

Getting Started with a Geospatial Strategy


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Today's Key Takeaways

1. What is a geospatial strategy & why do you need one?
2. What are the key considerations as you develop a strategy?
3. How do you successfully execute on your strategy?





Focus on business!

Focus on business! Fig

A close-up photograph of a magnifying glass with a gold-colored frame. The lens is positioned over a document, sharply focusing on the bold, black text "Focus on business". The surrounding text is blurred, showing phrases like "benefits, everything you for", "ne.", "guess at how much you expect them", "and the", "ch what people buy and how m", "ions and w", "management to give you", "ons in", and "have any". The lighting is soft, highlighting the texture of the paper and the metallic sheen of the magnifying glass.

Our Approach to Developing & Executing a Strategy

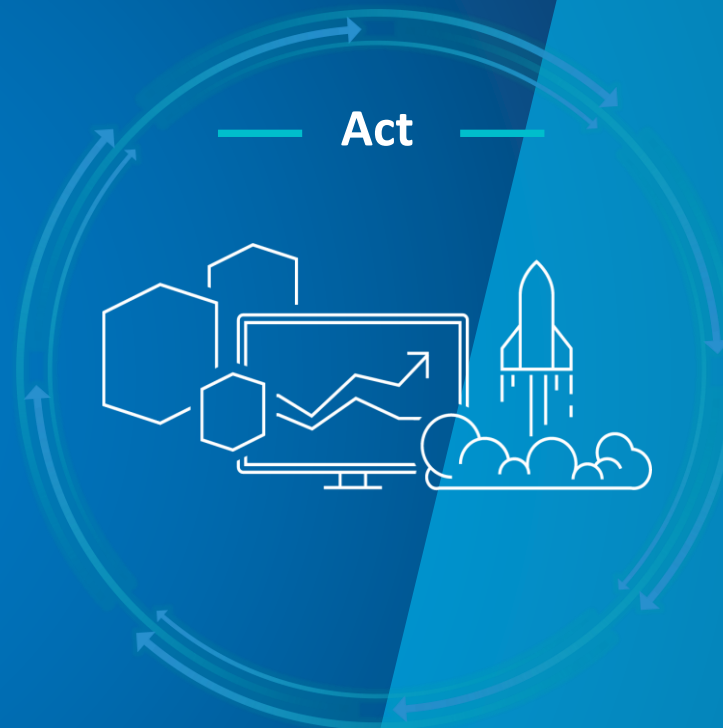
Understand



Plan



Act



Revisit

“Understanding precedes action.”

- ...Maximize Impact

Richard Saul Wurman

...Maximize Impact

What is Strategy?

Strategy is about making explicit choices that position the organization in its industry to create an advantage that maximizes results and impact.

- to do some things and not others –

and then building a vision for your business around those choices

Strategy Provides Direction 

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What is a Geospatial Strategy?

A Geospatial Strategy defines how an organization will use GIS to achieve its goals.

An effective geospatial strategy is mission and business oriented: it connects business needs with people, processes, and technology to help overcome challenges and improve results.



Why do I need Geospatial Strategy?

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To Obtain the Benefits



Provide direction - Vision



Overcome business challenges and unlock new sources of value



Deliver solutions and capabilities incrementally in a sustainable manner



Leverage location intelligence to achieve your goals more effectively



Stimulate the adoption and expansion of GIS across the organization



Quicker and more informed decision making by having readily available and relevant information



Allocate financial and staff resources through justifiable and documented recommendations



Leverage people, processes, and technology within your organization



Provide accountability



Reinforce the need for investment



Streamline existing processes therefore decreasing associated operational costs

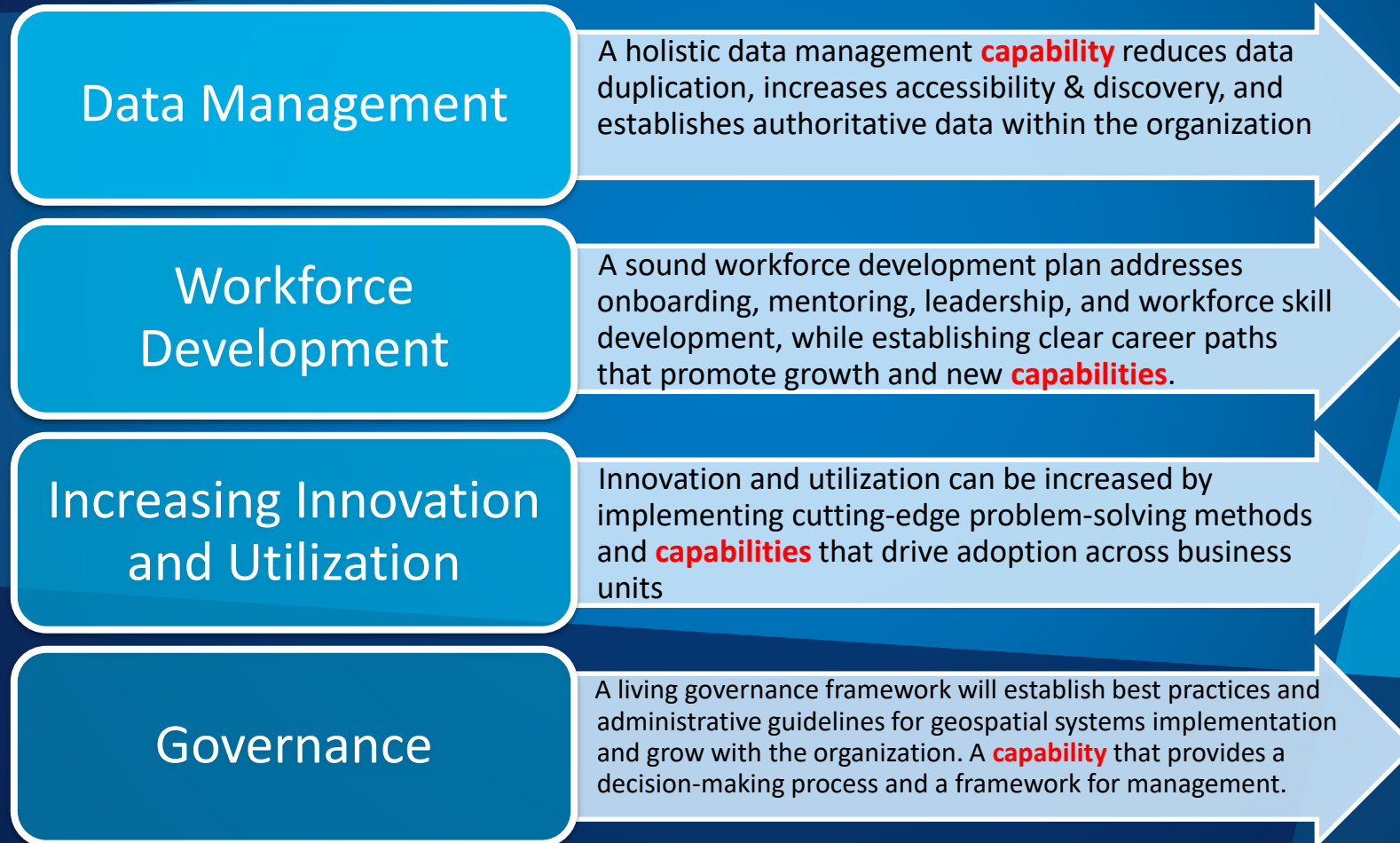


Increased productivity by reducing manual data entry and searching for information

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To Demonstrate Value

A geospatial strategy addresses these challenges by improving collaboration, synergy, communications, integration of capabilities, and optimization.

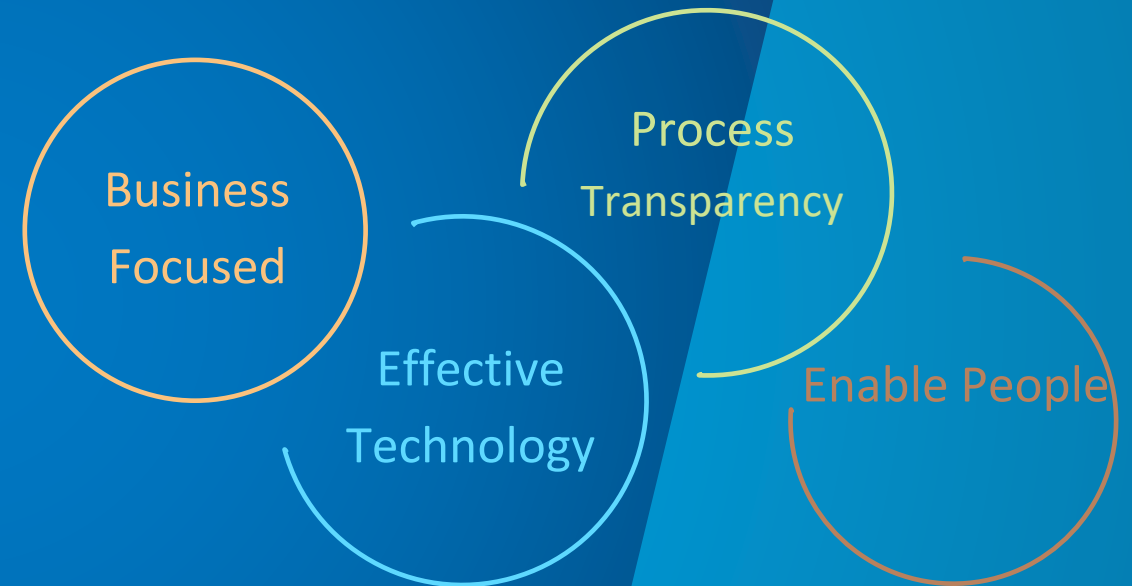


...Maximize Impact

To Overcome Challenges

A geospatial strategy can help address:

- Information and Knowledge Management
- Information Governance
- Timely Decision Making
- Reactive vs Proactive Mode
- Innovation
- Workforce Development
- Team & System Utilization
- Branding/Messaging
- Crisis Response
- Legacy Technology
- Situational Awareness
- Data Driven Decision Making



...Maximize Impact


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graph LR; A((Business Goals)) --> B((Business Challenges)); B --> C((Business Driven GIS Solutions)); C --> D((Business Value of GIS));
```

Business
Goals

Business
Challenges

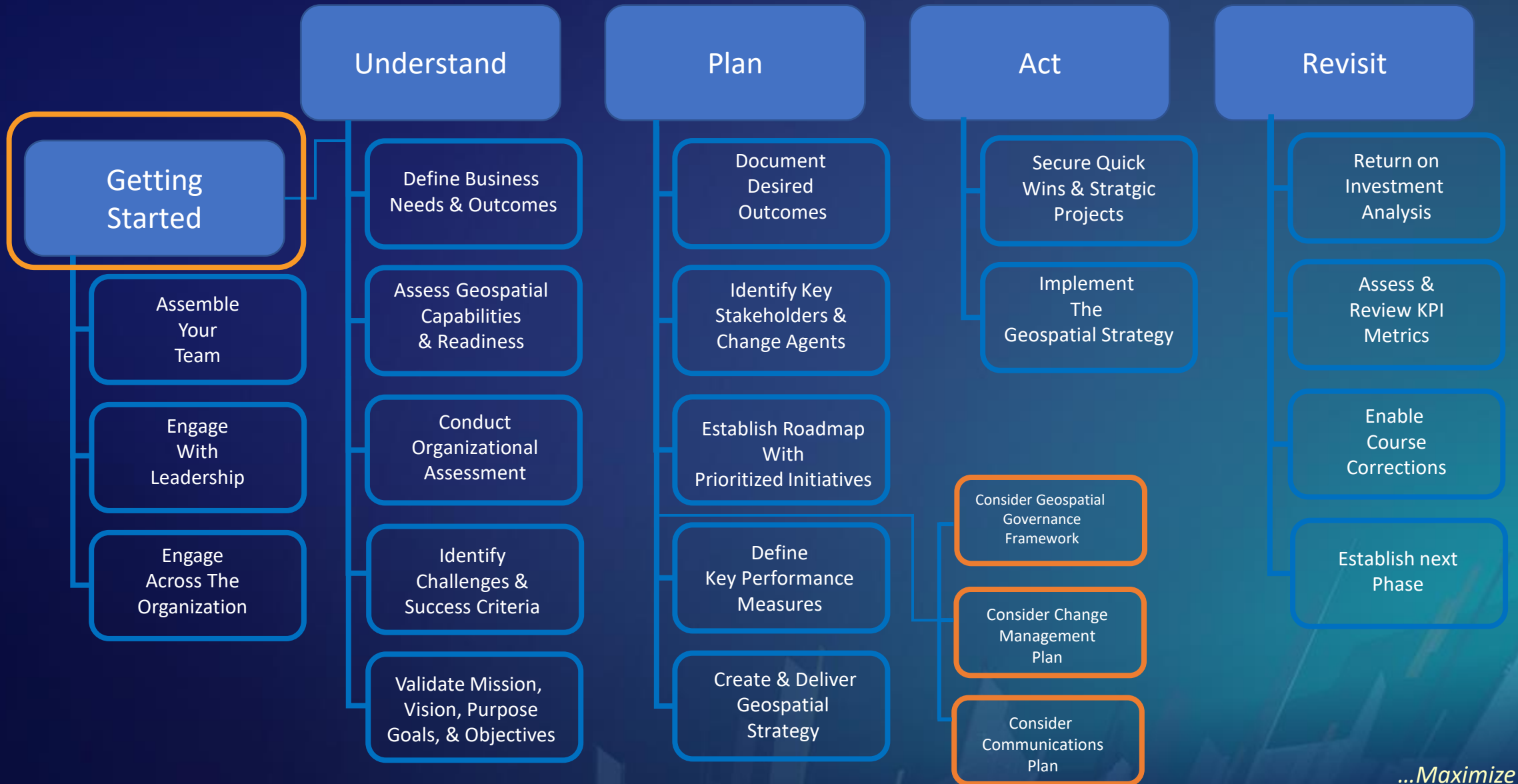
Business
Driven GIS
Solutions

Business
Value of
GIS

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Developing & Executing a Geospatial Strategy | The Process



Assemble Your Team



Executive
Sponsor



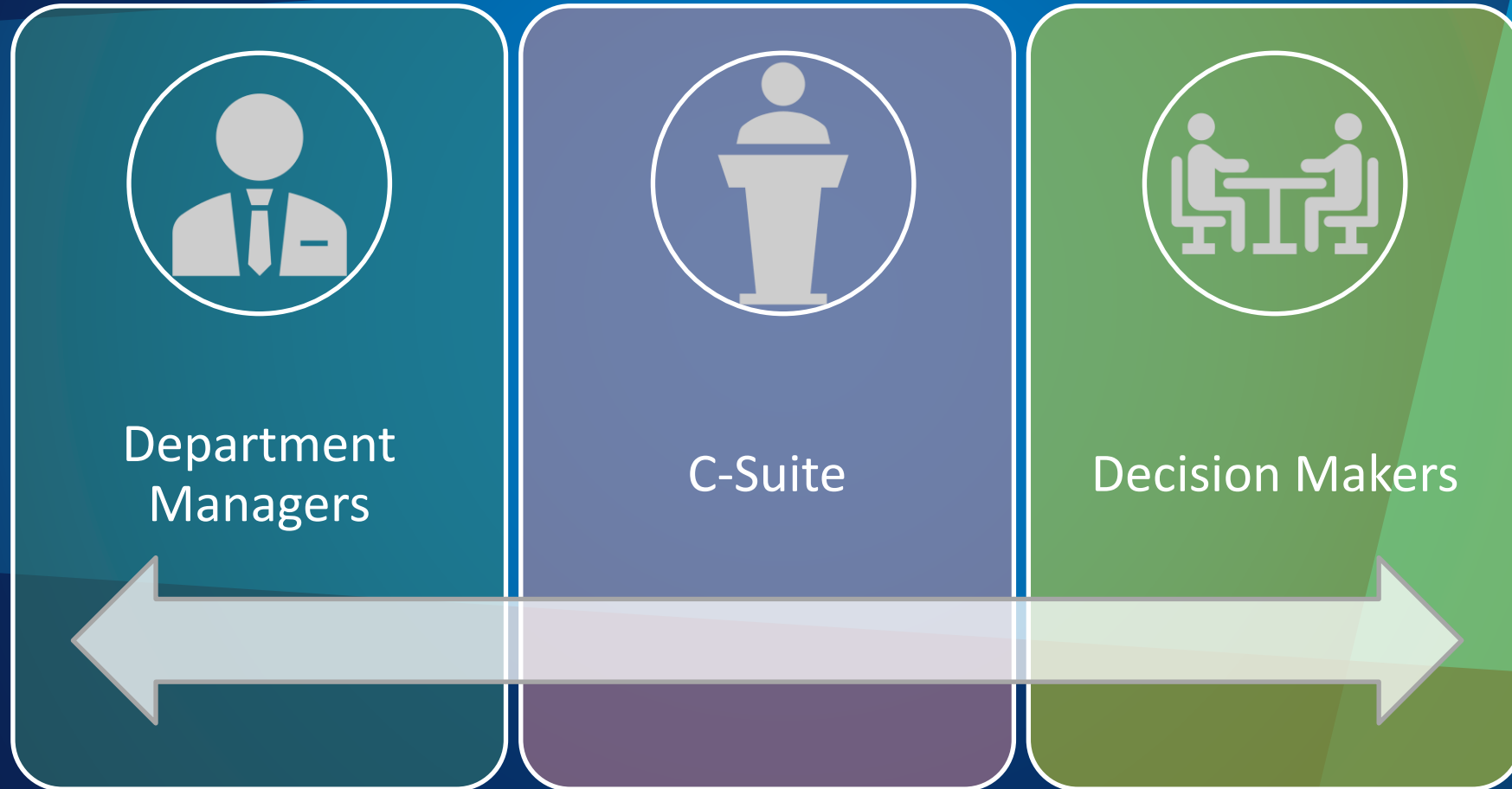
Champion



Technical
Leadership

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Engage with Leadership



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Engage Across the Organization



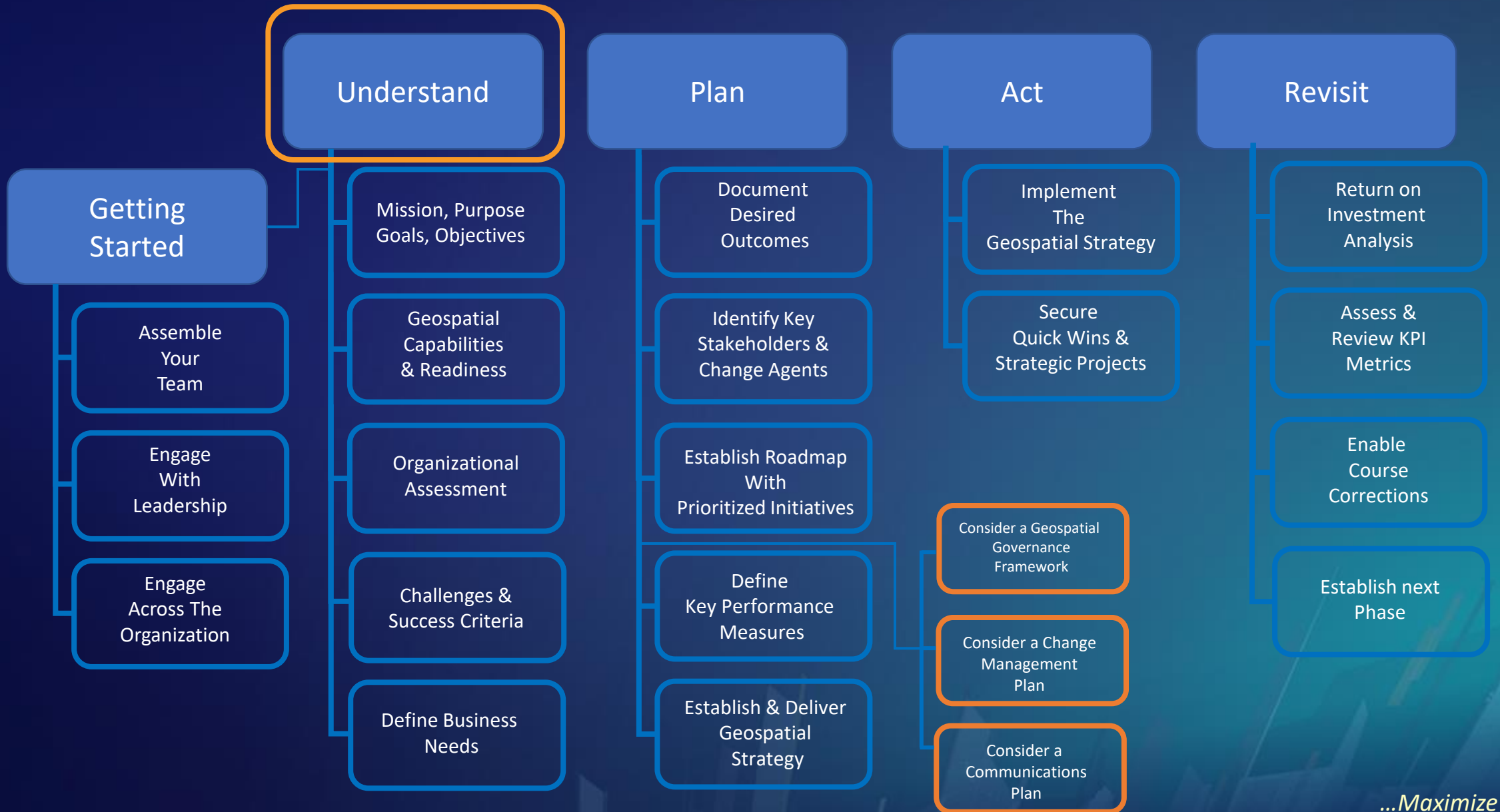
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How do I establish a Geospatial Strategy?

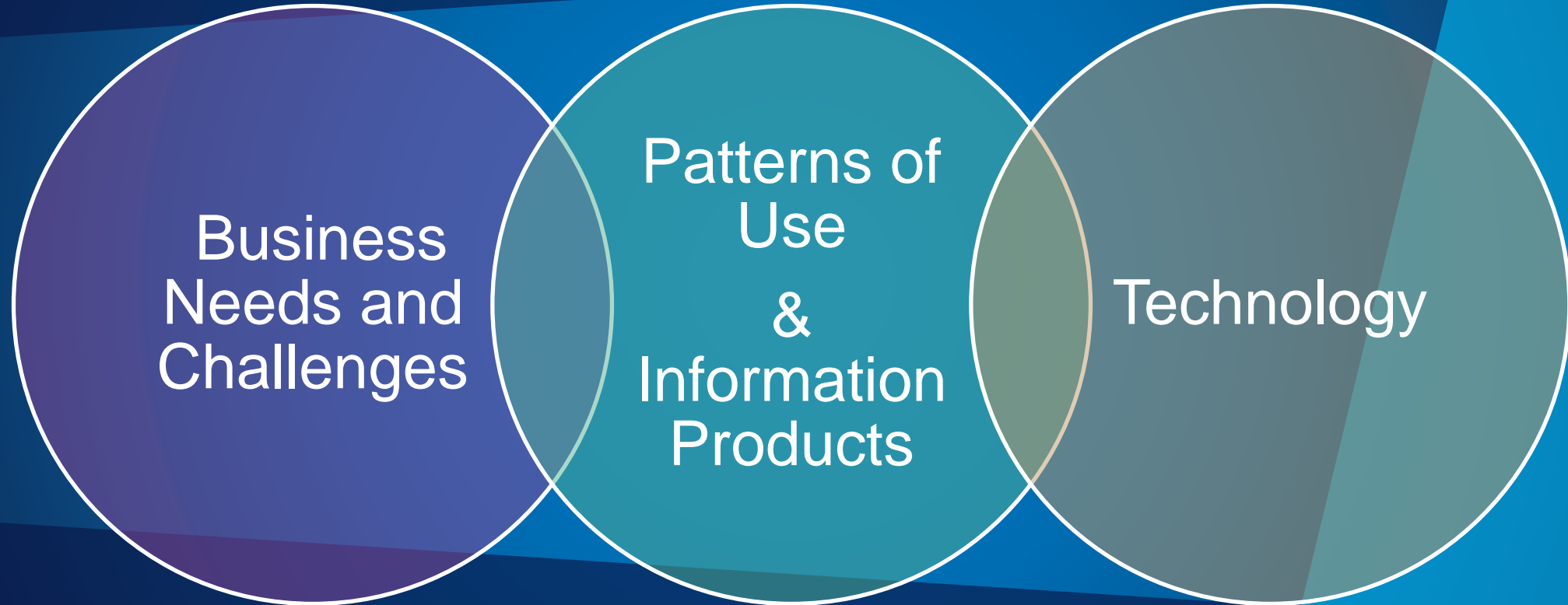
...Maximize Impact

Developing & Executing a Geospatial Strategy | The Process



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Key Considerations When Engaging



Common Patterns of Use – Organization Needs and Capabilities

Mapping & Visualization



Understand locations and relationships with maps and visual representations

Data Management



Collect, organize, and maintain accurate locations and details about assets and resources

Field Mobility



Manage and enable a mobile workforce to collect and access information in the field

Monitoring



Track, manage, and monitor assets and resources in real-time

Analytics



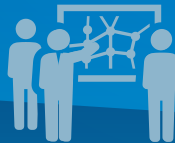
Discover, quantify, and predict trends and patterns to improve outcomes

Design & Planning



Evaluate alternative solutions and create optimal designs

Decision Support



Gain situational awareness, and enable information-driven decision making

Constituent Engagement



Communicate and collaborate with citizens and external communities of interest

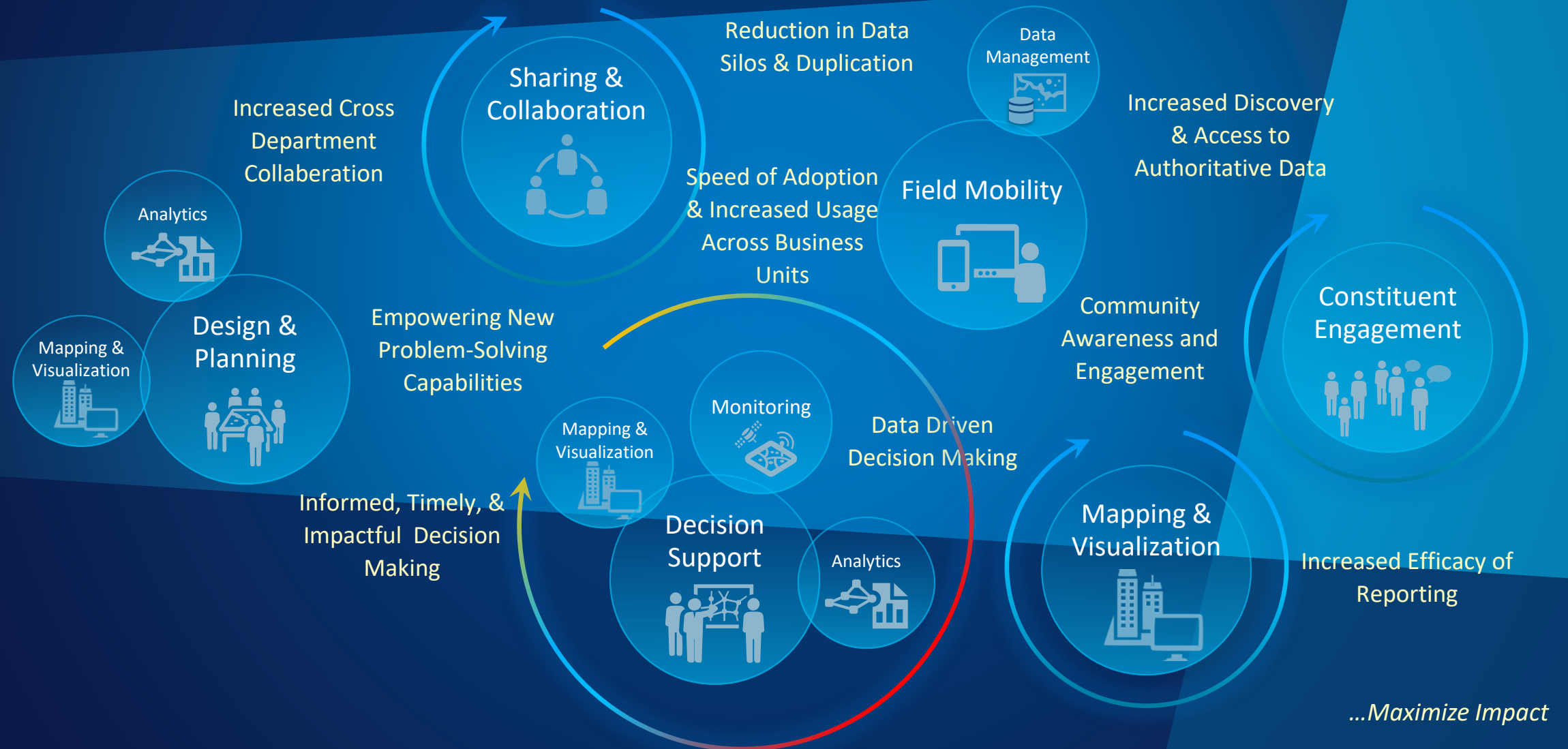
Sharing & Collaboration



Empower everyone to easily discover, use, make, and share geographic information

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The Patterns Help us Connect Technology to Business Needs



Current Use of GIS | Department Analysis

Suboptimal
use of GIS







































































































- Very High
- High
- Medium
- Low
- Very Low

	Analytics	Constituent Engagement	Data Management	Decision Support	Design & Planning	Field Mobility	Mapping & Visualization	Monitoring	Sharing & Collaboration
Assessor	Low	Very High	Very High	High	Very High	Low	Very High	Very Low	High
Police	Very High	Very High	Low	High	Medium	Low	Very High	Low	Very Low
Elections	High	Very High	Low	High	High	Low	High	Low	High
Resilience	High	High	High	High	High	High	High	High	High
Parks	High	Very High	Low	High	Very High	High	High	Medium	Low
Public Works	Very High	Very High	Low	Very High	Very High	Low	Very High	Very High	High
Facility Management	High	High	Very High	Low	High	High	High	High	High
Fire & EMS	High	High	Medium	Very High	Low	Very Low	Very High	Very Low	Medium
Health & Human Services	High	High	Medium	Medium	High	Medium	High	Low	High

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Future Desired State | Department Analysis

Highest Desired GIS Maturity & Priority Self-service Efforts

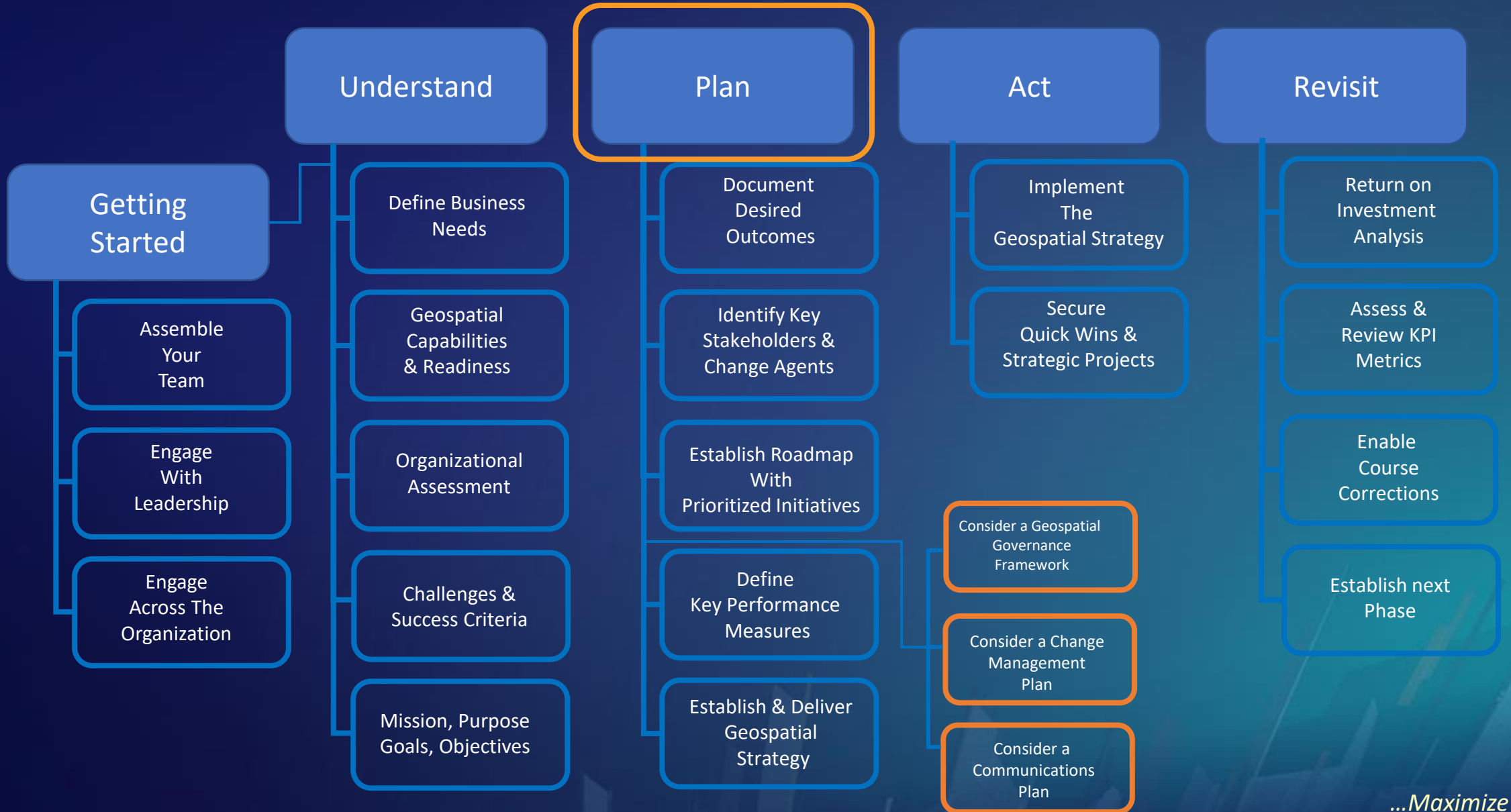
	 Unaware  Aware  Enabled  Advantaged	Mapping & Visualization 	Data Management 	Field Mobility 	Monitoring 	Analytics 	Design & Planning 	Decision Support 	Constituent Engagement 	Sharing & Collaboration 
Assessor										
Police										
Elections										
Resilience										
Parks										
Public Works										
Facility Management										
Fire & EMS										
Health & Human Services										

...Maximize Impact

When are you ready to move to Plan?

- 
- Assembled team of key stakeholders
 - Articulated business goals and value to stakeholders
 - Business challenges are understood and agreed upon
 - Identified high level, potential geospatial solutions to the business challenges

Developing & Executing a Geospatial Strategy | The Process



...Maximize Impact

Business Driven Solutions

Targeted
Training and
Support

Access to
targeted
technical
capabilities

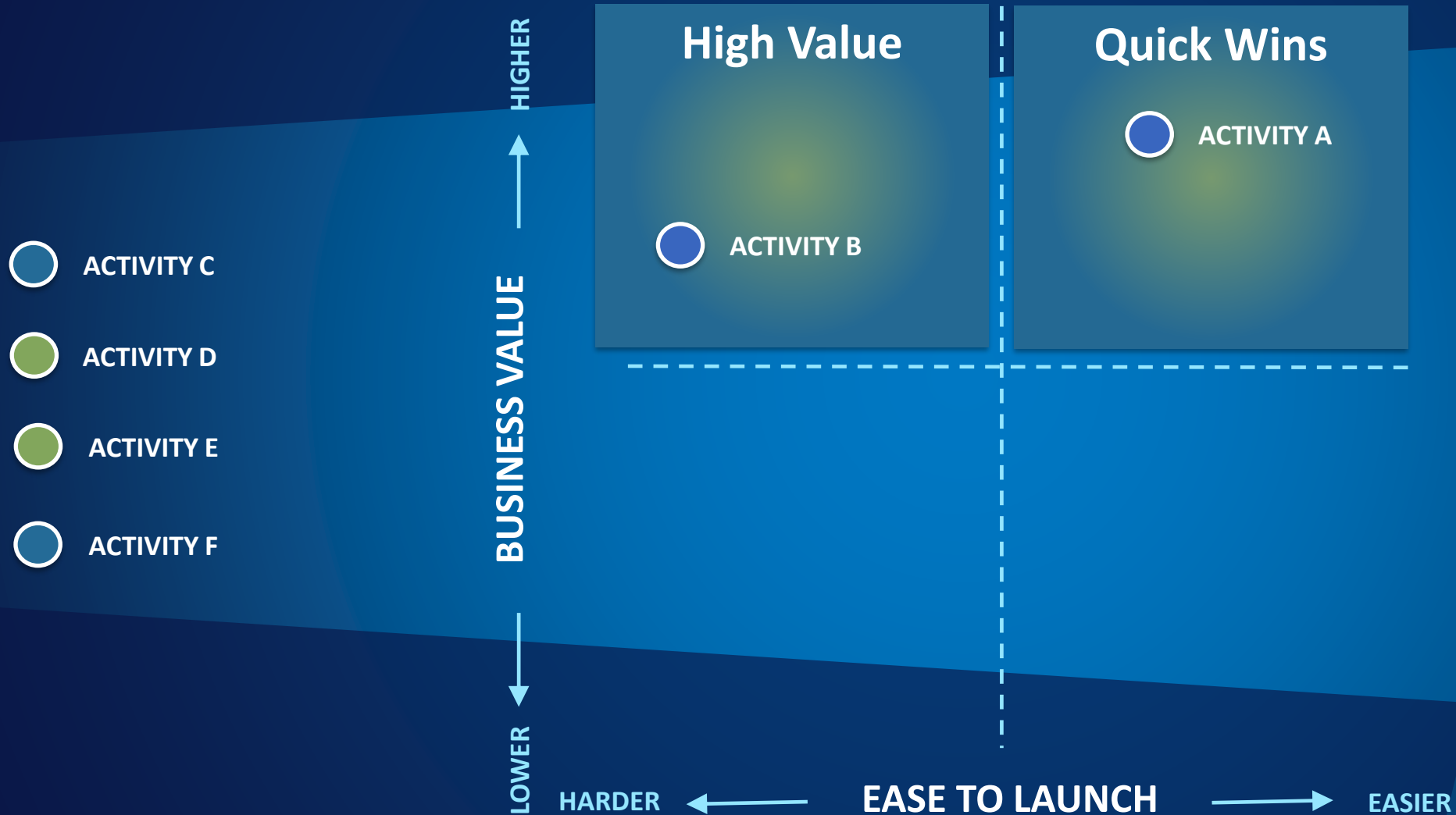
Improved
workflows to
support needs

Reliable data

Reliable
environment



Prioritization



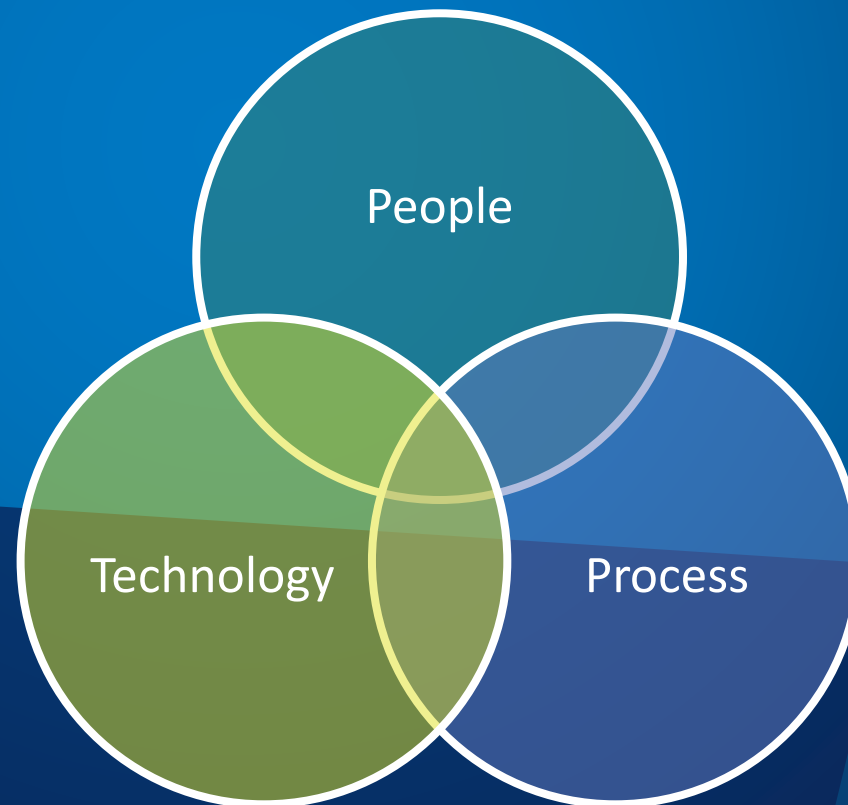
...Maximize Impact

Point A:
Current State

Point B:
Future State



- Activity A
- Activity B
- Activity C
- Activity D
- Activity E
- Activity F



...Maximize Impact

Potential “Activities”

Integrate with a third party Business System

Replace a paper-based workflow with a mobile COTS solution


Create a GIS user group within your organization or community

Replace a legacy application with a COTS solution

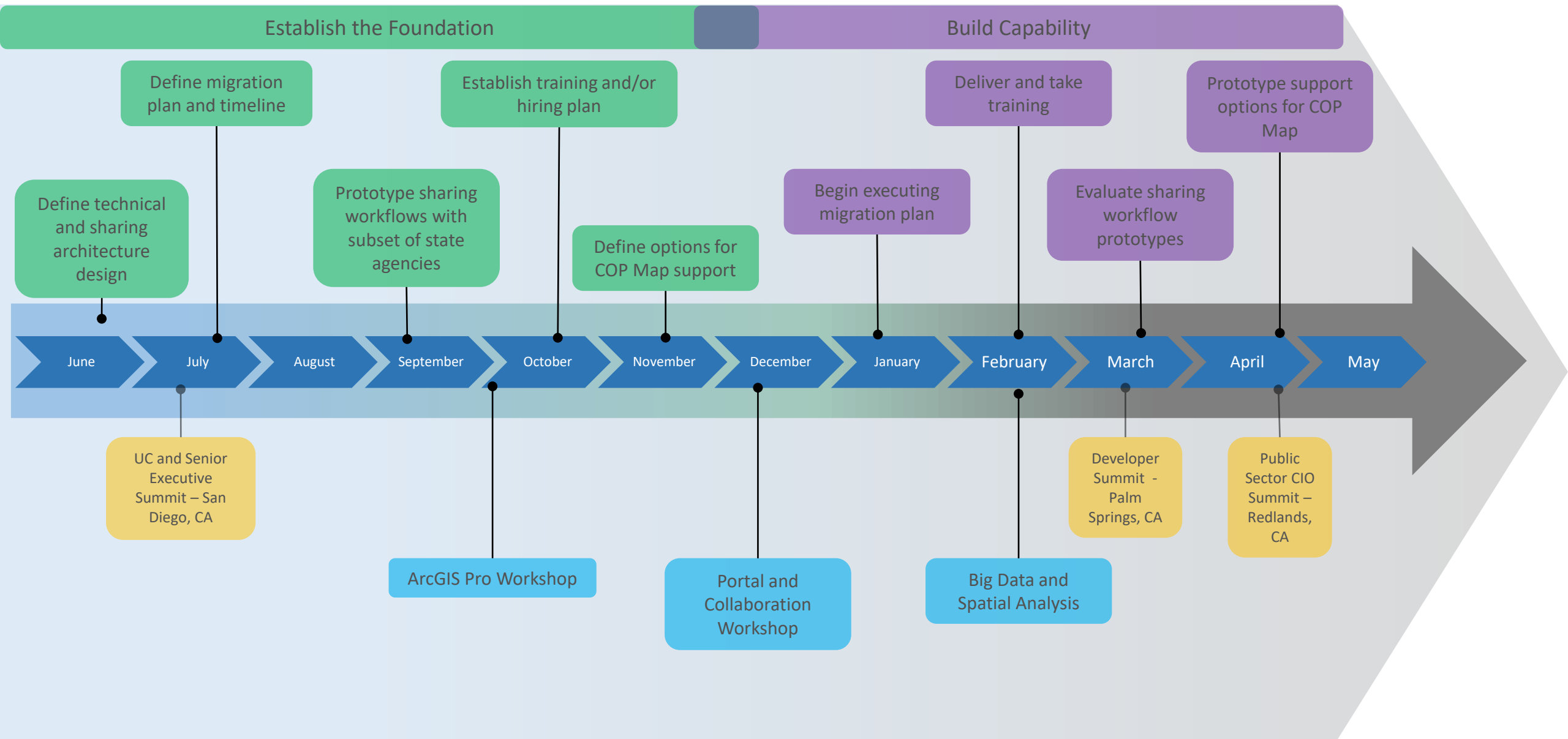
Migrate to the Cloud

Train key staff on ArcGIS Enterprise

When are you ready to move to Act?

- 
- Definition of the target, future state
 - List of potential geospatial activities needed to get from current state to future state
 - Prioritization of those potential activities
 - First activity is planned and defined

Strategy Timeline | 2022 - 2023



Example Geospatial Strategy Overview

1. Mission *(How to define success)*

The mission of the Geographic Information Office is to **facilitate the development, maintenance, distribution, and use of comprehensive statewide geographic data and geospatial technology** to empower governments, universities, and businesses to address issues affecting the state’s physical, economic, and social well-being.

Guiding Principles

Data access, accuracy, and currency | Service and Support| Collaboration |

Goals and Outcomes

- Increase the ease and decrease the time needed for partners to do work and collaborate
- Increase efficiency, effectiveness, and adoption of GIS tools in state agencies by increasing business value
- Support statewide mapping in a modern and robust way to serve stakeholders throughout the state
- Increase collaboration with the public, cities and counties, and state agencies

2. Value Proposition *(The value delivered to stakeholders)*



All – Improves access to maps, apps, data, and analysis to residents, elected officials, state agencies, and other stakeholders throughout the state; wisely uses state tax dollars to improve quality of life



State Agencies – Improves access to data, services, GIS knowledge, infrastructure, and applications to complete state business timelier and with better information



Counties and Cities – Provides value add information and analysis that encourages ongoing participation in the statewide initiatives



Public Users – Creates easier access to trustworthy, accurate, and timely information related to state resources

3. Strategy *(How to achieve success)*

Technology

Update architecture to support current business needs in the state
Create a technical architecture and a sharing/collaboration architecture
Utilize new functionality and capabilities available
Transition to WebGIS workflows to deliver geospatial solutions

Outcomes

- Increase the ease and decrease the time needed for partners to do work and collaborate
- Increase efficiency and effectiveness of business operations in state agencies via the use of GIS tools
- Support statewide mapping in a modern and robust way to serve stakeholders throughout the state

Process

Democratize the management and creation of authoritative data
Provide access to self service mapping portals, data, and services
Formalize content sharing workflows
Define long term support plan for statewide mapping

Outcomes

- Support statewide mapping in a modern and robust way to serve stakeholders throughout the state
- Increase collaboration with the public, cities and counties, and state agencies
- Increase efficiency and effectiveness of business operations in state agencies via the use of GIS tools

People

Continue to provide training and support for self-service tools to end users
Establish workflows and knowledge transfer that encourages collaboration
Maintain business and technical governance
Identify key staff that can support increasing technical administration needs

Outcomes

- Increase collaboration with the public, cities and counties, and state agencies
- Increase the ease and decrease the time needed for partners to do work and collaborate
- Increase efficiency and effectiveness of business operations in state agencies via the use of GIS tools

4. Roadmap *(Plan of action)*

□ High Value □ Quick Wins

2022

Establish the Foundation

- Define technical and sharing architecture design
- Define migration plan and timeline
- Prototype sharing workflows with subset of state agencies
- Establish training and/or hiring plan
- Define options for statewide mapping support

2023

Build Capability

- Begin executing migration plan
- Deliver and take training
- Evaluate sharing workflow prototypes, expand if successful
- Prototype support options for statewide mapping
- Identify additional state agencies that can utilize GIS solutions

2024

Extend Capability

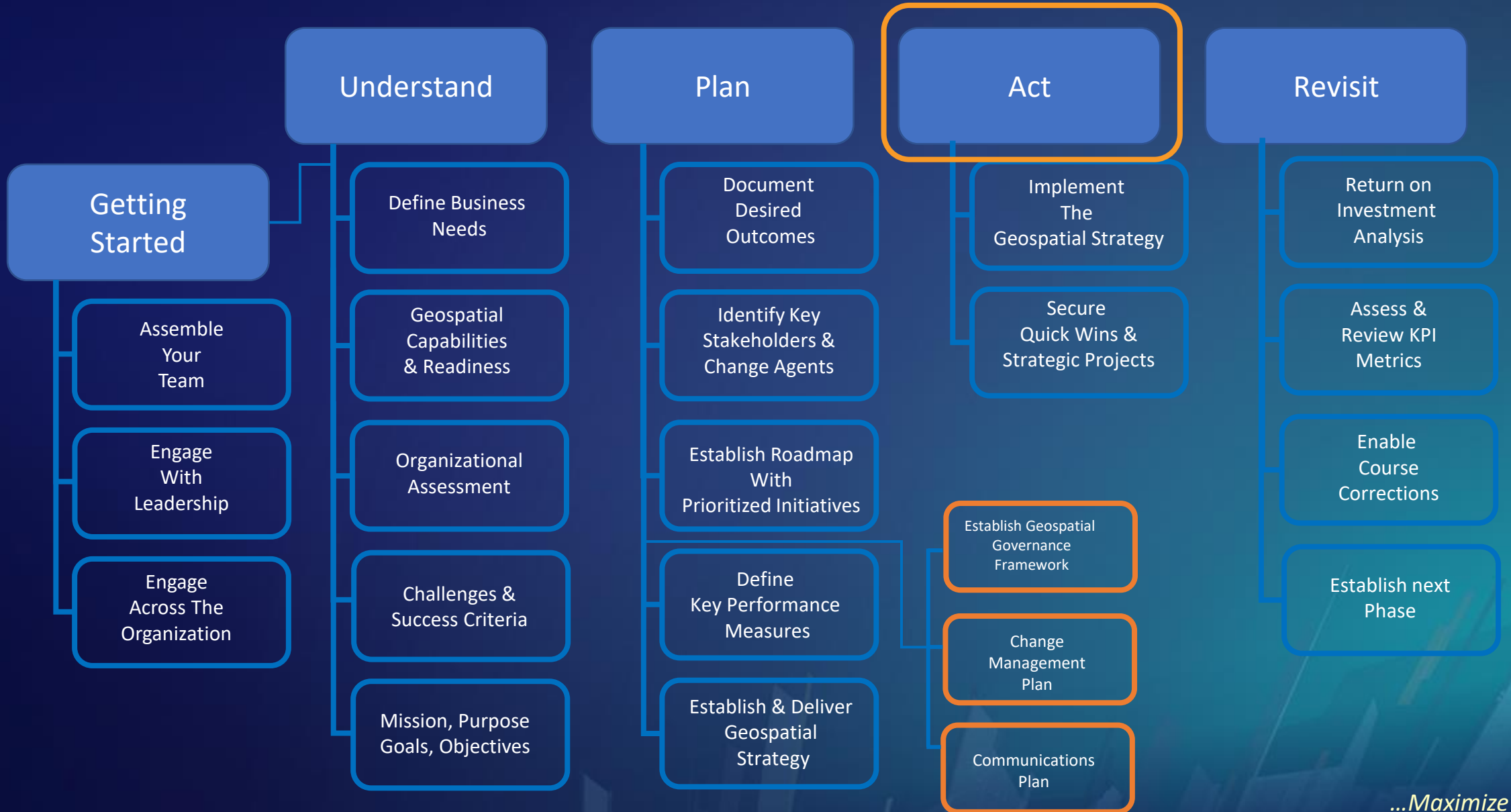
- Complete migration
- Utilize new technical and sharing architecture
- Implement key workflows that support state agencies new to GIS
- Continue to provide support and training to state agencies
- Support SDI infrastructure and data aggregation needs



How do I execute a Geospatial Strategy?

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Developing & Executing a Geospatial Strategy | The Process



Execute Incrementally



Prepare

- Define the solution in detail
- Move from conceptual design to functional
- **Prepare end users for upcoming changes**

Implement

- Build and configure your solution
- Test and deploy your solution
- **Train your users**

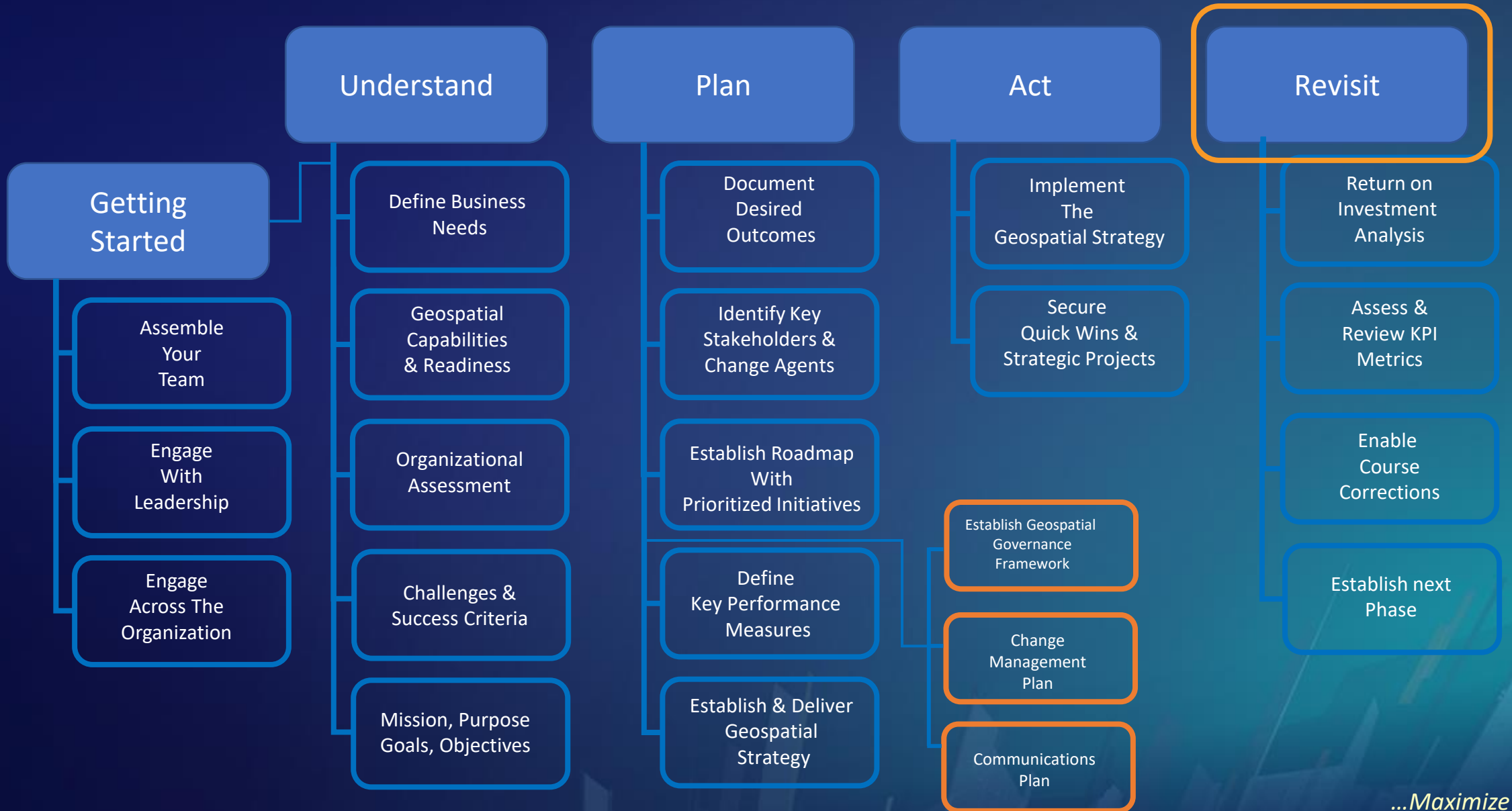
Operate

- Execute your new solution in a production environment
- Monitor performance and use of the solution
- **Provide ongoing support to your users**

Review

- Share the success of your activity
- Ensure the solution is being utilized
- **Consider ongoing workforce development needs**

Developing & Executing a Geospatial Strategy | The Process



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What can you do?



Understand

- Assemble your team
- Engage across your organization
- Articulate your organizations' goals and challenges



Plan

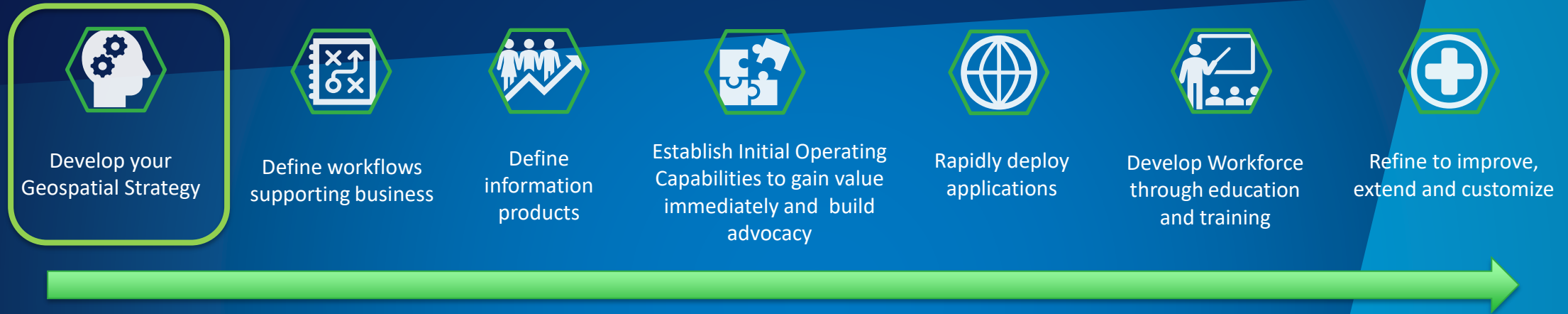
- Identify ways GIS can bring business value
- Create a plan that takes into account people, process, and technology
- Prioritize and sequence your work



Act

- Bring your solutions to life: prepare, implement, operate, and review each one
- Share your strategy and successes
- Revisit your strategy

Next Steps



Articulate your organizations' goals and challenges

Identify ways GIS can bring business value

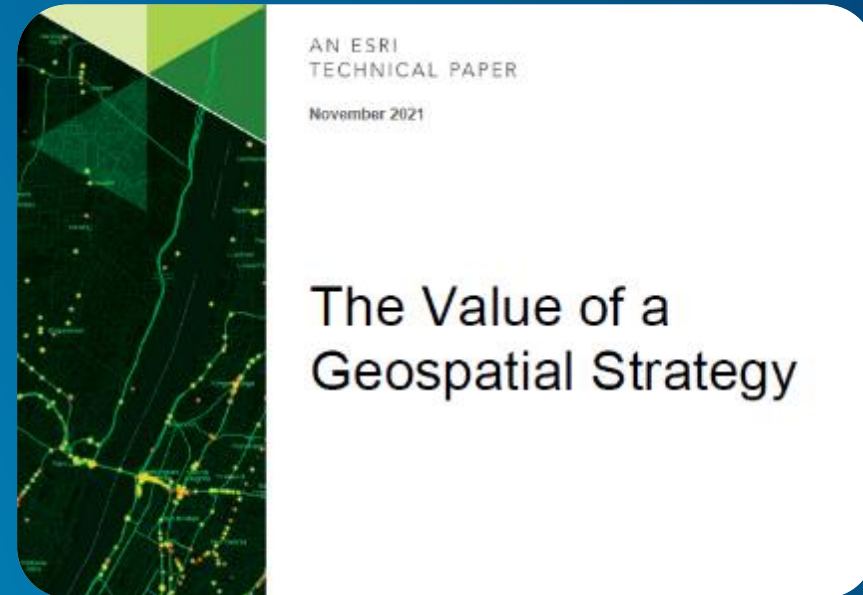
Create your vision for your GIS program

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Questions?



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