Information Services Strategy Plan

Prepared for
Oregon Liquor and Cannabis Commission

December 2023

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Engagement Summary

Engagement Overview

Background:

Oregon Liquor and Cannabis Commission (OLCC) has sought the assistance of Info-Tech Consulting as an independent advisor to formulate a broad IS strategy for the enterprise to ensure better business-alignment and a go-forward action plan / roadmap to enable Information Services (IS) to efficiently support the business counterparts going forward and help the business realize the defined business goals / priorities.

ITRG Solution:

1. Validate Business Context: Engage with OLCC leadership to understand business goals and priorities, evaluate gaps and pain points and determine IS implications.
2. Assess Current State Environment: Identify the relative maturity of the different IS capabilities and governance to support business needs and aspirations.
3. Formulate Recommendations: Define a set of actionable recommendations to improve overall business-IS alignment while focusing on longer-term value creation.
4. Prioritize and Plan Execution: Develop a target state roadmap and assist OLCC with defining the necessary refresh plan to monitor and sustain the roadmap and ensure relevance and currency going forward.

Key Outcomes:

1. **Business-aligned IS strategy** to support the needs and priorities of the business stakeholders / core consumers of IS services
2. **Defined go-forward plan** to refresh and refine the IS Strategy to better address evolving needs of business stakeholders
3. **A clearly defined path of action** for the defined IS initiatives based on stakeholder priorities and organizational alignment

Engagement Approach Overview

Prioritization & Roadmap

- Finalize and prioritize the initiatives and develop the target IS roadmap
- Finalize the IS Strategy Report
- Develop Strategy Refresh Plan and Communication Plan

Target State Definition

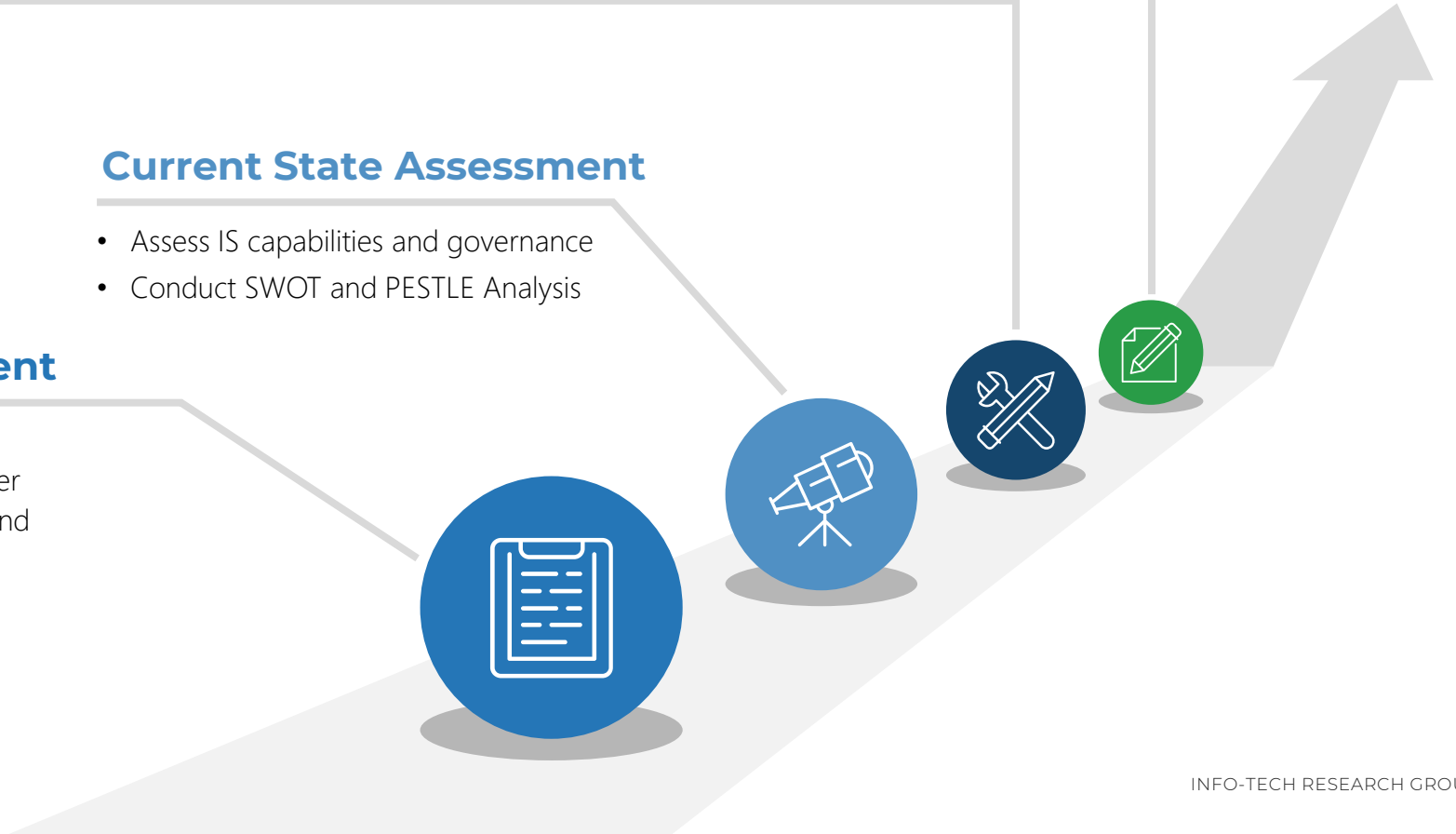
- Identify target IS maturity
- Define IS vision, mission and goals
- Determine IS guiding principles
- Develop recommendations and validate defined IS initiatives

Current State Assessment

- Assess IS capabilities and governance
- Conduct SWOT and PESTLE Analysis

Business Context & Alignment

- Review and validate available interview outcomes from executive leadership to gather necessary business context, business goals and implications for 'Information Services' (IS)
- Confirm and conduct additional stakeholder interviews / focus group sessions as needed



Current State Findings

Agency Drivers – Information Services Strategic Plan

The primary objective of the IS Strategic Plan is to facilitate effective technology enablement in alignment with OLCC's Vision, Mission and Values

OLCC Agency Vision

Safety and prosperity for all Oregonians.

OLCC Agency Mission

Support businesses, public safety, and community livability through education and enforcement of liquor and marijuana laws.

OLCC Agency Values

Inclusive: We invite and represent all voices to strengthen our economy and to ensure the public health and consumer protection of all residents.

Collaborative: We proactively engage all stakeholders as a hub for consensus-building and conflict resolution among the hospitality industry.

Bold: We courageously take risks to influence and persuade action to protect and steward revenue for the General Fund and local jurisdictions.

Key Themes – Stakeholder Interviews

Agency Executive Leadership were interviewed to determine their key priorities and implications for IS organization

Digital Transformation

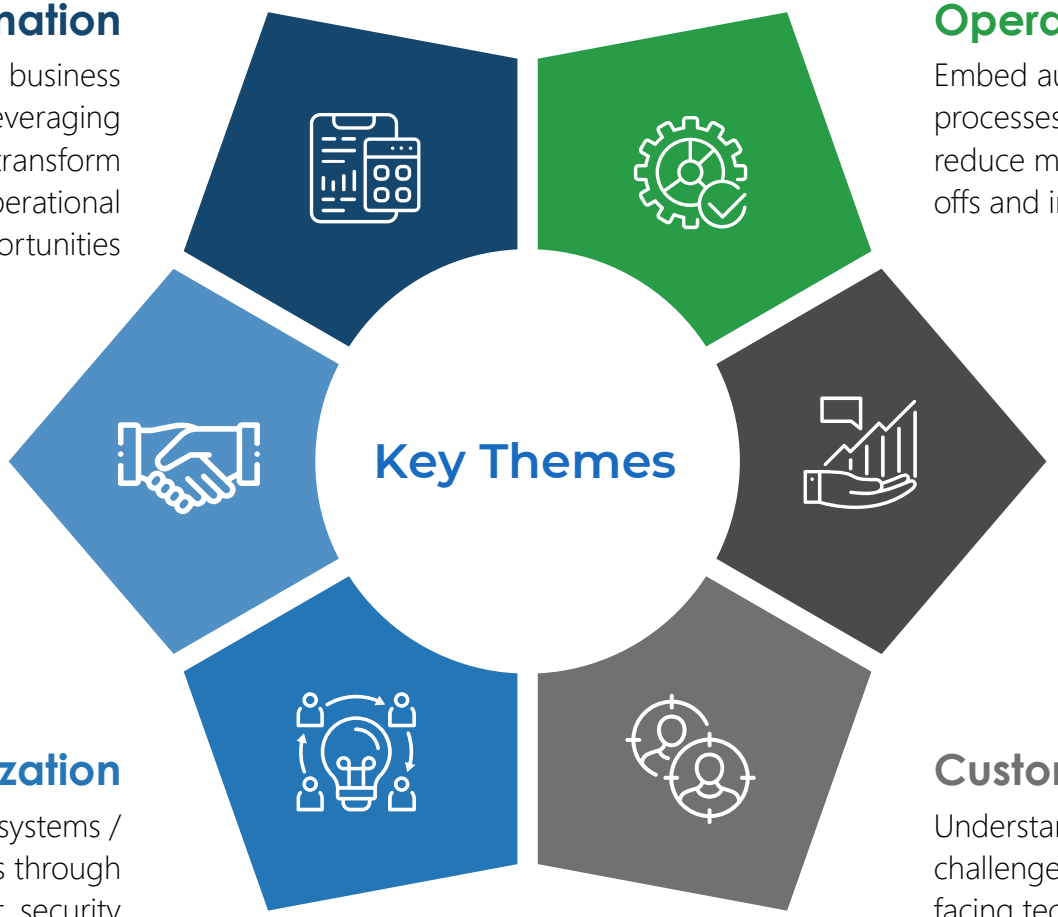
Digitalization and modernization of key business processes and day-to-day operations leveraging emerging technology solutions to transform stakeholder experience, improve operational efficiency and discover "leapfrog" opportunities

Operational Excellence

Embed automation within the current processes and systems, where possible, to reduce manual interventions, minimize hand-offs and improve throughput

Information Services as a Strategic Partner

Information Services to act as a strategic advisor to business to ensure that all technology investment decisions are well aligned with business priorities and goals



Data Management

Leverage effective data management practices and advanced data analytics to generate data driven insights and enable informed business decision-making

Technology Modernization

Seek opportunities to introduce the latest systems / technologies across the various departments through careful consideration of strategic alignment, security risks, and long-term supportability standpoints (Warehouse Modernization, Improved Customer Facing Systems, etc.)

Customer Focus

Understand customer value drivers and challenges and better leverage client facing technology solutions to offer tailored improvements and enhance overall customer experience

Organizational Context – SWOT Analysis

Strengths (Internal)

- Adaptability of the organization and nimbleness to adjust to changing laws.
- The People and their eagerness to contribute and educate.
- Achieving Compliance of licensed businesses through education and enforcement activities.
- Teamwork, OLCC's IS team is happy to step in and help each other out.
- As the third largest revenue generating agency, OLCC has a reliable source of funding which can provide financial stability for long-term projects and initiatives. Also dedicated bond funds for modernization projects.
- OLCC staff have a strong history of collaboration and data sharing between government agencies and departments to improve service delivery.

Weakness (Internal)

- Current outdated technology in the warehouse is a major threat to daily operations.
- Staff turnover and retention lead to loss of historical knowledge.
- Capacity of staff to continue daily duties as well as contribute and participate on project teams.
- State government often operates under intense public scrutiny, making it difficult to manage public perception in the event of IS failures or security breaches.
- The public sector can be burdened with process, which can slow down decision-making, procurement, and project implementation.
- Budget limitations can restrict the ability to invest in modern technology, infrastructure upgrades, and talent acquisition.

Opportunities (External)

- The move to cloud computing creates more opportunities for remote work.
- Investing in technology that makes staff more mobile.
- Lessons learned from the Privilege Tax project to make sure we're communicating often on IS projects and gathering stakeholder feedback.
- Legislative changes can provide process improvement and improved customer service.
- Special interest groups can provide insight into process improvement.
- The opportunity to lead digital transformation initiatives that improve government services, streamline processes, and enhance citizen engagement through modern technology.

Threats (External)

- Technical debt continues to increase; rapid advancements in technology can make existing systems and practices obsolete, requiring significant investments in modernization to stay competitive.
- Dependence on external technology vendors and service providers can expose the department to risks associated with vendor stability, performance, or contractual disputes.
- Cyber threats, including hacking, ransomware attacks, and data breaches, pose a significant risk to the security of government systems and data.
- The agency is always subject to the needs of the legislature and special interest groups.

Organizational Context – PESTLE Analysis

Political

- Any legislative change ('Federal' or 'State') that will significantly impact OLCC's day-to-day operations.
- Inter-government relations are important to OLCC's ability to carry out our mission. These include local government, tribal relations, legislature and other state agencies.
- OLCC Commissioner and external stakeholder (including special interest groups) needs or demands are taken into consideration.
- As a public entity, the agency often looks for stakeholder engagement. We have hired an OCM contractor to assist with evaluating stakeholder approval on the three major projects: Relocation, CAMP, and DSSC.
- OLCC HQ, Salem office, and Warehouse will relocate in 2025.

Economic

- Although OLCC is the third largest revenue generating agency in the state, OLCC's budget is set by the legislature.
- In addition to the legislatively approved budget, OLCC has also been granted some bond funding for its large-scale projects: Relocation, CAMP and DSSC.
- The state of Oregon has a competitive compensation package including hourly wage, retirement, healthcare, and vacation/sick leave.
- The Relocation project has been affected by supply chain issues and shortages of resources stemming from the pandemic. The rise in prices and scarcity of materials has increased budget and elongated schedule, resulting in reduced scope.

Social

- The demographics of OLCC's customers vary greatly across the alcohol and cannabis industries. These include a wide range of income levels, education levels, technology proficiency, and age. While majority of customers have been identified as Caucasian, with English as a first language, Oregon has a significant population whose native language is Spanish and or Mandarin. Majority of Oregon's population lives in the Willamette Valley.
- As OLCC embarks on the Modernization projects, it is important that CAMP accommodate both Spanish and Simple Chinese written language to serve customers.
- Through the Privilege Tax project, the attitude of OLCC's customers has been primarily a "What's in it for me?" (WIIFM) approach. Engaging with stakeholders through Organizational Change Management (OCM) should identify the needs of each stakeholder group.
- In the IS department, there is traditionally low turnover. Many staff have been employed by OLCC for 5+ years.
- The market for qualified IS professionals is difficult due to the demand, however remote work options are a mitigating factor.

Refer to **Appendix-II: Glossary** for PESTLE Analysis considerations

Organizational Context – PESTLE Analysis (Cont'd)

Legal

- Recent legislative changes have required additional work on the Privilege Tax project to administer direct to retailer sales.
- OLCC is currently working on our Capability Maturity Model (CMM) to improve policies and standardization.
- OLCC employees are represented by AFSCME and as such, union views and input are taken into consideration.
- The open data project has cast a light on all agencies' availability of data. OLCC has also been reviewing data to see what can made available and accessible to the public.

Environmental

- Oregonians pride themselves on being environmentally friendly. As stewards of the public's trust, we try to implement environmentally sustainable practices. Mandates include Energy Trust of Oregon best practices and standards, as well as DAS policies.
- Environmental factors that affect business continuity include forest fires during the summer, rockslides during the rainy season, and the occasional snow or ice storm in the winter.
- Weather can impact the ability to ship and receive from the Warehouse. Poor air quality or road conditions can make it difficult for employees to work or for employees or trucking companies to access the building.

Technological

- The OLCC has decades of technical debt. As a result, both staff and customers have an interest in updating technology and implementing innovative tools.
- Implementing the State's Cloud Forward approach, OLCC is examining Azure or AWS for cloud compute and storage. Additionally, new technologies are often preferred to be cloud-hosted.
- OLCC issues devices, iPhones, and laptops to employees. Use of outside laptops is not allowed.
- Most of the current development work is to maintain decades-old legacy systems.
- As OLCC relocates the warehouse to Canby, there will be new infrastructure to be stood up in the new server room as well as switches, A/V, etc.
- Internet access in Rural Oregon has always been a concern for OLCC. With the advancements in technology, we are hopeful that services like Starlink will help all Oregonians access online services.
- OLCC IS is engaging with Communications to use the agency's social media channels to communicate with stakeholders for Relocation, CAMP, and DSSC.
- OLCC is compliant with Criminal Justice Information Services (CJIS) data standards and the storage of Personally Identifiable Information (PII) data.

Refer to **Appendix-II: Glossary** for PESTLE Analysis considerations

Current Challenges for Information Services (IS) organization

Key Current State Observations

1 Highly Paper-based Organization

The current records and documents management processes and practices are heavily paper-based and manual.

2 Decisions are not Data-Driven

Limited use of analytics and lack of data centric mindset to leverage data driven insights and make informed business or operational decisions.

3 High Technical Debt

Warehouse infrastructure relies on several outdated legacy systems, resulting in heavy technical debt and high operational risk.

4 Limited Resource Capacity

Limited bench-strength and increasing workload have necessitated IS resources working on both "Keep the Lights On" initiatives and multiple projects at the same time.

5 Knowledge Retention

Staff turnover and heavy reliance on vendors / service providers may result in knowledge retention risk and knowledge silos.

Key Implications

- Storage is not scalable with limited security and audit trails to track document updates
- Decisions may at times result in initiatives that are not completely aligned with the foundational business objectives
- High risk to business-as-usual operations and risk of non-compliance
- Limited capacity and inadequate time for IS resources to invest effort into large scale enterprise modernization initiatives
- Knowledge is susceptible to being lost when people leave the organization
- Lack of standardization for IS practices and procedures due to reliance on legacy knowledge

Proposed Go-Forward Focus Areas for Information Services

Key Focus Areas

Maximizing process efficiency and delivering rapid business value

1

Information Services Modernization

Enable modernization of existing IS infrastructure and systems to better support the business capabilities while addressing security alignment and ongoing support and sustainment.

2

Greater Business-IS Alignment

Define the necessary process and cadence to better understand business processes, priorities, and technology needs and identify opportunities to improve process efficiency and technology enablement.

3

Reduce Paper-based Processes

Assess current business processes and seek opportunities to digitalize them to limit paper trails and minimize manual interventions as much as possible.

4

Digital Accessibility

Ensure all necessary websites, systems and relevant record data / information are accessible to internal as well as external stakeholders from anywhere at anytime.

5

Data-driven Decision-Making

Define data strategy and formulate data governance for the mission critical datasets to ensure improved data quality and enable timely data access to organizational leadership for informed decision-making.

Information Services (IS) Target State

Information Services Organization Maturity Target

IS leadership aspires to achieve "Organizational Partner" maturity through effective technology enablement and strategic support to business

- *Reliable Technology Innovation to help business expand or discover new "growth" opportunities*
- *Effective Execution on Business Projects, Strategic Use of Analytics and Customer Facing Technology*
- *Effective fulfilment of business work orders / requests and reliable service management practices.*
- *Stable IS Infrastructure and systems and Frontline / Service Desk support*
- *Inability to provide reliable support to Business stakeholders*

Information Services Vision and Mission

The Vision and Mission statements defined in conjunction with IS leadership underpin the desired IS Target State

Vision

Driving Government Modernization through Innovative Technology Solutions: A Vision for a Future-Ready, Dynamic, and Business-Centric Administration.

"The Desired Target State for the IS organization"

"Guide the day-to-day activities and decisions for the IS organization"

Mission

Information Services exists to facilitate technology for our customers:
OLCC staff, spirits suppliers, agents, and licensees that promotes public safety and enables OLCC to be the third largest revenue generator in the state of Oregon, supporting critical services such as schools, first respondents, and human services.

Information Services Guiding Principles

The defined strategic guiding principles are meant to advise the IS organization on the boundaries of the IS Strategy

	Principle Name	Principle Statement
1	**Enterprise value focus**	We aim to provide maximum long-term benefits to the enterprise by eliminating technical debt through enterprise modernization.
2	**Fit for purpose**	We maintain capability levels and create solutions that are fit for purpose without over engineering them.
3	**Simplicity**	Through enterprise modernization, the OLCC aims to reduce the number of applications supported and to move to an enterprise architecture.
4	**Reuse > buy > build**	We prefer to buy existing best of breed solutions that are established, tested, and successful, reusing systems, where applicable. Internal development is a possibility, however, a last resort.
5	**Managed data**	We handle data creation, modification, and use enterprise-wide in compliance with our data governance policy and consistent with Oregon's Open Data Program.
6	**Controlled technical diversity**	We embrace the state's cloud forward approach to maintaining applications and platforms.
7	**Managed security**	We aim to improve our security posture by filling vacant security positions and improving enterprise-wide compliance with the state's security policies.
8	**Compliance to laws and regulations**	We operate in compliance with all applicable laws and regulations.
9	**Innovation**	We seek to share what's available in technology innovation with business to help inform business decisions and streamline processes.
10	**Customer centricity**	We strive to understand the business needs and objectives in order to deliver useful tools to enhance business.

Information Services Strategic Objectives

The Strategic Objectives have been defined in alignment with OLCC's broader business goals and priorities

Strategic Objective	Description
 Workforce Empowerment	• Promote a desirable work environment through professional development, inclusion, succession and career planning. • Foster a culture to attract, nurture and retain an engaged and skillful IS workforce. Foster a professional growth mindset. • Invest in professional development for resources within IS organization. • Create an environment where people are empowered to make decisions with minimal leadership oversight.
 Stakeholder Relationship Improvement	• Incorporate latest practices and technologies to create exceptional value and customer satisfaction. • Ensure that IS services and digital products are accessible to all residents.
 IS Operational Excellence	• Identify opportunities to digitize and/or automate and streamline processes and ensure excellence in service delivery through seamless user experience. • Provide leadership in Technology innovation to advance organizational goals, initiatives and outcomes. • Leverage IS' capabilities and processes to continuously improve operational posture and resilience.
 Infrastructure and Systems Modernization	• Modernize OLCC's portfolio of legacy systems and technology infrastructure to reduce technical debt and drive better business alignment. • Advance process maturity in intake/portfolio management to help balance resource demand and supply.
 Compliance with Legislative Mandates	• Ensure that any new or existing technology can address legislative mandates for compliance. • Support business process improvement, risk reduction, and IS service performance through the adoption of targeted and relevant technology innovations.

Recommendations and Roadmap

Business Goals Mapped to IS Strategic Objectives

Business Goals	*Achieved through*	Business Initiatives		Top IS Initiatives (2023-27)	*Achieved Through*	IS Strategic Objectives (2023-27)
OLCC Priorities		**Stakeholder Inputs**		**Stakeholder Inputs**		**Info-Tech Recommendations**
Build a warehouse		• Increase space for inventory • Improve efficiency & budget control and reduce carbon footprint		• IS infrastructure setup in new Warehouse • Conveyance system integration		Infrastructure and Systems Modernization
Warehouse Modernization		• Improve efficiency of Warehouse Operations for Distilled Spirits • Improve communications between liquor agents and OLCC • Legacy system modernization		• Warehouse Management software modernization • DSSC systems implementation • Enterprise POS solution implementation • Automated inventory reconciliation leveraging real-time data availability		Infrastructure and Systems Modernization
Compliance with Statutory Requirements		• Implement Privilege Tax solution and incorporate HB 2013 • Implement current and upcoming statutory changes (e.g. HB3308)		• Privilege Tax solution implementation • Review and refresh – IS Security practices • Technology alignment with new and changing laws		Compliance with Legislative Mandates
Business Process Modernization		• Online licensing for liquor licensing, online payments, better data, permits and training • Maintain a balanced budget and fiscal responsibility for agency IS projects and investments		• CAMP software implementation program • Business Process Improvements • Digitalization of Records and Document Management • Project Intake and Governance Improvements • Application Rationalization & Vendor Neutral Archiving		Infrastructure and Systems Modernization
Infrastructure Modernization		• Move operations to the cloud • Reduce the environmental footprint of network operations • Invest in infrastructure & resources that promote sustainability • Enhance remote work capabilities • Improve data security		• M365 Tenants migration to Oregon.gov tenant • Network Operations migration to Cloud • Network automation and traffic optimization • Remote work enablement		Infrastructure and Systems Modernization

Business Goals Mapped to IS Strategic Objectives (cont'd)

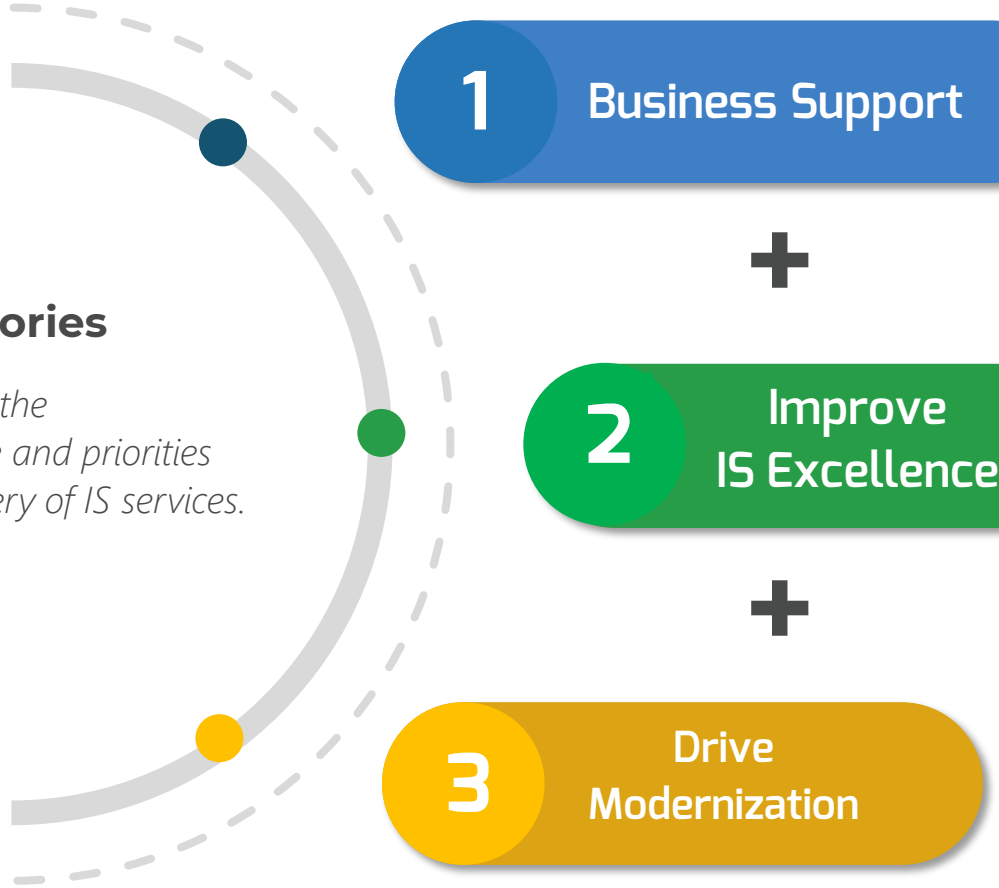
Business Goals	*Achieved through*	Business Initiatives		Top IS Initiatives (2023-27)	*Achieved Through*	IS Strategic Objectives (2023-27)
OLCC Priorities		**Stakeholder Inputs**		**Stakeholder Inputs**		**Info-Tech Recommendations**
Training and Awareness		• Regularly assess and gather feedback on training effectiveness. • Provide the tools and training required to ensure staff succeed with their assigned tasks • Foster a culture of continuous learning and improvement.		• Knowledge Management Process Enablement and Formalization • Review and refresh - IS training focus areas		Workforce Empowerment
Stewardship		• Ensure responsible management of public funds and resources. • Fiscally responsible to return distribution to State, Counties, Cities • Safeguard public health and safety through effective regulatory and service delivery. • Improve operational efficiency and service effectiveness. • Protect sensitive citizen data and information. • Promote sustainable environmental practices and resource conservation. • Engage with and serve the needs of the local communities. • Foster trust and openness in government operations.		• Data Governance and Data Strategy and Management • Data Analytics Enablement • IS Service Management Platform replacement • "Keeping the Lights On" (KTLO) Initiatives		IS Operational Excellence
Diversity, Equity and Inclusion		• Foster an inclusive workplace culture • Ensure accessibility of services • Engage with diverse communities		• Stakeholder Management • Digital Accessibility (Website Improvements, Mobile UI enablement etc.) • IS Staffing Deployment		Stakeholder Relationship Improvement

IS will deliver on its mission through several key initiatives

Today's Technology Leadership teams typically have three key mandates:
Support the Enterprise, Run an Effective IS shop, and Drive/Support Modernization

Initiative Categories

To collectively support the organization's purpose and priorities and improve the delivery of IS services.



1 Business Support

Support Major Business Priorities

Business initiatives requiring IS capabilities are supported by key IS projects

2 Improve IS Excellence

Reduce Risk & Improve IS Operational Excellence

These projects will increase IS process maturity and systematically improve IS.

3 Drive Modernization

Drive Technology Modernization

These projects will improve our future technology capabilities and decrease risk by increasing our technology maturity.

IS will deliver on 5 in-flight, planned, and new key initiatives directly supporting key organization business requirements

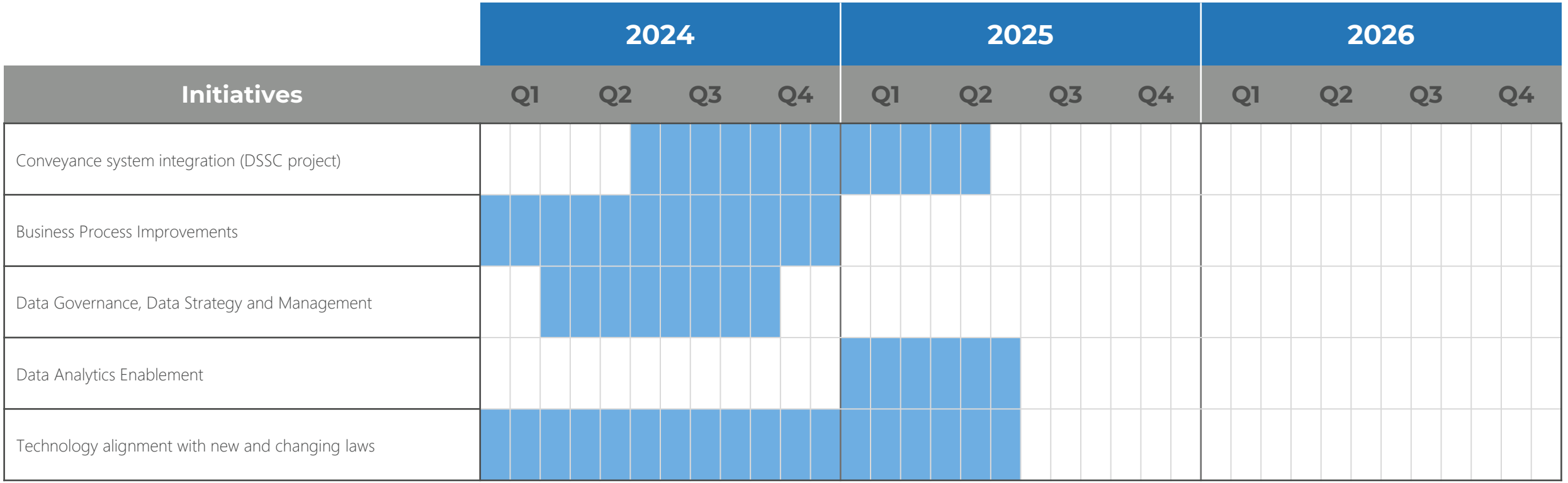
1 **Business Support Initiatives / Projects**

Business - Supporting IS Initiatives/Projects

- ✓ Conveyance system integration (DSSC project)
- ✓ Business Process Improvements
- ✓ Data Governance, Data Strategy and Management
- ✓ Data Analytics Enablement
- ✓ Technology alignment with new and changing laws

Key Initiative Roadmap

1 Business Support



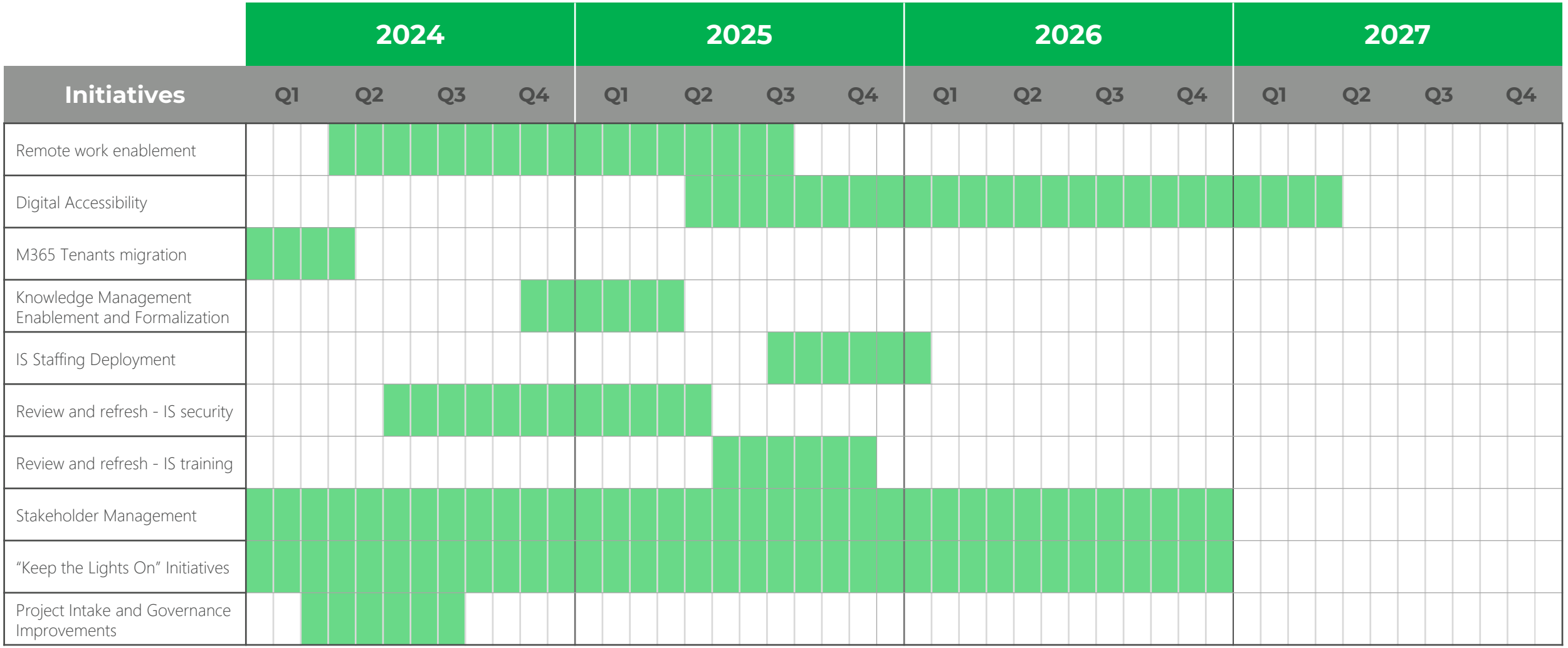
IS identified 10 in-flight, planned or new initiatives for improving IS Operational Excellence

IS Operational Excellence Initiatives:

- ✓ Remote work enablement
- ✓ Digital Accessibility
- ✓ M365 Tenants migration to Oregon.gov tenant
- ✓ Knowledge Management Process Enablement and Formalization
- ✓ IS Staffing Deployment
- ✓ Review and refresh - IS security practices
- ✓ Review and refresh - IS training focus areas
- ✓ Stakeholder Management
- ✓ "Keep the Lights On" Initiatives
- ✓ Project Intake and Governance Improvements

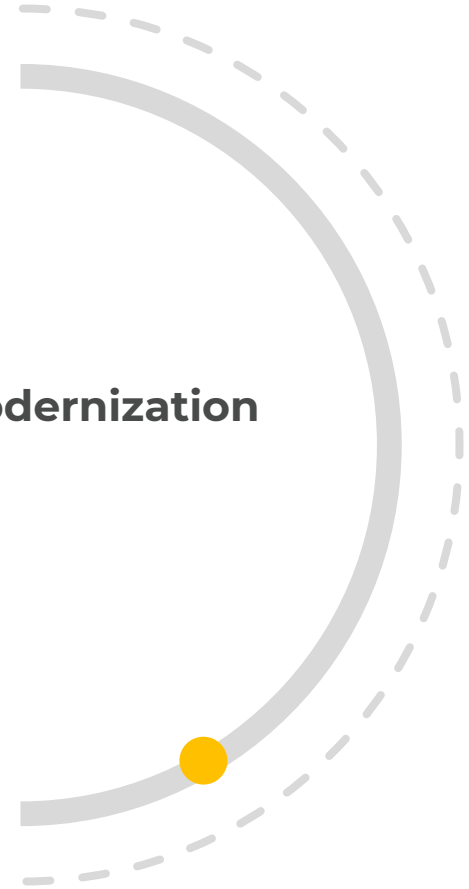
Key Initiative Roadmap

2 Improve IS Operational Excellence



IS will deliver on 12 in-flight, planned, and new key initiatives to drive technology modernization enablement across OLCC

3 **Drive Modernization**

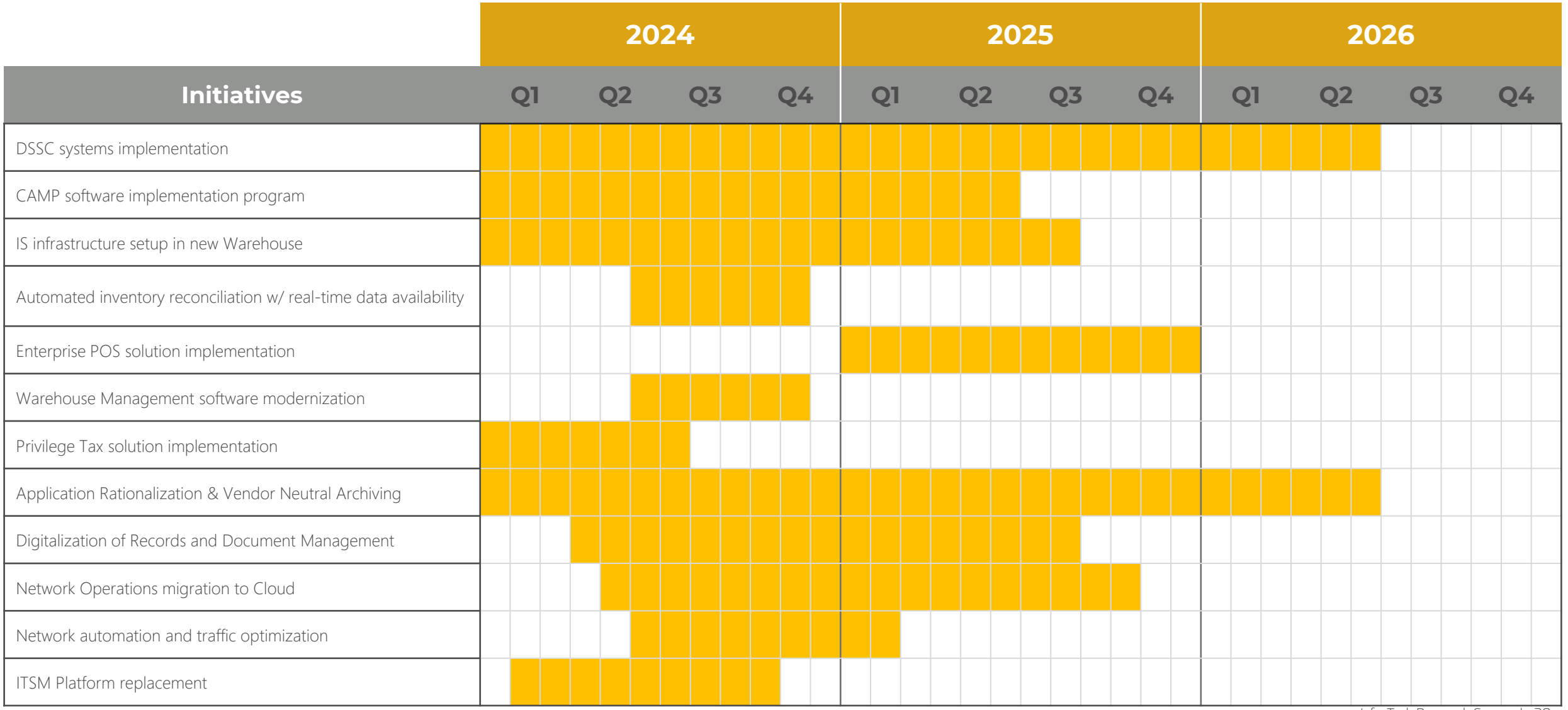


Modernization Initiatives:

- ✓ DSSC systems implementation
- ✓ CAMP software implementation program
- ✓ IS infrastructure setup in new Warehouse
- ✓ Automated inventory reconciliation w/ real-time data availability
- ✓ Enterprise POS solution implementation
- ✓ Warehouse Management software modernization
- ✓ Privilege Tax solution implementation
- ✓ Application Rationalization & Vendor Neutral Archiving
- ✓ Digitalization of Records and Document Management
- ✓ Network Operations migration to Cloud
- ✓ Network automation and traffic optimization
- ✓ ITSM Platform replacement

Key Initiative Roadmap

3 Drive Modernization



Significant Planned IS Investments by 2027

IS leadership has planned for major technological advancements across OLCC and has developed preliminary budget estimates for a subset of the key initiatives included in the IS Strategic Plan

Key Initiative	Budget Estimate
DSSC Systems Implementation Program	$29,846,457
CAMP Software Implementation Program	$14,254,400
Privilege Tax Solution (OPTO) Implementation	$9,963,935

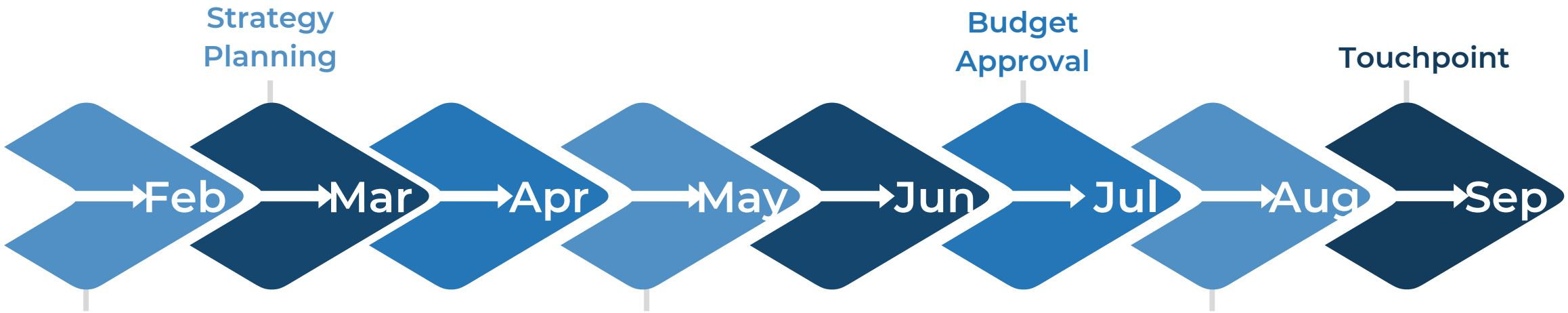
IS will establish and report on key metrics to demonstrate progress towards defined objectives

Strategic Objective	Metrics	Target	Current Baseline
Workforce Empowerment	• Team member Engagement	• To be determined (*within 2024*)	• Current Engagement Mean Comparison is 3.59
Stakeholder Relationship Improvement	• Card payments for liquor licenses • Customer satisfaction rating for cannabis license applications	• Increase card payments for liquor licenses and compliance activity by 80% • Improve customer satisfaction by 20% **target to be achieved by 2026*	• Currently there is no option for licensees to pay for compliance fines or liquor license fees • 47% for timeliness of services (current customer satisfaction rating)
IS Operational Excellence	• Tracking and management of case assignments	• 90% completeness in tracking and management of case assignments **target to be achieved by 2026*	• Current case tracking for liquor licensing has approximately 50% completeness
Infrastructure and Systems Modernization	• Average license internal processing time • Licensing application submission time (moving from paper-based process to electronic process)	• Reduction in licensing internal processing time by 30% • Reduce licensing application submission time by 30% **target to be achieved by 2026*	• 81 days processing time for liquor license and 91 days for marijuana license • Average of 48 hrs submission time for first time applicants
Compliance with Legislative Mandates	• Compliance investigation time	• Reduce investigation time by 30% of hours per FTE **target to be achieved by 2026*	• Simple investigations take an average of 5 days; complex investigations may take up to 45 days.

IS Strategy Refresh Plan & Communication Plan

IS Strategy Refresh Plan

Review the IS strategy on a periodic basis to make proactive changes to the business strategy or direction.



FREQUENCY	AUDIENCE	SCOPE	DATE
ANNUALLY	Organization's stakeholders, IS Leadership Team	• Re-survey • Review / validate strategy • Update to schedule/initiatives	Pre-Budget • February (1 week) • May (2 days) Post-Budget • July (1/2 day)
TOUCHPOINT	IS Leadership Team	• Initiative's status updates • Organization updates • New projects • Risks / constraints • Changes in priorities • Updates	• September (1/2 day)
EVERY YEAR (Review and Revise)	IS Leadership Team	• Full Planning • Incorporate Capital and Operating budget estimates into the Plan	• August (24 hours)

Information Services is dedicated to frequent touch points throughout the year to ensure the strategy team and all stakeholders are on the same page about any changes or updates regarding strategic initiatives.

IS Strategy – RACI Matrix

The defined IS strategy needs to be reviewed, adjusted, communicated and supported collectively by IS and Agency leadership for currency and relevance.

High Level Activities	CIO	IS Leadership	Business Teams	ISS 8 (Sr. IS Staff)	ALL IS Staff	Executive Team	Commissioners	EIS
Business Needs and Feedbacks – Agency Specific	R	A, R	C	R	R	I	I	I
Developing the IS Strategic plans – Agency Specific	A, R	R	C	R	C	C	I	I
Executing the IS Strategic plan – Agency Specific	C	A	C, I	R	R	R	I	I
Common Frameworks (ideation to implementations)	R	A	N/A	R	R	I	N/A	I
Monitoring & Reporting - Agency Level	C	A, R	I	C	R	I	N/A	I
Communication and Awareness of Strategies – Agency Level	R	A, R	I	R, C	R, C	R	I	I
Refreshing the Strategies – Agency Level	A, R	R	C, I	R	C	C	I	I

R – Responsible, A – Accountable, C – Consulted, I - Informed

Communication Plan: IS Strategy

The defined IS Strategy needs to be communicated to the Executive leadership and all required stakeholders in a timely manner to ensure necessary stakeholder buy-ins and effective execution and adoption of the strategy.

Communication Activity	Target Audience	Person Responsible	Communication Mode	Key Points (Communication Content)	Timing
IS Strategy Presentation	Executive Team	IS leadership	In person meeting	• IS Vision, Mission, Strategic Objectives and Guiding Principles • IS Roadmap	To be discussed
	EIS	IS leadership	In person meeting	• IS Vision, Mission, Strategic Objectives and Guiding Principles • IS Roadmap	"
	Commissioners	IS leadership	In person meeting	• IS Vision, Mission, Strategic Objectives and Guiding Principles • IS Roadmap	"
IS Strategy Summary	Business Teams	IS leadership	In person meeting	• IS Roadmap and any key implications to the concerned business groups / teams	"
	ISS 8 (Sr. IS Staff)	IS leadership	In person meeting	• IS Vision, Mission, Strategic Objectives and Guiding Principles • IS Roadmap	"
	All IS Staff	IS leadership	Email / Website	• IS Vision, Mission, Strategic Objectives and Guiding Principles • IS Roadmap	"

Key risks that might impact the defined IS strategy

The risks and mitigation needs to be factored into the IS Strategy formulation early on for successful execution.

Risk #	Risk Description	Probability	Impact	Risk Mitigation Plan	Timing
1	Delays in contracting	H	H	• Factor vendor dependency into project timelines • Engage as early as possible, with clear scope & definition of deliverables	To be discussed
2	New Legislative Mandates	M	H	• Define process / cadence and relationship with Legislative office to solicit any updates / changes to mandates • Ensure legislative team input is a key interface into project lifecycle	"
3	Increasing staff turnover (IS)	L	H	• Well organized and structured Knowledgebase • Improved design/code standards/annotation and Code Repository	"
4	Insufficient Capacity to complete key initiatives	M	M	• Hiring new IS Staff (including trainees) in advance accounting for retirements/augmentation needs	"

H High M Medium L Low

NEXT STEPS

A number of short-to-medium term actions have been identified by IS leadership to operationalize the IS Strategic Plan

1

Oregon Assistant State CIO Approval

Review the IS Strategic Plan with Oregon Assistant State CIO for feedback and approval

2

Executive Director Review and Approval

Socialize the IS Strategic Plan with OLCC Executive Director for alignment and approval

3

Internal IS Team Alignment

Review the key IS Strategic Plan priorities and roadmap with the broader IS team for alignment

4

Executive Leadership Team Approval

Solicit executive leadership buy-in and alignment and obtain approval on the defined IS Strategic Plan

5

IS Strategy Review and Revision

Launch cadence to revise and update the IS Strategic Plan on a periodic basis for continuous improvement and organizational alignment

6

Prepare, Plan and Prioritize Strategy Execution

Initiate detailed planning with IS team to execute on the defined initiatives as part of the IS Strategic Plan

Appendix-I: Initiative Profiles

1. Implement CAMP Online Applications

Create online applications and training for all marijuana and alcohol related licensing roles.

Incremental Cost:

$2.5 M
LABOR

$10.2 M
SYSTEMS

$1.7 M
CONTRACTS

$14.3 M
TOTAL

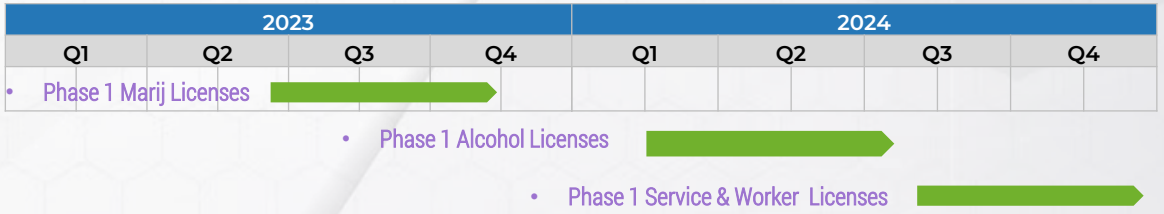
CIO comments:

This capability will allow for more automated workflow, increased data accuracy, renewal tracking, as well as modern online payments from applicants.

Initiative Description:

- IS will work with the OLCC business process owners and contractor to streamline the application process and provide all necessary training in an online format.. The project will include a GAP Analysis, requirements definition, development, and UAT phase of the project. Lastly, the system will be hosted and supported by the contractor for five years after "Go Live" date.

Project Timeline:



Primary Business Benefits:

Reduce time and effort to submit and receive approval for applicants

Other Expected Business Benefits:

Reduce time to process applications, more efficient due to automated workflow

Reduce time to process applications, more efficient due to automated workflow

New features such as automated renewal notice and tracking and online payments

Initiative Category:

Risks:

- New system and change in business practices.
- Large organizational change and the way OLCC does business. Online applications and payments are new manners of doing business.
- Training internal staff and external customers for new system
- Allows for OLCC staff to work remotely, not located in same office.

Dependencies:

- New system in Computronix using .Net framework
- System will be hosted in cloud environment and connectivity will be critical

Project Team

- Business Sponsor: Greg White
- IS Sponsor: Jeremiah Brickhouse
- PM: Surendra Ranawat

2. DSSC: New WMS, POS, ordering and inventory software

Modernize inventory, ordering, and Point of Sale systems to provide integration and real-time data to OLCC Executive Team.

Incremental Cost:

$1.6 M
LABOR

$17 M
SYSTEMS

$1.7 M
CONTRACTS

$20.3 M
TOTAL

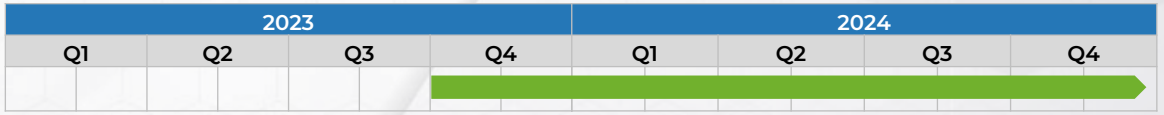
CIO comments:

"This project will go hand-in-hand with our new warehouse facility. In addition to newer and more reliable software in the warehouse, we will be implementing a standard POS system for all our liquor agents."

Initiative Description:

- IS will implement a new Warehouse Management System (WMS), Point of Sale system for all liquor stores, and a new ordering software system. These systems will be integrated and provide real-time reporting and accessible online for all OLCC staff. These systems will allow each department to run their own unique and custom reports to enable decision making.

Project Timeline:



Primary Business Benefits:

Improve system reliability and system uptime for the warehouse.

Other Expected Business Benefits:

Improved inventory and order management for retail business.

Automated payments to liquor agents and treasury reducing payment errors.

Initiative Category:

Risks:

- All systems must integrate with each other and conveyor system in new facility
- POS system must be accepted and installed in each Liquor Store throughout the State of Oregon
- OLCC staff need training for new systems and new processes

Dependencies:

- New Warehouse must be completed first
- Policy that all liquor stores using new POS system must be approved
- Conveyor systems must be installed firt.

Project Team

- Business Sponsor: Steve
- IS Sponsor: Jeremiah Brickhouse
- PM: Christie Scott

3. Build New Warehouse & Conveyor System

Build new warehouse in Canby to support larger OLCC operations, inventory, and delivery throughout the State

.

Incremental Cost:

$139.2
CONSTRUCTION

$15 M
SYSTEMS

$6 M
CONTRACTS

$160.2 M
TOTAL

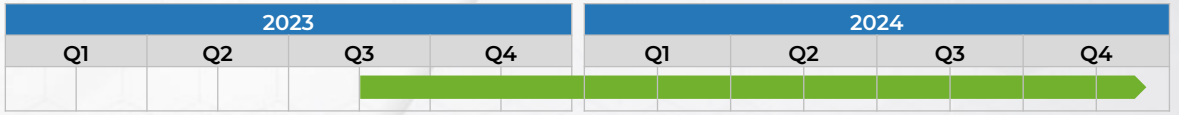
CIO comments:

"Our current warehouse was built 50 years ago and last expanded 30 years ago. We have outgrown our current warehouse. In fact, we actually have two warehouses, one for receiving and the other for shipping."

Initiative Description:

- Our new warehouse will provide that space we need and room for expected growth for the next 30 years. Both additional space for product, modern loading techniques, and expanded shipping capacity.

Project Timeline:



Primary Business Benefits:

Increase space to hold all product in a single warehouse

Other Expected Business Benefits:

Upgrade older conveyor system to more modern software and video capabilities for accurate deliveries

Initiative Category:

Risks:

- Current staff may not be able to work at new location.
- Warehouse must be built in a manner to not disturb the graveyard.
- Must have all digital systems (access, security, video, and IT) installed and integrated.

Dependencies:

- Conveyor system must integrate with DSSC hardware.

Project Team

- Business Sponsor: Steve Robbins
- IS Sponsor: Christie Scott
- PM: Patrick Classen

4. Implement Privilege Tax (OPTO)

Simplify and automate method for wineries to submit sales records and pay required taxes to OLCC.

Incremental Cost:

$800,000
LABOR

$9.3 M
SYSTEMS

$700,00
CONTRACTS

$10.8 M
TOTAL

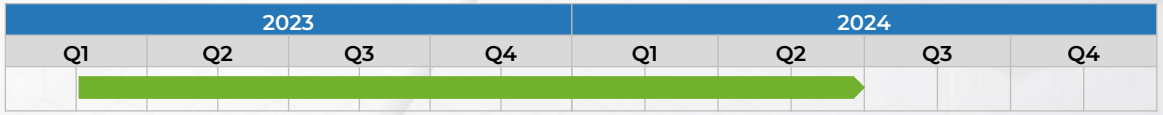
CIO comments:

"Our winery customer requested an easier to use, online system that they could use to pay alcohol taxes to OLCC. The legislature has directed us to improve this system for our customers."

Initiative Description:

- Our existing system was cumbersome to use and required a lot of manual calculation when submitting sales reports to OLCC. This request was from the customer and mandated by the State Legislature to improve the customer experience and collect taxes in an efficient and transparent manner.

Project Timeline:



Primary Business Benefits:

- Improve customer experience and implement automated process, replacing manual paper records

Other Expected Business Benefits:

- Improved accuracy of data and self-service
- Increase tax collection and reduce time to process tax payments

Initiative Category:

Risks:

- New system will require end user training

Dependencies:

-

Project Team

- Business Sponsor: <Name>
- IS Sponsor: <Name>
- PM: <Name>

Appendix-II: Glossary

Technical Debt

Analyst Perspective

Manage technical debt to better govern risk.

The concept of "technical debt" refers to the future costs incurred when an organization decides to implement quick – and often suboptimal – solutions instead of the best overall strategy. Within the realm of government department and agency IS operations, understanding and effectively managing technical debt is crucial for providing efficient, secure, and resilient services. As technological advancement continues at an unprecedented pace, including the development of AI systems, failure to address technical debt can lead to serious operational impairment, escalated costs, and compromised operational security. Digital transformation is necessary to address governments' constant pursuit of high standards of operational efficacy and public service.

The consequences of technical debt on government IS operations go beyond the financial. Technical debt can significantly inhibit citizen service delivery, diminishing public trust. Given that digital transformation, automation, and AI services are not just desirable but essential, government systems and processes must be contemporary and flexible enough to adapt to technological advancements.

This report aims to highlight the impact of technical debt within the federal IS environment, providing deep insights into managing and mitigating these challenges to enable informed decision making for more sustainable and efficient IS operations. Exploring this topic further will help organizations form strategies to ensure long-term sustainability and the continued delivery of reliable and robust public services.

Paul Chernousov
Research Director, Industry
Info-Tech Research Group

Reference ITRG Blueprint https://www.infotech.com/research/technical-debt-executive-summary-presentation-for-government-it

Subject relevance

"Like all debt, technical debt is bad because the process of satisfying it actually prevents efforts to eliminate it. In a sense, the government is paying off the interest on its technical debt by maintaining legacy and aging systems, with nothing left over to purchase new systems that would be much more efficient and less labor-intensive overall."

– John Breeden II in Nextgov/FCW

Understanding technical debt in the digital age

Today's technical debt is the inevitable consequence of the ongoing development and maintenance of software systems within federal departments and agencies. The rapid evolution of technology and the increasing reliance on digital platforms for delivering public services have made it crucial to understand and manage technical debt. To reiterate: "technical debt" is the future cost of refactoring and improving software systems that were implemented with quick yet suboptimal solutions. Failure to properly manage technical debt can lead to inefficient systems that are difficult to maintain and upgrade, posing significant challenges in a fast-paced technological environment.

Impact on efficiency and budget in the current fiscal climate

Given the complexity of the fiscal climate, unaddressed technical debt can reduce efficiency and increase costs for federal departments and agencies. Governments are often pressured to do more with less, and the burden of growing technical debt can exacerbate this challenge. This not only compromises the overall efficiency of departments and agencies but can also significantly drain resources. Every dollar spent on development may generate up to five dollars in future costs if technical debt is not effectively managed, making it critical to address this issue today.

Technological modernization and adaptability amid rapid technological change

Given rapid technological advancement and recent developments in AI, managing technical debt is more important than ever to ensure the modernization and adaptability of government technology infrastructure. Unaddressed technical debt can severely limit an agency's ability to adapt to new technologies or implement innovative solutions and can make digital transformation a slow and expensive process. For federal governments, managing technical debt is a critical and urgent step toward enhancing public service delivery and achieving strategic objectives in the digital era.

Impact of technical debt on digital transformation

Slower innovation

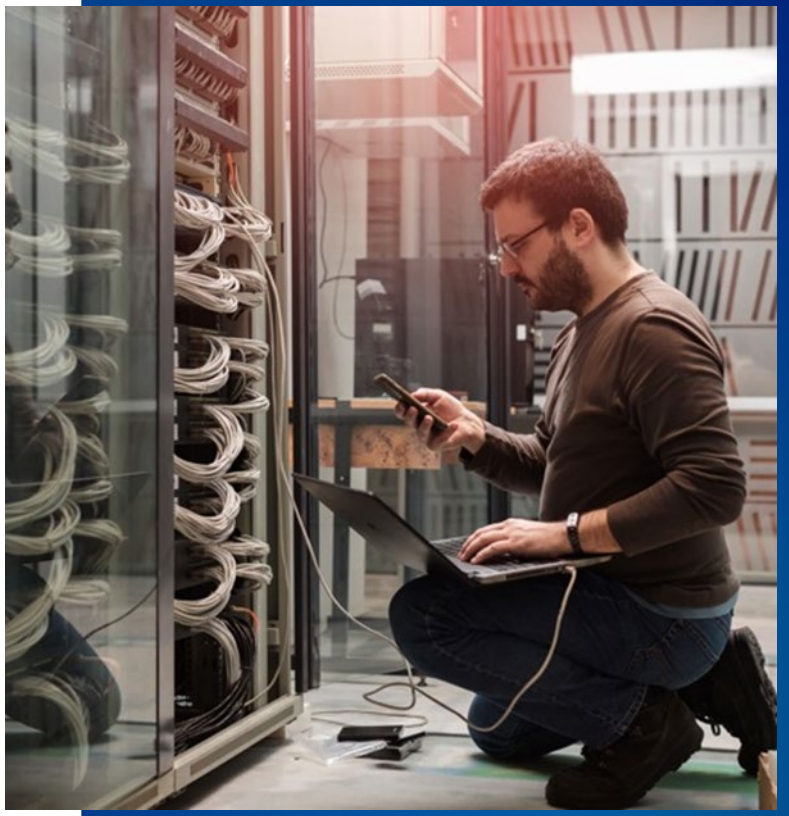
Technical debt can consume resources and developer time, constraining the development of new features and technologies. Departments and agencies might find themselves falling behind in the digital transformation race, unable to keep up with the pace of technological advancements.

Increased cost of change

High levels of technical debt can make software changes more costly and time consuming, as developers must navigate complex, poorly documented, or outdated code. This lengthens lead times for implementing digital transformation initiatives and increases costs from additional labor and potential system downtime.

Risk of system failures and security vulnerabilities

Technical debt often leads to more frequent bugs and system failures, which can disrupt digital transformation efforts. Outdated or poorly designed systems can be more vulnerable to security threats, posing data integrity and cybersecurity risks during a digital transformation.



The cost of technical debt

The growing pace of federal IS spending

- US federal departments and agencies spend nearly $100 billion every year on their IS needs, but a significant portion of that money goes to maintaining legacy systems (GAO, 2021).
- In 2015, 75% of the US federal IS budget was consumed by operating and maintaining legacy equipment, leaving just 25% for new technology investment (GAO, 2016).
- 80% of US federal departments and agencies report that technical debt limits their ability to augment or modify existing legacy systems, including moving to the cloud (TechTarget, 2020).
- In Canada, over 40% of the public sector struggles to combine next-generation and older technology systems, which continues to generate technical debt and increase maintenance costs (Financial Post, 2023).
- 31% of Canadian government agencies felt that technical debt accounted for 25% to 50% of total full-time employee time; 25% felt it accounted for 25% to 50% of total operational budget (IDC, 2023).
- The UK public sector spent nearly half of its 2019 annual £4.7 billion (US$5.76 billion) IS budget on keeping-the-lights-on activities for outdated systems (National Technology News, 2021).

+11%

The United States earmarked $10.9 billion for federal civilian cybersecurity capabilities in 2023, also an 11% increase from 2022 (SC Media, 2022).

+11%

The US federal IS budget for 2023 is $65 billion, an 11% increase from 2022 (The White House, 2023).

Challenges of moving away from technical debt

Budgetary and administrative constraints

The tendency to prioritize operating and maintaining legacy equipment has not improved as much as needed over the years, with most of the US government's IS budget going toward maintaining its aging systems. Little remains to invest in new and more efficient systems.

Many departments and agencies lack the necessary funding and staff to update and patch their aging IS infrastructure, which makes it difficult to manage vulnerabilities.

Given the challenges with attracting IS cyber talent to work in government, underfunding has limited resources to address technical debt, while understaffing has led to a lack of expertise in addressing technical debt.

Some federal departments, like the US Air Force, face a unique challenge of managing modernization and security across a large global footprint of facilities. This necessitates careful upgrades and a focus on interoperability to ensure data is available when needed.

Manage your technical debt

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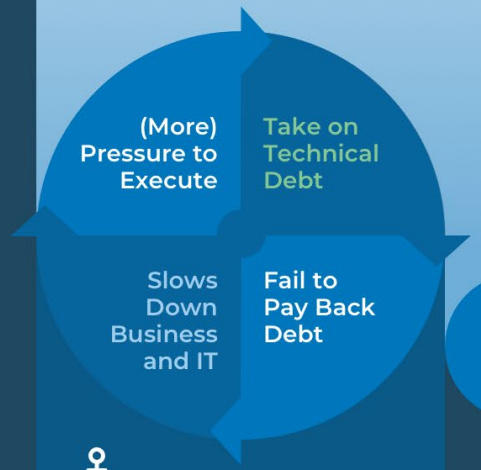
CORE INSIGHT

You'll always have technical debt.

Tech debt is a byproduct of the relentless pace of technological change and the realities of IT solutioning. It can't be avoided. At the same time, you have to manage how much technical debt you carry. If you don't keep technical debt under control, your "interest payments" will prevent you from delivering new features.



Managing technical debt is like bailing out a leaky boat. If you can't get rid of tech debt at least as fast as you take on new debt, eventually, you'll be under water.

There are two ways to **manage the growth rate** of technical debt:

AVOID NEW TECH DEBT

- Fix project closure and release processes.
- Improve architectural practices.
- Proactively budget for technology replacement.
- Address smaller issues iteratively through the backlog.

PAY BACK EXISTING TECH DEBT

- Replace or retire legacy systems.
- Refactor or rebuild poorly written or non-standard code.
- Refresh aging equipment.
- Rehost systems, or migrate to a new environment.

Ultimately, technical debt is a technical risk, which in turn is a business risk that must be accepted or mitigated. To make good decisions on risk mitigation, you need to understand the size of the risk and the options available to address it.

Info-Tech's methodology

1. IDENTIFY

Develop a working definition of technical debt, and identify the critical technical debt in your environment.

2. MEASURE

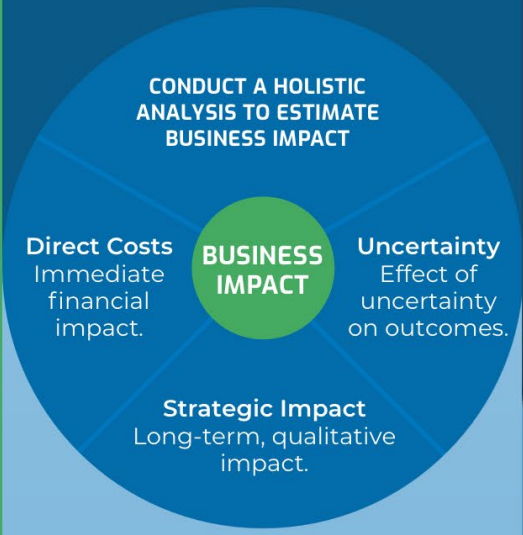
Estimate the hidden business costs of technical debt with a **Business Impact Analysis**.

3. SOLVE (MITIGATE/ACCEPT)

Generate ideas to pay back high-impact technical debt, along with ideas to accept and manage debt. Present the business risk and mitigation options to business leadership, as needed.

FOCUS ON PROBLEMS YOU MUST SOLVE

Tech debt analysis should lead to concrete recommendations and practical, measurable results. Don't burn cycles on an issue you can't do anything to address.



REFACTOR, REBUILD, REHOST, (RE)PURCHASE, OR RETIRE

Consider a range of approaches to pay back tech debt and compare the value, effort, and cost required to repay debt with the impact of maintaining the status quo.

PESTLE Assessment

Key Considerations to inform PESTLE Analysis

For each prompt below, always try to answer the question: how does this affect my business?

Political	• Will a change in government (at any level) affect your organization? • Do inter-government or trade relations affect you? • Are there shareholder needs or demands that must be considered?	• How are your costs changing (moving off-shore, fluctuations in markets, etc.)? • Do currency fluctuations have an effect on your business? • Can you attract and pay for top-quality talent (e.g. desirable location, reasonable cost of living, changes to insurance requirements)?	**Economic**
Social	• What are the demographics of your customers and/or employees? • What are the attitudes of your customers and/or staff (do they require social media, collaboration, transparency of costs, etc.)? • What is the general lifecycle of an employee (i.e. is there high turnover)? • Is there a market of qualified staff? • Is your business seasonal?	• Do you require constant technology upgrades (faster network, new hardware, etc.)? • What is the appetite for innovation within your industry/business? • Are there demands for increasing data storage, quality, BI, etc.? • Are you looking at cloud technologies? • What is the stance on bring your own device? • Are you required to do a significant amount of development work in-house?	**Technological**
Legal	• Are there changes to trade laws? • Are there changes to regulatory requirements, e.g. data storage policies or privacy policies? • Are there union factors that must be considered?	• Is there a push towards being environmentally friendly? • Does the weather have any effect on your business (hurricanes, flooding, etc.)?	**Environmental**

Thank You