identifies ways of adding value through carrying out market analysis, managing supplier relationships and ensuring that appropriate purchasing decisions are made, including leveraging City spending to achieve Indigenous and social procurement initiatives.

Some examples of the initial tangible savings that have emerged due to the procurement reforms enabled through Fusion are:

- Annual expenditures for copy paper is reduced from \$55,000 to approximately \$29,000 per year, with the move of procurement process to ERP from manual paper process; and,
- The new three-year office supplies contract price is \$340,000 lower than the previous contract.

As outlined in the Business Case, realizing further tangible and intangible benefits will continue as the City builds a more robust, accurate, and meaningful dataset and subsequent reporting system. Access to accurate procurement data has and will continue to enable the City to achieve savings. As existing contracts come due, they will be evaluated for savings opportunities.

For inventory management, the Deloitte Business Case assumed a 20% reduction in inventory cost resulting from the centralization of seven inventory stores. However, the Business Case did not anticipate the level of complexity, effort, lead time, and investment cost needed to transform the current state. Some of the limitations that are impacting the ability to achieve the forecasted savings include:

- The capital investment needed (in the order of \$5 M) to move four inventory stores into a centralized modern facility (e.g. warehouse facilities, racking system, etc.) was not included in the Business Case; and,
- Many of the City's inventory/stores locations are complex and located nearby to the divisions/departments they serve (i.e. Transit, SL&P, Fleet, Water and Waste Water Operations). The business case did not fully evaluate these complexities in a fully centralized model, which would require staff from decentralized areas to travel to a centralized stores location to pick up materials (or for centralized stores to deliver materials to job sites or satellite yards). More work is required to determine the most efficient and effective way to deliver the City's inventory needs.

The Business Case also assumed a higher level of maturity in baseline inventory processes and reliability of data relative to the status quo, thus resulting in a longer time to realize the tangible and intangible (by modernizing and standardizing inventory processes) savings in this area.

Efficiencies

The Business Case alluded to efficiency gains from process improvements in Human Resources, Finance, Work Orders, Payroll, and Supply Chain of \$700,000 to \$3.5M starting from Year 5 to 10. The City appears to be on-track to achieve the mid range of these estimates.

With the implementation of SAP, the Administration has started to see some initial benefits/savings particularly from the EAM (Enterprise Asset Management) implementation in Saskatoon Water and from Human Capital Management (HCM). For example:

- Staff time savings / reallocation (approximately \$1.28M) corporate-wide with the more automated leave reporting in SAP;
- Reduction in overtime (estimated at \$271,000) due to better knowledge of equipment status; and,
- Savings (approximately \$100,000) on pump maintenance from better data-driven decision making.

In many cases, the Administration has seen efficiencies in specific steps in processes. The gains from these efficiencies are being reinvested to support the new business process steps, controls, and technical environment.

A good example of this is the City's procure-to-pay process. The ERP implementation has enabled a full end-to-end process, which includes controls and processes that the City did not previously have such as three way matching of purchase requisitions, purchase orders and receiving documents.

Under the previous control environment, approval was silo and paper based where the purchase requisition gave approval for the initial procurement, and the invoice gave

approval for Accounts Payable to pay the invoice. The two processes did not link to one another and created significant segregation of duty, process, and fraud risk. Implementation of a full procure to pay process has been a significant and positive risk mitigation change to the organization.

Implementation Challenges

The Business Case was a high-level snapshot that did not foresee some specific nuances that usually come after ERP implementation. For example, the City's current labour relations environment creates challenges as there are 12 different Collective Bargaining Agreements to maintain, each with slightly different terms and conditions, which required significant work to ensure systems are properly configured, frequent manual intervention during implementation, and the need for additional system customization and tools. Examples include:

- Maintaining nearly 900 different job descriptions;
- Hundreds of different rates of pay, multiple vacation schedules and accrual rates;
- Completing a payroll run every week of the year which is not the most efficient process or utilization of staff resources; and,
- System complexities for concurrent (employment at the City and/or multiple Boards and Corporations) employment opportunities.

Although these new business process challenges exist, it is important to note that the challenges are not due to the implementation of the system. The previous process environments had significant risk and required review and modernization, as well as implementation of enhanced controls, regardless of the implementation of an Enterprise Resource Planning System. Essentially, the City was at a cross roads with two options:

- Option 1 – Mature existing processes and controls through the ERP system; or
- Option 2 – Mature existing processes through additional manual processes.

The City ultimately proceeded with Option 1. Although Option 2 would have less upfront cost, expanding the City's previous paper-based control environment would have been considerably more resource intensive over the long term, likely would have resulted in increased risk exposure, and would not have enabled automated data reporting.

The City has also seen some change management and adoption challenges and complexities. Although the Business Case and implementation approach anticipated challenges, they were underestimated. Each civic department was at a different level of process maturity, and had varying capacities to be able to take on the implementation in their areas. For example, a properly resourced department with mature processes had better ability to make the shift than an under-resourced department with immature processes. This has impacted the rate at which new processes, controls, and requirements have been adopted.

Some of the main adoption challenges include:

- Process maturity gaps between pre-SAP baseline and desired future state, which takes time to review, plan, and address;
- Assessing system capability with current business processes, and reconciling these processes to fully utilize the benefits of the system; and,
- More time and resources needed for better reporting, data entry, and improved data quality and reliability.

Summary

Overall, the costs and benefits identified in the Deloitte Business Case are still relevant to the City of Saskatoon. However, the Administration has become more aware of the limitations of not having an end-to-end business process analysis completed as part of this Business Case.

There has been and will continue to be savings associated with program implementation. New investments will also be required in some cases to achieve long term savings, such as centralizing some aspects of inventory stores, and to ensure appropriate staffing levels are in place to continually drive forward business transformation.

Some key benefits and highlights that have been achieved to date include:

- Automation – The removal of paper-based processes and moving to automated workflows has resulted in significant efficiencies corporate wide. While new processes have added some new steps and been a steep learning curve for many employees, we continue to see progress and improvements organizationally;
- Increased Data Availability – The system has put into place a significant amount of new data that did not exist before. This includes data regarding planning and scheduling as part of Enterprise Asset Management or procurement information regarding the City's spend and control deficiencies. The Administration continues to work on improvements to reporting to get the data into a more useable format for decision-making purposes; and,
- OneCity Approach – We continue to see more progress towards the ultimate vision of OneCity. Under the old system structure, staff moving between departments within the City often had to learn new time and attendance, work planning, and finance processes. The SAP system has provided the foundation to continue to grow as OneCity and provide standardized data and processes to each department and employee.

The Administration remains confident, and has seen initial benefits, that a transition to an Enterprise Resource Planning system will result in improved data, improved efficiencies, better internal controls, and overall improved processes. This business transformation continues to be a journey to see the savings and efficiencies as outlined in the Business Case.

FINANCIAL IMPLICATIONS

As reported in the [2023 - 2025 Budgetary Pressures and Trends](#) report at the March 17, 2023 Governance and Priorities Committee meeting, the ERP implementation is currently being funded through a capital project, and project funding is expected to be fully spent by the end of 2023. A plan for go-forward program funding will be included the proposed 2024/2025 Business Plan & Budget Process.

The ERP implementation came with the goal of achieving significant savings, efficiencies, and improvements in controls, and strong progress has been made. However, as anticipated in the business plan for this stage of implementation, there is still much work to be done to fully realize these improvements. Continuing to support the business transformational work is critical to the ongoing system improvements and City business processes overall.

NEXT STEPS

The City will continue to report efficiencies and savings realized as a result of the ERP Implementation through the City's Service, Savings & Sustainability Report.

Considering the complex nature of the changes and the need to ensure SAP benefits are fully realized throughout the City, the Administration believes that formal audits, perhaps by department, could add significant value. Unless otherwise directed, the Administration will work with the City Auditor on a concept and framework for such audits, and report back with options to the appropriate Committee. For example, one option that will be considered is that the audits could be conducted by subject-matter experts throughout the organization, using a process sanctioned by the City Auditor.

APPENDIX

1. Business Case Estimates vs Forecast

Report Approval

Written by:	Dave Ong, Fusion SAO Senior Portfolio and Technical Manager Jill Cope, Fusion SAO Program Manager Chelsey Mack, Director HR Shared Services and Talent Management
Reviewed by:	Clae Hack, Chief Financial Officer Marno McInnes, Chief Human Resource Officer Mike Jordan, Chief Public Policy and Government Relations Officer Meka Okochi, Director of Organizational Strategy Execution
Approved by:	Celene Anger, Chief Strategy and Transformation Officer

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