

January 15, 2024



IT Strategy 2024-25

How IT will support Earlham College's Strategic Priorities in FYs 24-25

Message from the AVP of IT (CIO)

What is Earlham's 24-25 IT strategy?

This strategy document provides an overview of Information Technology Services' (ITS) direction over the next 2-3 years. It indicates how ITS will align resources, efforts, and budget to support Earlham's strategic goals and priorities.

ITS leadership and the Technology Advisory Council (TAC) formed this strategy based on input from more than 100 members of the Earlham community as well as the entire ITS team. The key initiatives described in this document will support achievement of the College's mission and goals.

Thank you to all who helped assess our current state, envision our future state, and prioritize initiatives to close the associated gaps. I look forward to working with all of you in helping Earlham College achieve its strategic goals and objectives.

**Insight: Everything ITS does should support the organization. A good strategy links IT initiatives to organizational goals and objectives. A well-crafted strategy enhances community satisfaction and strengthens relationships.*



Michael Bottorff,
*Associate Vice President of
Information Technology*

Earlham College 24-26 IT Strategy At-A-Glance

The top IT initiatives directly align with Earlham’s key initiatives and improve IT product and service delivery. The FY24-26 strategy will shift ITS into a strategic enabler for the College.



*Info-Tech Maturity Assessment

ORGANIZATIONAL SUPPORT

Increase Customer Satisfaction to*

- Build an IT staff development plan
- Implement Microsoft software ecosystem
- Assess and improve Banner environment
- Select and implement new housing software
- Right-size and update student computers
- Update and improve role-based permissions
- Right-size and refresh printer fleet
- Select and implement new advancement software
- Implement security awareness and training program
- Develop and implement ITS communications plan

*IT stakeholder satisfaction data



IT EXCELLENCE

Raise % of Highly Effective IT Processes to*

- Develop and implement IT asset management strategy
- Implement new cloud-based email spam filter
- Establish software implementation standards
- Review and update service desk processes
- Select and implement new service desk software
- Deploy Windows 11
- Build a software catalog

*IT management and governance diagnostic data



INNOVATION

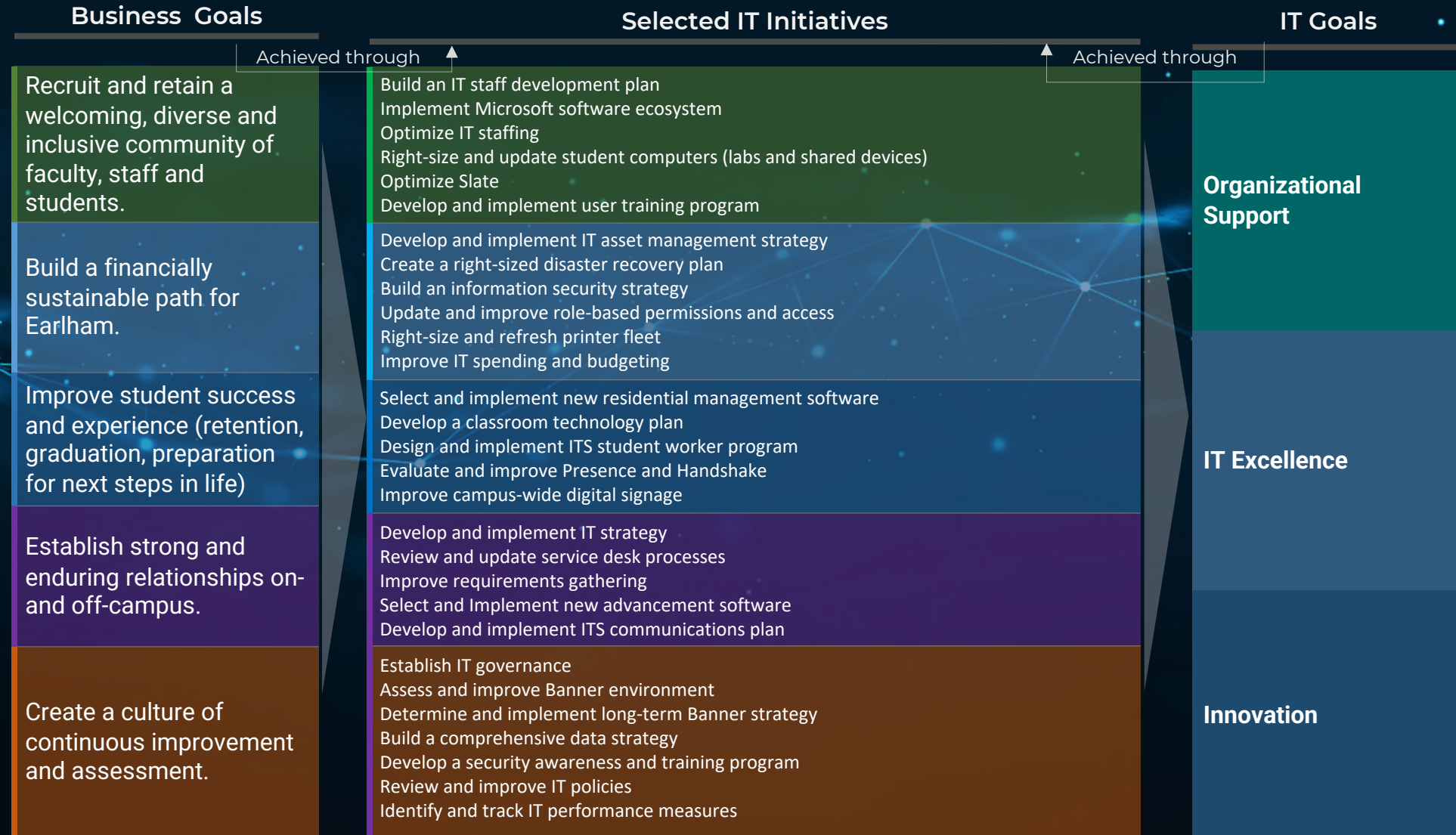
Improve IT Innovation Leadership score by*

- Build a comprehensive data strategy
- Assess potential for AI to enhance service desk

*IT vision stakeholder satisfaction and CEO-CIO alignment data



Key IT initiatives align with Earlham Strategic Goals



Earlham's mission and principles frame IT strategy

Earlham College

Mission

To provide the highest quality undergraduate education in the liberal arts, including the sciences, shaped by the distinctive perspectives of the Religious Society of Friends (Quakers).

Principles & Practices

- Respect for Persons
- Integrity
- Peace and Justice
- Simplicity
- Community

Information Technology Services (ITS)

Mission

ITS provides innovative technology and services that empower Earlham to fulfill its educational mission. ITS accomplishes this through highly skilled IT staff, best fit solutions, a sustainable technical infrastructure, and adherence to the College's Principles and Practices.

Vision

A trusted partner and technology leader delivering the highest quality customer experience.

Guiding Principles

- Simplicity
- Enterprise Value
- Standardization
- Customer Focus
- Innovation

Earlham's strategic objectives guide IT strategy

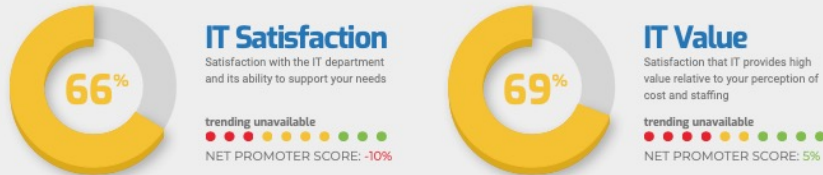
Strategic Initiatives	Recruit and retain a welcoming, diverse and inclusive community of faculty, staff and students.	Build a financially sustainable path for Earlham.	Improve student success and experience (retention, graduation, preparation for next steps in life	Establish strong and enduring relationships on- and off-campus.	Create a culture of continuous improvement and assessment.
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Earlham College PESTLE Analysis – Spring 2023

Political	<ul style="list-style-type: none"> • Visa restrictions impact ability to recruit international students • Possible state-level restrictions on endowment use • Uncertainty over student aid policies 	<ul style="list-style-type: none"> • Uncertainty over student aid policies • Demand for more practical programs • Inflationary impact on salary demands • Increasing technology costs • Possible restrictions on endowment use 	Economic
Social	<ul style="list-style-type: none"> • Trend of more lower income students • Less international and in-state students • Expectations regarding digital offerings for student experience 	<ul style="list-style-type: none"> • Security (permissions, access, etc.) • Demand for improved collaboration tools • Demand for improved data governance, integration and analytics capabilities • Need for refresh budget cycle • Student lab and classroom technology upgrades • Improved use of finance/HR/student data systems • Impact and/or potential of advanced AI technologies (e.g. Chatbots, student predictors of success, etc.) 	Technological
Legal	<ul style="list-style-type: none"> • Data privacy (e.g. FERPA, GDPR) • Ever changing federal, state reporting & compliance demands • GLBA security requirements 	<ul style="list-style-type: none"> • Disaster recovery strategy in dealing with weather events and power outages 	Environment

IT Customer Satisfaction - Spring 2023

IT Satisfaction Scorecard



72% **Understands Needs**
Satisfaction with IT's understanding of your needs.
trending unavailable

69% **Executes Requests**
Satisfaction with the way IT executes your requests and meets your needs.
trending unavailable

65% **Communicates Effectively**
Satisfaction with IT communication.
trending unavailable

58% **Trains Effectively**
Satisfaction with training quality and timing.
trending unavailable



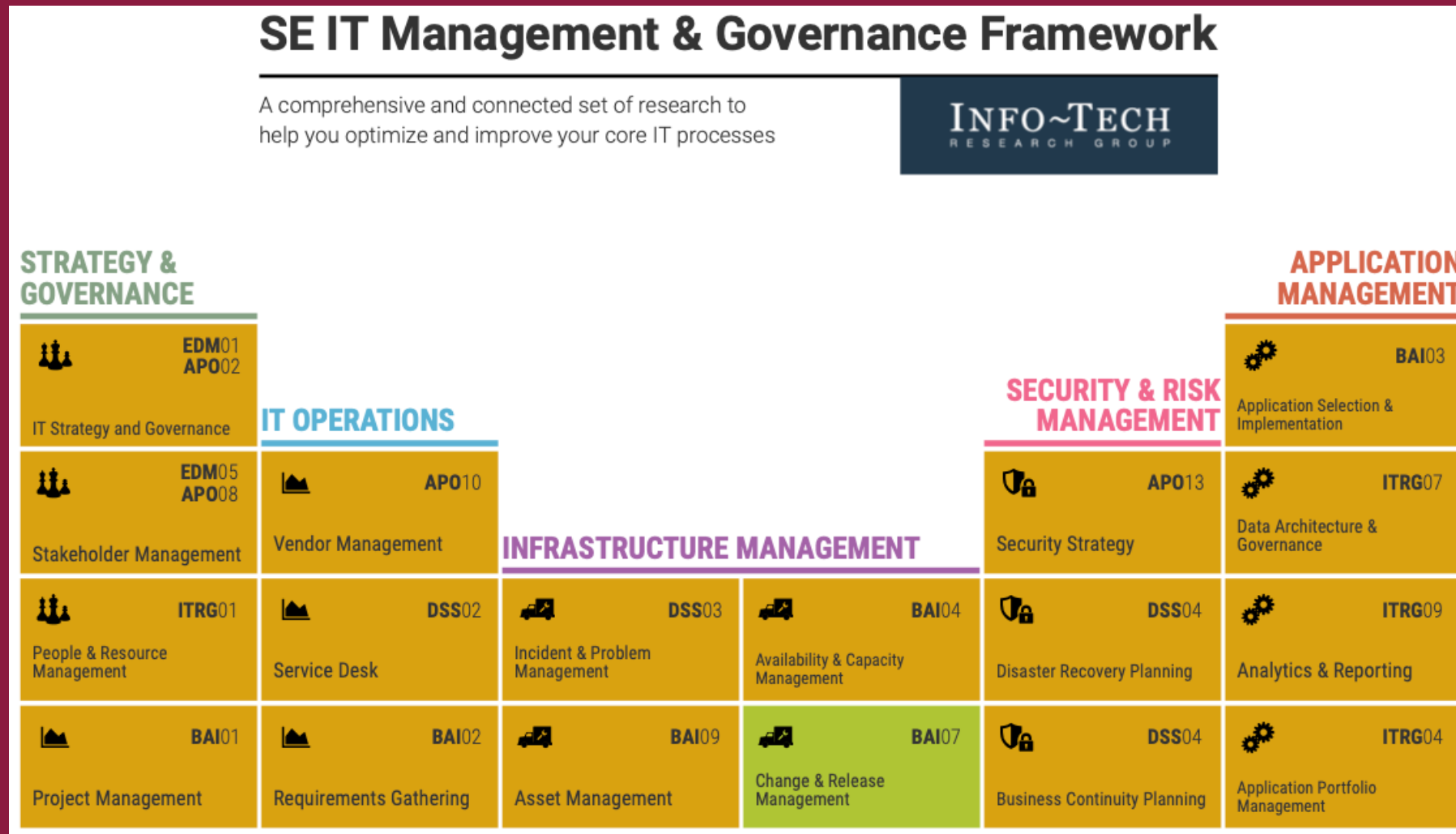
Business Satisfaction and Importance for Core Services

The core services of IT are important when determining what IT should focus on. The most important services with the lowest satisfaction offer the largest area of improvement for IT to drive business value.

		Satisfaction	Importance
Service Desk	Satisfaction with responsiveness and effectiveness of service desk	76% trending unavailable	6 TH
Work Orders	Satisfaction with small requests and bug fixes	71% trending unavailable	8 TH
Data Quality	Satisfaction with providing reliable and accurate data	70% trending unavailable	5 TH
IT Security	Satisfaction that organizational devices and data are properly secured.	70% trending unavailable	2 ND
Devices	Satisfaction with desktops, laptops, mobile devices etc.	68% trending unavailable	4 TH
Network & Comm. Infrastructure	Satisfaction with reliability of comm. Systems and networks	67% trending unavailable	1 ST
IT Policies	Satisfaction with policy design and enforcement around security, governance, etc....	67% trending unavailable	11 TH
Analytical Capability and Reports	Satisfaction with effective standard reports, custom reports capability, and the ability to generate business insights	63% trending unavailable	7 TH
Client-Facing Technology	Satisfaction with user experience and effectiveness	62% trending unavailable	10 TH
Projects	Satisfaction with large department or corporate projects	62% trending unavailable	9 TH
Requirements Gathering	Satisfaction with BA's ability to understand and support the business	58% trending unavailable	13 TH
Business Apps	Satisfaction with applications and functionality	58% trending unavailable	3 RD
IT Innovation Leadership	Satisfaction with providing opportunities for innovation and innovation leadership to improve the business	55% trending unavailable	11 TH

IT will focus on the highest importance, but lowest performing services and capabilities to drive improved satisfaction levels and enhance IT service delivery maturity.

IT Process Capabilities - Spring 2023



Legend: survey results

- High Importance And High Effectiveness
- Low Importance And High Effectiveness
- Low Importance And Low Effectiveness
- High Importance And Low Effectiveness

Top IT Processes and Accountabilities - Spring 2023

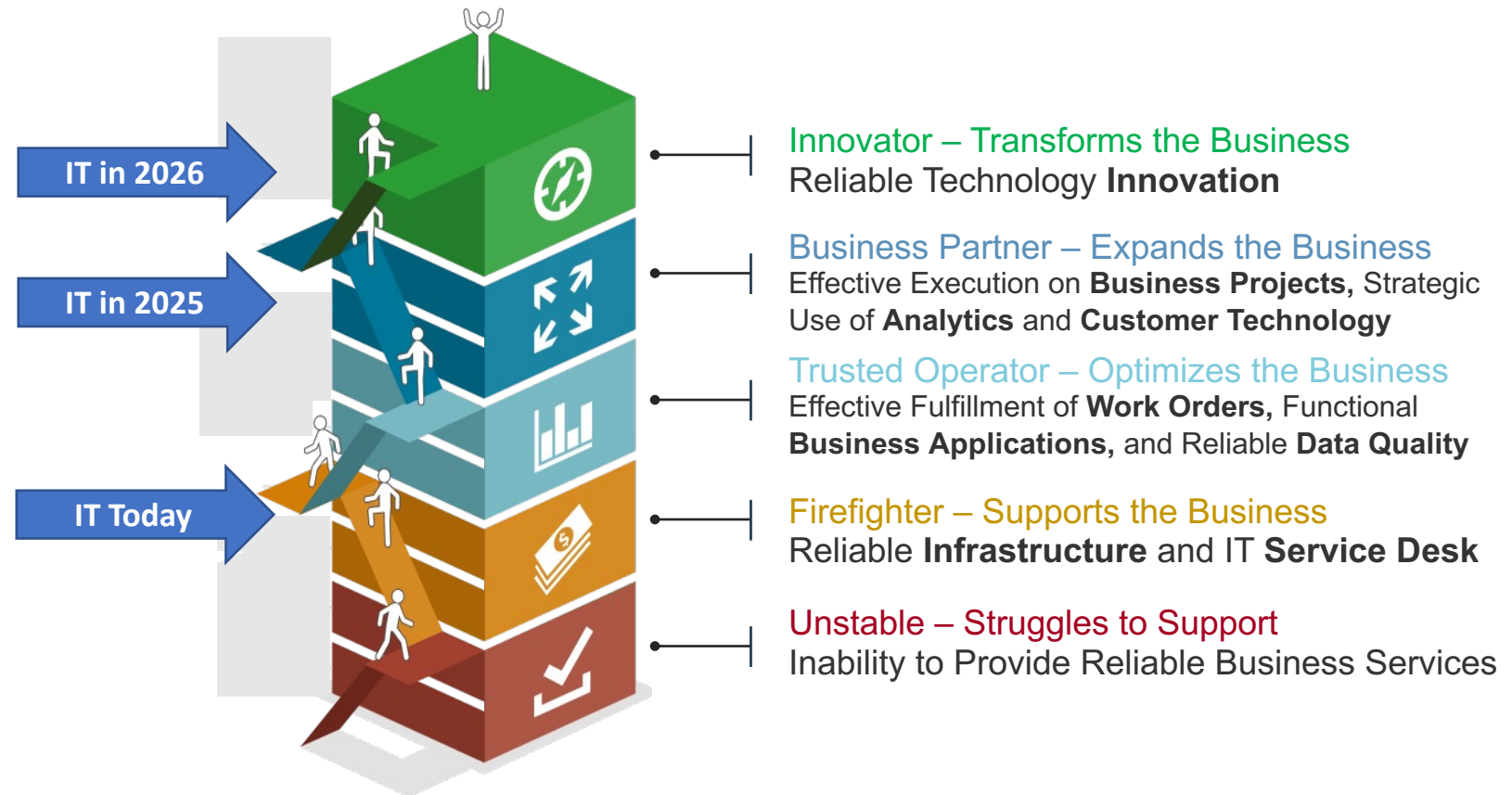
EDM01 APO02  IT Strategy and Governance		EDM05 APO08  Stakeholder Management		BAI09  Asset Management	
Criticality Rankings 1	6th Most Important Process (out of 18) Average Importance score 8.6	Criticality Rankings 2	3rd Most Important Process (out of 18) Average Importance score 8.8	Criticality Rankings 3	9th Most Important Process (out of 18) Average Importance score 8.2
	18th Most Effective Process (out of 18) Average Effectiveness score 4.3		15th Most Effective Process (out of 18) Average Effectiveness score 4.8		17th Most Effective Process (out of 18) Average Effectiveness score 4.3
BAI02  Requirements Gathering		ITRG07  Data Architecture & Governance		DSS04  Business Continuity Planning	
Criticality Rankings 4	10th Most Important Process (out of 18) Average Importance score 8.2	Criticality Rankings 5	7th Most Important Process (out of 18) Average Importance score 8.5	Criticality Rankings 6	8th Most Important Process (out of 18) Average Importance score 8.3
	14th Most Effective Process (out of 18) Average Effectiveness score 4.8		11th Most Effective Process (out of 18) Average Effectiveness score 5.3		9th Most Effective Process (out of 18) Average Effectiveness score 5.5

IT SWOT Analysis - Spring 2023

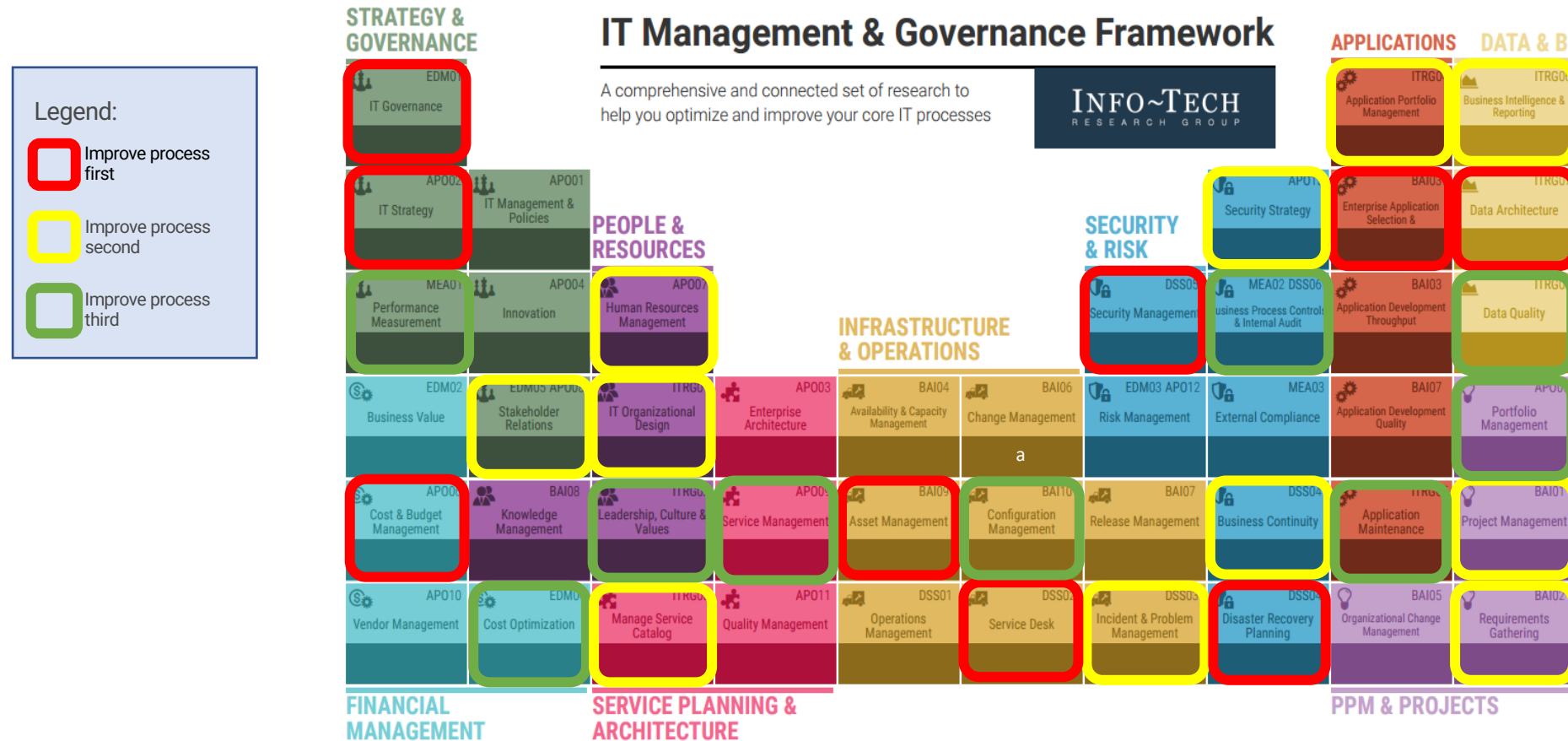
Strengths (Internal)	Weaknesses (Internal)
<ul style="list-style-type: none">• Depth of staff knowledge and experience• Service desk• Staff customer service oriented• Willingness to innovate• Network infrastructure• Being able to address specialized requests• Change management• Internal teamwork (understanding of roles and tools, communication, willingness to collaborate and pitch in)	<ul style="list-style-type: none">• Resource capacity (limited dollars and staff)• Lack of IT Governance (federated, ad hoc decision-making, distributed IT spending, security vulnerabilities)• Impact of not having CIO for lengthy period (e.g., no cheerleader to highlight IT accomplishments)• Lack of process documentation in some areas (and user documentation)• Data architecture and integration• Business applications (e.g., productivity)
Opportunities (External)	Threats (External)
<ul style="list-style-type: none">• vCISO (GreyCastle) and managed infrastructure partner (Apogee)• Improved tools and platforms (e.g, data backup and restoration, DNS management & security tool, centralized purchasing, active directory/Azure account management, email filtering)• Improved use of existing tools (e.g., Banner audit/assessment)• Better definition and implementation of role-based permissions and access• Classroom technology more easily virtualized• Seminary relationship(s) and support• Automated workflow for common processes	<ul style="list-style-type: none">• Student enrollment• Regulation & compliance changes• Security (internal awareness, increasing external threats, phishing attempts, ransomware)• Limited understanding of ITS' capacity and capability to deliver solutions.• Lack of clarity regarding IT alignment with college goals• Limited coordination with ITS• Lack of knowledge/training for data reporting & analytics• Willingness of business to adopt innovation ideas (culture?)• Shadow IT in various other departments

IT Maturity

The IT Strategy and Key Initiative Plan contain projects and initiatives focused on improving our vital core processes and capabilities, aimed at transforming ITS's role to lead digital transformation at Earlham College.



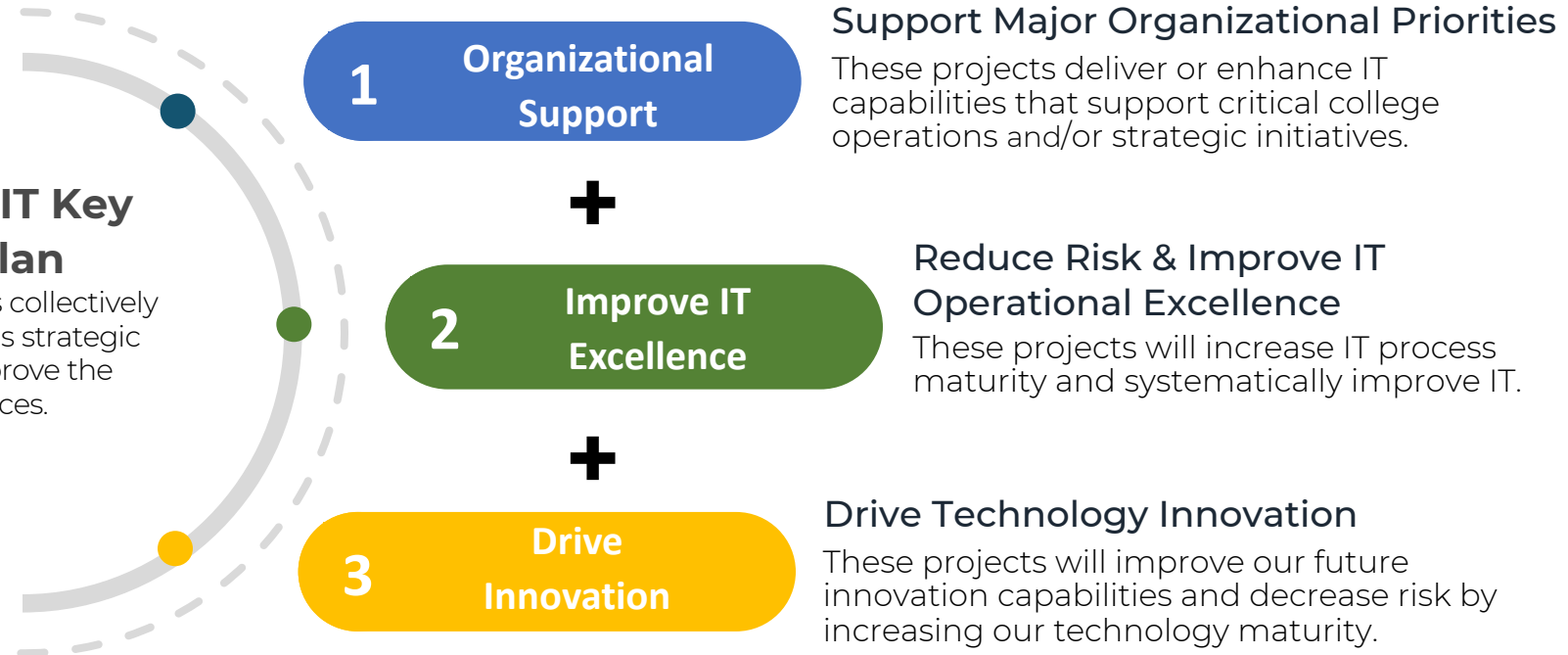
IT Process Improvement



Key Initiatives – Overview

2024-2026 IT Key Initiative Plan

Our key initiatives collectively support Earlham's strategic priorities and improve the delivery of IT services.



Key Initiatives – Organizational Support



- ✓ **Develop and implement IT strategy**
- ✓ Build an IT staff development plan
- ✓ **Select/implement new productivity ecosystem (multiple projects)**
- ✓ **Assess/improve Banner environment**
- ✓ **Establish IT governance**
- ✓ **Update Banner-Moodle Integration**
- ✓ **Determine/implement long-term Banner strategy**
- ✓ Optimize IT staffing
- ✓ **Select/implement new residential management software**
- ✓ Improve requirements gathering
- ✓ **Right-size and update student computers (labs and shared devices)**
- ✓ **Create a right-sized disaster recovery plan**
- ✓ **Update and improve role-based permissions and access**
- ✓ **Right-size and refresh printer fleet**
- ✓ **Implement security awareness and training program**
- ✓ **Select/implement new advancement software**
- ✓ **Optimize Slate**
- ✓ Improve IT spending and budgeting
- ✓ **Develop and implement ITS communications plan**
- ✓ **...14 additional projects**

Key Initiative Roadmap – Organizational Support

INITIATIVE NAME	Q1 24	Q2 24	Q3 24	Q4 24	Q1 25	Q2 25	Q3 25	Q4 25	Q1 26	Q2 26	Q3 26	Q4 26
Develop and implement IT strategy												
Build an IT staff development plan												
Select new enterprise productivity and collaboration ecosystem												
_ Replace Zimbra with Microsoft Outlook/Exchange												
_ Replace Zoom with Microsoft Teams												
_ Replace Duo with Microsoft Authenticator												
_ Replace Box with Microsoft OneDrive/SharePoint												
_ Replace Slack with Microsoft Teams												
Assess Banner environment												
Establish IT governance												
_ Improve Banner environment												
Update Banner-Moodle integration												
Determine long-term Banner strategy												
_ Implement long-term Banner strategy												
Optimize IT staffing												
Select new residential management software												
_ Implement new residential management software												
Improve requirements gathering												
Right-size and update student computers (labs and shared devices)												

Key Initiative Roadmap – Organizational Support (cont.)

INITIATIVE NAME	Q1 24	Q2 24	Q3 24	Q4 24	Q1 25	Q2 25	Q3 25	Q4 25	Q1 26	Q2 26	Q3 26	Q4 26
Create a right-sized disaster recovery plan												
Update and improve role-based permissions and access												
Right-size and refresh printer fleet												
Implement security awareness and training program												
Select new advancement software												
_Implement new advancement software												
Optimize Slate												
Improve IT spending and budgeting												
_Improve IT spending and budgeting (part 2)												
Develop and implement ITS communications plan												
Inventory and retire SQR programs												
Deprecate decode in SQL												
Deprecate Oracle outer join												
Develop and implement user training program												
Build a business continuity plan												
Develop classroom technology plan												
Install upgraded backup Internet connection												
Design and implement ITS student worker program												
...6 other projects												

Key Initiatives – IT Excellence



- ✓ Develop and implement IT asset management strategy
- ✓ Implement new cloud-based email filter
- ✓ Establish software implementation standards and playbook
- ✓ Review and update service desk processes
- ✓ Build a software catalog
- ✓ Build an information security strategy
- ✓ Complete network infrastructure redesign
- ✓ Fully implement Intune/AutoPilot and Jamf Connect
- ✓ Deploy Windows 11
- ✓ Select new service desk software
- ✓ Implement new service desk software
- ✓ Develop effective IT project management processes
- ✓ Upgrade/retire services running Microsoft Server Operating System 2012
- ✓ Retire old “ECS” domain
- ✓ Establish security governance & management
- ✓ Fine tune service desk processes
- ✓ Upgrade/retire servers running CentOS 7.x
- ✓ Improve internal IT controls and protocols
- ✓ Select and implement vulnerability scanning software
- ✓ Standardize personal computer operating system environment
- ✓ Review & improve IT policies
- ✓ Standardize server operating systems

Key Initiative Roadmap – IT Excellence

INITIATIVE NAME	Q1 24	Q2 24	Q3 24	Q4 24	Q1 25	Q2 25	Q3 25	Q4 25
Develop and implement IT asset management strategy								
Implement new cloud-based email spam filter								
Establish software implementation standards and playbook								
Review and update service desk processes								
Build a software catalog								
Build an information security strategy								
Complete network infrastructure redesign								
Fully implement InTune/AutoPilot and Jamf Connect								
Deploy Windows 11								
Select new service desk software								
_ Implement new service desk software								
Develop effective IT project management processes								
Upgrade/retire servers running Microsoft Server Operating System 2012								
Retire old "ECS" domain								
_ Establish security governance & management								
_ Fine tune service desk processes								
Upgrade/retire servers running CentOS 7.x								
Improve internal IT controls and protocols								
...4 other projects								

Key Initiatives – Innovation

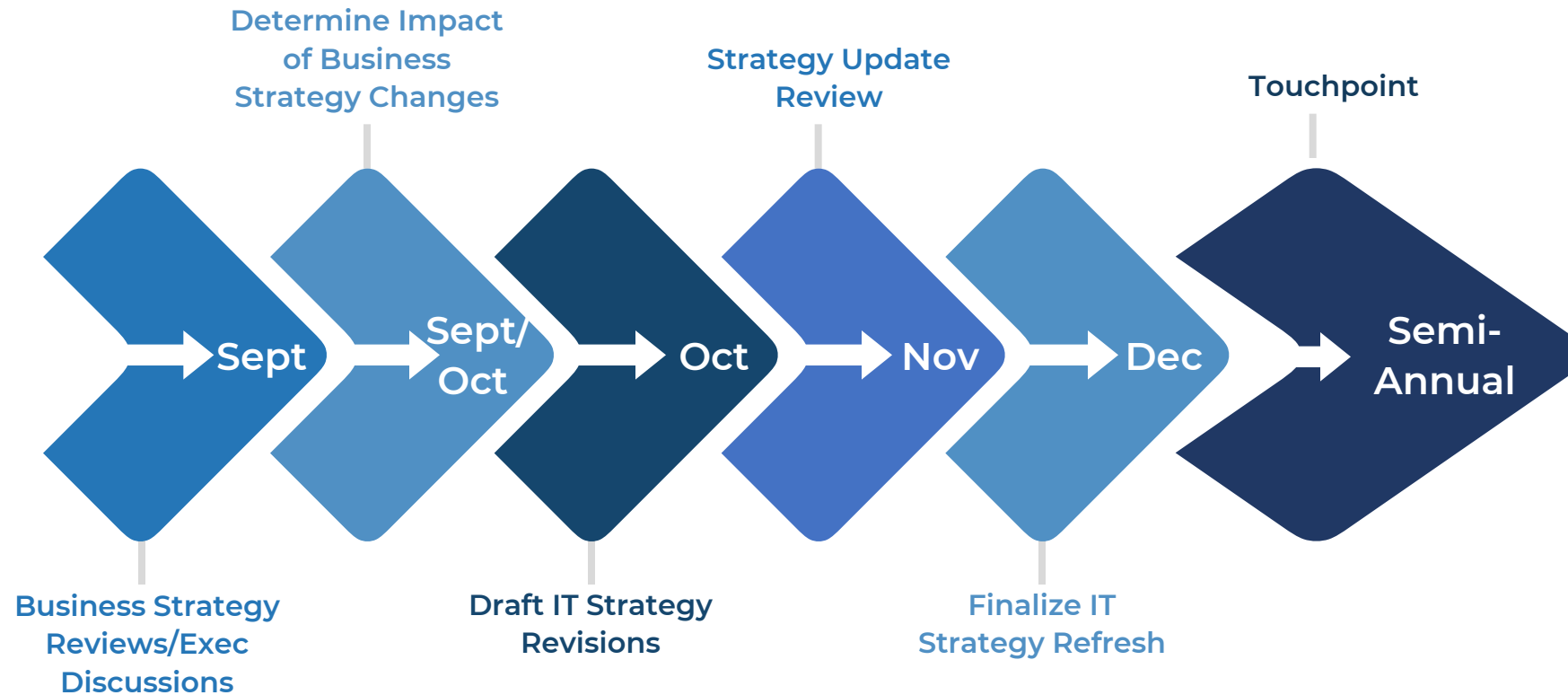


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- ✓ **Build a comprehensive data strategy**
 - ✓ **Data strategy project #1**
 - ✓ **Data strategy project #2**
 - ✓ **Assess potential for AI to enhance service desk**
 - ✓ **Assess potential for AI to predict student success and need for intervention**
 - ✓ **Assess potential for AI to inform future strategic initiatives**
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Key Initiative Roadmap – Innovation

INITIATIVE NAME	Q1 24	Q2 24	Q3 24	Q4 24	Q1 25	Q2 25	Q3 25	Q4 25
Build a comprehensive data strategy								
_ Data strategy project #1								
_ Data strategy project #2								
Assess potential for AI to enhance service desk								
Assess potential for AI to predict student success and need for intervention								
Assess potential for AI to inform future strategic initiatives								

IT Strategy Refresh Cycle



IT Performance Metrics

IT Performance Metric	Area	Score
Percent of IT initiatives that support organizational goals	Organizational Support	100%
Percent of organizational goals supported by IT initiatives	Organizational Support	100%
Organizational IT satisfaction	Organizational Support	66% (2023)
Organizational IT value	Organizational Support	69% (2023)
Percent of IT initiatives achieving projected benefits	Organizational Support	TBD
IT capabilities created or enhanced	IT Excellence	N/A
ITS understands organizational needs	IT Excellence	72% (2023)
ITS communicates effectively	IT Excellence	65% (2023)
ITS executes requests	IT Excellence	69% (2023)
Percent of IT initiatives integrated as part of ITS performance goals	IT Excellence	0%
TBD	Innovation	TBD