Governance: Best Practices & Recommendations

Deepti Kochhar

Practice Lead – Global Development & Humanitarian

2023 ESRI USER CONFERENCE

esri | THE SCIENCE OF WHERE

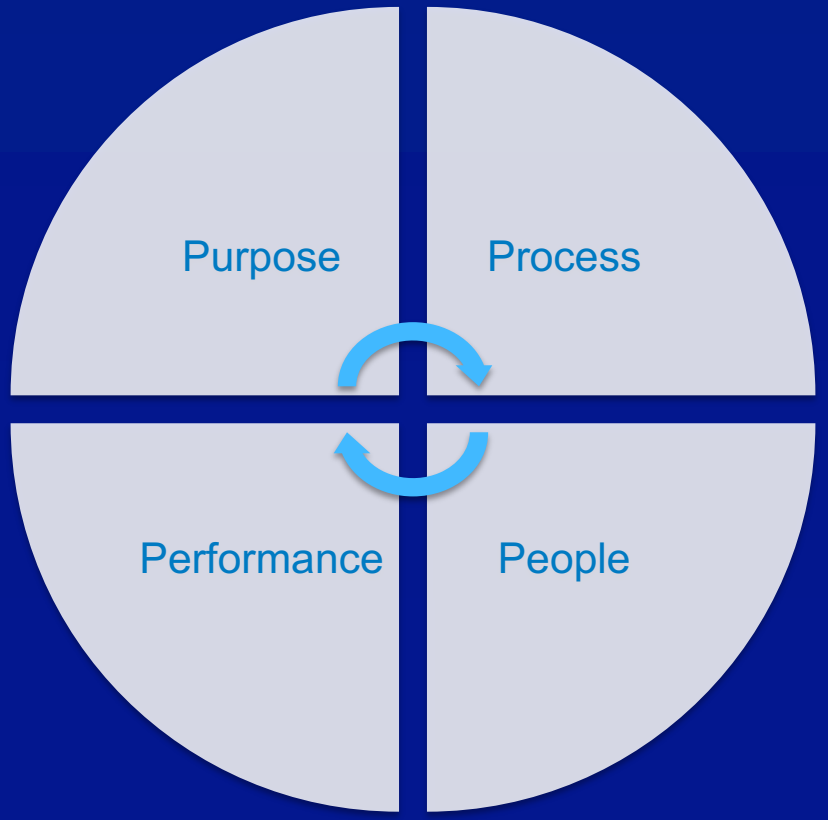
What is Governance?

'… the processes that ensure
effective and efficient use of information technology
in enabling an organization to achieve its business goals'

- Gartner

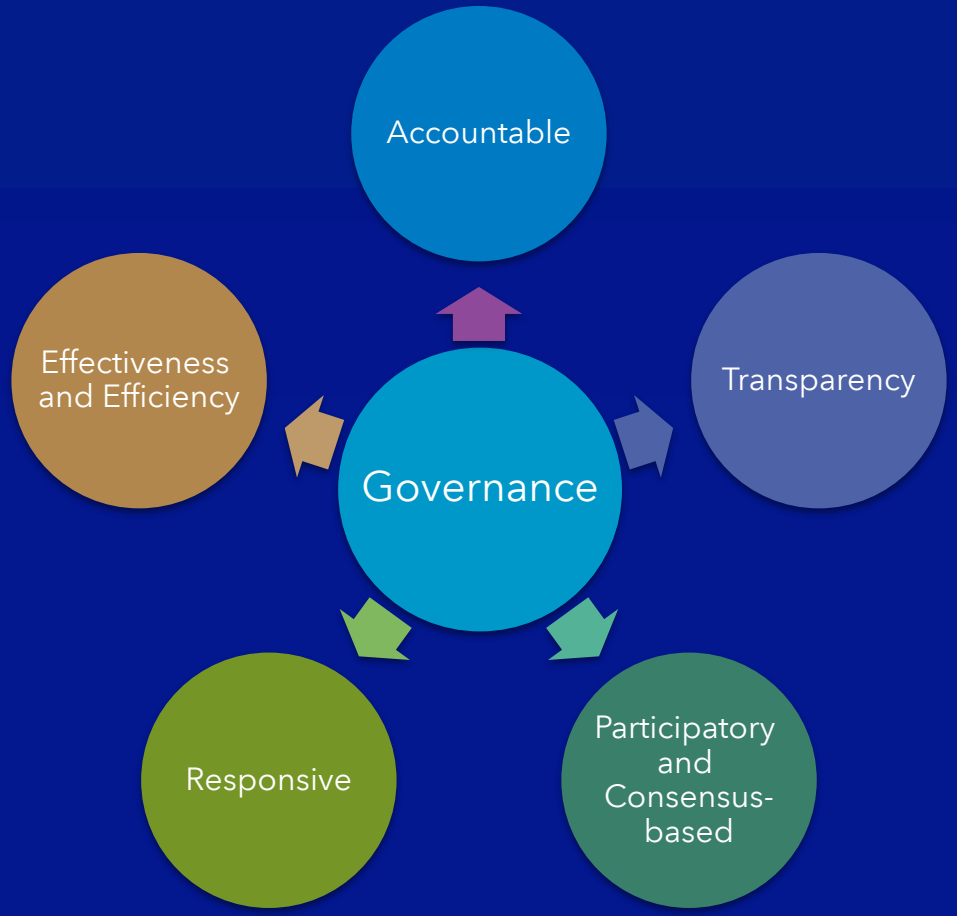
Organization Governance

The 4 P's of Governance



How does Governance help?

What value does Geospatial Governance Provide?



Governance exists to create stakeholder value

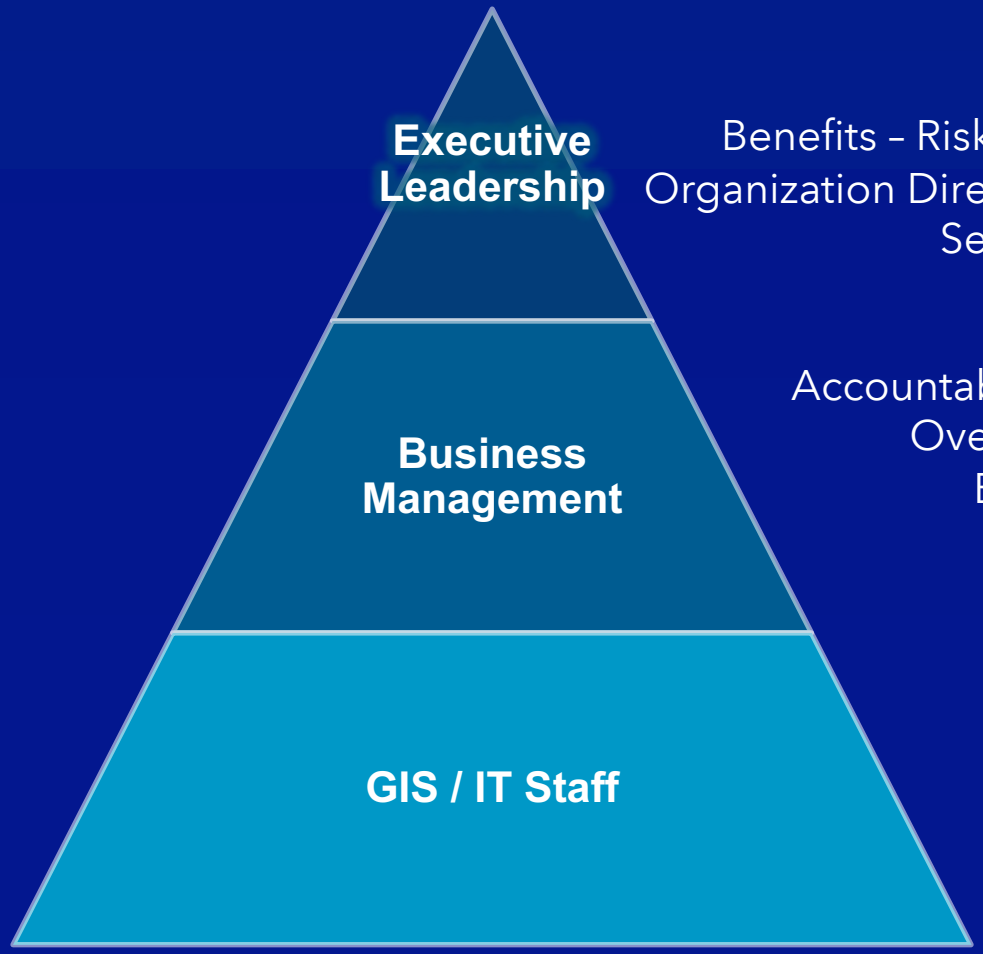
Why Governance is so critical to organizations?

What do the Executive care about?

- Improve organization's institutional trust
- Go all-in on zero-trust security
- Create value in the assets – Data and Technology
- Engage and involve staff
- Optimize resources

Recent Info-Tech research results of Executives interview

Benefits of Governance to Organizations – Drive Value



Benefits – Risks – Resources
Organization Direction and Policies
Set Goals & Metrics

Accountability - Compliance –
Oversight – Resolution
Establish Procedures
Manage Goals & Metrics

Roles & Responsibilities
Adherence to Procedures
Perform Activities

Governance Framework

Governance Framework

Business Drivers → Governance Issues → Governance Plan

- How are we meeting Organizations Goals? (Purpose)
- What Controls To Be Established? (Process)
- Who Will Make The Decisions? (People)
- How Effective and Efficient is the Organization? (Performance)

Business

Strategy

Investment

Organization

Systems

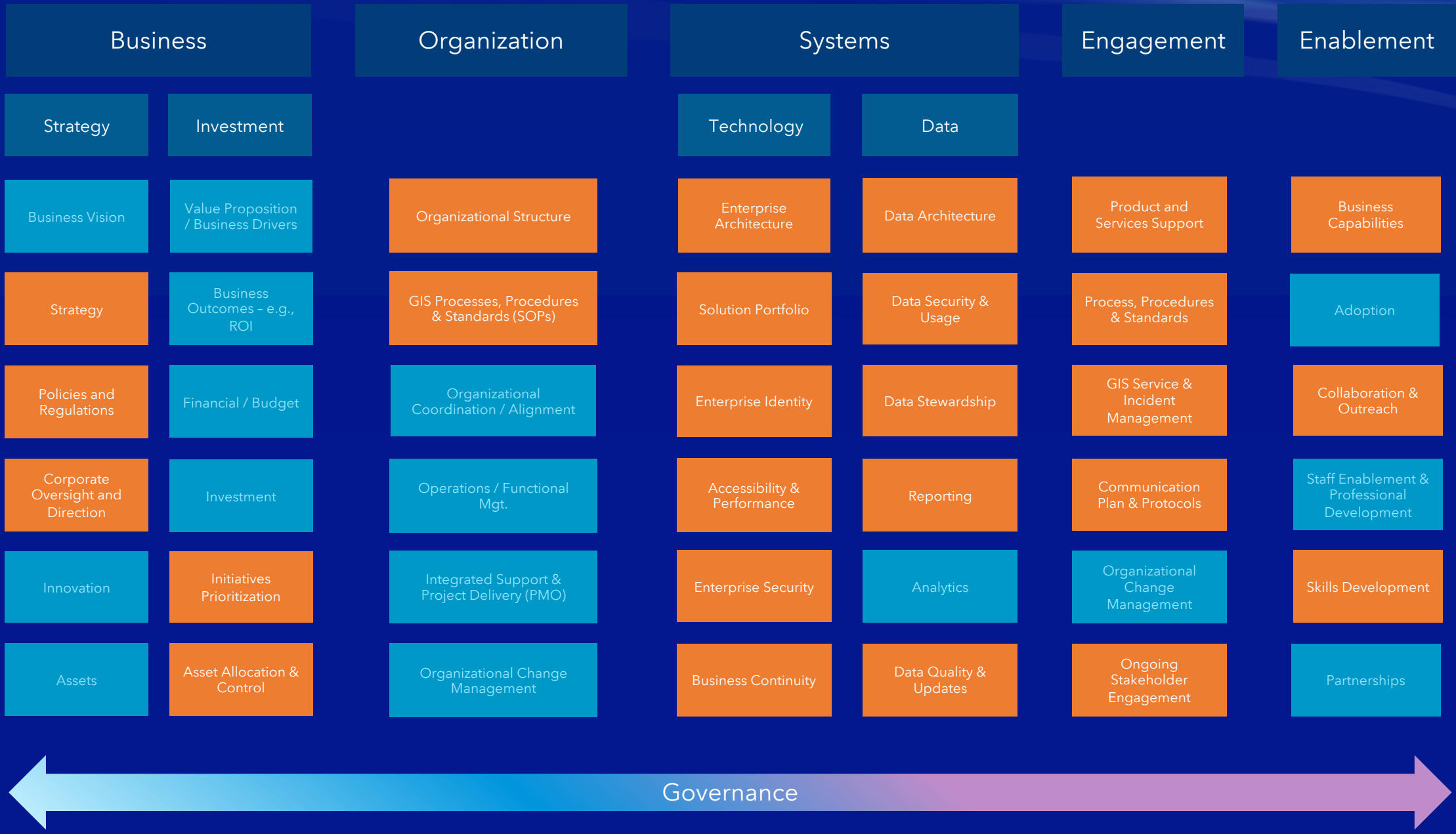
Technology

Data

Engagement

Enablement


Business
Organization
Systems
Engagement
Enablement
Strategy
Investment
Technology
Data
Business Vision
Value Proposition / Business Drivers
Organizational Structure
Enterprise Architecture
Data Architecture
Product and Services Support
Business Capabilities
Strategy
Business Outcomes – e.g., ROI
GIS Processes, Procedures & Standards (SOPs)
Solution Portfolio
Data Security & Usage
Process, Procedures & Standards
Adoption
Policies and Regulations
Financial / Budget
Organizational Coordination / Alignment
Enterprise Identity
Data Stewardship
GIS Service & Incident Management
Collaboration & Outreach
Corporate Oversight and Direction
Investment
Operations / Functional Mgt.
Accessibility & Performance
Reporting
Communication Plan & Protocols
Staff Enablement & Professional Development
Innovation
Initiatives Prioritization
Integrated Support & Project Delivery (PMO)
Enterprise Security
Analytics
Organizational Change Management
Skills Development
Assets
Asset Allocation & Control
Organizational Change Management
Business Continuity
Data Quality & Updates
Ongoing Stakeholder Engagement
Partnerships
Governance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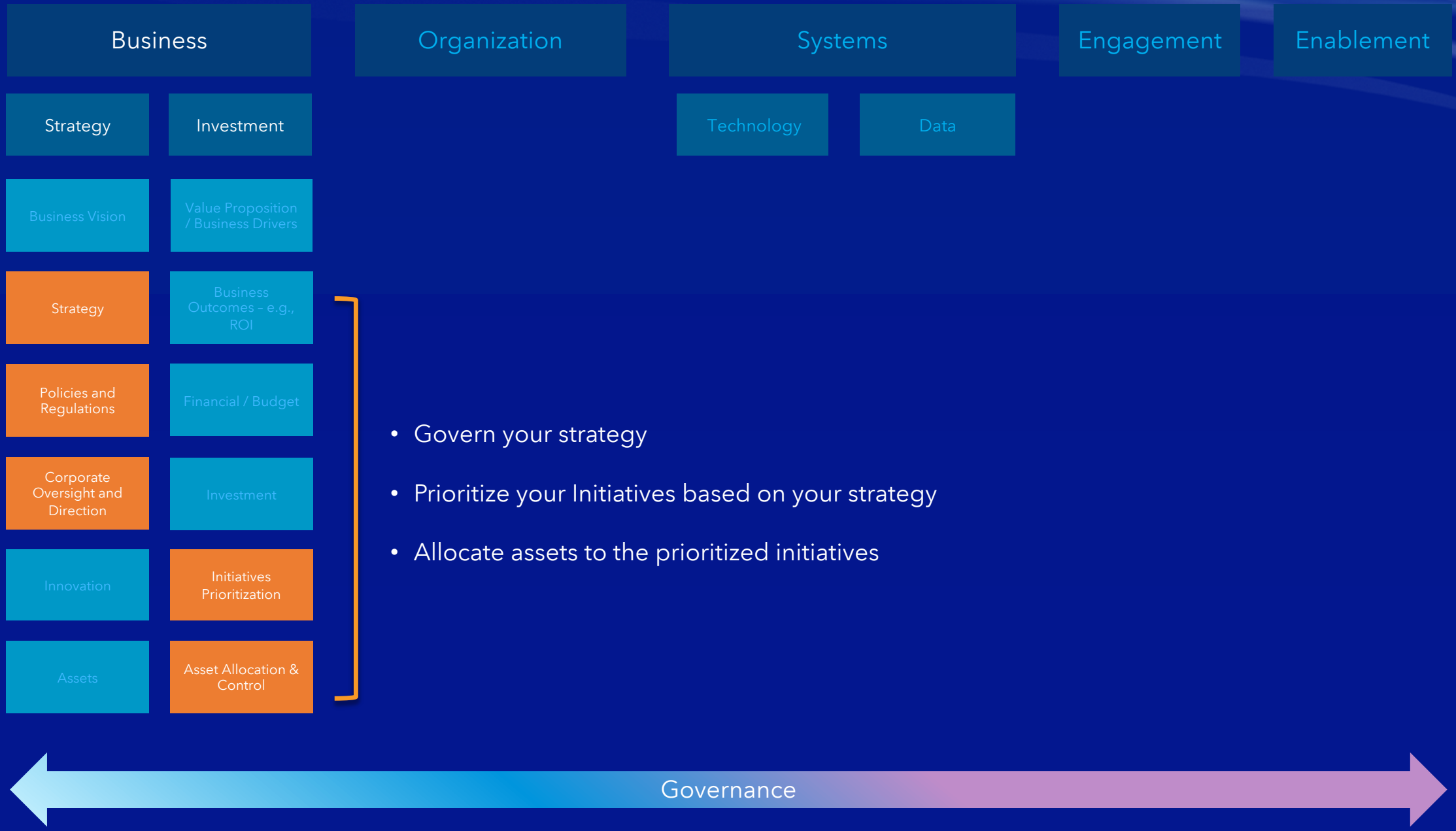
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Innovation
Initiatives Prioritization
Assets
Asset Allocation & Control
• Govern your strategy
• Prioritize your Initiatives based on your strategy
• Allocate assets to the prioritized initiatives
Governance

Business | Organization | Systems | Engagement | Enablement

Strategy | Investment | Technology | Data

- Organizational Structure
- GIS Processes, Procedures & Standards (SOPs)
- Organizational Coordination / Alignment
- Operations / Functional Mgt.
- Integrated Support & Project Delivery (PMO)
- Organizational Change Management

- Set an organization structure that meets your organizations needs
- Create processes and procedures to support decision making and ownership
- Align your organization structure to strategy

Governance

Business | Organization | Systems | Engagement | Enablement

Strategy | Investment

Technology | Data

- Design and manage your enterprise to promote sharing
- Create data governance
- Review and revise your policies to meet security needs

Governance

Business

Organization

Systems

Engagement

Enablement

Strategy

Investment

Technology

Data

- Communicate your processes and priorities
- Engage regularly with stakeholders
- Provide professional development

Governance

Optimize Governance for Your Organization

Organizational elements working independently

Data elements and files

Individual applications and tools

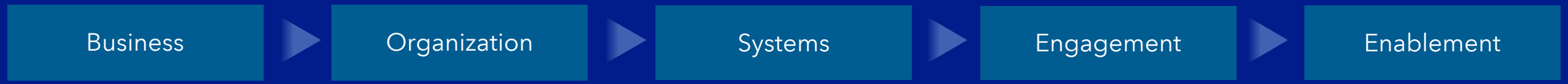
Optimize Governance for Your Organization

Organizational elements working independently	Informal collaboration between departments & groups	Key staff collaborate on regular basis via community	Multi-organization steering committee working to define plan
Data elements and files	Centralized Data Repository and sharing	Data reuse and collaboration	Standards based data services and sharing
Individual applications and tools	Centralized application and Sharing	Self-serve mapping and enterprise application	Cross organization collaboration and applications and Tools

Limited leadership, planning and collaboration

High degree of leadership, planning and collaboration

Best Practices



Best Practices

Business

- Govern your business strategy to get optimal outcomes
- Prioritize your Initiatives

Organization

- Create organization structure model that best meet your needs
- Define business processes for your GIS

Systems

- Create best practices for managing your Enterprise GIS
- Identify and manage your critical data

Engagement

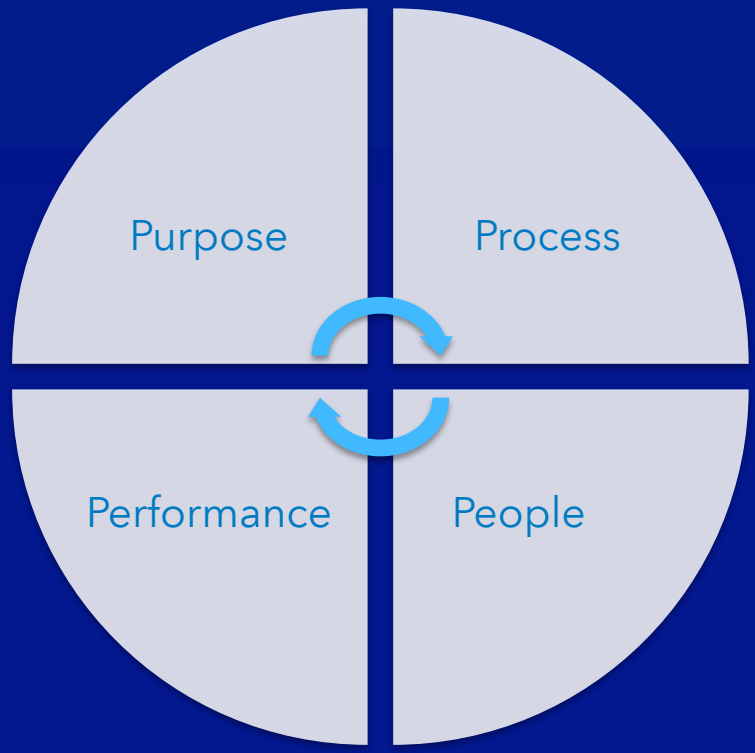
- Communicate plans and priorities
- Engage regularly with stakeholders
- Define GIS service and support process

Enablement

- Provide skills development opportunities
- Do active outreach

Guiding for Principle for Success

- ✓ Create business process to support your strategic goals
- ✓ Define decision-making structure to support the teams
- ✓ Create best practices for data and technology
- ✓ Enable, Engage, and Empower your stakeholders and teams



GIS Governance at Austin, TX

Marna McLain – IT Corporate Manager for Enterprise Geospatial Services

2023 ESRI USER CONFERENCE

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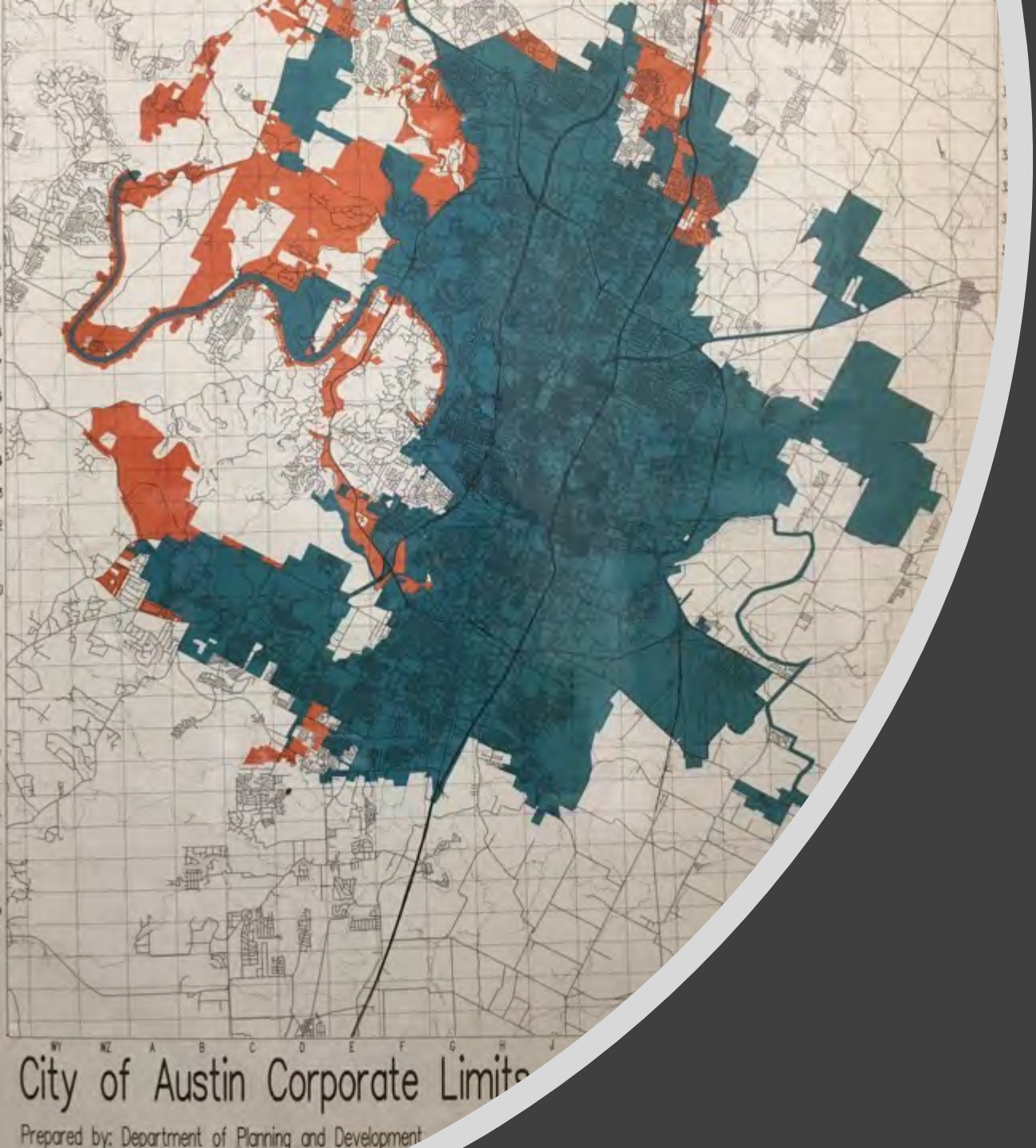


GIS Governance at the City of Austin

Marna McLain, IT Corporate Manager

Enterprise Geospatial Services

Agenda

- Journey of GIS Governance
- Current State | GIS at City of Austin
- Geospatial Information Management Operating Board (GIMOB)
- Considerations for GIS Governance

Please note…

1977 - 1979

Austin, TX: Pop. 341,000

Computerized Interactive Graphics System 1978

Goodby T-square; hello CRT

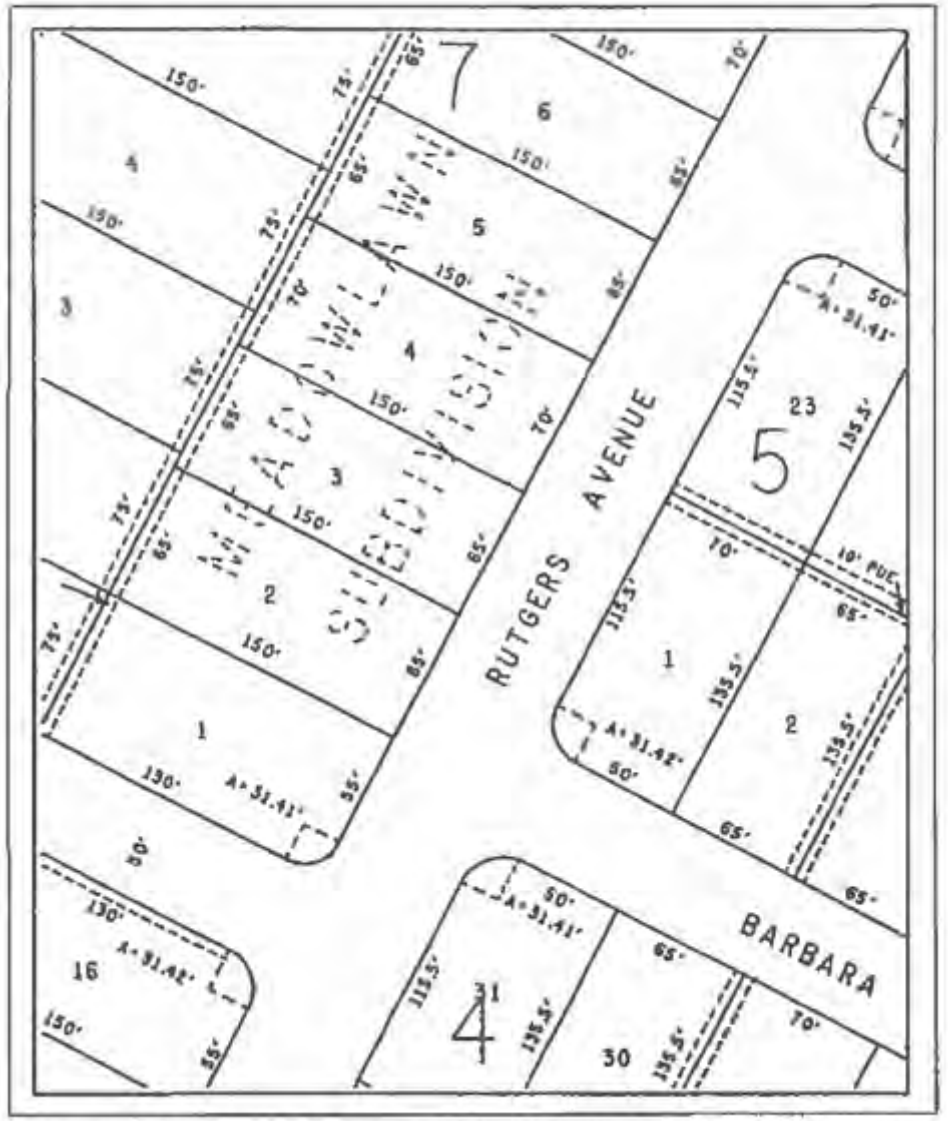
A new automated mapping system allows Austin, Texas, to update city maps more efficiently, to produce more useful maps for various departments, and to cut drafting and reproduction costs.

By Henry E. (Mac) Mecredy, Jr.
Supervisor, Computer Graphics
Engineering Department
Austin, Texas

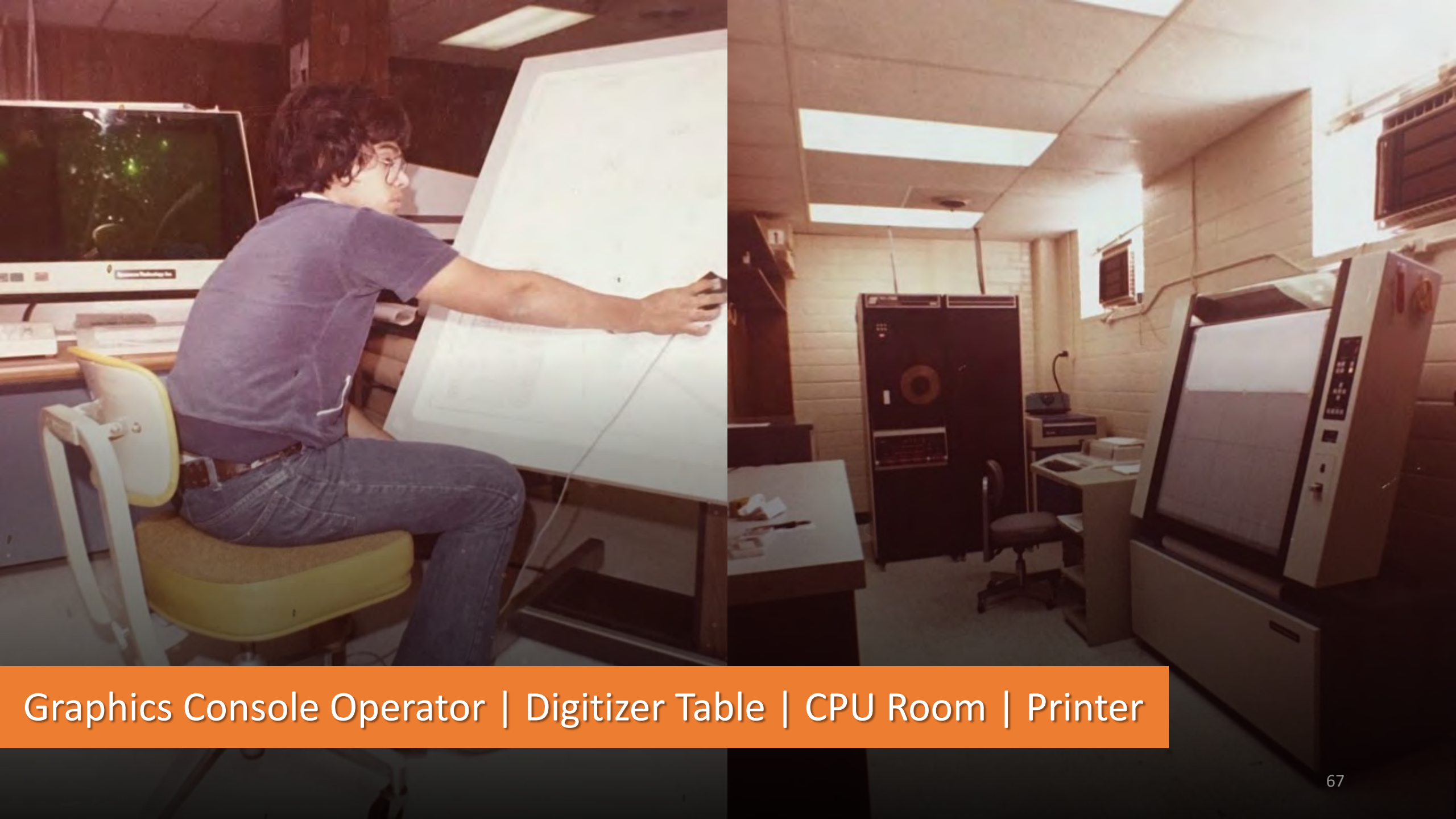
Some compared it to the LaMaze method of natural childbirth. After many months of anticipation, those of us who thought we wanted it most suddenly found ourselves breathing heavily, sweating in the dark, and wondering if we really wanted to be in our current fix. Now, two years later, we are beginning to feel comfortable with a new family member, and to feel confident that it will bring joy to our hearts in the years ahead.

The delivery date came, after many months of anticipation, in late November 1978. The new arrival was an automated system for handling what had become a major item of work for the City of Austin: mapping.

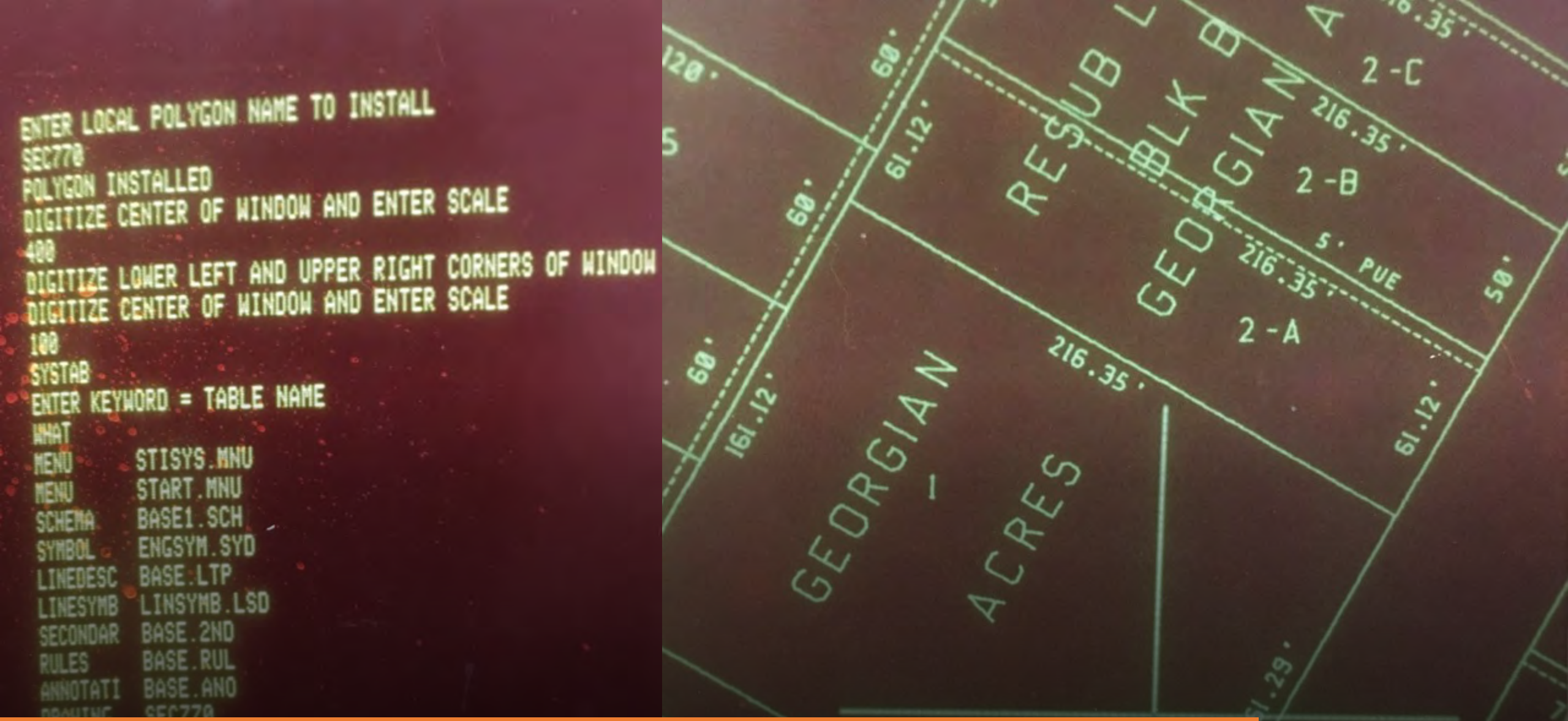
Austin became the capital of Texas in November 1839. By 1940, its population was 88,000, housed in some 31 square miles. In 1980, at least 350,000 city residents live in the 126 square miles now inside the city limits. In addition, under state law, the city exercises jurisdictional control over subdivisional planning within five miles



Two years in development, Austin's computerized interactive graphics mapping system can be used to create, update, combine, and reproduce maps to fit the needs of city departments.



Graphics Console Operator | Digitizer Table | CPU Room | Printer



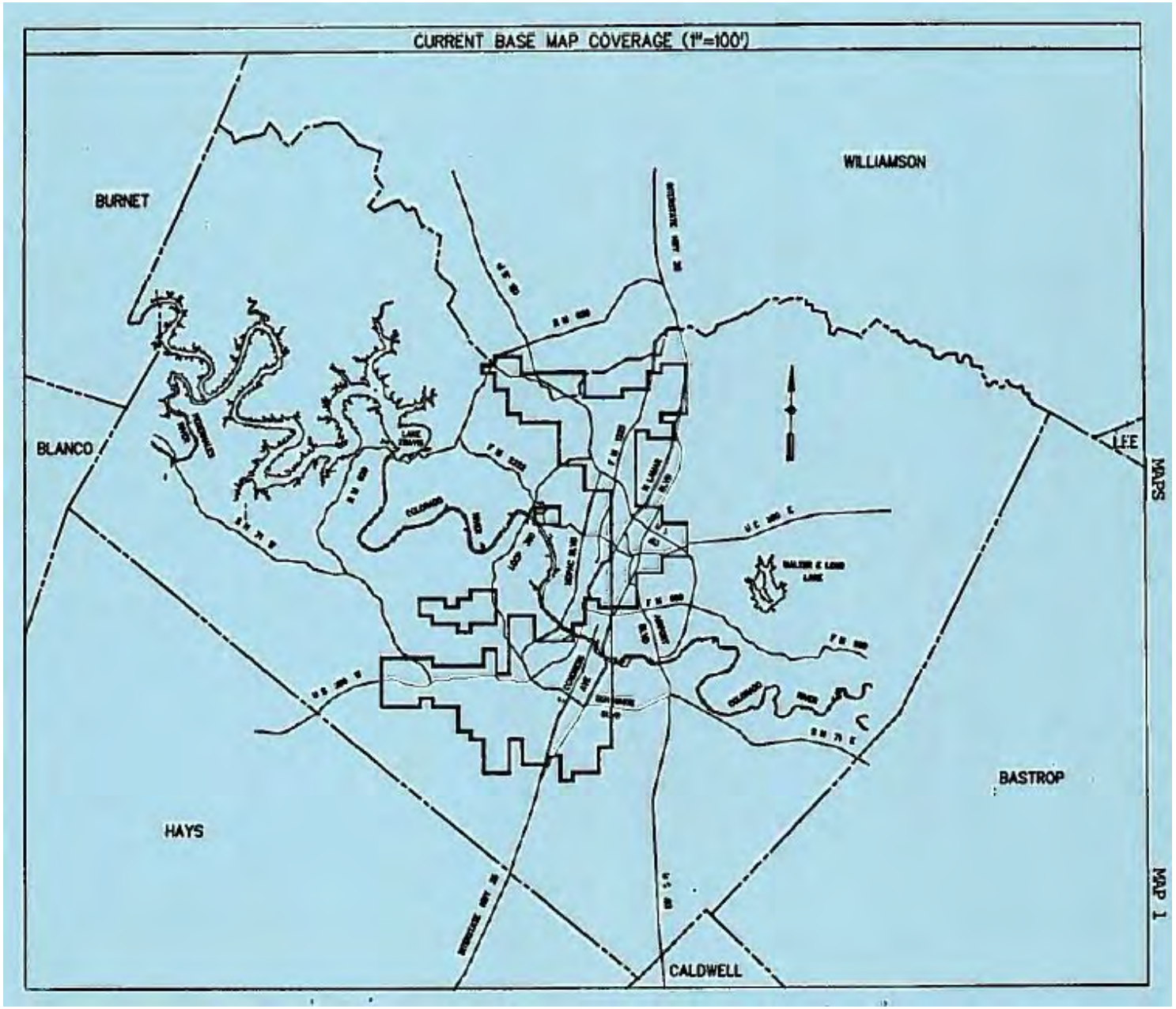
Computerized Mapping & Facilities Management Database System

1980 - 1999

Austin, TX: Pop. 346,000 - 630,000

Austin Land Information System (ALIS)

1985 - 1988



GIS Interdepartmental Support Services Ad Hoc Committee

1991

DRAFT REPORT (#2)
DECEMBER 16, 1991

GIS INTERDEPARTMENTAL SUPPORT SERVICES
AD HOC COMMITTEE

==========

EXECUTIVE SUMMARY

This is the report of the GIS Interdepartmental Support Services Ad Hoc Committee. The committee was convened by the Directors in August, 1991 with the purpose of recommending policies and guidelines for sharing of GIS data and services among City departments. The committee has approached its task by recognizing that short term improvements to the existing situation are critical, yet linked to long term changes in the way the City conducts business. The committee has accomplished its task by exploring the issues and formulating recommendations which will improve our ability to share GIS data and services.

Barriers to sharing of GIS data and services include:

- Inability to determine availability of useful data and services
- Ambiguity in request making and handling procedures
- Ambiguities in cost recovery policies and procedures

The Committee has closely examined these issues and recommended ways to reduce or eliminate barriers to sharing of GIS data and services.

Highlights of the recommendations are:

“The tremendous cost of collecting GIS data makes it imperative that we find ways to share it.”

GIS Interdepartmental Support Services Ad Hoc Committee, 1991

GIS Interdepartmental Support Services Ad Hoc Committee 1991

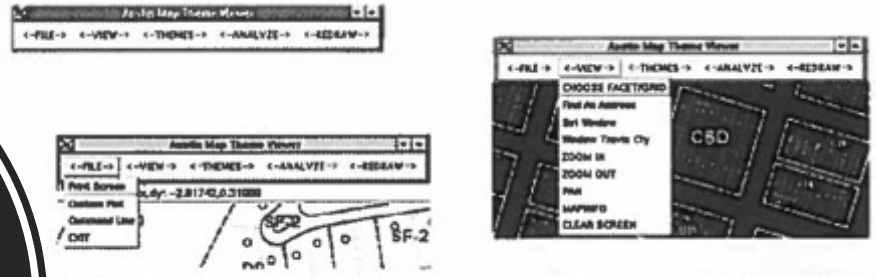
Recommendations

- Directory of GIS Services
- Directory of GIS Data
- Records Management
- Tie GIS projects to Department Business Plans
- Cost sharing for time & resources
- Consider GIS services as part of IT

Desktop GIS 1996

What is the Viewer?

- A menu-driven system for accessing and displaying the City's GIS data resources
- Initially designed for the Development Assistance Center



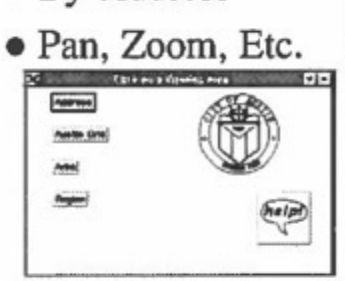
Access to 45 Layers of Data

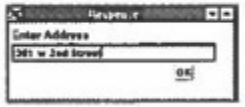
- Point & Click access to a wide variety of data resources
- Select only the Themes you need
- Save your Default Themes for the next time

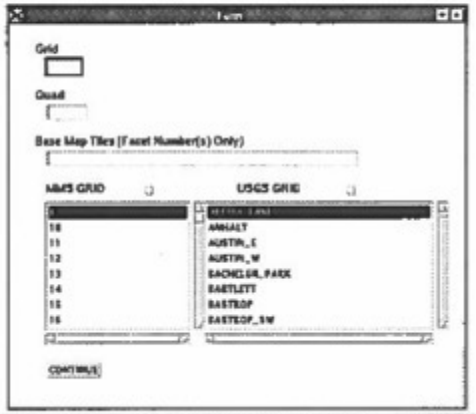
Identify Features

Tools for Locating Data

- Austin Grid, USGS Grid, MMS Grid
- By Address
- Pan, Zoom, Etc.







Desktop GIS

1996

Challenges for the Future

- Budget, Budget, Budget
  - Shrinking resources,expanding needs
  - Finding ways to save money through technology
- Expanding the City's GIS user base
  - The entire Department
  - Other Departments
  - The General Public
- Moving to UNIX, ARCVIEW and Client-Server
- Linking to the Internet...

2000 - 2009

Austin, TX: Pop. 774,000

Corporate GIS Project

2002

RDMT Project Office

CORPORATE GEOGRAPHIC INFORMATION SYSTEMS

PROJECT PLAN

- Authorized by City Manager
- In response to 9/11
- GIS managed by City IT Department
- Formation of GIS User Group, Corporate GIS Operating and Executive Boards

Corporate GIS Project

2002

Project Goals:

- Implement standards and improvements to GIS Infrastructure
- Identify and establish a method for coordination and management of the GIS enterprise function
- Support Homeland Security

Success factors:

- Corporate licenses managed through a single negotiated agreement
- Single GIS production database
- City-wide training plan for GIS staff
- Corporate GIS Operating Board (CGISOB)

Corporate GIS Operating Board CGISOB

2002

- 10 departments represented
- Corporate GIS Operating Board
  - GIS Managers and technical leads
  - Policies and procedures
- Corporate GIS Executive Board
  - Department Director level staff
  - Strategy
- Quarterly GIS User's Group meeting
- First Esri ELA - 2004

2010 - 2019

Austin, TX: Pop. 978,000

Corporate GIS Operating Board CGISOB

2014

- 25 departments represented
- GIS services are federated and distributed across various departments
- Centralized GIS Infrastructure, software licensing, and GIS training
- Charter, Data Standards, and various policies drafted
- Chair elected by departments
- Inspired broader IT Governance movement
- CGISOB rebranded in 2015

Austin ArcGIS Online Guidelines

Approved by the Corporate GIS Operating Board
Last edited March 12, 2019

Geospatial Information Management Operating Board

Corporate SDE Administration Policies

GIMOB Member Roles & Responsibilities

City of Austin
Corporate GIS Operating Board

City of Austin GIS Data Standards
April 7, 2010

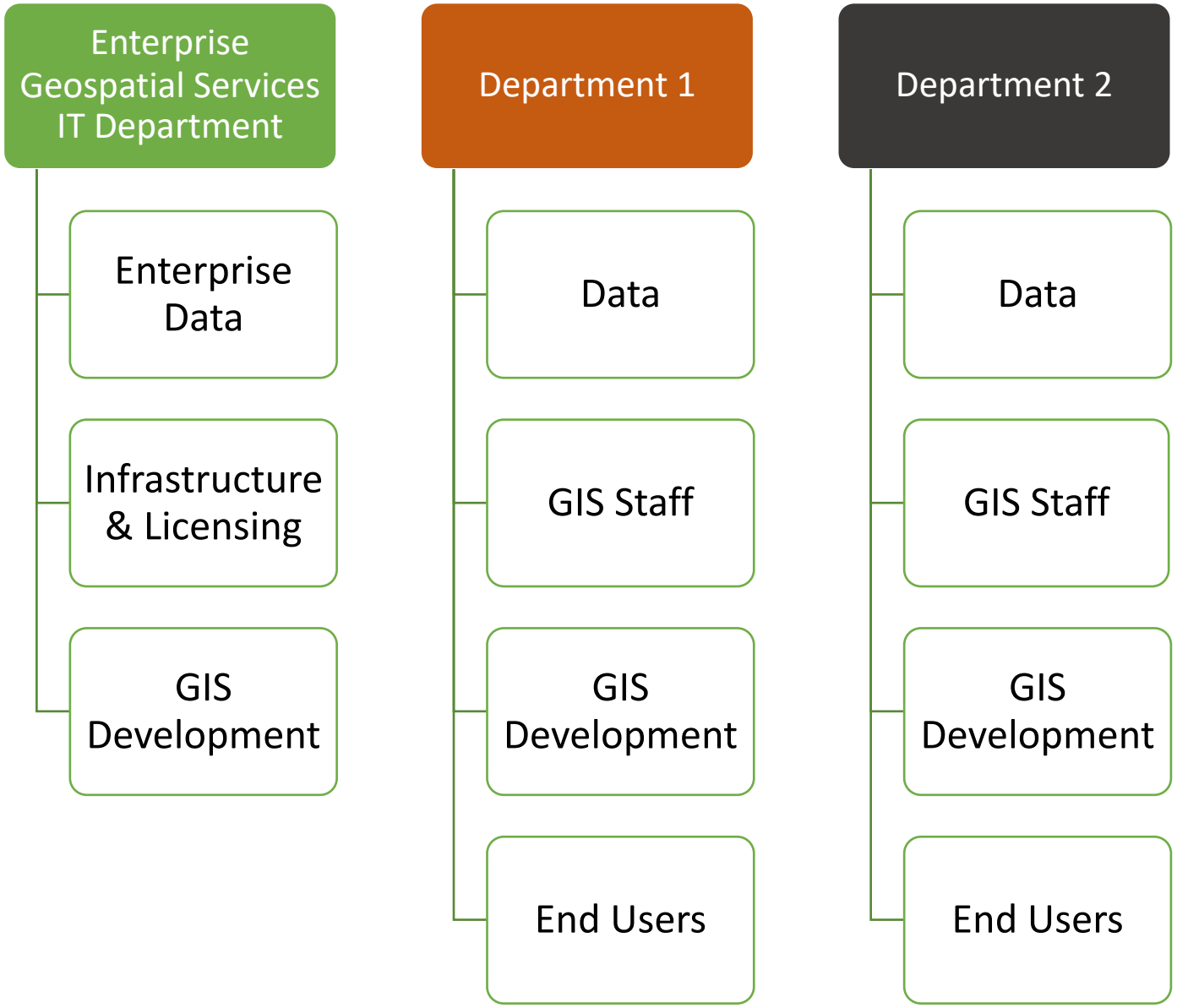
2020 - 2023

Austin, TX: Pop. 964,000

City of Austin GIS Stats 2023

- 14,000 City Employees
- 40 Departments/Offices
- 1500 ArcGIS Pro/ArcMap Installs
- 2,500 ArcGIS Online members
- 400+ feature classes, tables, and mosaic datasets
- 80+ feature services
- 80+ servers

GIS Organization at City of Austin



Geographic Information Management Operating Board

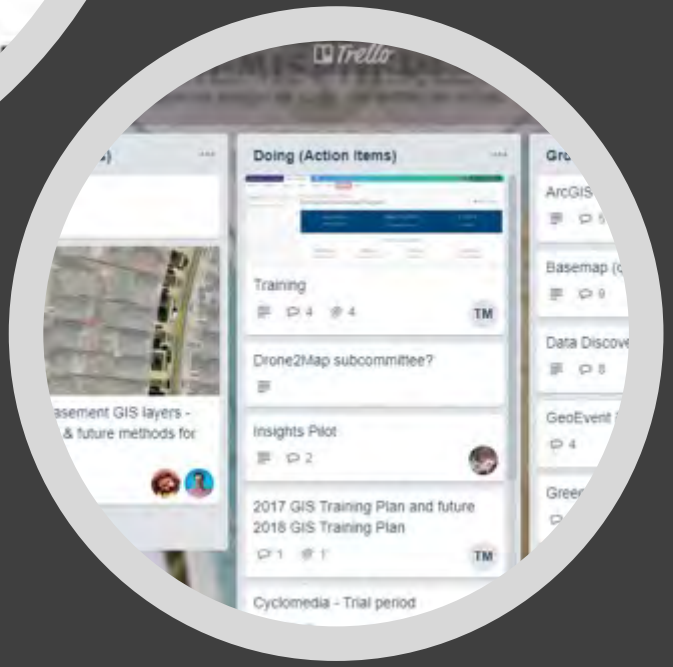
GIMOB

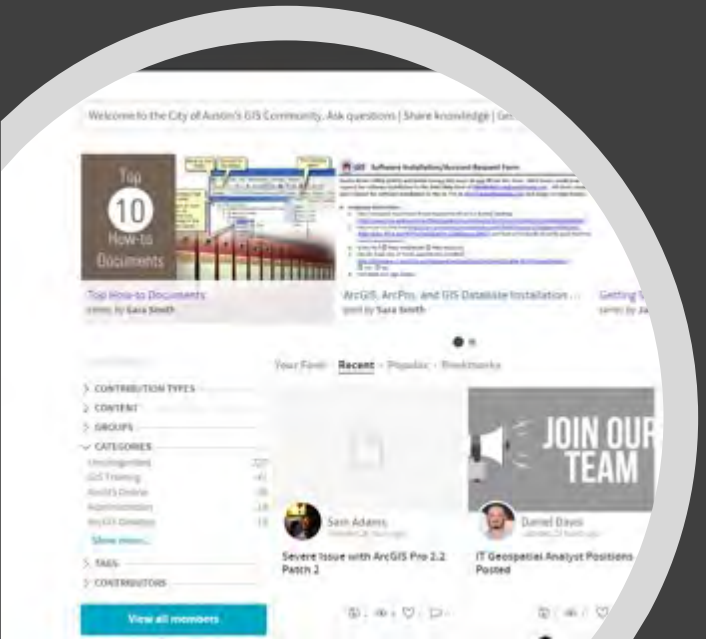
Mission

The mission of the GIMOB is to coordinate citywide geospatial activities to promote cooperation between departments; identify, address and attempt to resolve common problems and issues; develop geospatial standards and provide a spatial data foundation and framework.

Key Goals

- Support transparent process, consistent with City goals and priorities
- Encourage partnerships to achieve the most efficient use of resources
- Promote a better understanding of geospatial information and its capabilities





Transparency and Collaboration

GIMOB Structure

- Chair
- Vice-Chair/Technical Advisor
- Architect Advisor
- All Other Departments Advisor
- Secretary
- Subcommittee Chairs
- GIS Single Points of Contact (GIS SPOCs)

ATX GIS / GIMOB

Planner

Group by Bucket | Filter | List | Board | Charts | Schedule

To do (Agenda Items)

+ Add task

- JUNE AGENDA ITEM: Presentation by Financial Services on Data Ask/Dashboard that the City Manager has Requested

Completed tasks 10

New Business

+ Add task

- REMINDER: In-Person Meeting - June 1st at the PDC
  Due
- VOTING ITEM: Building Web Apps with ArcGIS Experience Builder (27 AP)
  Due
- VOTING ITEM: Jonathan Nations as the new Primary SPOC and Gavin Lambert as the new alternate SPOC for Municipal Court
- VOTING ITEM: Dan Brooks to be the Alternate SPOC for the Planning Department (previously known as HPD)
  Due
- Department Mergers

Doing (Action Items)

+ Add task

- GIS Modernization Project 2023-04
  7
  Due
- City wide GIS Issues: Creation New GIS Accounts/Passwords 2023-04
  3 1 / 1
  Due

Completed tasks 18

Subcommittee Reporting

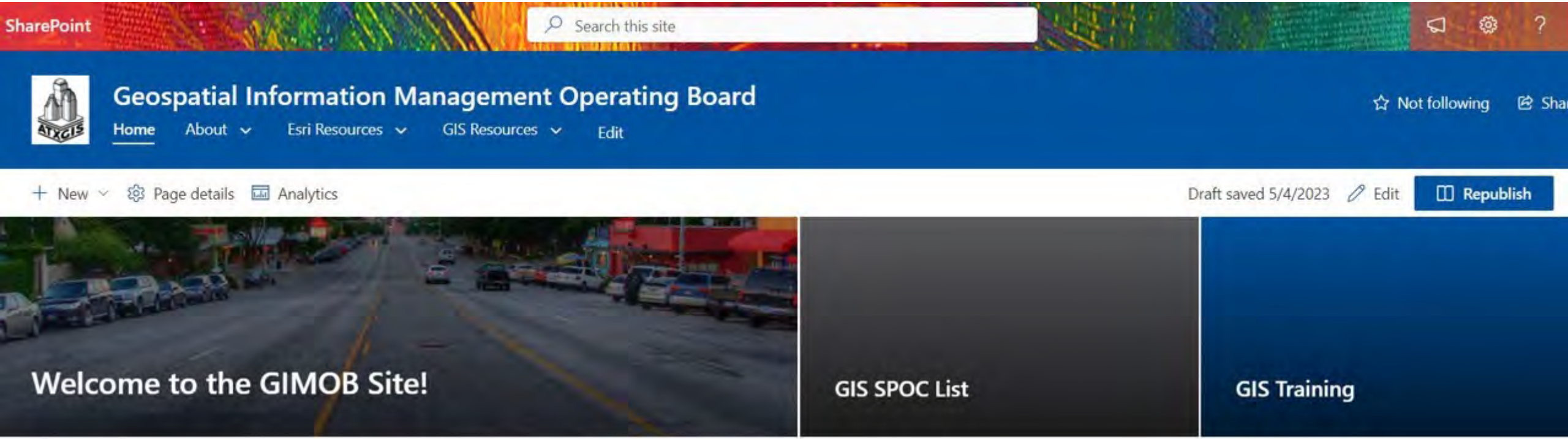
+ Add task

- ArcGIS Online 2023-05
  4
  Due +4
- ArcGIS Hub 2023-05
  Due
- Knowledge Base 2023-05
  5/4/2023
  Bloomfire will be shut off at the end of May. Next meeting if Friday, May 12th. After Bloomfire decommission, they will be building out a KB page on SharePoint....
  Due +4
- ESRI UC Subcommittee 2023-05
  2
  Due

Corporate News/Project Rep

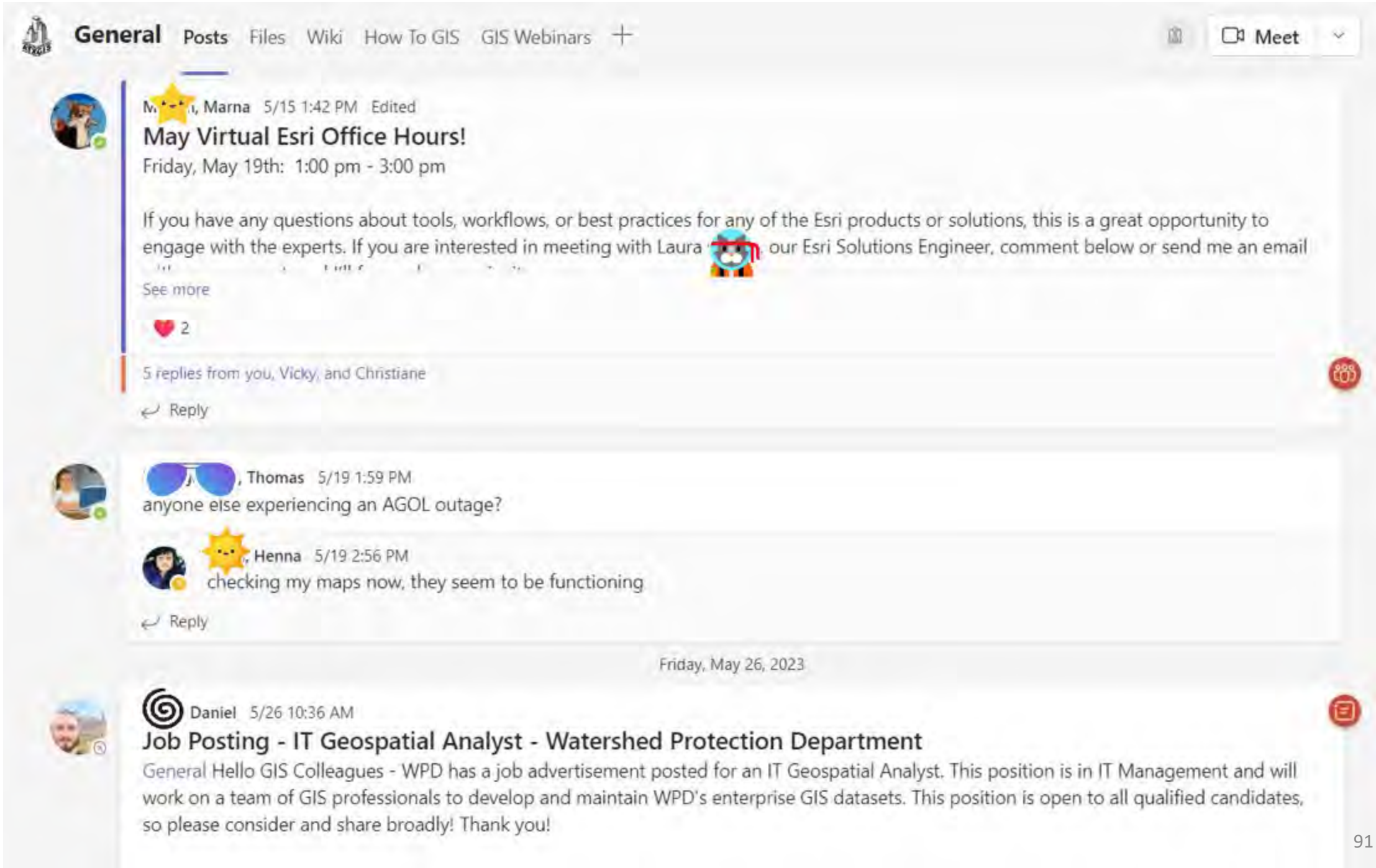
+ Add task

- ESRI Credits
  credits_20230428.png
  7
  Due
- Training
  2023 GIS Training



Quick Links

- GIS Data Standards
- COA Employee IT Guide
- Knowledge Base Articles
- GIMOB Member Roles and Responsibilities
- ATX GIS TEAM Channels
- CTM Corporate GIS Homepage
- City of Austin ArcGIS Online (AGOL)
- GIS and Maps | AustinTexas.gov
- ATX GIS Teams Page
- GIS Emergency Response Team
- Austin GIS Online Governance


General
Posts
Files
Wiki
How To GIS
GIS Webinars
Meet
Marna 5/15 1:42 PM Edited
May Virtual Esri Office Hours!
Friday, May 19th: 1:00 pm - 3:00 pm
If you have any questions about tools, workflows, or best practices for any of the Esri products or solutions, this is a great opportunity to engage with the experts. If you are interested in meeting with Laura , our Esri Solutions Engineer, comment below or send me an email
See more
2
5 replies from you, Vicky, and Christiane
Reply
Thomas 5/19 1:59 PM
anyone else experiencing an AGOL outage?
Henna 5/19 2:56 PM
checking my maps now, they seem to be functioning
Reply
Friday, May 26, 2023
Daniel 5/26 10:36 AM
Job Posting - IT Geospatial Analyst - Watershed Protection Department
General Hello GIS Colleagues - WPD has a job advertisement posted for an IT Geospatial Analyst. This position is in IT Management and will work on a team of GIS professionals to develop and maintain WPD's enterprise GIS datasets. This position is open to all qualified candidates, so please consider and share broadly! Thank you!

Subcommittees

- IT Governance
- Map Projections
- Mobile Strategy
- Network Dataset
- Open Data Portal
- Planimetrics
- Records Retention
- Redistricting Subcommittee
- Training
- Troubled Properties
- Workflow_Manager

- AGOL_HUB
- ArcGIS Online
- ESRI UC Subcommittee
- GIMOB_Documents_Subcommittee
- Homelessness Subcommittee
- Knowledge Base
- UAV (Drone) Subcommittee

- 10-1 Reporting
- Automated Vehicle Location
- Basemap
- Cartography Style Guide
- Data Organization
- Data Standards
- Electronic Data Submittals
- Esri ELA
- GeoEvent
- GIS_Remote_Work
- inactive_Linear_Referencing

GIS Governance

Successes

- Formal Charter, standards, and policies
- Planner Board and SharePoint site for increased transparency
- Subcommittees to tackle specific issues and make recommendations
- Enterprise GIS considers input from the GIMOB
- Shared vision with GIS Strategic Roadmap
- Better departmental collaboration
- Change Management

GIS Governance

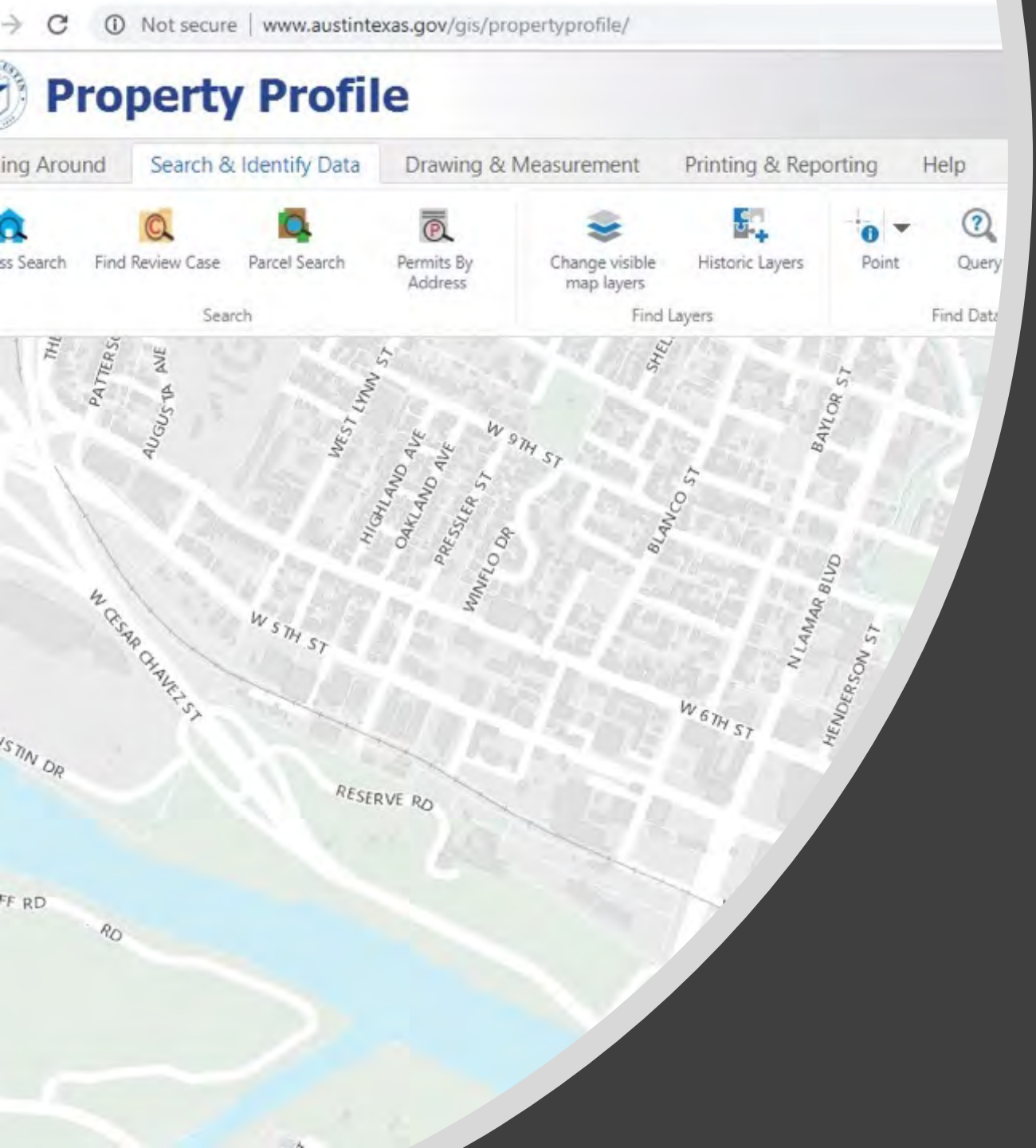
Current Challenges

- Different skill levels among SPOCs
- SPOC level in an organization
- Responsibilities of SPOC are in addition to daily workload
- Difficult to prioritize needs of many
- No formal budget assigned
- Keeping up with changing technologies
- Cost of technologies and support
- Governing Board role is in review

GIS Governance

Considerations

- Start small
- Reach out to other organizations to see how they are doing it
- Work on issues with impacts across the organization
- Collaborate to develop policies
- Try different methodologies to manage governance
- Know that governance will need to adapt in order to survive



Thank you!

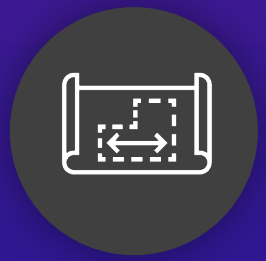
Marna McLain, IT Corporate Manager

Enterprise Geospatial Services

marna.mclain@austintexas.gov

The Path to GIS Success consists of five key components:

Strategy



Governance

Data & Technology

Engagement

Skills Development

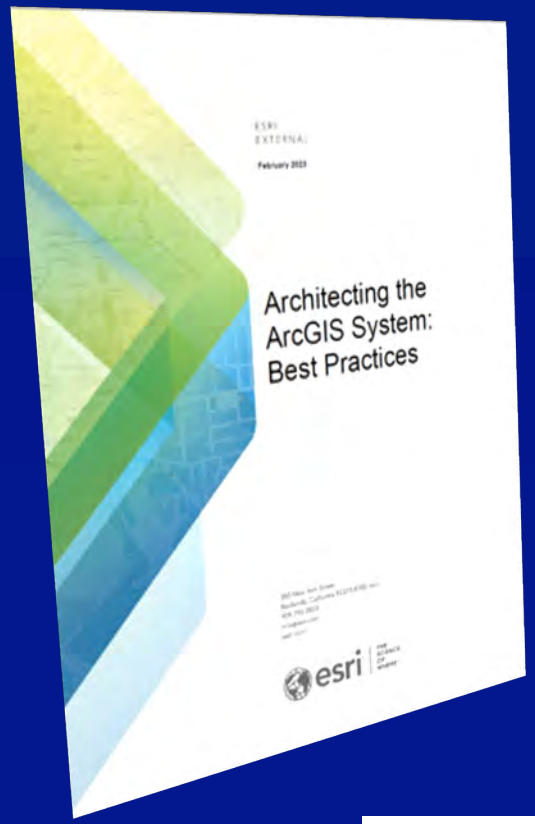
Data & Technology: Best Practices & Recommendations

Jim VanOstenbridge – Solution Architect

2023 ESRI USER CONFERENCE

esri | THE SCIENCE OF WHERE

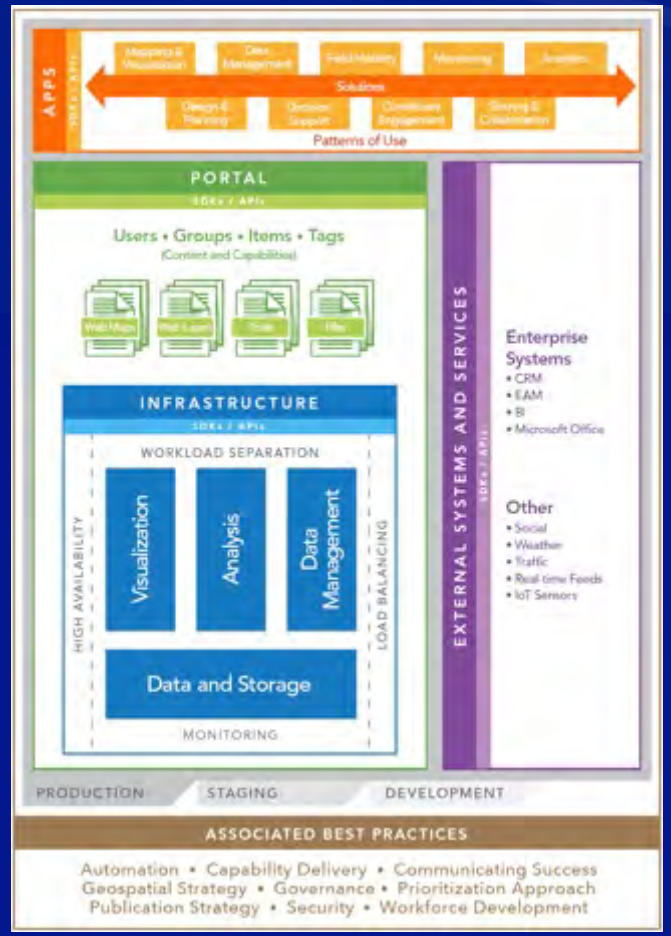
Data and Technology Best Practices



https://go.esri.com/bp

Best Practice Briefs

- Application Implementation Strategy
- Automation
- Capability Delivery
- Collaboration: Enable People to Work Together
- Communicating Success
- Enterprise Integration
- Environment Isolation
- Geospatial Strategy
- Governance: The Policy and Practice of Enablement
- High Availability
- Infrastructure
- IT Infrastructure Monitoring
- Load Balancing
- Managing Identities
- Patterns of Use
- Prioritization Approach
- Publication Strategy: Geospatial Content Delivery
- Real-time GIS Strategy
- Security
- Workforce Development
- Workload Separation



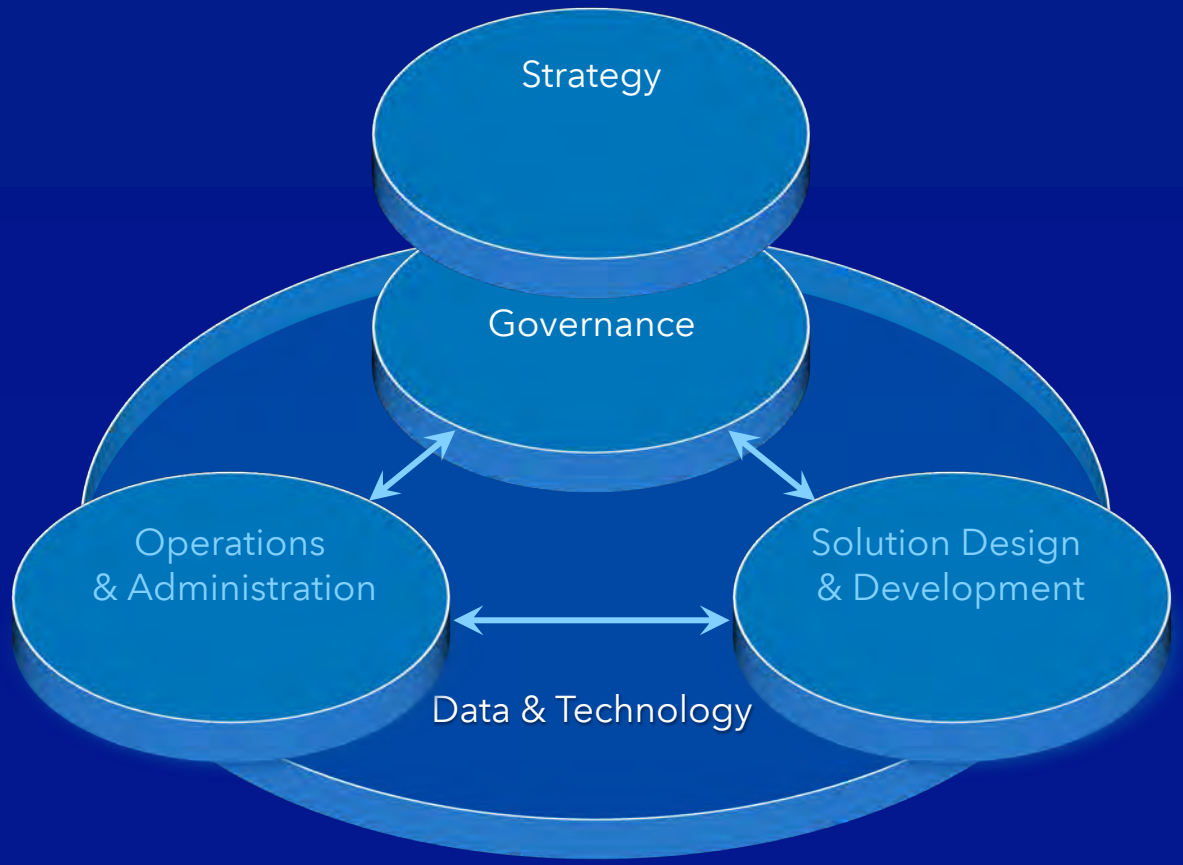
Management of Data & Technology

The work of people and systems that amplify organizational performance

- Key characteristics
  - Aligned with strategy
  - Governable practices, processes, and assets
    - Compliant with policies and standards
  - Guides essential investments in skills
  - Requires continuous engagement with stakeholders through lifecycles of change

Data & Technology Alignment

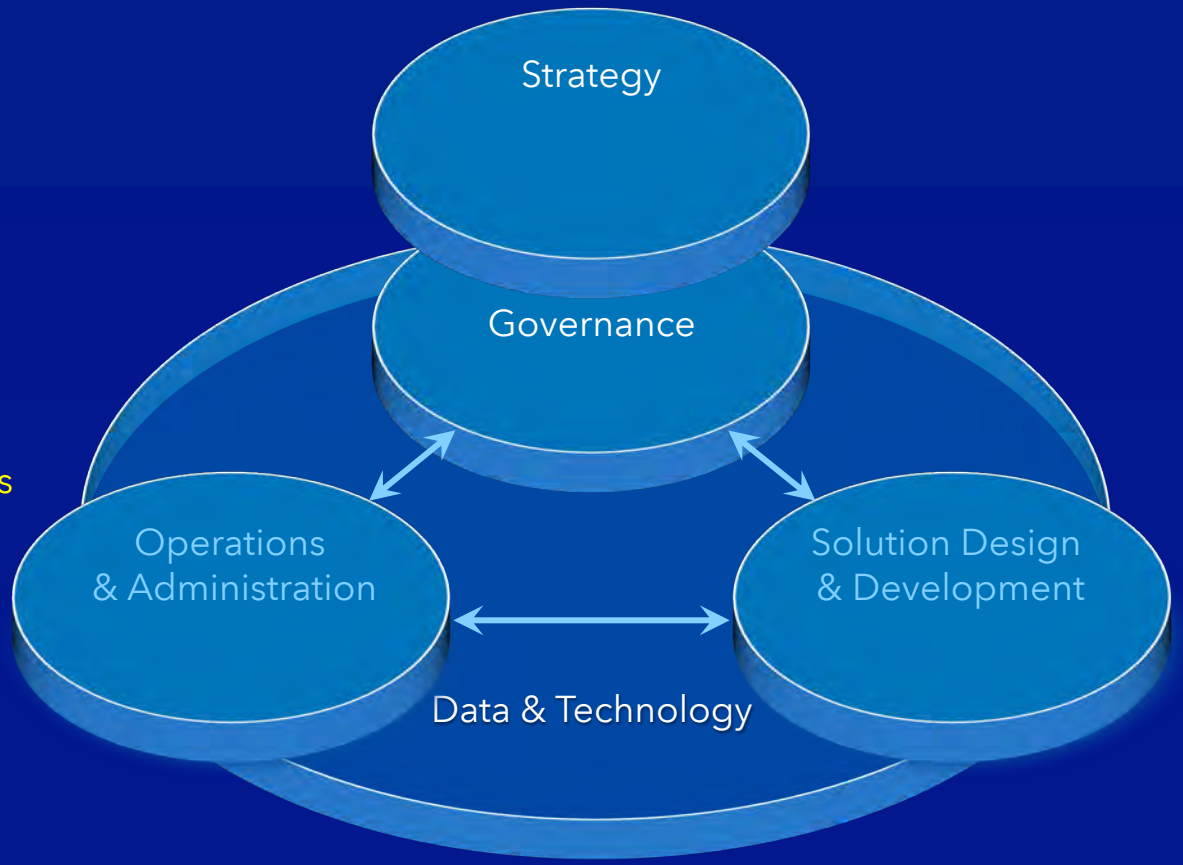
A Common Story



Data & Technology Alignment

A Common Story

- Pressing Needs
- Cannot Fail
- Takes Priority



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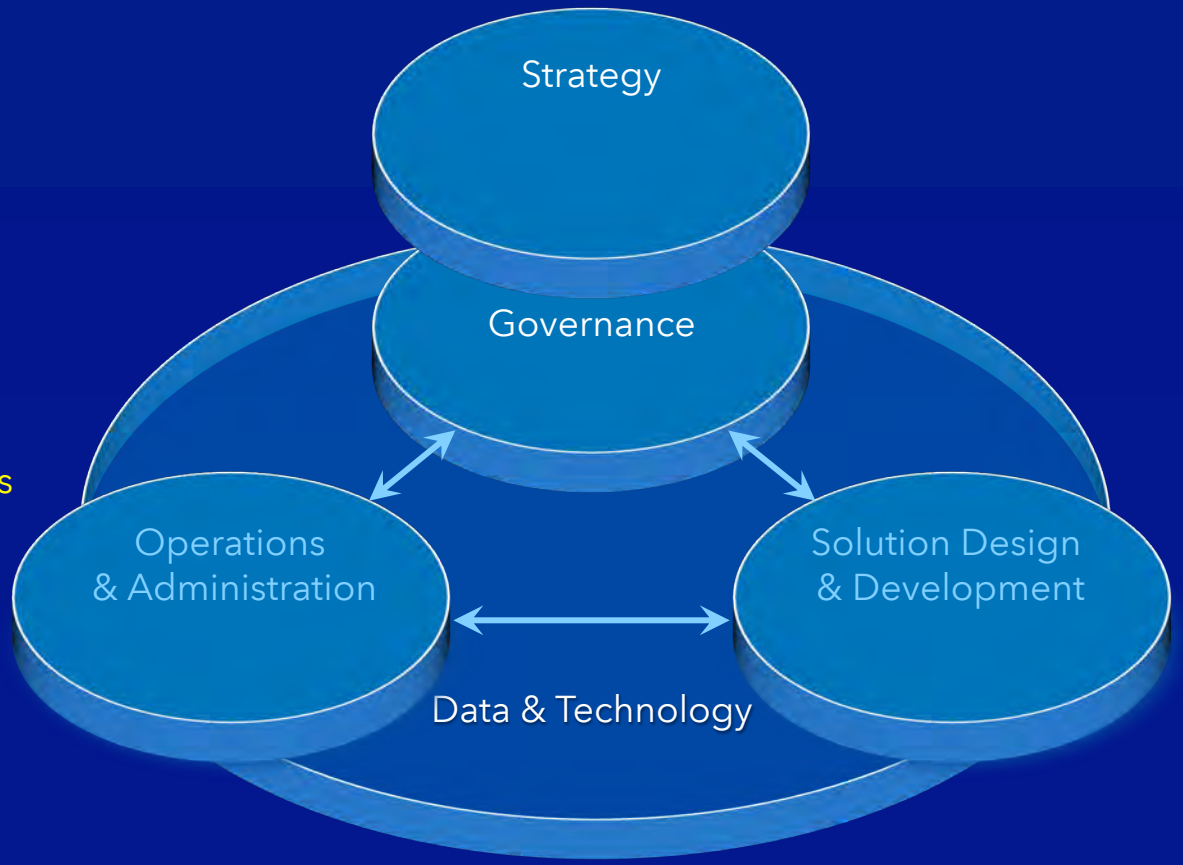

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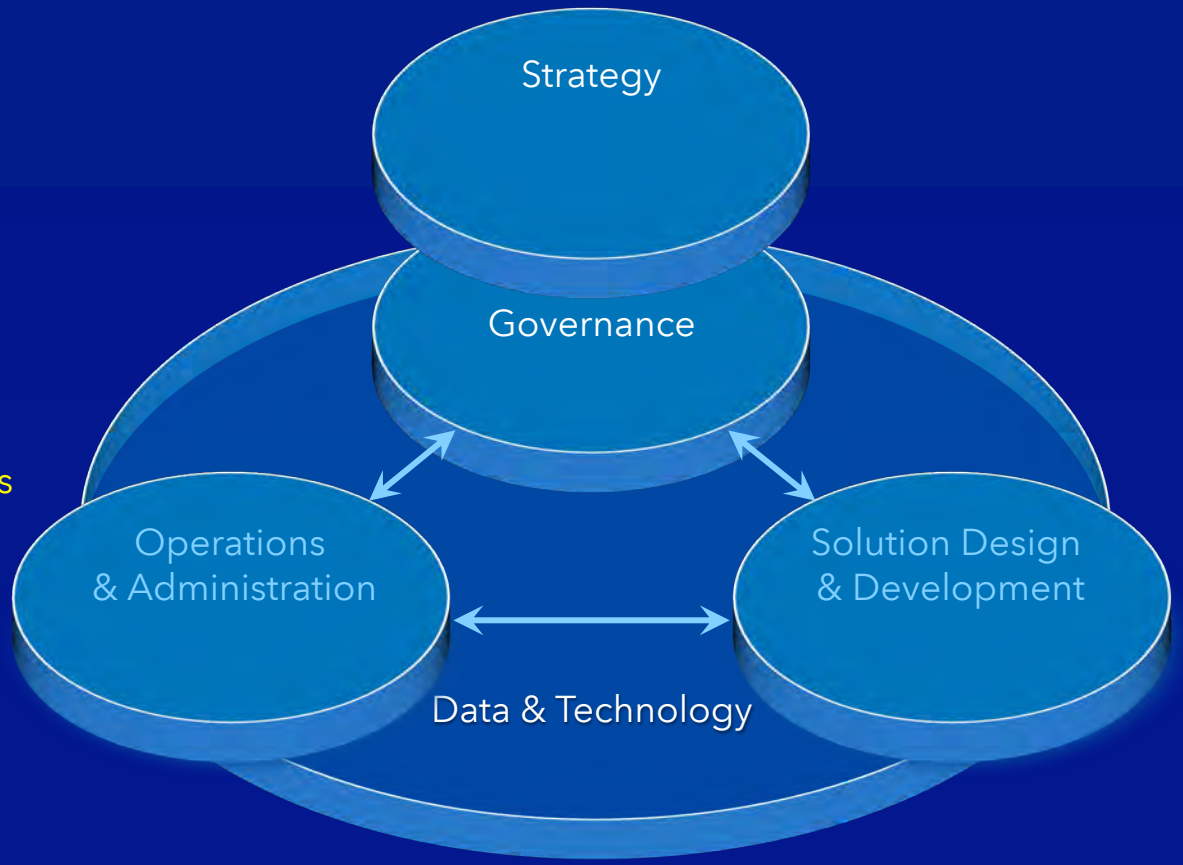

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- Projects (Future)
- Scope, Cost, Schedule
- Clarify requirements
- Agile practices
- Can lose resources to implementation, maintenance, and support

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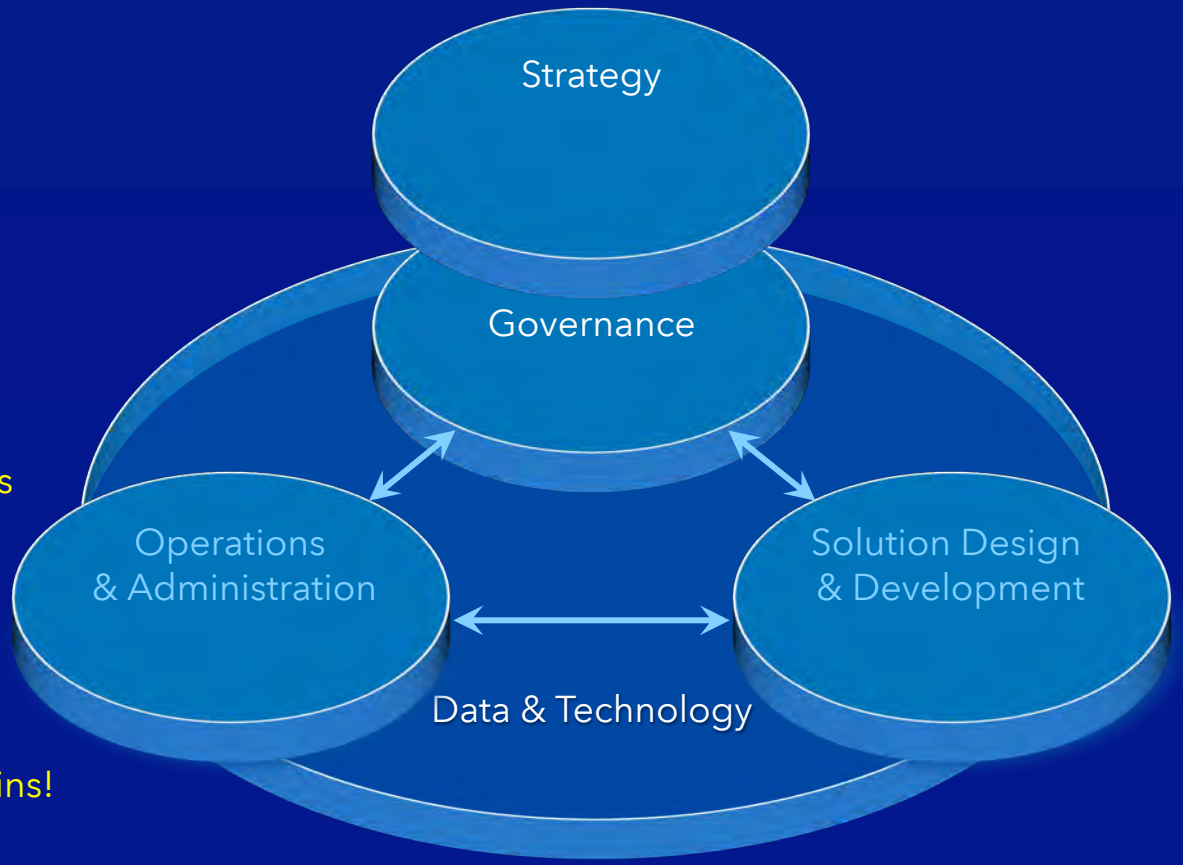

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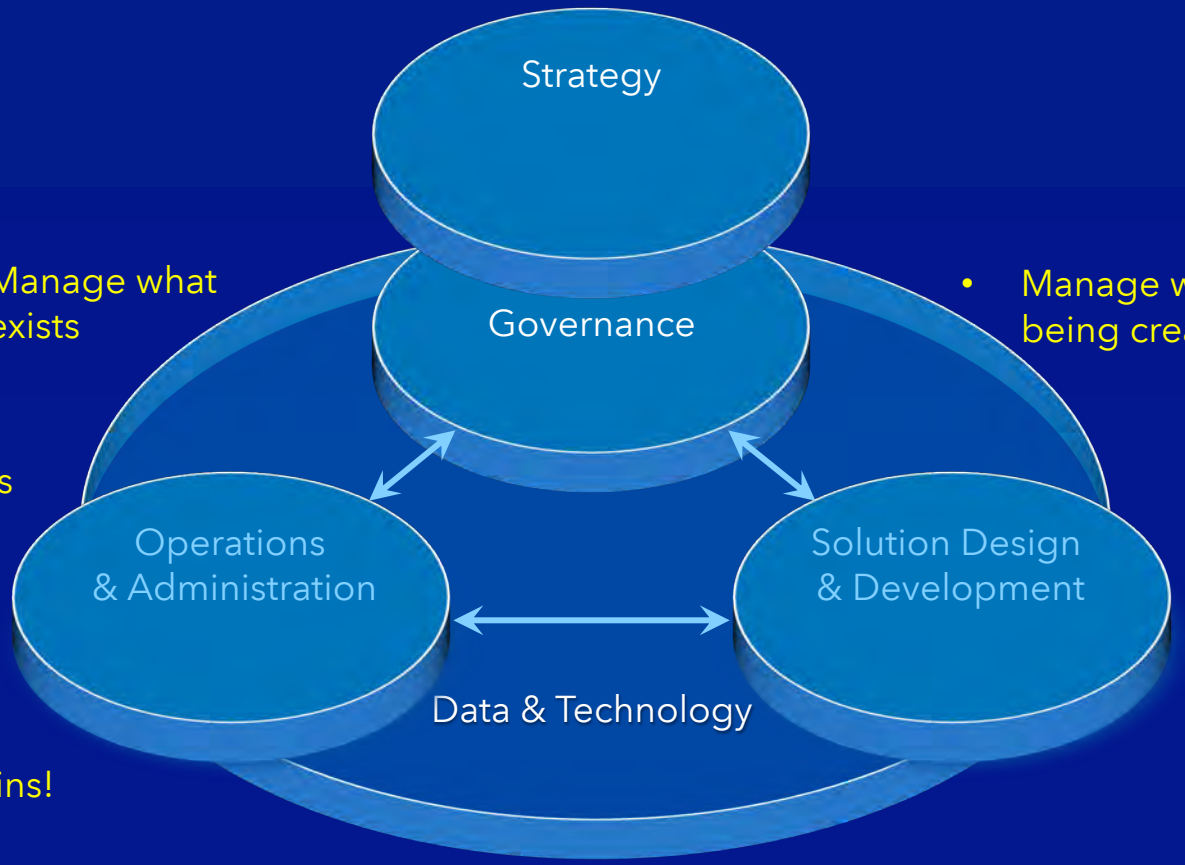

- Manage what exists

- Manage what is being created

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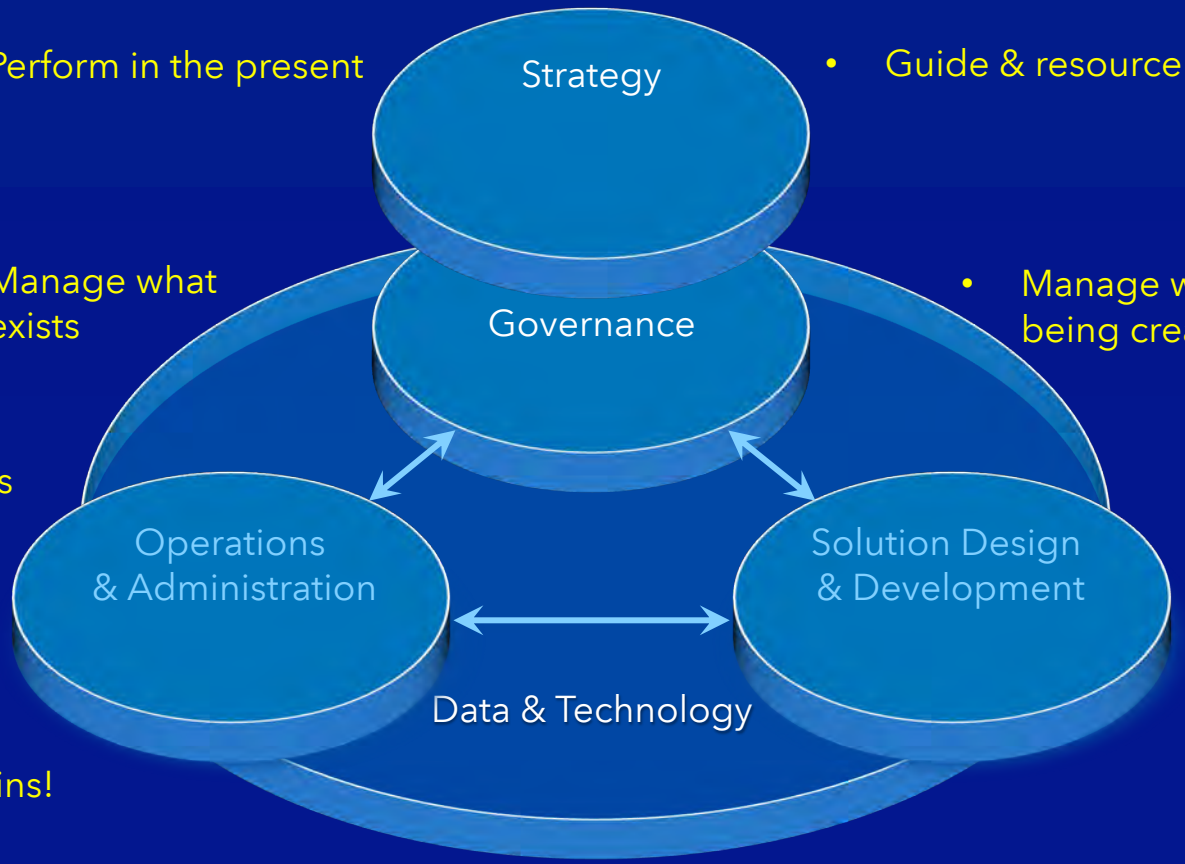
Data & Technology Alignment

A Common Story

- Perform in the present
- Guide & resource the future



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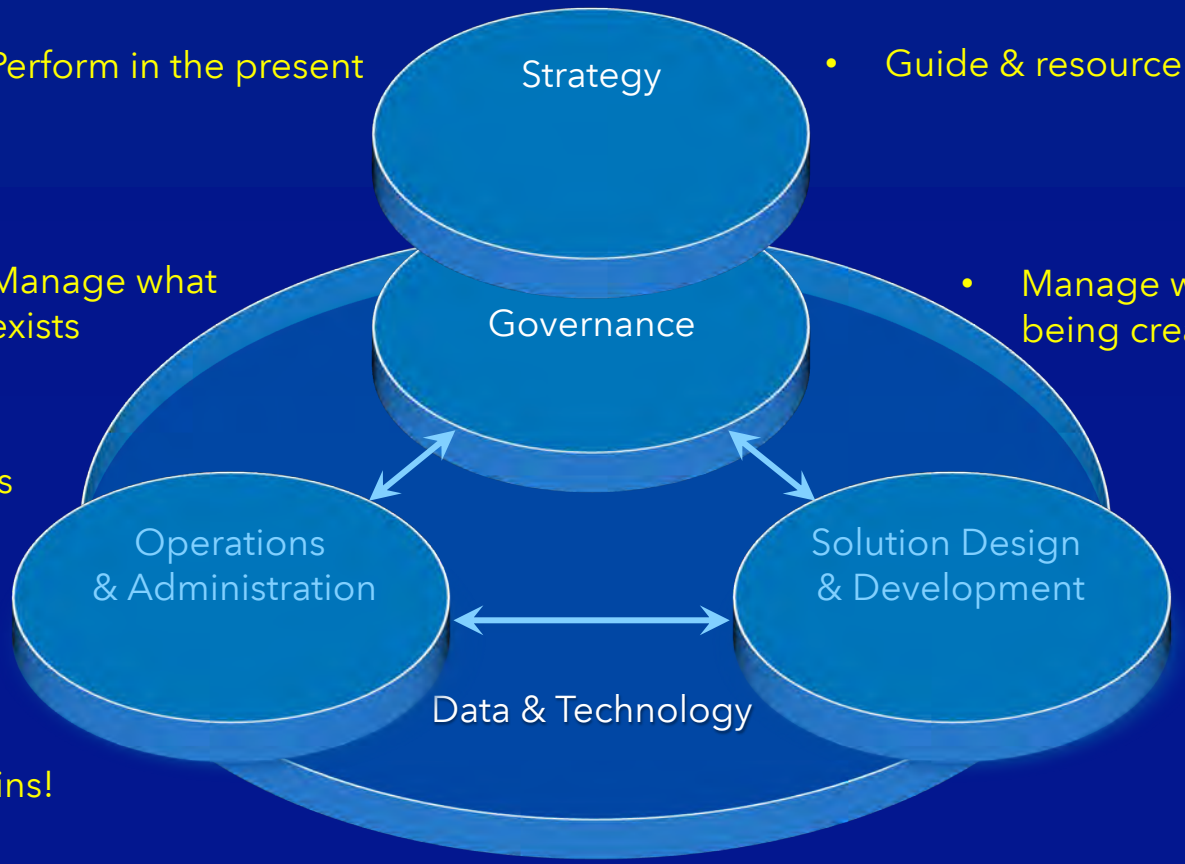

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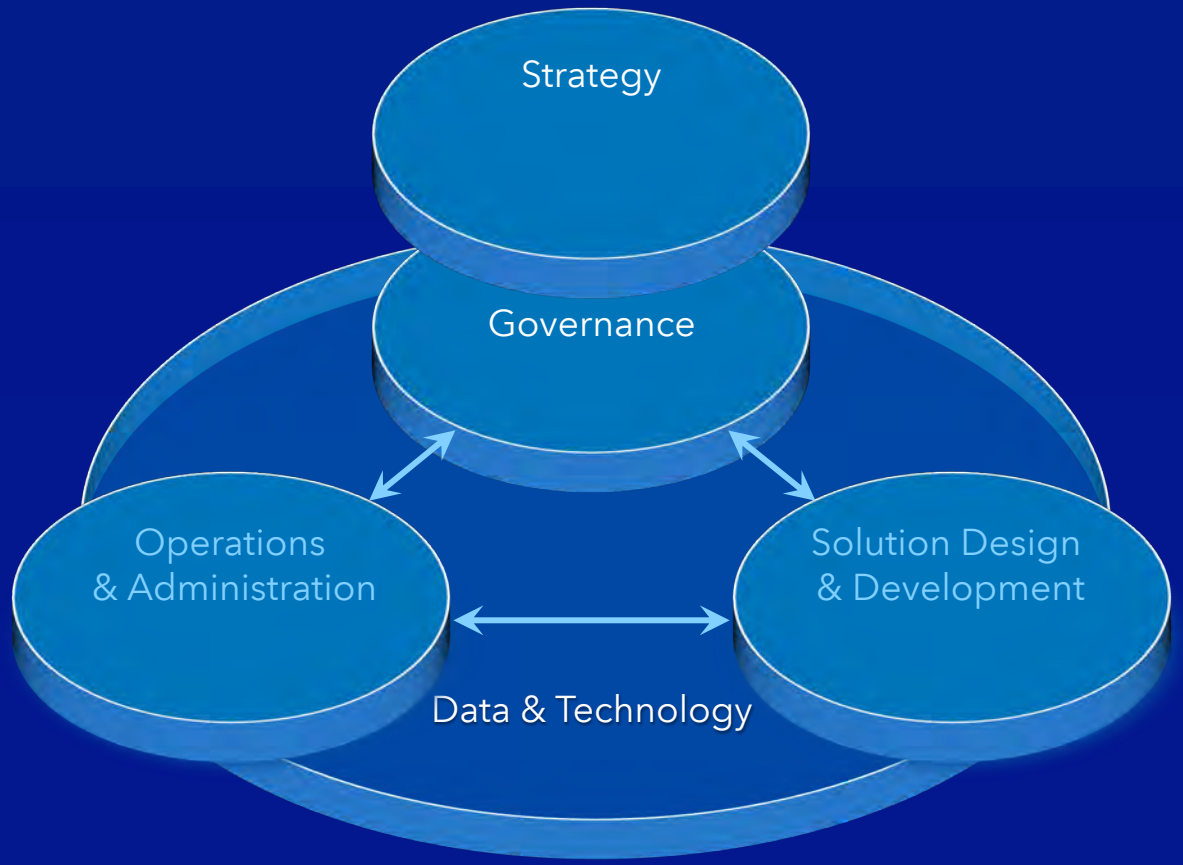
<u>Key Management Concepts</u>

- Division of Labor
  - Lead
  - Manage
  - Design, build, deliver
  - Operate, maintain, support
- Programs, not just projects, are needed
- Change is continuous
- Specialization is needed as your Project and Solution portfolios grow.

Data & Technology Alignment

Projects, Programs, and Related Practices



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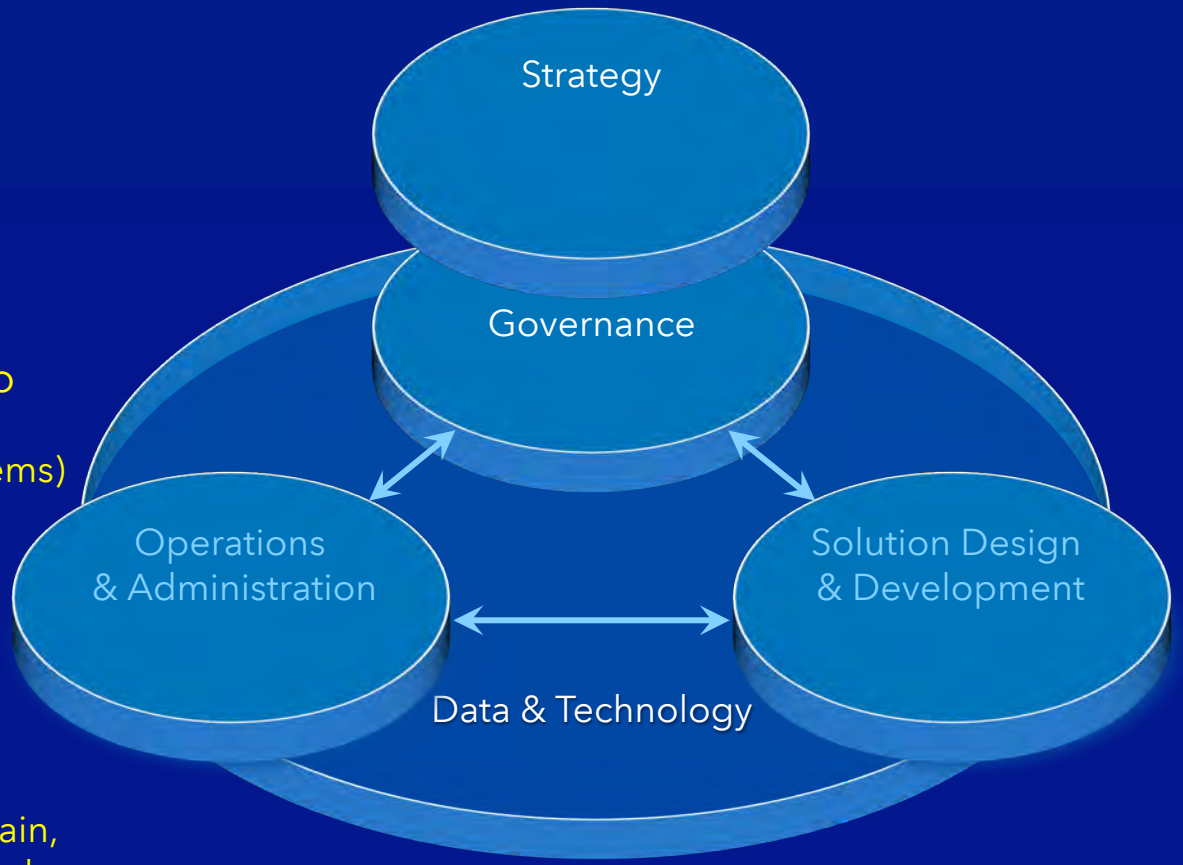


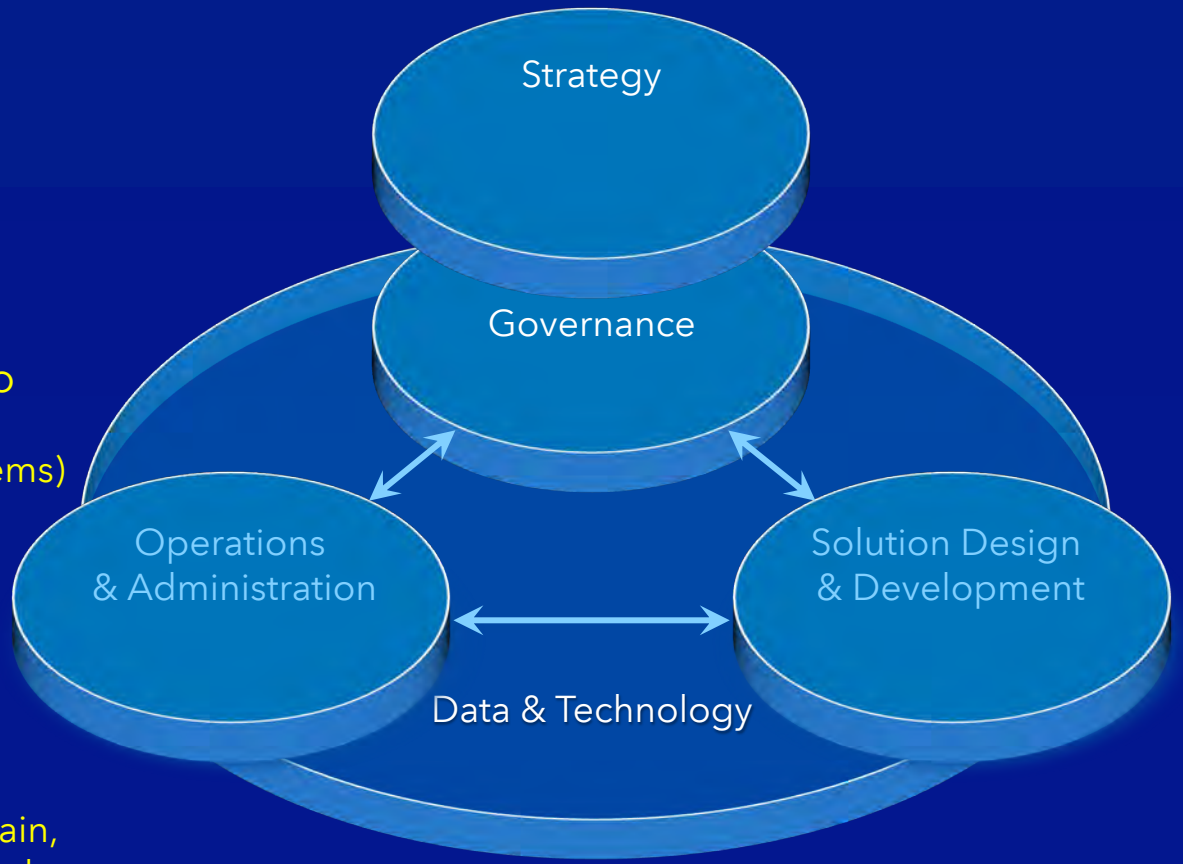
Solution Portfolio

- Service Levels (People & Systems)
- Continuity
- Security
- Sustainability
- Support
- Performance
- Compliance

- Operate, maintain, grow operational solutions

Data & Technology Alignment

Projects, Programs, and Related Practices



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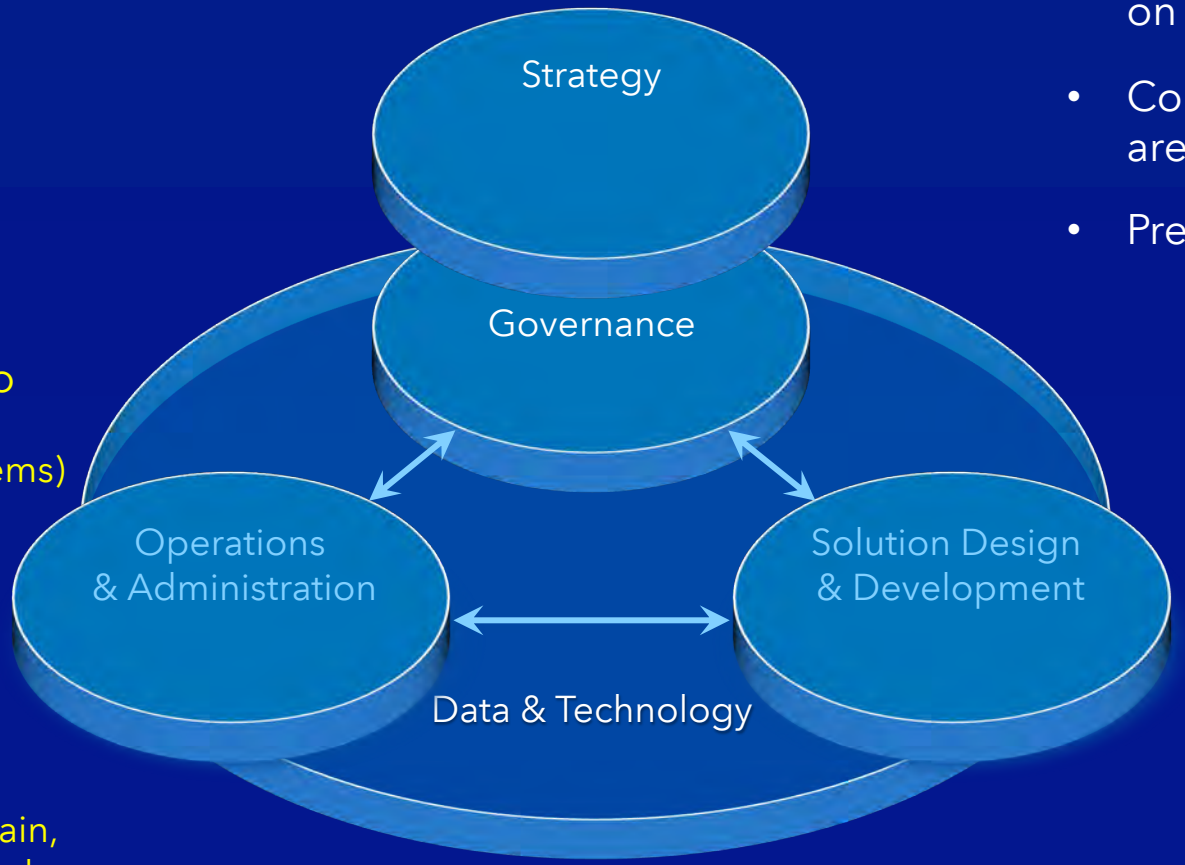
Project Portfolio

- Scope, Cost, Schedule
- Resources
- Configurations (Versions) & Assets
- Service Levels
- Organizational and IT Changes by design
- Integration with other enterprise systems

- Develop, test, and deliver high-quality solutions

Data & Technology Alignment

Projects, Programs, and Related Practices



Solution Portfolio

- Service Levels (People & Systems)
- Continuity
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- Operate, maintain, grow operational solutions

DevSecOps

- Agile, Iterative, and Frequent delivery of quality, incremental augmentation of priority solutions
- Pace of iteration and delivery depends on complexity
- Configuration and Release Management are important
- Present in both Dev and Ops

Project Portfolio

- Scope, Cost, Schedule
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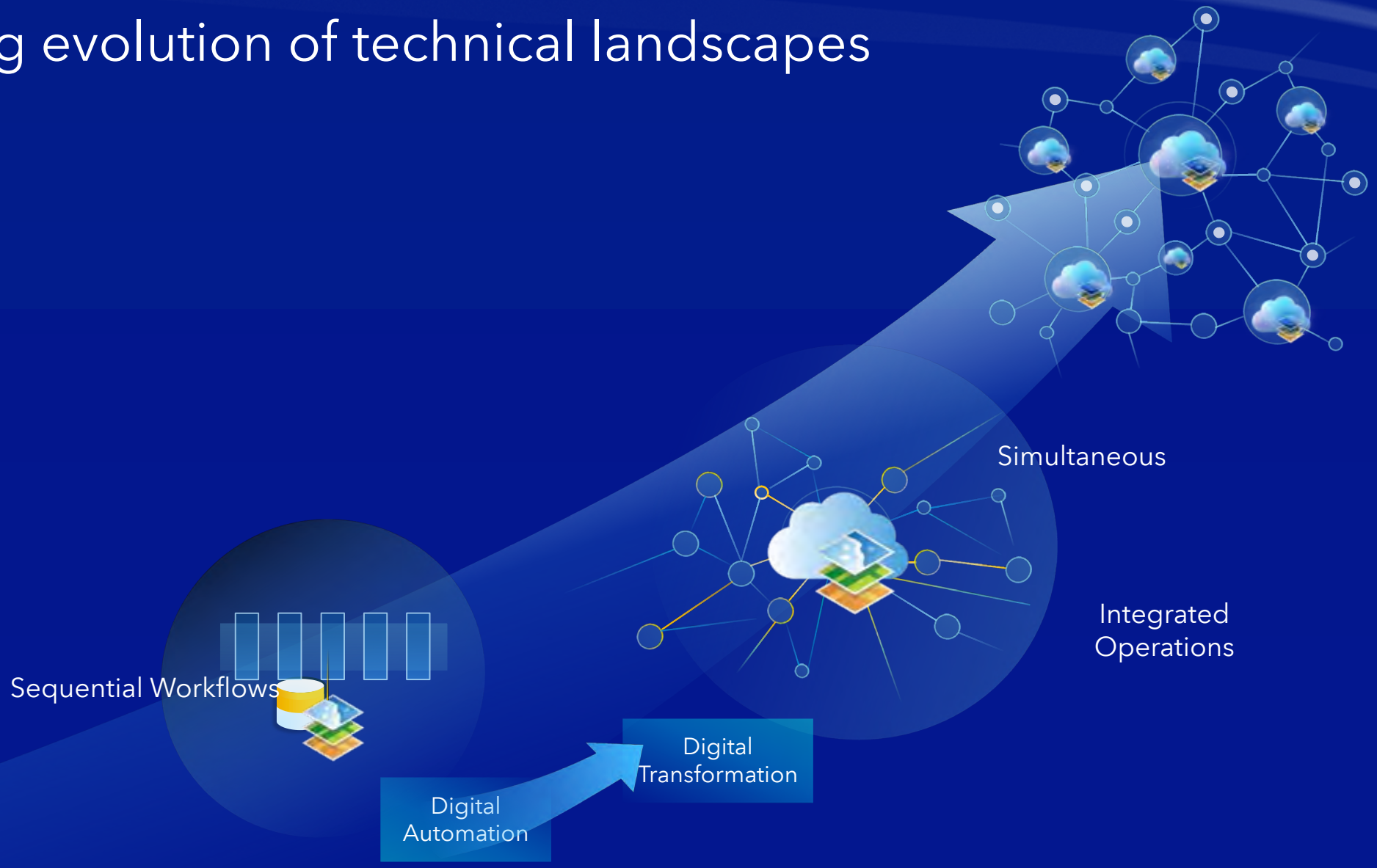
Ongoing evolution of technical landscapes



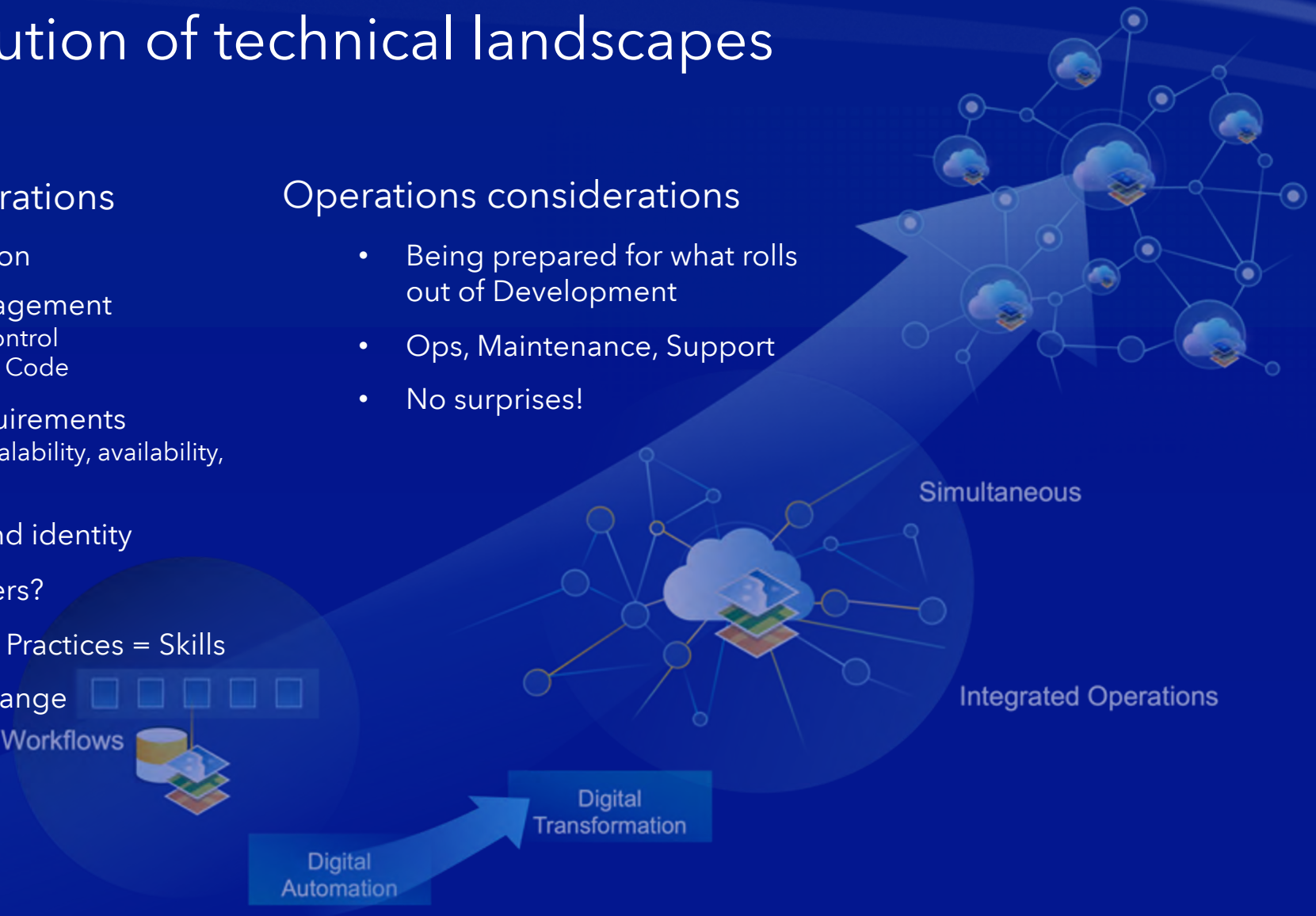
Ongoing evolution of technical landscapes

Development considerations

- Environment Isolation
- Configuration Management
  - Source Code Control
  - Infrastructure as Code
- Non-functional requirements
  - Performance, scalability, availability, logging
- Network security and identity
- Integration, what tiers?
- Components, Data, Practices = Skills
- Implementation, change

Operations considerations

- Being prepared for what rolls out of Development
- Ops, Maintenance, Support
- No surprises!



Present and Future IT Landscape

Strategic Outcomes

Managed policies,
resources, risk

Enterprise Solutions

Enterprise Systems

Technical Landscape
(skills)

Data Landscape
(skills)

Present and Future IT Landscape

Operations for Current State
(Deliver, Service, & Support)

Strategic Outcomes

Fulfillment of Current Strategy

Managed policies, resources, risk

Stakeholder collaboration

Responsible Management

Enterprise Solutions

Ent Sol 1 | Ent Sol 2 | Ent Sol 3 | Ent Sol 4

Enterprise Systems

Assets | Processes | Relationships

Technical Landscape
(skills)

Identity | Security | Cloud Hosted Dist | On Prem Centralized | On Prem Distributed

Data Landscape
(skills)

Present and Future IT Landscape

	Operations for Current State (Deliver, Service, & Support)					Development of Future State (Build, Acquire, & Implement)				
Strategic Outcomes	Fulfillment of Current Strategy					Strategic Direction	Strategy Execution			
Managed policies, resources, risk	Stakeholder collaboration	Responsible Management				Stakeholder collaboration	Responsible Management			
Enterprise Solutions	Ent Sol 1	Ent Sol 2	Ent Sol 3	Ent Sol 4		Ent Sol 1	Ent Sol 2	Ent Sol 3	Ent Sol 4	
Enterprise Systems	Assets	Processes	Relationships			Ent Sys 1	Ent Sys 2	Ent Sys 3		
Technical Landscape (skills)	Identity	Security	Cloud Hosted Dist	On Prem Centralized	On Prem Distributed	Identity	Security	Cloud Hosted Dist	On Prem Centralized	On Prem Distributed
Data Landscape (skills)										

Present and Future IT Landscape

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Data Landscape (skills)												

Support

Maintenance

Implementation

Functional design considerations in enterprise scope

- Extension of organizational workflows

- External Communities

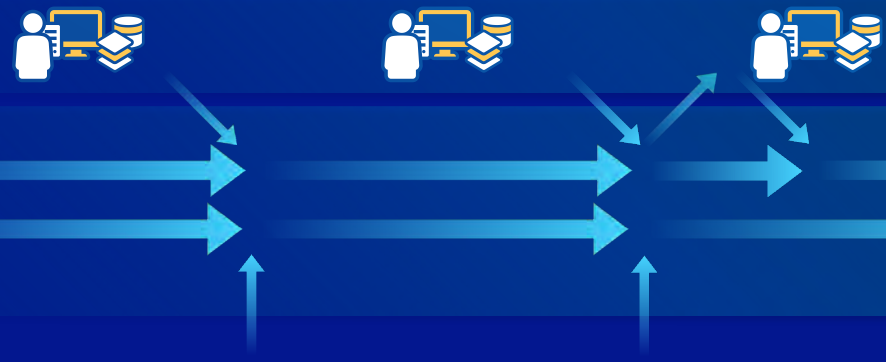
- Operational, Situational Awareness
- Operations Management
- Presentations, Briefings
- Digital Collaboration

- Leadership capabilities
- Management capabilities
- Workforce capabilities

- Discover, develop, and deploy analytics

- Analytics
- Data Science

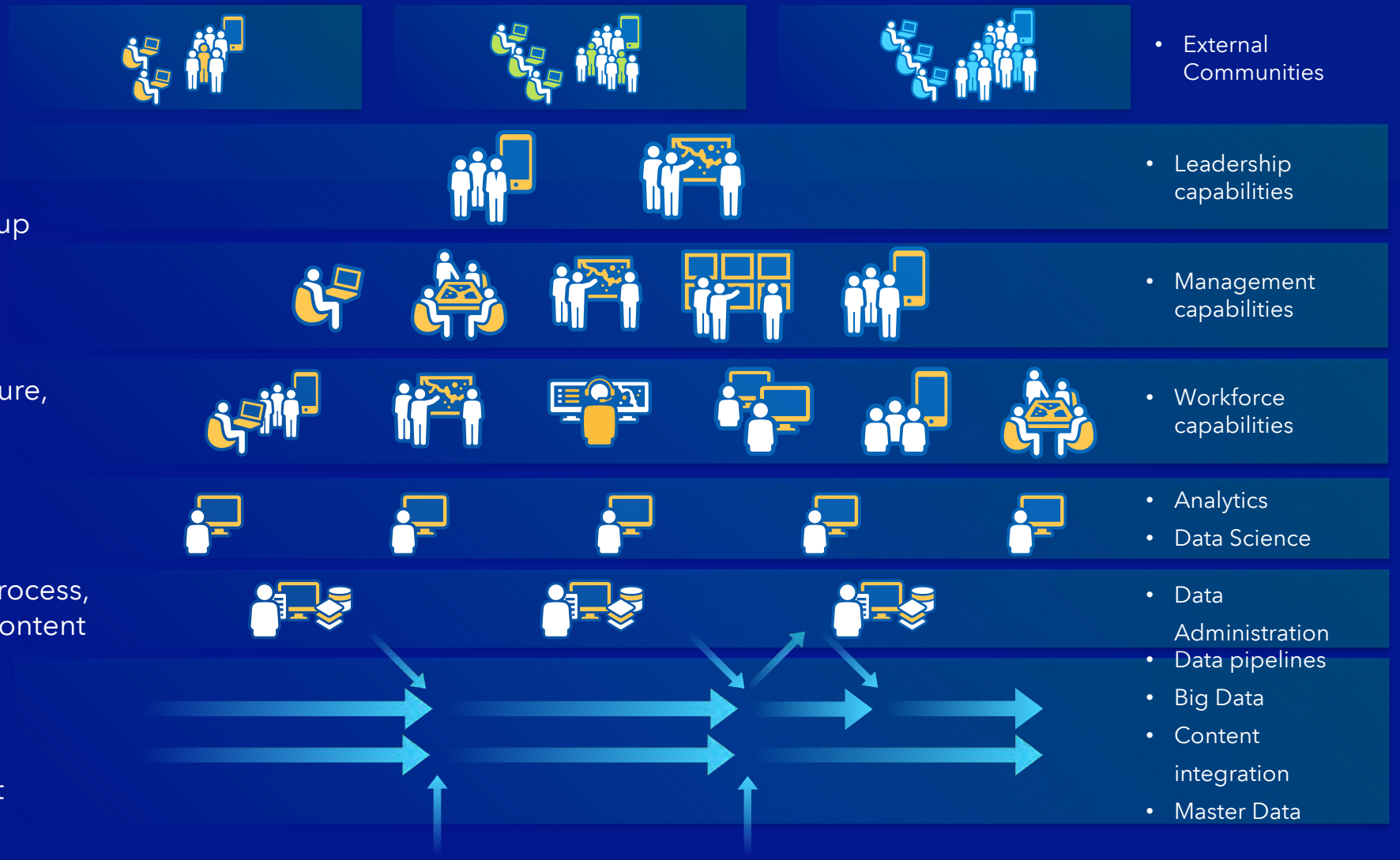
- Ensure well-managed foundation of content



- Data Administration
- Data pipelines
- Big Data
- Content integration
- Master Data

Categories of data across an enterprise

- Collaborative
  - Dynamic input, markup
- Unstructured
  - Varying scope, structure, storage, etc.
- Analytical
  - Persisted inputs, in-process, and analysis results content
- Foundational
  - Transactional content in various forms



- External Communities
- Leadership capabilities
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Categories of data across an enterprise

Partners

Collaborators

Consumers

- External Communities

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Don’t duck Metadata!

- Essential for people and systems to trust content
- Move beyond manual entry
- Embrace design of metadata automation at design time
- Embed in processes/workflows
- SLA for metadata production

- Leadership capabilities
- Management capabilities
- Workforce capabilities
- Analytics
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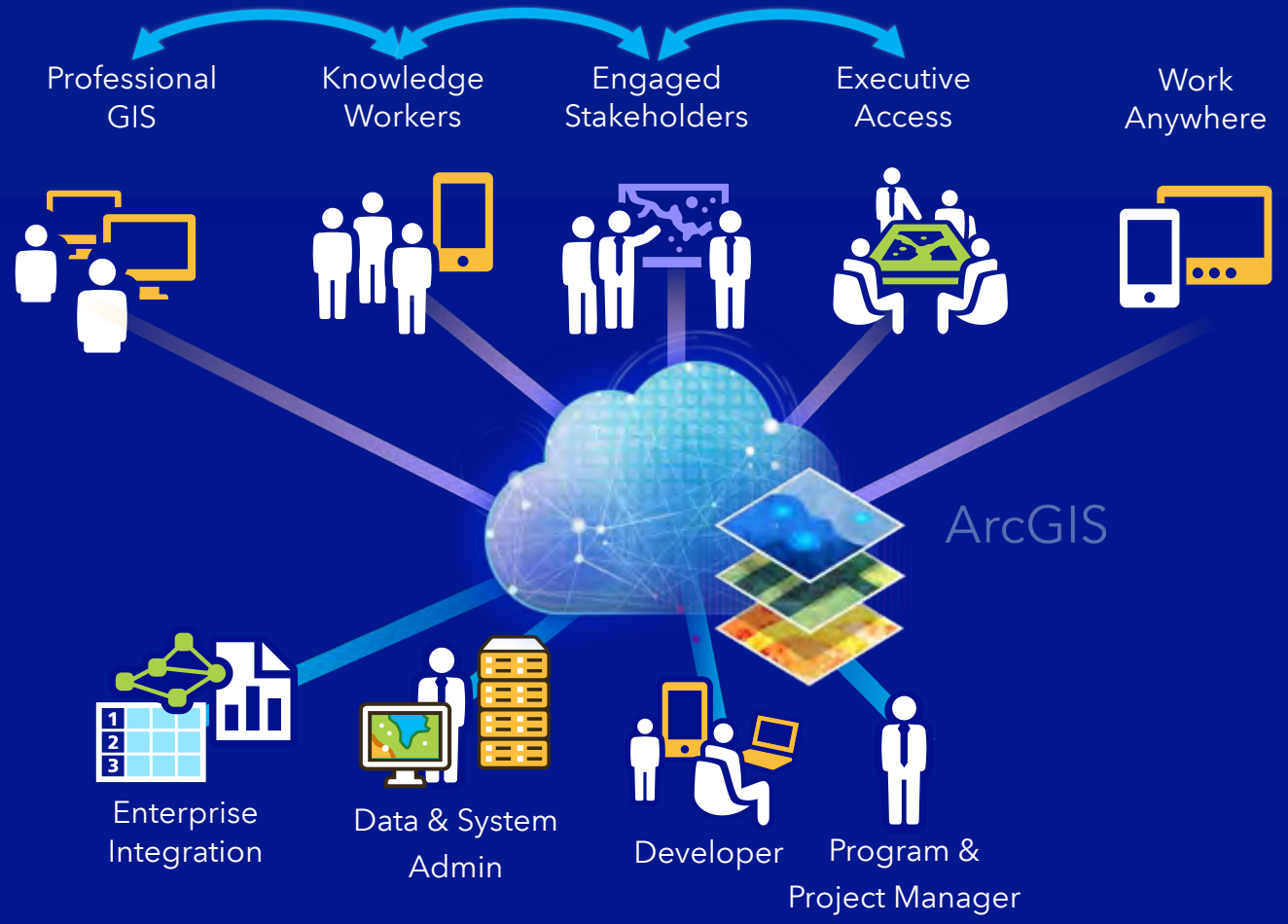
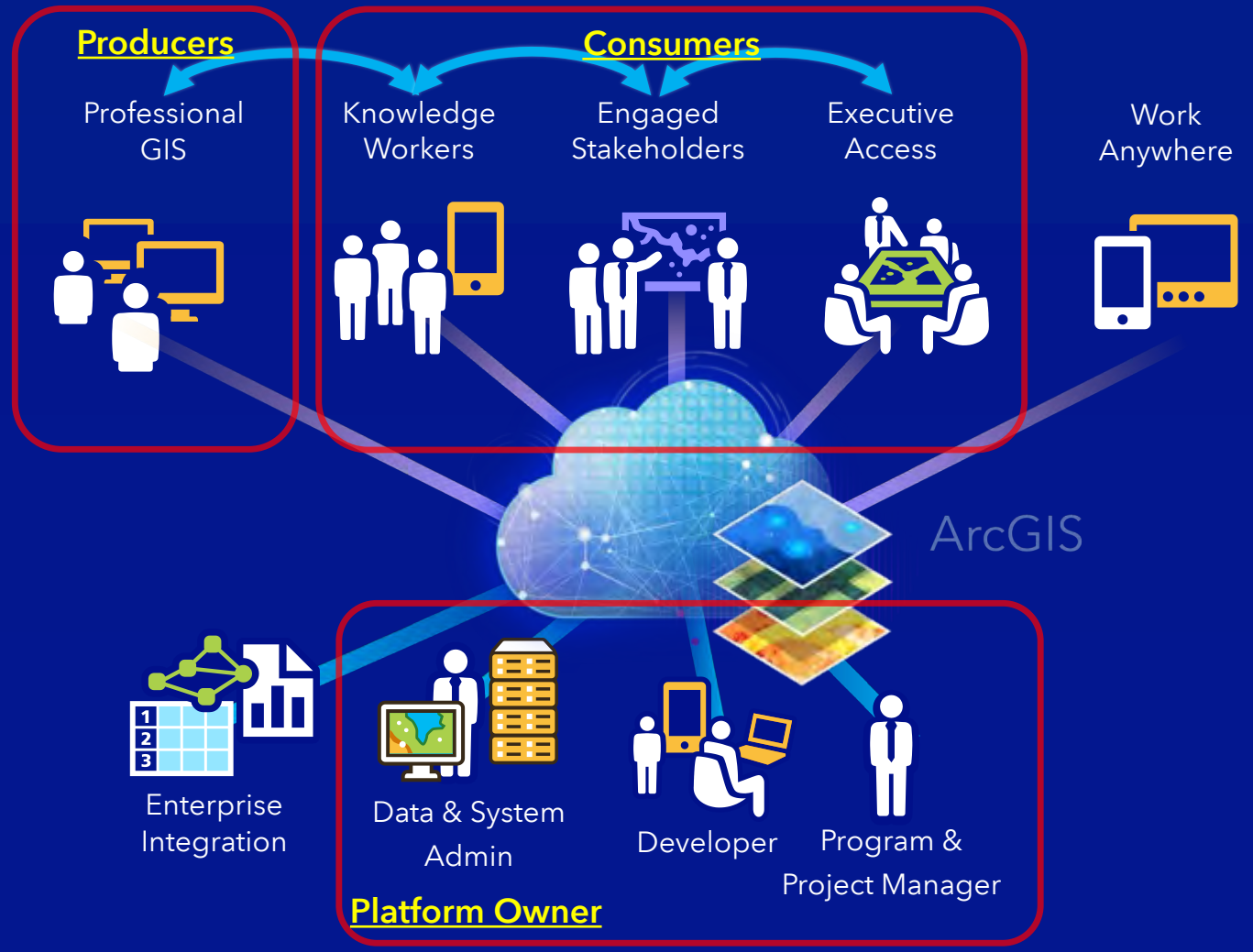
Solutions Scope Guides the Design of Platform Participation



Solutions Scope Guides the Design of Platform Participation

Enabling exchange of value units (information products, content, etc.) between platform participants

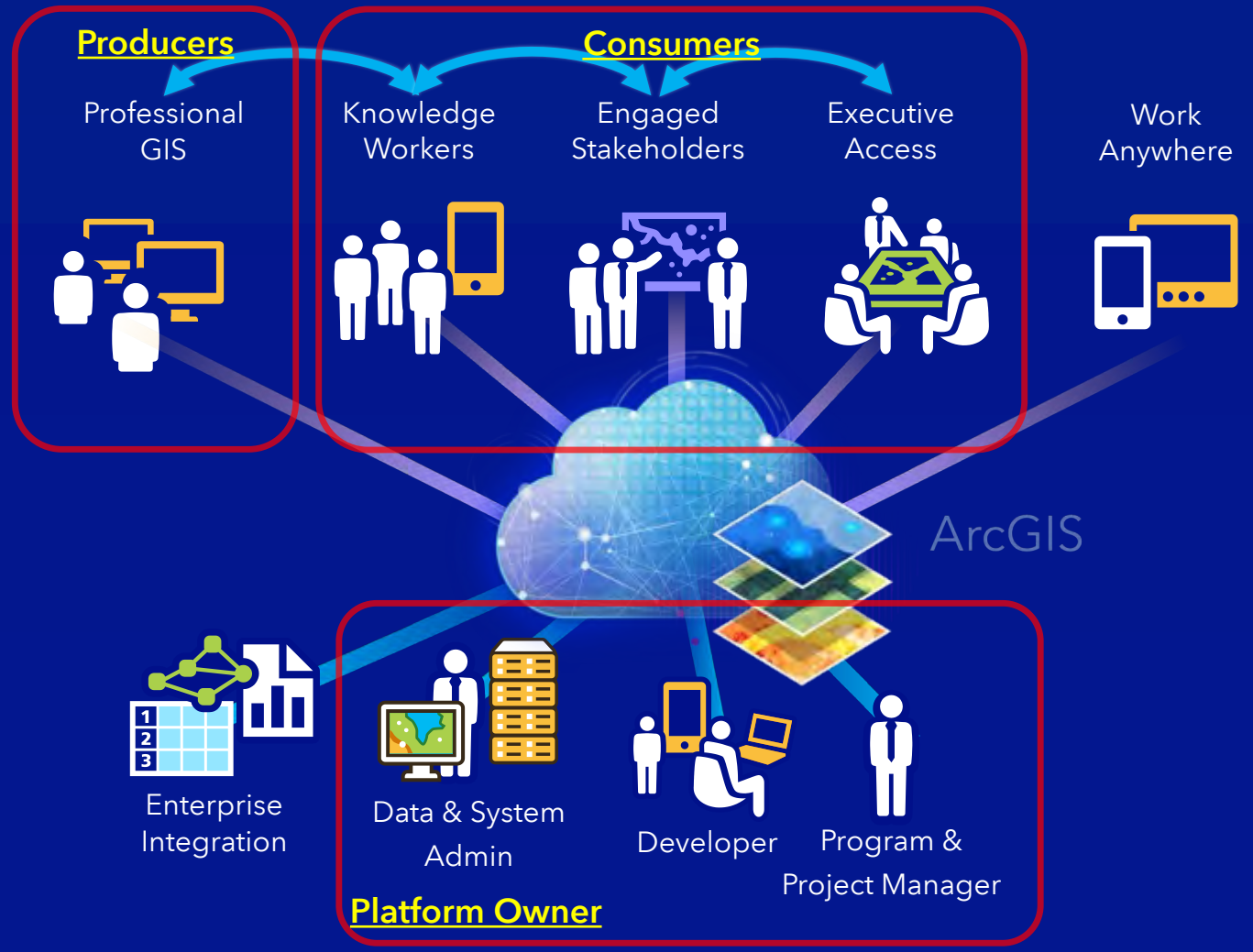
- Positive Network Effects
  - high demand from consumers for the products and services of producers



Solutions Scope Guides the Design of Platform Participation

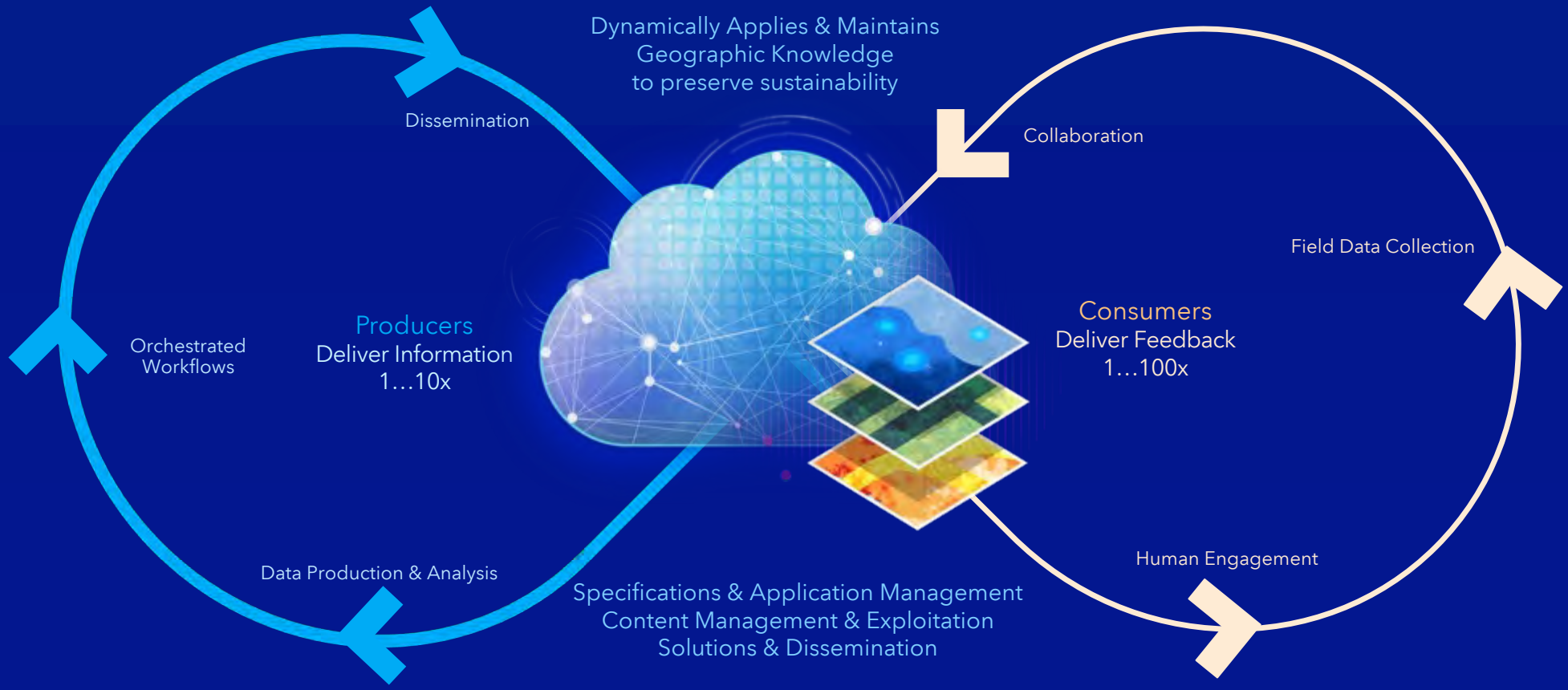
Your platform must provide…

- Liquidity:
  - Minimum number of producers and consumers
  - High % of successful interactions
- Quality Matches between producers and consumers
- Trust: a safe environment in which to interact



ArcGIS System: Enterprise Platform Technology

Build ecosystems of continuous and growing participation



. . . Decreasing time to value – reducing transaction cost

ArcGIS System: Enterprise Platform Technology

Build ecosystems of continuous and growing participation

Network Effects are measurable…

- Liquidity
  - Who are the essential producers and consumers in your ecosystem
  - Are the successful producer-consumer interactions helping to realize strategic outcomes?
- Quality Matches
  - Do you see sustained growth in the quality of matches in your platform ecosystem (value unit exchanges)
- Trust
  - Does your user community see your platform as a trusted environment to spend their time in?

ArcGIS System: Enterprise Platform Technology

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Evaluate these conditions by…

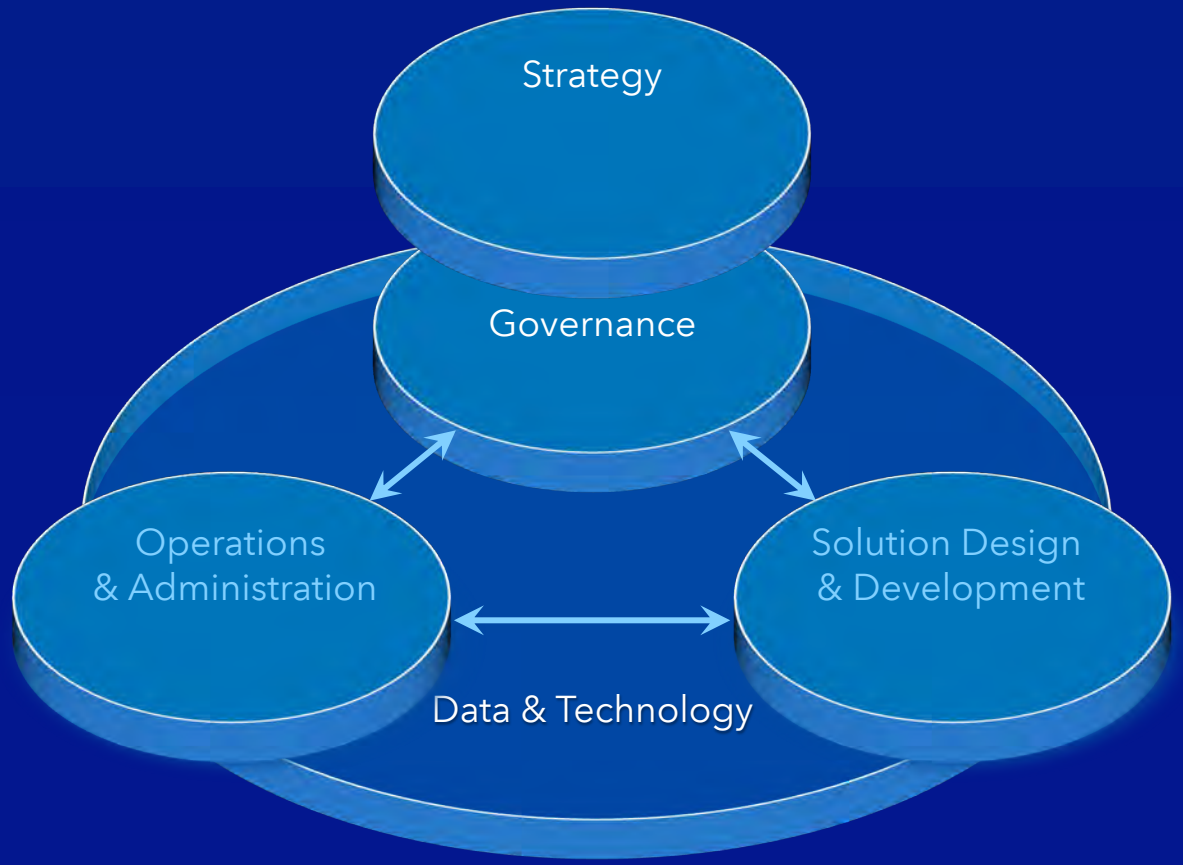
- Measuring utilization in the context of each solution (not just aggregate)

Not working today?

- Design the future using these platform principles

Data & Technology Implementation

Implementation can be as resource-intensive as development



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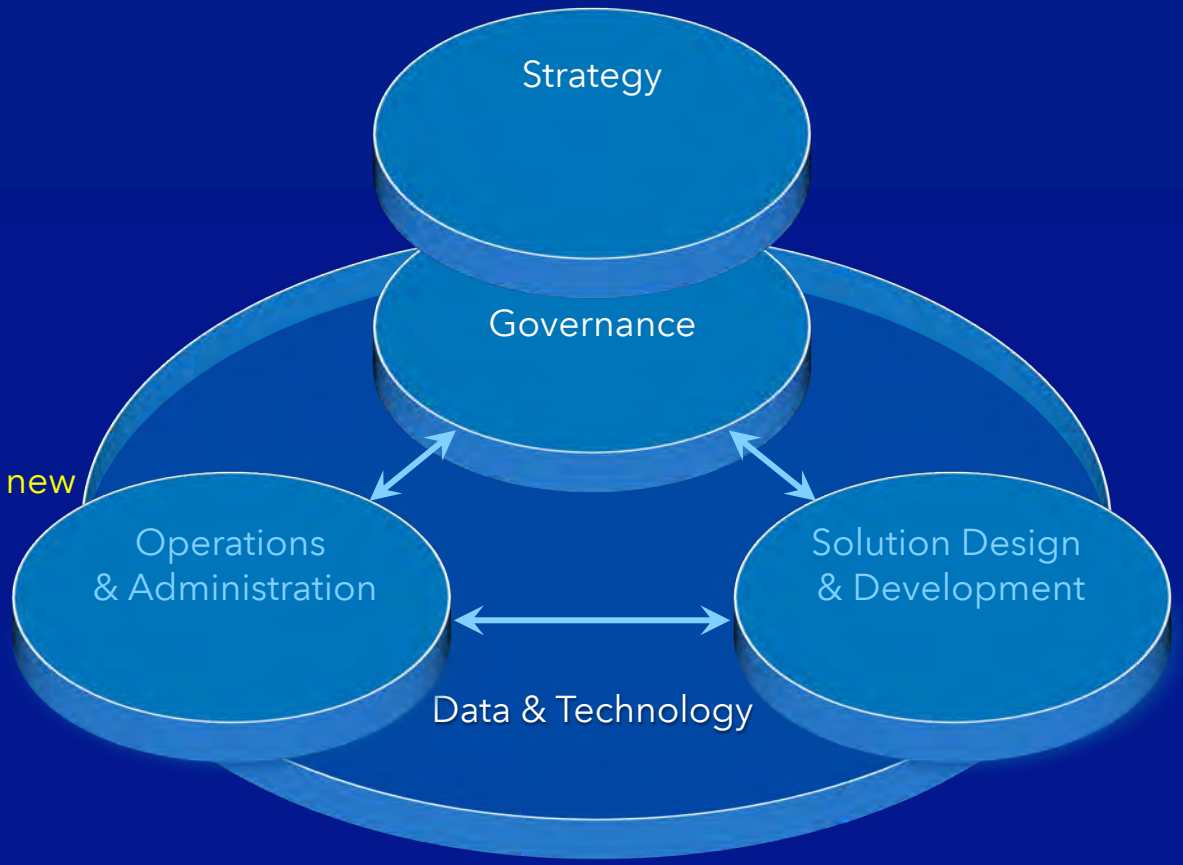
Implementation can be as resource-intensive as development

- Transition personnel to new solution capabilities



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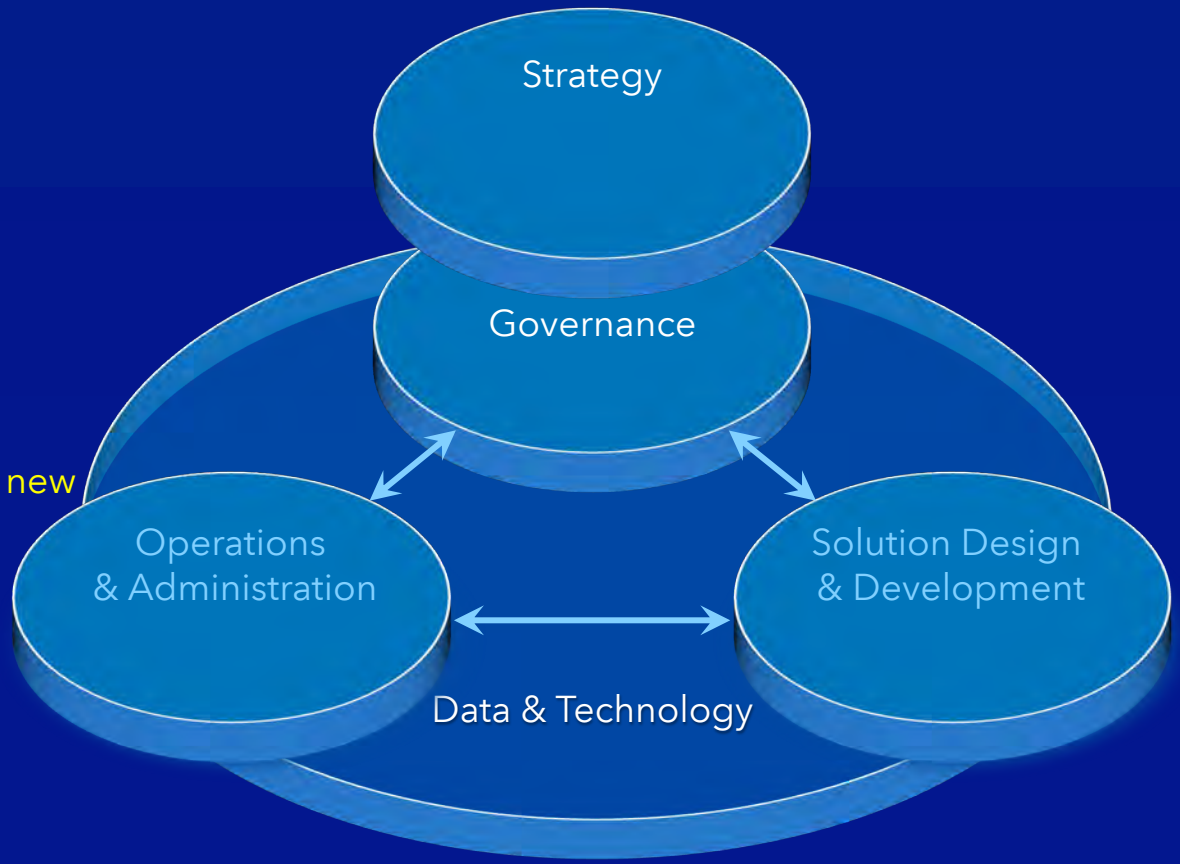
Implementation can be as resource-intensive as development

- Transition personnel to new solution capabilities
- Ensure retirement of legacy systems, data, and processes



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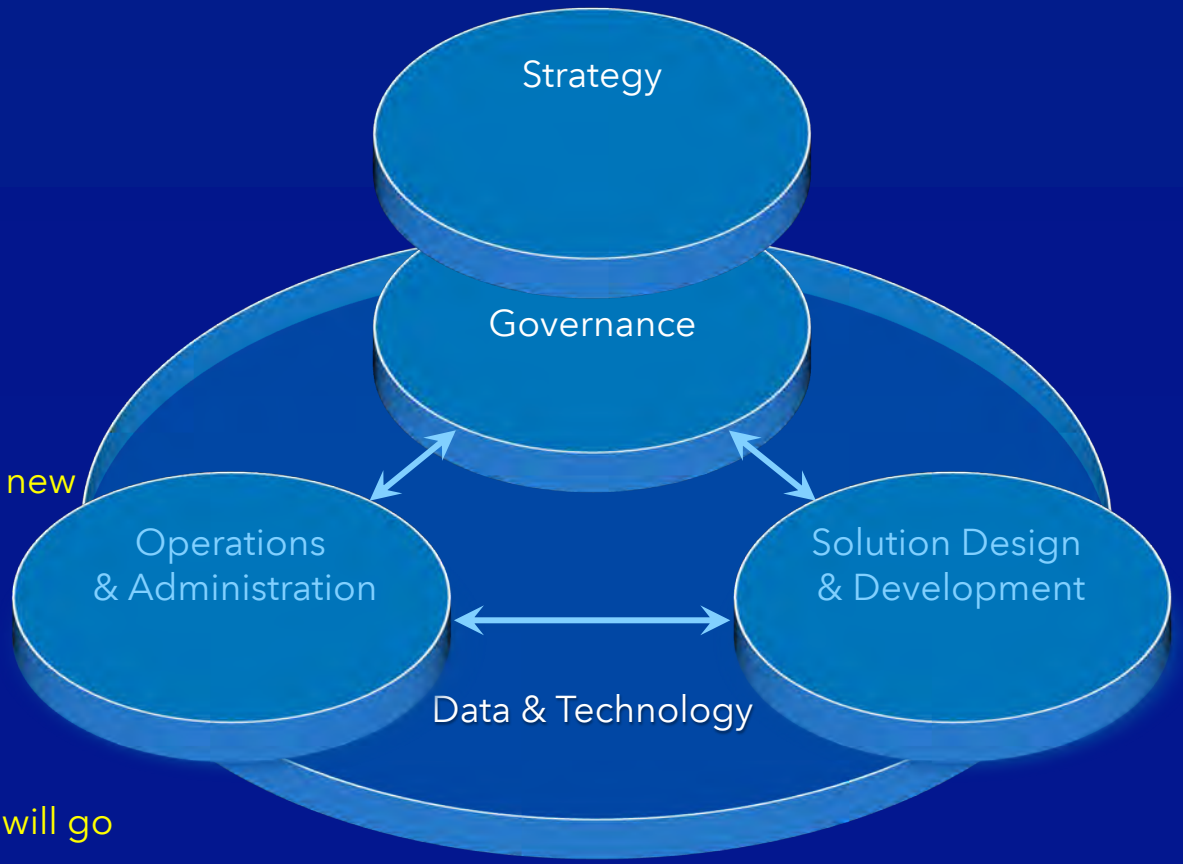

- Transition personnel to new solution capabilities
- Ensure retirement of legacy systems, data, and processes
- Support it! Something will go wrong. Be ready.

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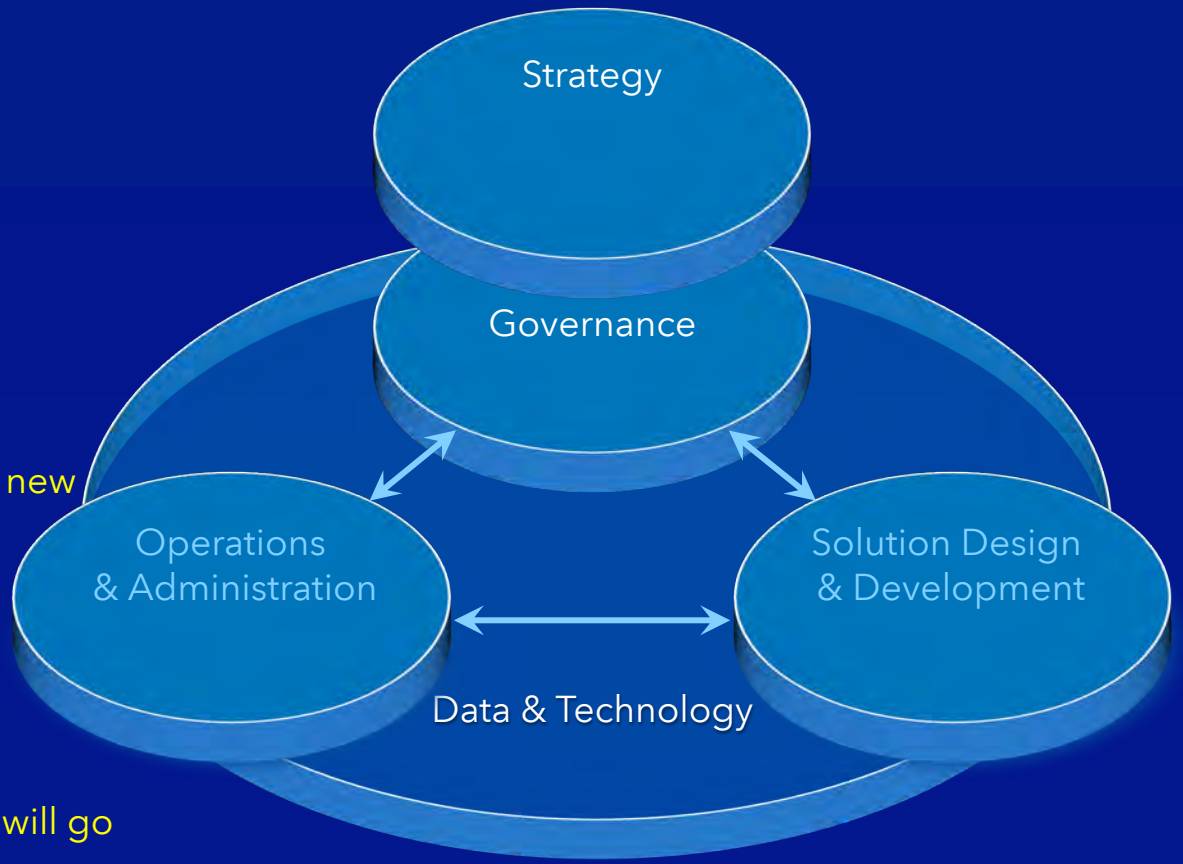

- Transition personnel to new solution capabilities
- Ensure retirement of legacy systems, data, and processes
- Support it! Something will go wrong. Be ready.

- Set implementation time frames for handover (throttle deployment to mitigate risks)
- Train the trainers, ensure knowledge transfer
- Free up resources for upcoming projects
- Engage with stakeholders for continuing governance of strategic direction.

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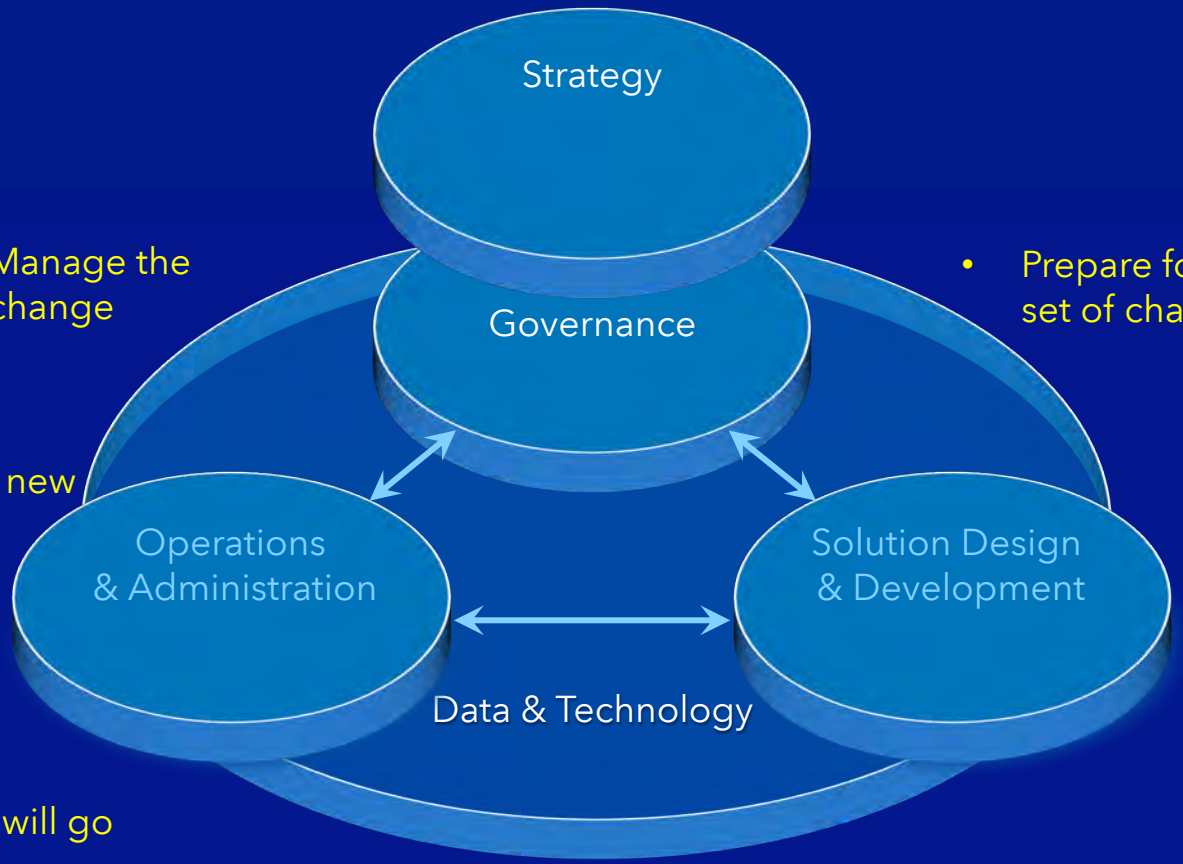
Implementation can be as resource-intensive as development



- Manage the change
- Transition personnel to new solution capabilities
- Ensure retirement of legacy systems, data, and processes
- Support it! Something will go wrong. Be ready.

- Prepare for the next set of changes
- Set implementation time frames for handover (throttle deployment to mitigate risks)
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Data & Technology Implementation

Implementation can be as resource-intensive as development

- Assess the achievement of strategic outcomes
- Manage the change
- Transition personnel to new solution capabilities
- Ensure retirement of legacy systems, data, and processes
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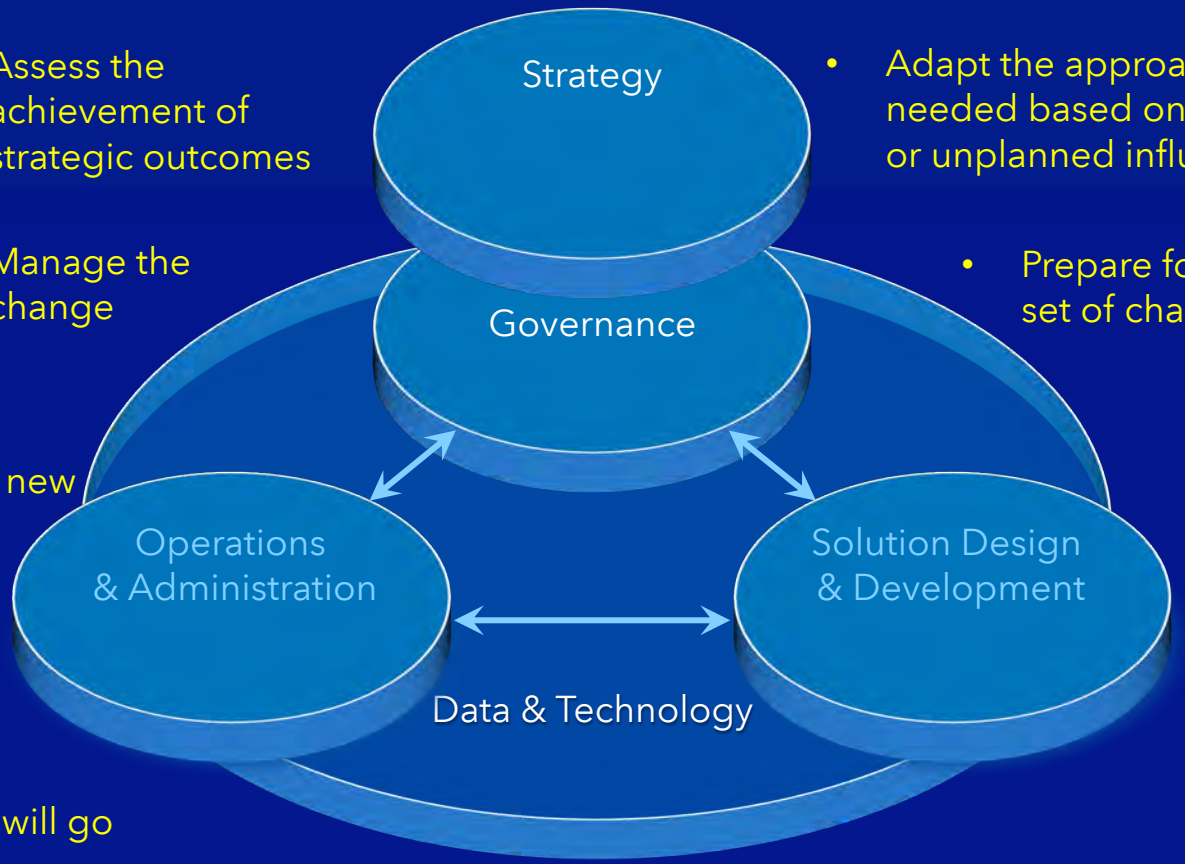

- Adapt the approach as needed based on planned or unplanned influences
- Prepare for the next set of changes
- Set implementation time frames for handover (throttle deployment to mitigate risks)
- Train the trainers, ensure knowledge transfer
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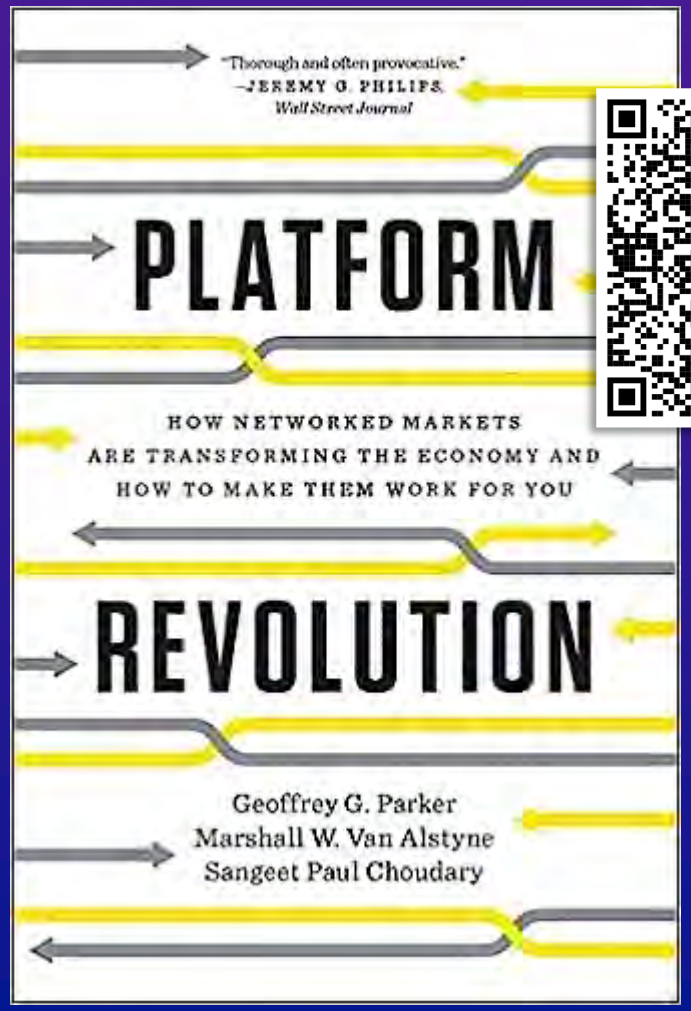
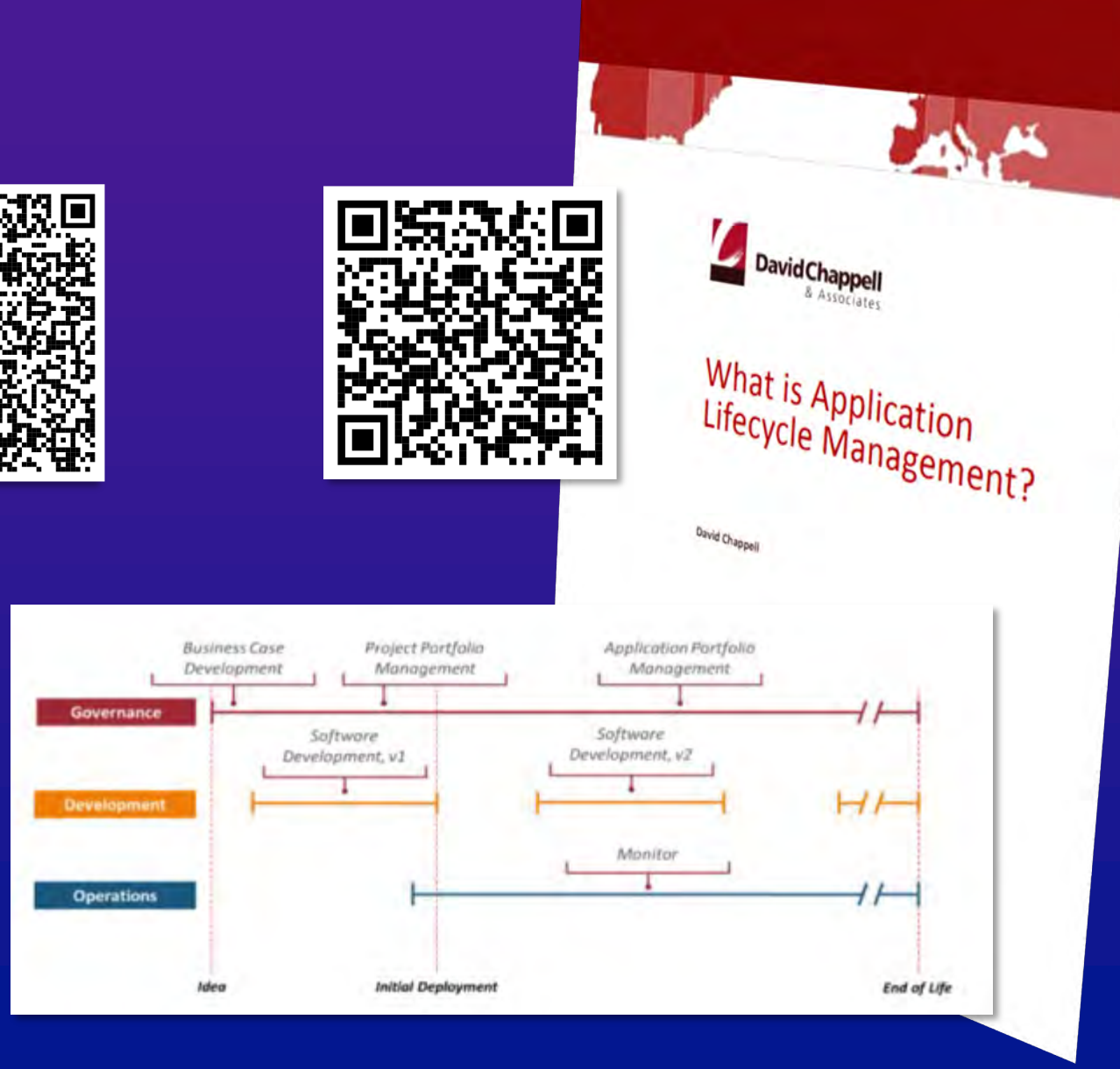
Suggested Reading…





Data and Technology Summary

Aligning efforts and resources across the practice domains to achieve successful outcomes

From Reactive to Proactive

Kara Shindle, GISP

Franklin County, PA GIS Director

2023 ESRI USER CONFERENCE

esri | THE SCIENCE OF WHERE

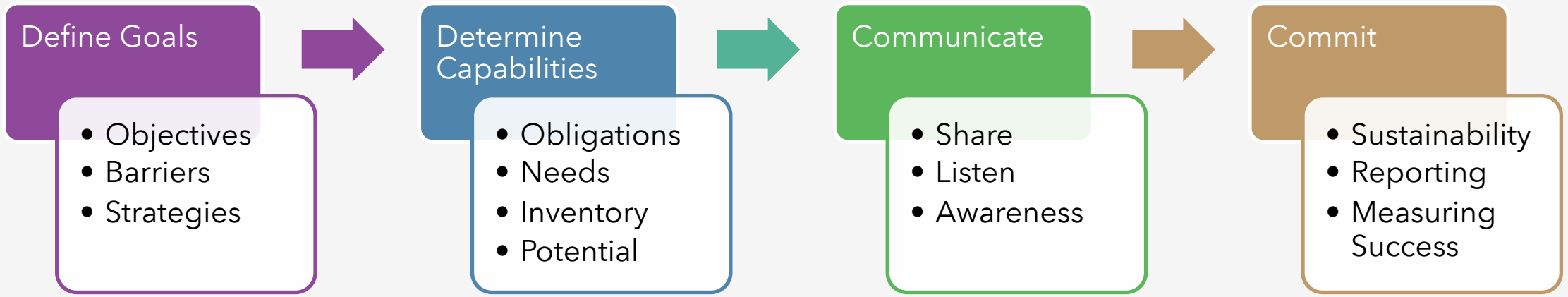
Frustrations

Everything is an emergency
You say the same things over and over
GIS: people don’t “get it”
You are the last to know
You cannot get the resources you need
You are burnt out

Story Time!

- Mike took over the GIS department in a rural county
- His boss didn’t understand what he did
- They started making him take help desk calls
- They wouldn’t let him do his own work
- John feared he was going to lose his job
- John saw a presentation on communicating the value of GIS

Fighting Fires



1. Write down your goals

- What are your problems?
- What are some fixes?
- What can frame into a goal?
- Make it SMART

Examples

Problems

- 1.GIS is an afterthought
- 2.We're always the last involved

Fixes

- 1.Explain & communicate

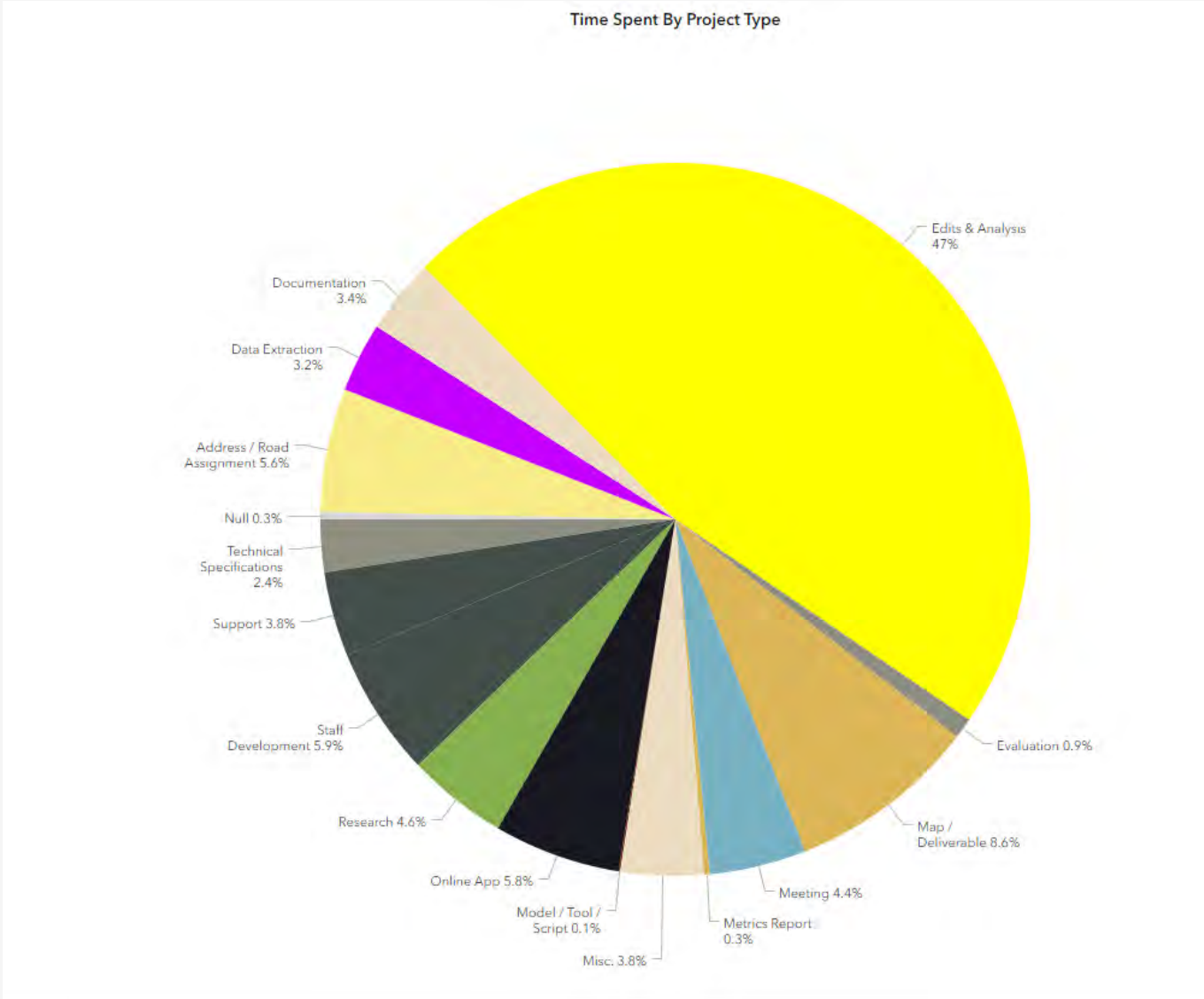
Goals

- 1.Education Campaign

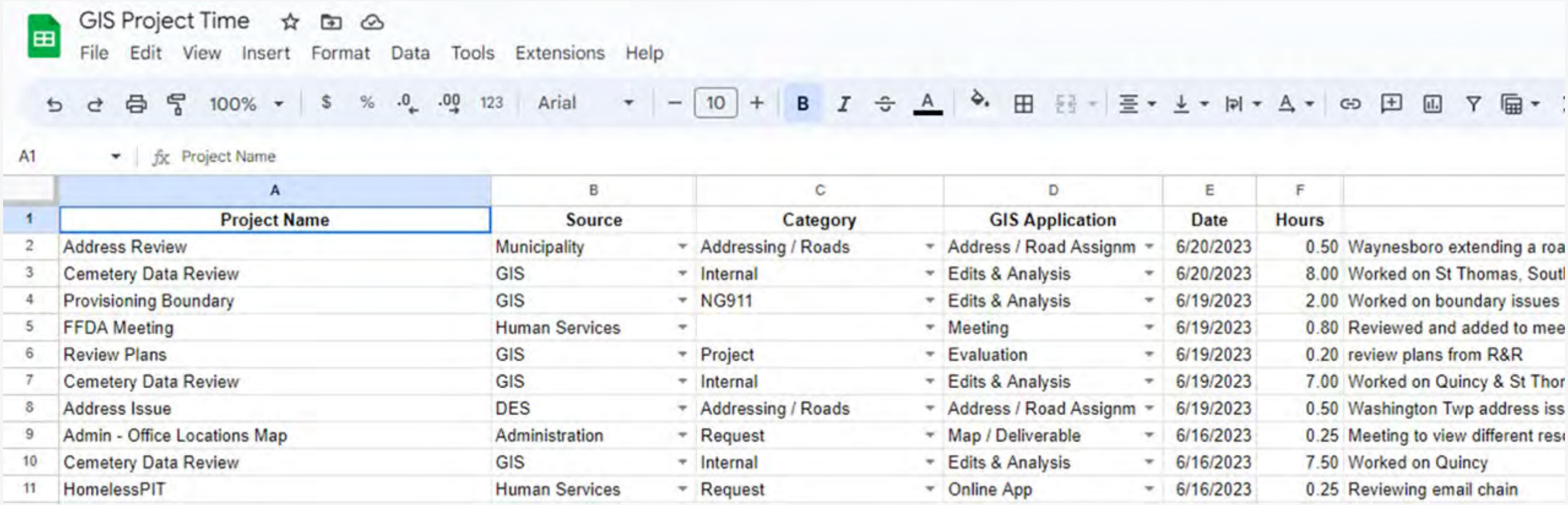
S	M	A	R	T
• Specific	• Measurable	• Achievable	• Relevant	• Time-bound

2. Determine Your Capabilities

1. Write things down!
2. Figure out what you can do
3. Figure out where your time goes



Doesn't have to be complicated!



GIS Project Time

File Edit View Insert Format Data Tools Extensions Help

A1 | Project Name

	A	B	C	D	E	F	
1	Project Name	Source	Category	GIS Application	Date	Hours	
2	Address Review	Municipality	Addressing / Roads	Address / Road Assignm	6/20/2023	0.50	Waynesboro extending a roa
3	Cemetery Data Review	GIS	Internal	Edits & Analysis	6/20/2023	8.00	Worked on St Thomas, Soutl
4	Provisioning Boundary	GIS	NG911	Edits & Analysis	6/19/2023	2.00	Worked on boundary issues
5	FFDA Meeting	Human Services		Meeting	6/19/2023	0.80	Reviewed and added to mee
6	Review Plans	GIS	Project	Evaluation	6/19/2023	0.20	review plans from R&R
7	Cemetery Data Review	GIS	Internal	Edits & Analysis	6/19/2023	7.00	Worked on Quincy & St Thor
8	Address Issue	DES	Addressing / Roads	Address / Road Assignm	6/19/2023	0.50	Washington Twp address iss
9	Admin - Office Locations Map	Administration	Request	Map / Deliverable	6/16/2023	0.25	Meeting to view different res
10	Cemetery Data Review	GIS	Internal	Edits & Analysis	6/16/2023	7.50	Worked on Quincy
11	HomelessPIT	Human Services	Request	Online App	6/16/2023	0.25	Reviewing email chain

3. Communicate

1. Your intentions
2. Strengths/weaknesses
3. Need
4. Capabilities

- Start making people aware of your capabilities
- Listen to people's problems
- Share your data

Filter Selection

Select a date
3/1/2023 - 3/31/2023

Filter By Person
None

Project Category Filter
None

Project Source Filter
None

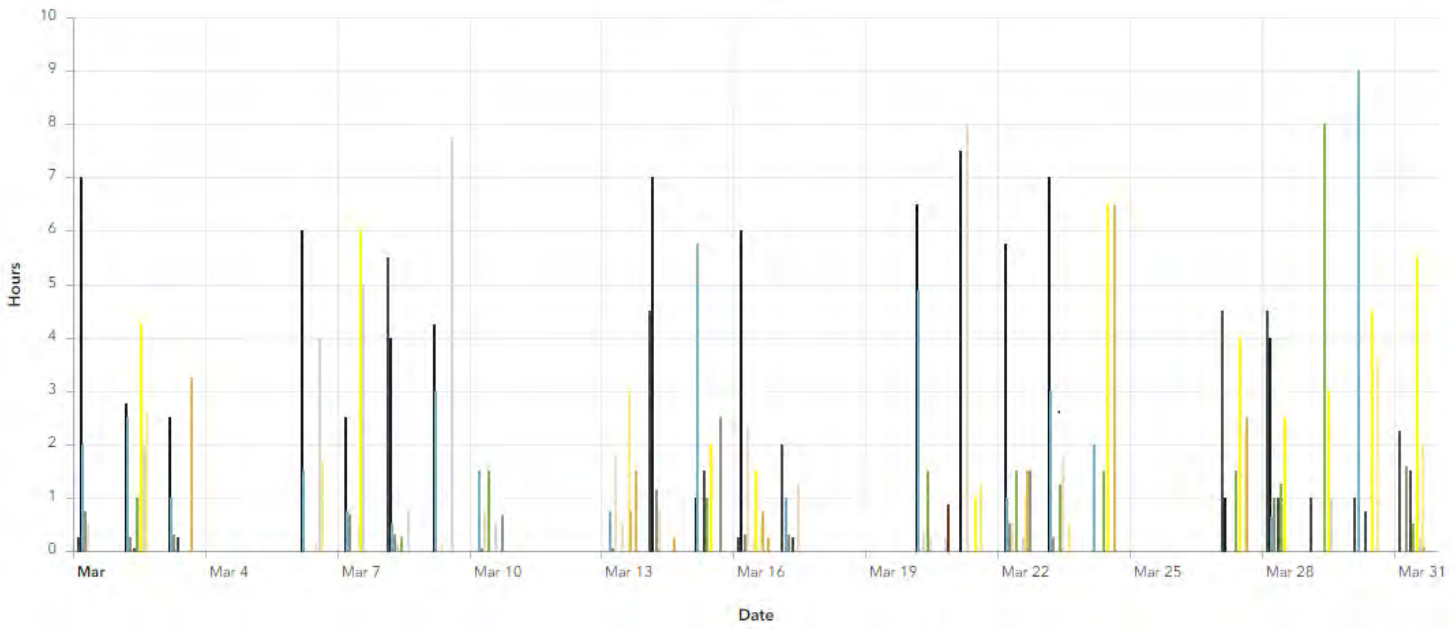
Project Name Filter
None

All Metrics to the right filtered based on selection above, selection of bar chart bar, or by selection of pie chart slice

Projects included specific requests, site development, scripting, research, and public / municipal requests.

Dashboard for GIS Projects requested or undertaken outside of normal daily activities. Normal activites include standard parcel edits, standard addressing, data edits completed during the normal course of duties.

Work Time by Type



Type | Category | Source | Monthly Hours

3 of 50

Project Entry Details

Category	Project
Date	March 31, 2023
GIS Application	Edits & Analysis
Hours	5.50
Notes	Analyzed and uploaded draft growth area sketch layer to AGOL
Person	JS
Project Name	Comprehensive Plan
Source	Planning

Details of each entry into projects list

Request & Project

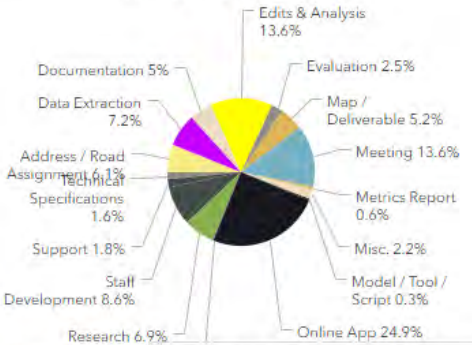
300.41

Hours

*Filters based on selected options

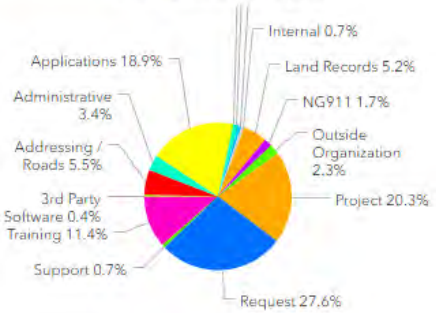
Total Hours | Monthly Hours

Time Spent By Project Type

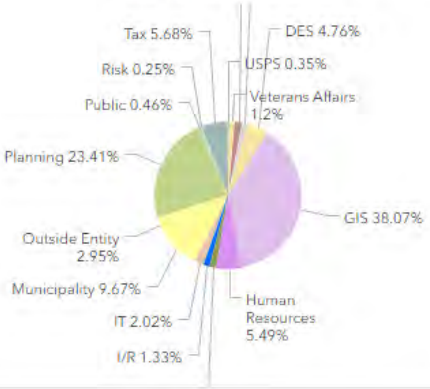


Time By Type | Time By Staff

Time Spent By Category



Time Spent By Sources



4. Commit

Tough part...

1. Incorporate the reporting into your daily life
2. Use the data to make decisions

- Every day, schedule time to report
- Review the data monthly to clarify & analyze

Mike... 1 year later!

Mike has his own office

Mike has a dialogue with his supervisor

And...

Contact Details

Reactive to Proactive Article

LinkedIn Profile