

# THE DISTRICT OF SQUAMISH

# Application Technology Roadmap

(2016-2019)

November 6<sup>th</sup>, 2015

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# Introduction

The District of Squamish recognizes the need for new, modern application software and systems in order to: keep up with demands for information, improve business processes, enhance services provided to the community, and gain operational efficiencies.

Strategic planning is required to achieve the goal of a modern, connected organization where useful information is readily available to decision makers, staff, and the public. In the technology age, connected, easily accessible systems are as important as brick and mortar infrastructure. Citizens rightfully expect to have local government services available online and to have easy access to the information they need. Efficient services and open transparent government are only possible with a modern system foundation.

The Application Technology Roadmap project was launched in the spring of 2015 to thoroughly assess the current application technology state, prioritize the District's needs and put forward a recommendation on the approach and investment required to modernize the organization's systems and optimize services we provide.

A significant commitment is required by the organization and its leaders for a successful implementation of these recommendations. This will not only require budget allocation, but also ongoing dedication to change management practices. A large scale effort will be required to get the organization caught up and an ongoing commitment to keeping up with technology, and continuing to improve processes and service, will need to be instilled into the District's culture.

# Background

# **IT Mission Statement:**

"Our mission is to protect District resources, make long term plans based on innovative and standardized technology, and provide maximum benefit from technology. The District of Squamish's IT Department integrates people, processes, and technology to increase the efficiency and effectiveness of District services. Our primary goal is to provide excellent customer service for all users based on effective communication, reliable infrastructure, and partnering across service units to identify and implement technology benefits."

Over the last few years, the IT department has invested in and developed its network and virtual server infrastructure and sought to centralize major software purchases.

In addition to operational benefits, this work has set a solid foundation such that the District can move forward with a key action item of the 2014-2016 Service Plan: an in-depth technology review to identify District software needs and to subsequently search out and invest in systems. This review was intended to support the Service Plan's goal of continuing to "improve the provision of District services and strengthen organizational performance for the benefit of all residents and stakeholders".

This technology review and investment needs to incorporate key principles from the 2014 IT strategy, highlighting the need for interconnectivity of major District systems while promoting collaboration and

leveraging best practices.

# **Current Application Technology State**

Prior to the Roadmap process it was recognized that major District systems were nearing end of life and needed to be replaced or upgraded. Many systems in place now fall short due to a lack connectivity and integration, outdated technology, limitations on functionality and significant gap areas that require manual workarounds.

As a result there are:

- challenges in obtaining timely, reliable data to inform operational and strategic decisions;
- increases to staff time spent on low value activities such as data entry, manual workarounds and extraction and reconciliation of data;
- barriers to improving the range and quality of services to the public;
- increasing maintenance costs to maintain and adapt aging and unsupported systems;
- growing levels of citizen frustration due to a lack of modern functionality;
- and incapacity of staff to focus on proactive / enhancement initiatives.

With a modern and reliable network and virtual server infrastructure now in place across all District sites, there is a solid foundation for the implementation of systems that could address these issues.

Of the current systems in place there are also some modern, organization-wide, core systems that are offering significant organizational benefit. These include the ESRI geographical information system and SharePoint for document and records management. The District will retain these systems and integrate them with any future solutions in order to fully leverage their capabilities.

With these components in place, the project team began the detailed process of developing recommendations to deliver critical District wide applications to areas with the greatest need and highest return on investment.

A project team was formed in spring 2015 with the objective of leading an application technology review and putting forward a recommendation. Supported by the Core Leadership Team, the project was led by the Information Technology department and included project team members from key areas with both technical and software implementation experience in their fields. In addition, the District retained professional consulting services to assist in requirements gathering, production of the Roadmap, and facilitating workshops and exercises from a neutral perspective.

The project team began with a series of 40+ workshops over a 2 month period that covered all departments along with cross functional areas. These workshops identified specific current system deficiencies, gap areas, issues / concerns, and improvement opportunities. The resulting output was captured in the form of hundreds of functional requirements that new systems would be required to address. The project team collated these into distinct solution areas and undertook a period of analysis, external research and prioritization in order to develop this strategy.

During this process, the project team issued a Request for Information and Qualification (RFIQ) for Municipal systems to gain a better understanding of the range of suitable solutions available. The RFIQ outlined the District's key technology requirements; and responses provided detailed feedback from possible vendors, including order of magnitude costs to implement and support these systems. The insight gained from these RFIQ responses was central to developing both the Roadmap recommendation and the investment strategy.

The Application Technology Roadmap Project is now complete with the development of a holistic systems strategy and roadmap that takes into account current, future and overlapping District needs. This project is a top strategic priority and includes the following key milestones to date:

- ✓ Current state assessment
- Future state requirements gathering
- RFIQ market scan to obtain order of magnitude costs and vendor options
- Solution analysis and prioritization
- ✓ Development of a sound, Core Leadership Team (CLT) endorsed, recommendation

The final milestone for this phase is the adoption of the Application Technology Roadmap Report by Council.

# Recommendation

The critical finding from the workshops was that current applications are in dire need of replacement and there are automation gaps across almost every department. As a result, the District is in catch up mode when it comes to its application infrastructure. Investment is required to gain technological parity compared to similar sized municipalities and provide departments with the tools necessary to improve customer service.

Based on all the information collated by the project team through workshops, review of RFIQ responses, prioritization exercises and subsequent analysis, the recommendation put forward is:

- there be strategic investment in a number of new systems that will address a distinct set of technology need area's in a holistic manner;
- a hybrid solution approach be followed ERP system at the core supported by a small number of "Best of Breed" systems that have proven relationships and integration points;

- implementations be in a staggered manner and spread across four years in order to balance costs, departmental resources and organizational capacity for change;
- sequencing of implementations be established upfront and driven by a well-defined logic that balances needs with both technology and organizational constraints;
- and, a commitment is made to change management and project resourcing throughout the project to ensure success

# **Recommendation Details**

# **Solution Approach**

Enterprise Resource Planning (ERP) solutions integrate multiple applications into one product, thus addressing a wide range of functional requirements within a single data repository. In contrast, "Best of Breed" solutions are standalone and concentrate on offering rich functionality in one particular area.

The project team's research found that a full ERP solution to address all system needs is neither realistic, for a municipality of this size, from a budget perspective, nor desired from a strength of product perspective. RFIQ responses were received from the next tier of ERP vendors whose solutions address a number of functional areas whilst detailing integration opportunities with other well developed systems to address gap areas.

Pairing a few larger systems that offer multiple points of functionality yet can be connected through a core solution, positions the District to best achieve its objectives. The hybrid solution provides:

- fewer disparate systems to learn and understand (simplifies training and increases user adoption);
- cost savings in implementation, training and support;
- powerful reporting, dashboards, and benchmarking capabilities with common and/or linked databases;
- significantly lowered complexity and effort of integration work;
- and, the rich functionality of Best of Breed's paired with the breadth of ERP's

In following this approach the project team recognizes there are some situations where niche software is appropriate: no integration requirements, low cost and support overheads, and requiring specialized technology that existing larger systems cannot offer. It's proposed that niche solutions only be pursued in these circumstances.

# Implementation Approach

Given the extent of technology change and the size of the District, a "Big Bang Approach", of launching all the new systems required, at one time, is not recommended. The organization does not have the capacity to absorb and process the rate and level of change effectively, nor the resources required to manage the range of implementation and support activities required.

The project team proposes a building block approach, with phased rollouts and staggering of functionality to ensure:

- reasonable resource load on training, support and operational staff;
- early successes and visible improvements build support and momentum;
- any issues or concerns can be corrected before moving onto the next rollout;
- costs are spread over a wider time period;
- and, project team activities can be staggered to make efficient use of resources.

A four year period is proposed to complete all recommended implementations, with new systems and modules being launched at various intervals throughout that time period.

#### **Solution Area's**

The hundreds of functional requirements gathered were whittled down and grouped into a number of key solution areas that represent a distinct technology need. The aim of the exercise was to address at least 80% of the functional requirements and deliver the optimal organizational benefit.

Solution areas where new software is recommended are summarized below.

#### **Financial Management**

•Replace the current standalone, near end of life and under-performing system with a new solution that will handle all of the municipality's financial needs. This solution should offer significantly more modern capabilities and form the backbone that all other key systems will integrate to

#### **Development Management**

•Automate the land and development related activities, spanning multiple departments, currently being managed via paper files and manual processes

#### Recreation

•Replace the current CLASS software nearing end of life

#### **Asset Management**

• Launch a common asset registry for all departments that will offer risk management and forecasting capability. This system needs to integrate with both the financial solution and any asset related Work Management.

#### Fire

•Replace the current unsupported Fire system with one that better integrates with other district systems and dispatch services

#### Work Management, Complaints, HR, Council Meeting Management

•Launch additional modules and capabilities of the District's new ERP solution to address these additional needs or purchase Best of Breed solutions that can integrate with existing systems

#### 2016 Quick Wins

•Address some specific, short term needs, either through the purchase of niche software or provision of additional internal tools where possible

### Sequencing Methodology

As noted, it is impractical to implement all the systems at the same time and as such different solution areas were prioritized for implementation before others.

In putting together the proposed timeline the project team took great care and attention to prioritize the systems in a logical sequence that builds on the functionality and strength of the core systems already in place. Recommendations are based on extensive brainstorming, analysis, and prioritization exercises that considered multiple factors:



# **Application Technology Roadmap Timeline**

As part of the recommendation the project team has developed a proposed timeline that indicates a schedule and duration for each implementation. This timeline is indicative only, and will be heavily influenced by the systems chosen once procurement begins. At that point, a detailed implementation plan will be developed with vendors and may result in some minor adjustments to the plan below.

	Legend:		Prep (Initiatio	on & Planning)			Implemental Monitoring, a	ion(Executing, and Control)			Completion ( transfer of de				Post Implemen Support	ntation		
	Year 2016 Prep for new systems, kick off Finance and implement some quick wins				Year 2017 Launch the new Finance & Development Management Solutions				Year 2018 Replace outdated Asset Mgmt, Recreation and Fire systems and introduce strategic planning tools				Year 2019 Complete the roadmap with last major system implementations and launch any additional functionality available				Year 2020 Start new roadmap to address any gaps and keep pace with technology growth	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
					Financial M	lanagement												
						Devel	opment Mana	gement										
Key System									Recre									
										Asset Ma	nagement Fire							
											File	Strategic Plann	ning Analysis					
Implementations												Strategierram	• •	nagement				
														plaints				
														HR				
														Council Meet	ing Managemei			
												ļ			Additional Fu	nctionality		
Quick Wins	a na n	ty Engagement Iterim solution																
Ongoing Roadmap Activities	Pro	ocurement, Cł	hange Manag	ement, Syster	m Integration	, Process Imp	rovement, Re	porting & Das	1board devel	opment, Roa	dmap refinem	ient, Open Dat	a considerati	ons, Agile op	portunities,	<b></b>		
Other system projects of				GIS Open	Data Portal												New Roadma	ıp
	SharePoint Completion and Portal SCADA system upgrades for WWTP																	
	Online payme		n upgrades for	WWTP			_											
relevence		g Module enha	ancements															
		udit & interfac																

Each major system implementation has been broken into phases that will have distinct activities and resource requirements.

- Q1 2016 has multiple prep stages for key implementations to represent the planning required to deliver a holistic, integrated solution.
- "Ongoing Roadmap Activities" represents streams of work that will span the entire length of the project under the phased approach.
- Other projects that may have an impact on required resources have been identified and indicated in grey.
- Prep time has been indicated for Strategic Priorities and additional functionality whereby new systems will be fully assessed for their capability to address additional needs. Additional modules from new systems will be launched where suitable.
- The Roadmap is an iterative strategy, after the 4 years it's expected that a new 2020 Roadmap project will launch to handle deferred needs and the cyclical process of technology planning.
- Supporting Details for the sequencing of this timeline and the functionality relevant to each solution area are in Appendix's A & B.

### **Detailed Solution Diagram**

The following table outlines the major components for each of the system solutions being proposed. The diagram provides a reasonable summary as to the complexity of the proposed implementations.



#### **Benefits**

The team's recommendation seeks to deliver significant benefits and functionality to the District. The detailed list per solution area is available in Appendix B. The high level benefits anticipated from successful delivery of the technology identified include:

- Automation driving improved operational efficiencies
- Enhanced functionality offering new opportunities and improving service for staff and citizens
- Centralized data that is reliable, accessible and offers a single source of truth
- Modern services for the community and businesses, particularly online
- Mitigating risk of data loss due to aging/unsupported systems and manual tracking methods
- Capacity to deal with growth in the community while maintaining service levels
- Modern systems, better equipped to handle emerging business requirements, new government regulations, and support Open Data initiatives

Benefits will be incremental as systems and modules are launched and the District becomes more familiar with the new capabilities and opportunities. These will be visible both during and after the roadmap term.

Please refer to Appendix C regarding more information on ERP stages and benefits.

# **Factors for Success**

# **Change Management**

This strategic four year timeline, as proposed, will require and result in significant change for the entire organization. The District must ensure that *Change Management* is adopted and embraced as part of the cultural fabric of the organization. Change management practices will be integrated at the core of the implementation plan, ensuring every employee in the organization learns how to handle change and is supported through adjustments to structure, culture and routines. Although Change Management is not a line item in a budget, it will require the commitment of internal resources throughout the implementation timeline.

# **Project Management and Staff resources**

Strong Project Management and appropriate staff resourcing are required to both ensure an optimal product implementation and to avoid prolonged implementation periods. The longer an implementation takes the greater the risk of failure and as such, internal resourcing should not be a project constraint and has been budgeted for accordingly in the Investment plan.

This includes:

- A full secondment for the Financial Management implementation. As the most complex and critical implementation, this internal resource will provide a finance specific skillset to advise on end to end process flows, make business decisions and act as consistent knowledge base for all financial aspects of the new systems.
- Backfilling of subject matter experts across multiple departments will be required. These subject matter experts will provide detailed information to support the new system configuration, aid in the development of process flows, and conduct user testing within their specific field.
- Permanent IT resourcing to support new systems from midway through Year 2 (2017) will be required. An IT professional with advanced skills in the areas of database management and SQL programming will be essential to optimize the capabilities of new systems and provide support.
- Temporary resources to support Business Analysis and Project Management activities will be required. Large system implementations are complex and challenging, and require strong project management to reduce the likelihood of project budget overrun, scope creep, and schedule slippage. Business Analysis skills are also critical to ensure delivery on anticipated benefits while alleviating some of the workload on subject matter experts. Reliance on software vendors to fill these roles usually comes at a substantial cost and is challenging in the case of multiple systems. It's highly recommended that District resources undertake these activities to offer continuity across a number of vendors and ensure the long term interests of the District are at the core of each implementation.

# **Technology Selection Guiding Principles**

In support of the roadmap recommendation a number of guiding principles have been established that will be used to ensure system selections will deliver on anticipated benefits.

• Scalability - The community and organization are growing rapidly, solutions need to be future-proof.

- Buy versus build, little to no customization The District has a small IT team with little capacity to support complex custom solutions. Where possible, an out-of-the box solution that is easy to maintain and upgrade is preferred.
- Limit the complexity of integration Larger ERP type systems are preferred to limit the number of system integrations, which can be difficult to maintain and support. Where system integrations are necessary, they should be simple and straight forward.
- Proven Technology The District prefers municipal solutions that have an install base with successfully operating implementations.
- Improve processes / gain efficiencies the team would like to demonstrate ROI through improved processes and efficiency gains.
- **Connected / single source of truth** Departments need to be connected, be able to share information, and use a single data source where possible.
- **Support Open Data** Council has expressed the need for the organization to embrace open data and open government principles. New solutions must support the drive to implement these principles.

# **Investment Strategy**

The District of Squamish serves a vibrant and growing community and has a need to modernize its systems to improve organizational efficiency and meet the growing demand for services. Given the current state of District systems (or lack thereof) this modernization exercise is comprehensive and requires significant investment of money, time and effort to achieve the desired benefits. This Application Technology Roadmap report recommends an investment that will:

- Improve corporate business systems to support District operations
- Improve management of data and sharing of information, fostering collaboration with staff and with the public
- Achieve operational efficiencies and improve overall service delivery

Without investment in key core systems the District of Squamish is constrained in its ability to function effectively and will fall short in the measures identified in the 2014 - 2016 Service Plan (e.g. Customer Satisfaction, Internal Business Process Efficiency) and strategic priority areas outlined in the 2015 - 2018 Council Strategic Plan (e.g. Implement technology upgrades and tools to support customer services by March 31, 2018).

# **Investment Details**

The total capital investment to deliver on this Roadmap recommendation has been estimated at approximately \$3 million over a 4 year period. This amount includes all system purchases, implementations, and additional resources required to ensure successful delivery.

The substantial benefits arising from this investment have been noted in both the roadmap and Appendix B. Commitment to this funding over a 4 year period will enable the District to move forward with the procurement process and establish detailed implementation plans with chosen vendors that will solidify timelines and functionality.

# **Investment Calculation**

All costs are indicative at present and based on the project team's best knowledge from assessment of and order of magnitude information contained in, RFIQ responses. Exact costs and timing of payments will be dependent on the product selected, contracts signed and final implementation plan.

# **Comparative Capital Spend**

A review of similar sized municipalities has revealed a wide range of capital IT investment, ranging from 1.5 to 9.5% of overall capital budgets. The District of Squamish has historically been at the lower end of this scale at 2% over the last few years.

This roadmap investment would bring the IT Department's portion up to approximately 5% of the total capital budget when averaged over 4 years (based on 2015 total budget). This increase is reflective of the fact the District is in 'catch up' mode and is comparable to indicative figures from municipalities who've undertaken similar modernization exercises.

#### **Investment Timeline**

Based on the suggested timeline, the costs associated with achieving these implementations are broken out in the graph below. Investment is highest in the first two years as the ERP solutions that will address financial and development management needs are implemented. Once in place, capital costs drop as additional functionality is launched and complimentary smaller solutions are purchased and integrated.



Additional operational costs slowly rise with the introduction of new systems, but will be offset as aging systems no longer require support and maintenance. Towards the end of the roadmap timeline, capital costs will taper off with ongoing operational maintenance and support costs continuing on. From mid-year two this will include a new Database Administrator position that will provide support, perform maintenance, and leverage the maximum potential from new systems.

The graph displays an ongoing capital investment of \$200k from year 5 on. This is a high level estimate and the actual capital investment required after this point will detailed in the 2020 Roadmap. It is important to note that the 2015 Roadmap only identifies capital investment required up to and including Year 4.

#### **Cost Breakdown**

Over the 4 year implementation period, approximately one third of the cost is allocated to providing sufficient resources to have the requisite skills and experience available to successfully implement these new systems. The bulk of the system costs will be allocated towards an ERP type solution that will address the majority of functional requirements.





- **Core ERP Solution**: Financial Management, Development Management, HR, Strategic Planning and other areas of additional functionality
- **Other Key Systems**: Asset Management, Work Management, Recreation, Fire & Council Meeting Management
- Quick Wins: Community Engagement, EOC notifications and interim measures for Fleet and Fire

# **Return on investment**

Due to the size and scope of the Hybrid solution, it is difficult to calculate Return on Investment (ROI) in terms of cost savings however comments from other municipalities on the benefits of implementing ERP solutions are useful indicators:

"The Township's financial team says there are numerous examples of where Langley's 1,000 full-time and part-time employees are operating more efficiently, reducing or redeploying hours to more important duties, while savings in just two easily measured job functions show three-year cumulative savings of nearly \$250,000."

The Township of Langley, BC

"It is difficult at this time to quantify the annual cost savings/cost avoidance. Previous implementations by Oracle/SAP have typically resulted in a 10-20% return on investment realized 80% by year 5 after the implementation. The savings come from more productive and efficient business processes; avoiding costs associated with creating legislatively compliant cost accounting systems and retiring old systems."

The City of Kitchener, Ontario

# Conclusion

The Application Technology Roadmap outlines a 4 year capital intensive program that will transform the application technology infrastructure and the business environment at the District. Its recommendations are based on thorough review and incorporate the key strategic initiatives that position the District to respond to business needs and citizen expectations.

With a focus on implementing systems that add business value, improve access to services for citizens and businesses; this approach will result in improved operational performance, a more open government, citizen satisfaction and a higher level of confidence and trust in the District as a public institution.

# **Next Steps**

If the Application Technology Roadmap is adopted by Council, it is imperative that the project team keeps momentum and continues to make progress toward implementing new application software. The longer implementation is delayed the more resources will be expended on workarounds, redundant functionality and operational inefficiencies.

Immanent next steps will be:

- 1) Product demos with major ERP vendors and their associated partners
- 2) Site visits to similar sized municipalities utilizing the major ERP vendor software
- 3) Selection of an ERP vendor/software (with Council & Budget approval)
- 4) Preparation of a detailed Implementation Plan

# Future steps - 2020 roadmap

This Roadmap spans a 4 year period at the end of which it's anticipated that a 2020 Roadmap project will be undertaken. Technology planning is a cyclical process. Technological advances are continuous and will drive new system requirements both internally and externally from the community and regulatory bodies.

It's not practical from a time or budget perspective to address 100% of the District's technology needs at one time, so priority has been given to core systems that deliver the highest value. Whilst all departments will benefit from the new systems, some areas that require niche solutions yet have viable workarounds at present have been deferred in the interests of overall organizational benefit. The 2020 Roadmap will likely address the deferred needs areas directly in addition to incorporating any technology and organizational changes.

Having updated all the core systems, the District will no longer be in 'catch up' mode and it's expected that the next Roadmap will be a much simpler exercise with a significantly lower investment cost.

The IT Roadmap project team has spent six months collecting data on current systems and required improvements. Each and every department has expressed and validated a need for new, more modern systems to improve their operational business processes. As a result, the project team has carefully reviewed each system to determine how to prioritize the various solutions.

The flow diagram below outlines the sequencing for the major systems and provides the key elements as to why they were sequenced within the recommendation. Although these discussions were sometimes difficult as some departments could be waiting years for help, it is the Project Team's belief that we have reached consensus within our team, and in partnership with the Core Leadership Team.



#### **THEN Asset Managment**

- •Needs to come after Finance due to integration/vendor selection
- •but before Work Mgmt (as likely same vendor)
- •waiting until 2018 for project resources

#### **THEN Strategic Priority Tools**

- •Key large systems will be in place, providing data & databases to link to
- •what's been delivered & what's required

THEN Work Management, Complaints & HR

•Building off new systems in place to leverage their additional functionality

### THEN additional functionality

•With others implemented can identify any additional modules / functionality that could roll out

#### **Quick Wins & Niche areas**

During the review the project team identified several software requirements that did not fit within an ERP solution and had no integration needs. These requirements could be met via the purchase of small niche solutions or could be addressed via enhanced use of current solutions such as GIS and SharePoint. As a result, implementing these systems can be accomplished without corporate wide resourcing and provide some immediate relief in specific pain areas. Some of the following solutions are provisionally planned for implementation in 2016.

#### **Community Engagement & EOC Notifications**

- •Minor niche softwares with no integration, anticipating low overhead on IT
- •Further website development provides platform for new add-ons and tools

# Fleet (Interim)

•For Fleet, large white boards are used to track work and vehicles. Staff have been waiting for a solution for 3+ years already. A solution can be implemented in the interim until fleet will be handled holistically with the fully implemented asset and work management solution.

#### Fire

- Due to the Fire system being obsolete and unsupported, a solution path is not certain as more research needs to be conducted to determine if the team can leverage the Development Management and HR solutions to meet their needs. An interim Incident solution is required and the team will determine if this can be handled by leveraging the GIS system or trialing a niche incident software.
- High concerns on continuing with current unsupported version of software
- •Alternative would require an investment of additonal time & resources to upgrade to a supported version of the current system which still leaves functionality gaps
- Firefighter safety concern with current system and lack of information on scene

#### **Council Meeting Tools**

- Little to no integration required but longer implementation with greater impact on IT resources
- No additional capacity in Yrs 1-3 to implement this
- A system is currently in place, where other areas have no automation or software is near end of life.
- Complaints module of the current solution has been recently flagged as a higher risk then originally anticipated, currently investigating urgency in this area

# **Appendix B - Benefits by Solution Area**

Solution Area	Benefits/Functionality
Financial Management	<ul> <li>Flexible GL account segmentation structure and rebuild the chart of accounts to alleviate a framework that no longer functions</li> <li>Integrated payroll functionality to track all salary, wages, benefit costs, overtime, sick / vacation leaves, statutory deductions and all other payroll related costs. (HR benefits with relief from double entry)</li> <li>Provides comprehensive Accounts Payable functionality. Including workflows for the submission, approval and tracking of purchase orders and invoices and the ability to link purchases back to project costing and Budgets</li> <li>Provide comprehensive Accounts Receivable functionality. Improves the tracking of deposits. Ability to generate simple effective invoices for all municipal revenue streams.</li> <li>Allows for the automation of the bank reconciliation process including automated matching of transactions</li> <li>Provides comprehensive BC specific functionality for the generation and collection of property, parcel and frontage taxes</li> <li>Provides comprehensive BC specific functionality for the utility billing process. Including meter read importation, cycle billing and collection of utility revenues</li> <li>Supports all municipal government financial reporting requirements along with a comprehensive array of industry standard processes, tools and reports to handle daily, monthly and annual reporting and business requirements.</li> <li>Basic Work Management</li> <li>Better project management (including capital projects)</li> <li>Comprehensive Online Payments &amp; A single cash receipting system</li> <li>Improved Budget experience - A Budget solution that can handle the development and tracking of capital and operational budgets and aligns with the underlying General Ledger reporting structure</li> </ul>
Development Management	<ul> <li>Online Portal whereby the Public can submit a wide variety of building and development related requests and track their progress. Facilitating communication between the District and the applicant including notifications and document sharing</li> <li>Dashboard to support the tracking and coordination of all building and development related requests, tasks and activities. View on a geographical and list basis and drill down further to obtain details</li> <li>Manage and track all Enquiries, pre-applications and Applications through to completion on a geographical basis. To include supporting work flows and associated documentation</li> <li>Manage and track Service Agreements on a geographical basis. Including business process supporting work flows, documentation storage and the management of security deposits and warranty periods</li> <li>Online Payments</li> </ul>
Recreation	<ul> <li>Comprehensive improvements to online registration and bookings, including new registration portal</li> <li>Improved Community Engagement</li> <li>Reconciliation with Financials</li> <li>Utilization Improvements (reporting &amp; opportunities)</li> </ul>

Asset Management	<ul> <li>A single Asset Registry that meets TCA and PSAB 3150 requirements and can be used to manage both financial and non-financial assets, as well as spatial and non-spatial assets.</li> <li>Central repository for all Asset related transactions, tracking and reporting</li> <li>Inspections and Maintenance functionality that can manage both scheduled and unscheduled activities and includes planning, scheduling, workflows, and notifications</li> <li>Tools to assist with long term capital replacement planning, future asset planning for growth, modeling capability and risk assessment</li> <li>Inventory specific functionality to enable tracking of inventory by location and department along with associated costs.</li> <li>Project Management functionality that is linked to both the Financial system and Work Orders and enables both project tracking capability and job cost reporting</li> </ul>
Fire	<ul> <li>Automated incident reporting reduces substantial manual processes</li> <li>Ensures all pertinent safety and health information is delivered to the Fire Team appropriately and accurately</li> <li>Improved access to current mapping information through Dispatch</li> <li>Integrated training and certification that supports provincial requirements and tracks time</li> <li>Lessens organizational risk and Health and safety concerns</li> </ul>
Strategic Planning Analysis	<ul> <li>Gap Analysis to leverage new systems functionality before purchasing a new system solution</li> <li>Enterprise Risk Management capabilities</li> <li>Tools to support the development and tracking of Strategic Plans and Priorities, linking related tasks and actions plans, management reporting and Benchmarking capability</li> </ul>
Work Management	<ul> <li>Work order / Service Request automation and integration with Inspections and Maintenance reducing substantial manual processes</li> <li>Automated Inventory Management reduces manual efforts substantially</li> <li>Automation of alerts, and notifications improves planning, coverage, and scheduling efficiencies</li> <li>Fleet specific functionality, linked to Work Orders and offers vehicle and fuel tracking,</li> <li>Ability to track route information and controls management on vehicles</li> </ul>
Complaints	<ul> <li>Reliable &amp; secure</li> <li>Improved reporting</li> <li>Organization-wide usability</li> <li>Service Level Tracking</li> <li>Appropriate supporting document &amp; evidence handling</li> <li>Potential for public to track their submissions via a Portal</li> <li>Integration with work order system provides workflow</li> </ul>
Human Resources	<ul> <li>Ability to create schedules, track attendance and automate time sheets</li> <li>Employee Portal provides all employees with self-serve information</li> <li>Employee lifecycle management including: recruitment, onboarding, training, certification tracking and performance management tracking.</li> </ul>
Council Meeting Management	<ul> <li>Brings together all components of Council Meetings, including: outcomes, correspondence, action plans, and recordings</li> </ul>

# **Appendix C- ERP Benefits and Stages**

The lifecycle of ERP benefits has been illustrated by CGEY, a global business advisory firm:



# Source: CGEY

Stage 1 - ERP Go-Live:

• User learning curves and business processes are severely challenged at this stage. Most of the "out-of-the-box" benefits are tactical and accrue to institutions with severely broken or limited legacy systems.

# Stage 2 - Incremental Improvement:

• As users learn to perform their jobs using the new system and any deficiencies in functionality vis-à-vis the organizations legacy environment are corrected, the organization often is able to capture a number of incremental improvements through increased efficiencies or improved effectiveness. Many organizations state that they need to get through one full business cycle using the new system in order to reach this stage.

Stage 3 – Extended Capabilities:

• As users and organizations become more familiar with the capabilities of their new ERP system and as additional functionality not included in the initial go-live is rolled out, organizations often are able to achieve benefits by better aligning the capabilities of the ERP software with their business processes

and goals.

Stage 4 – Create New Capabilities:

• The largest benefits derived from implementing ERP systems often come from utilizing the clean, integrated data it provides to create new capabilities and services for the organization's customers, staff and management. By using ERP systems in such ways, organizations are able to make significant changes to the way they do business, removing many traditional constraints. This usually takes two years or more following full ERP implementation.