LEADING PRACTICE

LEADing Practices for Custom & Border Service Geographical Information Systems

LEADing Practice Geographical Information System concept
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To be used: Custom & Border Service GIS Best Practice & Custom & Border Service GIS Leading Practices

1. Geodetic reference framework

2. Custom & Border Service GIS Meta Data records http://Custom & Border Service GISinventory.net/index.php?page_id=802

3. LEADing Practice Custom & Border Service user Group: http://www.leadingpractice.com/get-involved/user-groups/Custom & Border Service/

4. LEADing Practice Geographical Information System Frameworks and templates for integration between business and Application Layer (Information & Data) as well as to Technology Layer (Platform & Infrastructure) Information http://www.leadingpractice.com/frameworks/

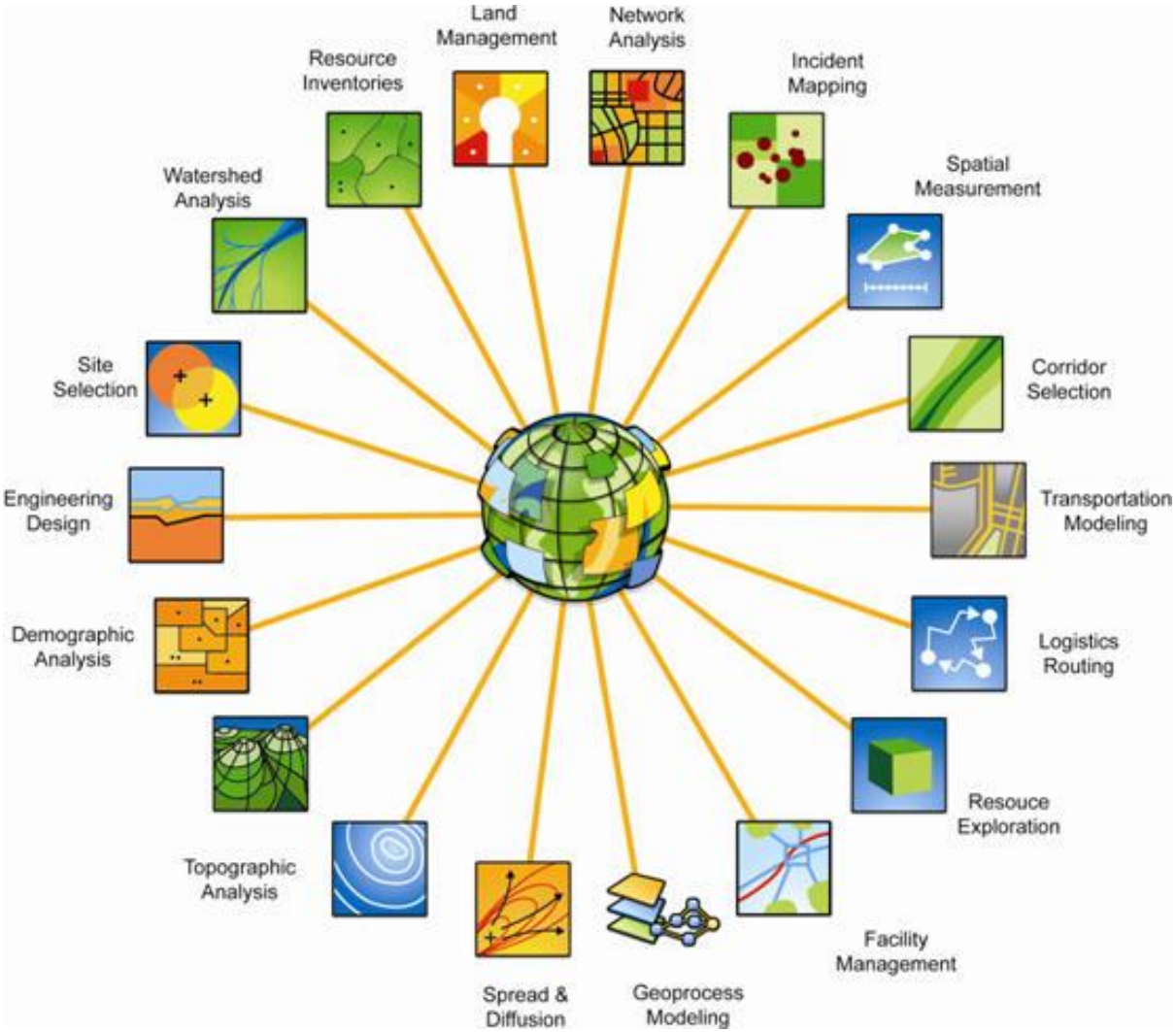
LEADing Practice Custom & Border Service GIS concept

In this presentation the unique LEADing Practice Custom & Border Service GIS concept will be presented:

- **The LEADing Practice Custom & Border Service Custom & Border Service GIS concept has a consolidated and harmonized:**
  - **Way of Thinking**
  - **Way of Working**
  - **Way of Modelling**
  - **Way of Implementing**
  - **Way of Governance**
  - **Way of Training**
- **The LEADing Practice Custom & Border Service GIS concept has a cross-disciplinary enterprise modelling and architecture concept. With complete enterprise modelling capabilities, including transformation and change management. The GID modelling principles are fully integrated and interlinked.**
- **Has a fully integrated built-in Custom & Border Service GIS governance & continuous improvement approach.**

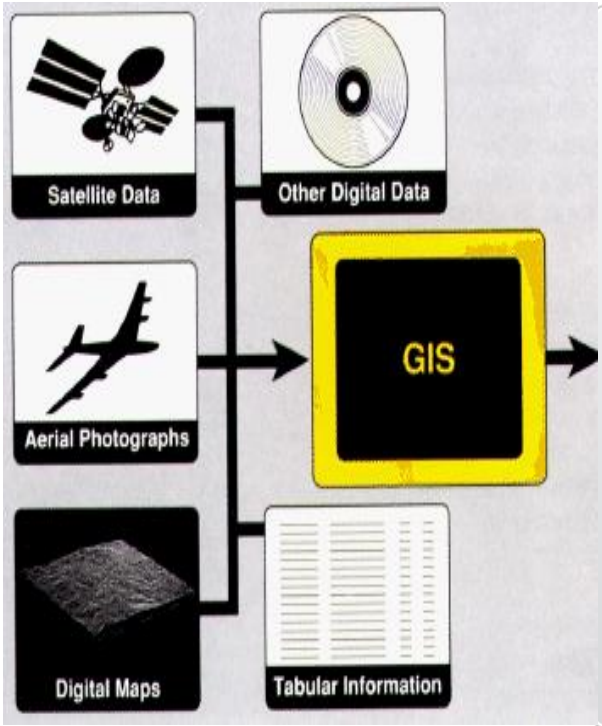
The LEADing Practice Geographical Information System Concept

BUSINESS LAYER				APPLICATION LAYER		TECHNOLOGY LAYER	
Purpose & Goal	Business Competency	Business Service	Business Process	Application	Data	Platform	Infrastructure



The LEADing Practice Geographical Information System Structural Way

BUSINESS LAYER				APPLICATION LAYER		TECHNOLOGY LAYER	
Purpose & Goal	Business Competency	Business Service	Business Process	Application	Data	Platform	Infrastructure



WAY OF THINKING
Guiding Principles
Conceptual Level

WAY OF WORKING
Description
Context

WAY OF MODELLING
Logical Level
Contextual & Specification

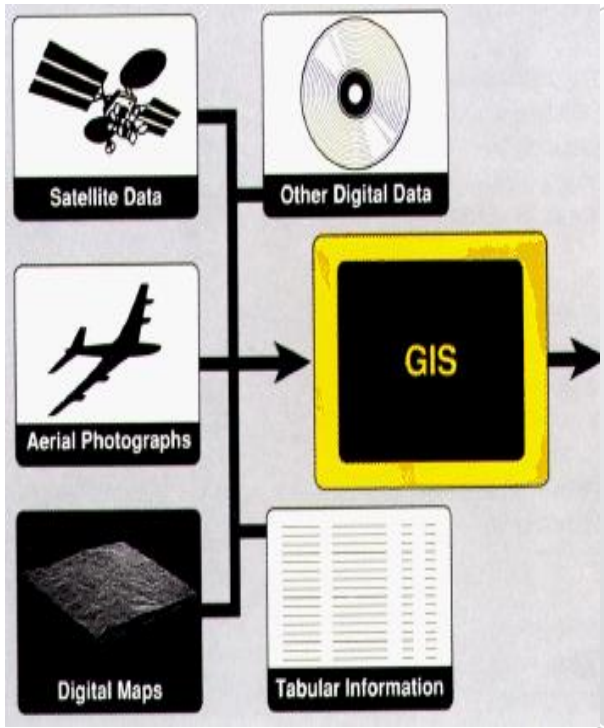
WAY OF GOVERNING
Monitoring Physical Level Controlling

WAY OF IMPLEMENTING
Concrete Physical Level Execution

Structural Way of ((o))LEADing Practice

The LEADing Practice Geographical Information System Structural Way of Thinking

BUSINESS LAYER				APPLICATION LAYER		TECHNOLOGY LAYER	
Purpose & Goal	Business Competency	Business Service	Business Process	Application	Data	Platform	Infrastructure



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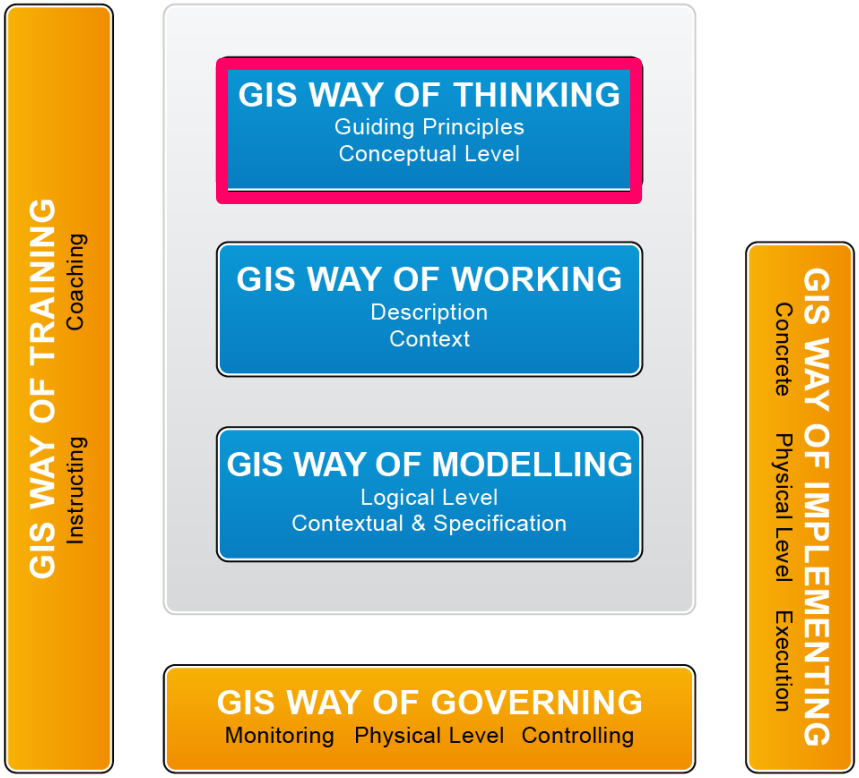
Structural Way of ((o))LEADing Practice

The LEADing Practice Geographical Information System Structural Way of Thinking

Custom & Border Service GIS Way of Thinking ("welt anschauung"): The Custom & Border Service GIS way of thinking is essential and the starting point of the structural Custom & Border Service GIS approach.

Each Custom & Border Service GIS project practitioner has to be able to have an abstraction level which can analyze, appraise, approximate, assess and capture the relevant Custom & Border Service GIS objects as well as Custom & Border Service GIS artifacts idea, design, plan, scheme and structure in order to understand the underlying Custom & Border Service GIS thought, view, vision as well as perspective.

This enables all the Custom & Border Service GIS project participants to have the same structural Custom & Border Service GIS approach around strategic definitions (wants, needs, direction, issues and problems).



Structural Way of ((o))LEADing Practice

Architecture Custom & Border Service GIS Modelling: Geographical Information System Way of Thinking

“Geographical Information System (Custom & Border Service GIS)” have emerged as a powerful tool which have the potential to organize complex spatial environment with relationships across Custom & Border Service departments. The emphasis is on developing a digital spatial information model with a supporting database using the information derived from precise navigation and imaging satellites, aircrafts, digitization of maps and transactional databases. The potential of Custom & Border Service GIS is limited only by ones way to actually map the information/data to ones specific business functions, reporting and decision making. However to exploit the benefits there is need to initiate a relation between the architectural layers of Business, Application and Technology:

Business Layer aspects

1. Link to Custom & Border Service GIS strategy and political direction
2. Standardizing Business Competencies & Functions around the information usage
3. Define Process Standard in all the different business areas using geospatial information
4. Have a Service oriented Custom & Border Service GIS model in place (servicing multiple departments and groups)

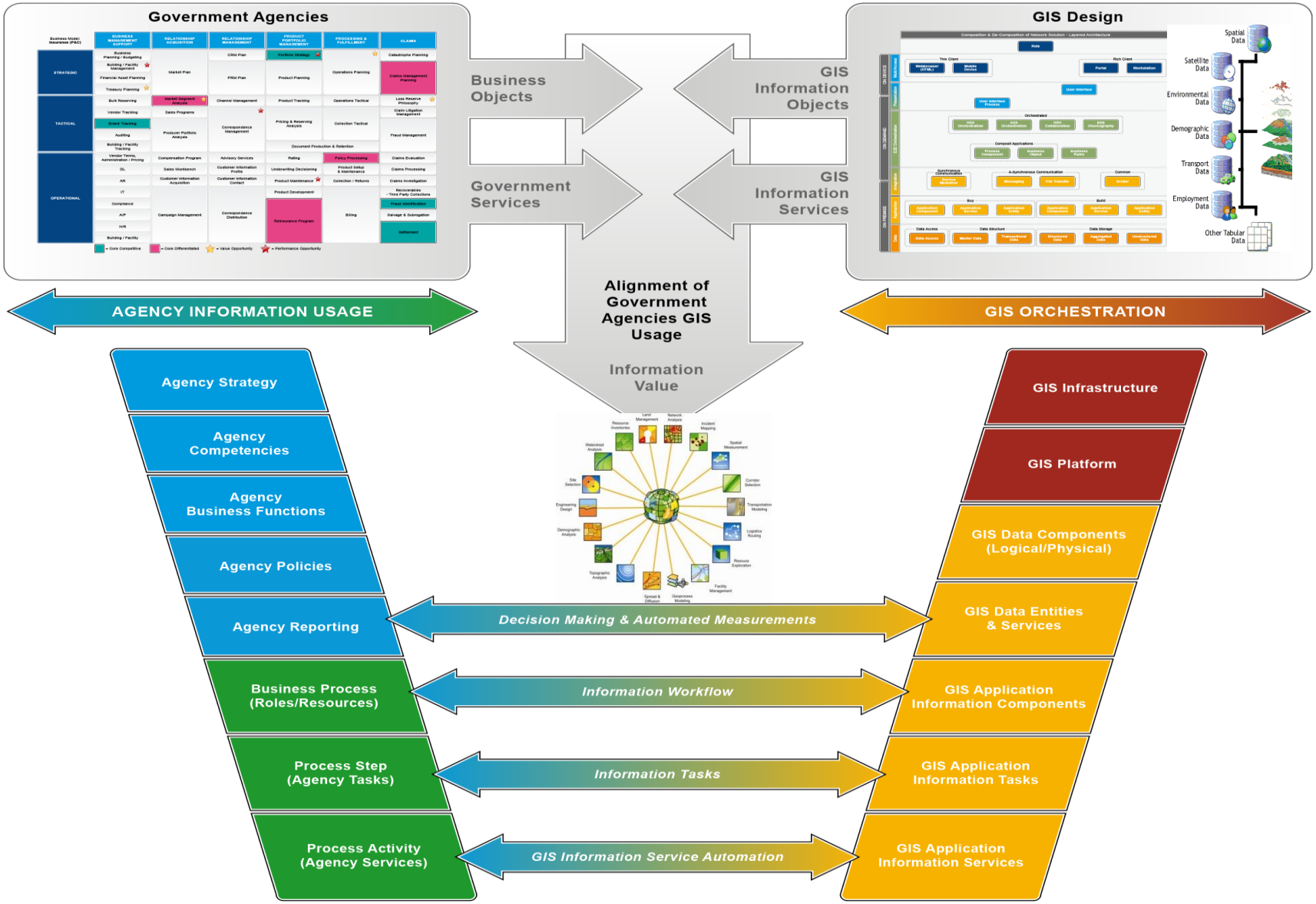
Information & Data layer aspects

1. Identification of all existing policies and directives, linking them to information objects and reporting
2. Enabling Custom & Border Service Decision Making based on geospatial information model
3. Assuring quality of information
4. Applying Best practices and applications
5. Data Management, including Data standards, data types, authoritative data, data provisioning and identifying data issues. As well as geospatial data collection, management and dissemination

Technology

1. Platform aspects: Logical and Physical platform components, services and devices handling Custom & Border Service GIS information and data
2. Infrastructure aspects: Logical and Physical infrastructure components and services handling Custom & Border Service GIS information and data

Geographical Information System Way of Thinking



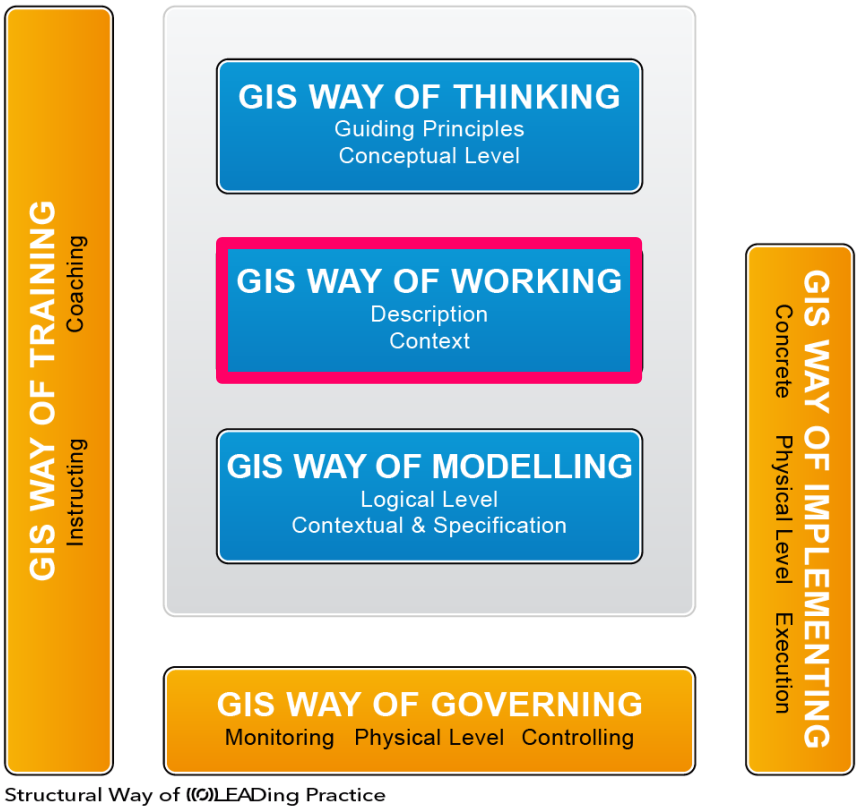
((o))LEADing Practice for a Geographical Information System

The LEADing Practice Geographical Information System Structural Way of Working

Custom & Border Service GIS Way of Working: Important and the point where the Custom & Border Service GIS project participants begin to structure the Custom & Border Service GIS way of working.

Each Custom & Border Service GIS project participant has to be able to translate the “Custom & Border Service GIS Way of Thinking” into a “Way of Working”, thereby organizing, classifying, align, arrange, quantify, recommend and select the relevant Custom & Border Service GIS objects and or artifacts in the systemized and categorized way they need to be de-composed or composed together in order to fulfill the Custom & Border Service Agency Geographical Information System needs and wants

This enables Custom & Border Service GIS project participant to structure the arrangement of effort and work.



Structural Way of ((o))LEADing Practice

Geographical Information System Way of Thinking around the Objects

The purpose of LEAD Custom & Border Service GIS objects is to:

- Decompose the relevant Geographical Information System objects into the smallest parts that can, should and needs to decomposed in order to have identified all the relevant Geographical Information System. These decomposed , Geographical Information System objects are than composed together (through maps, matrices and models).
- Visualize and clarify object relationships with the LEAD Custom & Border Service GIS templates by using the specific Custom & Border Service GIS maps, matrices and models (alternative representation of information).
- Reduce and/or enhance complexity of the Custom & Border Service Agencies in order to be able to reduce it to the information and objects relevant to the Geographical Information System solution.

The LEADing Practice Geographical Information System Tailoring: Map, Matrices and Models

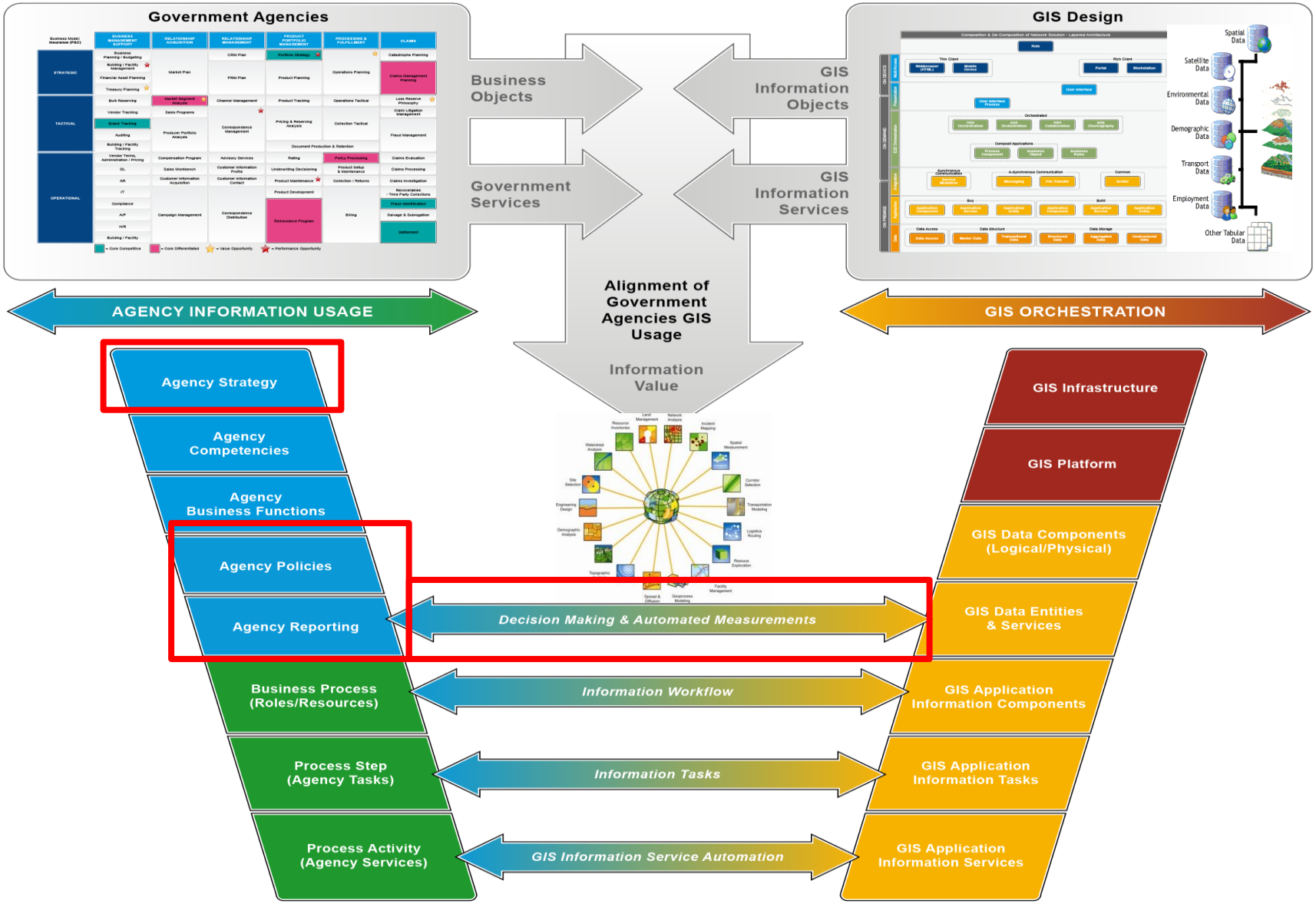
LEAD has fully integrated Geographical Information System maps, matrices and models that work with and integrates with the methods and approaches and work throughout all of the layers relevant to set up a cross Custom & Border Service Agency Geographical Information System .

LEAD Custom & Border Service GIS Map: Within the LEADing Practice Geographical Information System templates, a LEAD Custom & Border Service GIS Map is an accurate list and representation of the decomposed and/or composed LEAD Geographical Information System Objects. A Custom & Border Service GIS Map is often in the form of a list that can be in a simple row as well as a catalog, and has the purpose of building an inventory or index list of the Custom & Border Service GIS objects that are to be either decomposed and/or composed in the different Architectural Layers (e.g. Business Layer, Application Layer and/or Technology Layer).

LEAD Custom & Border Service GIS Matrix: Within LEADing Practice Geographical Information System templates, a LEAD Custom & Border Service GIS Matrix is a representation that accurately shows the relationship between specific decomposed and composed Geographical Information System Objects. The core idea of a Custom & Border Service GIS matrix is that it typically consists of aspects of one idea each in a list of row, another idea as a set of columns and a third as the cross product between the rows and columns. This allows the Custom & Border Service GIS Matrix to relate the unfamiliar to the familiar objects in the different layers (composition) usually through the form of a table or chart e.g. rows and columns in a matrix, thereby outlining direct connection points and showing a common pattern of the Geographical Information System Objects.

LEAD Custom & Border Service GIS Model Within the LEADing Practice Geographical Information System templates, a Custom & Border Service GIS Model is a representation that graphically shows the relationship and the interconnection of specific composed Geographical Information System Objects. The key ideal of a Custom & Border Service GIS model is that it is a graphical representation, an illustration, of a composition of information intended to represent an aspect of the Geographical

The Way of Working - Geographical Information System Strategy & Goal templates



The Way of Working - Geographical Information System Strategy & Goal Tasks

Relation to Strategy

- Analyze Custom & Border Service Agencies strategy
- Identify relevant policies
- Outline strategic business objectives (SBO's) for the joint Custom & Border Service GIS solution
- Define specific Custom & Border Service Agencies Custom & Border Service GIS strategy (where needed)
- Develop and formalize Custom & Border Service GIS goals

Focus Area

- Custom & Border Service Agencies Custom & Border Service GIS strategy development
- Agree on common Custom & Border Service Agencies Custom & Border Service GIS design
- Identify Custom & Border Service GIS requirements across Custom & Border Service Agencies
- Focus on Geographical Information System issues and weaknesses cluster
- Develop Geographical Information System standards
- Ensure Custom & Border Service GIS measurements (across Custom & Border Service Agencies)
- Enable Custom & Border Service GIS reporting and decision flow
- Define the Value model of the joint Custom & Border Service GIS development

The Way of Working - Geographical Information System Strategy & Goal Tasks

Tasks & Services

- Analyze CAN, WANT and SHOULD do scenarios
- Analyze and benchmark the different Custom & Border Service Agencies specific Custom & Border Service GIS strategies
- Define the various Custom & Border Service Agencies value expectations
- Identify Custom & Border Service GIS bottlenecks including root cause and impact analysis
- Define Custom & Border Service Agencies transformation need
- Identify and develop common Custom & Border Service Agencies Custom & Border Service GIS strategic business objectives (SBOs) and critical success factors (CSFs)
- Develop Custom & Border Service GIS guidelines and measurements
- Ensure Custom & Border Service GIS reporting and decision making flow
- Develop common Custom & Border Service GIS policies and guidelines

The LEADing Practice Geographical Information System Way of Working - Business Layer: Custom & Border Service GIS Strategy & Goal templates

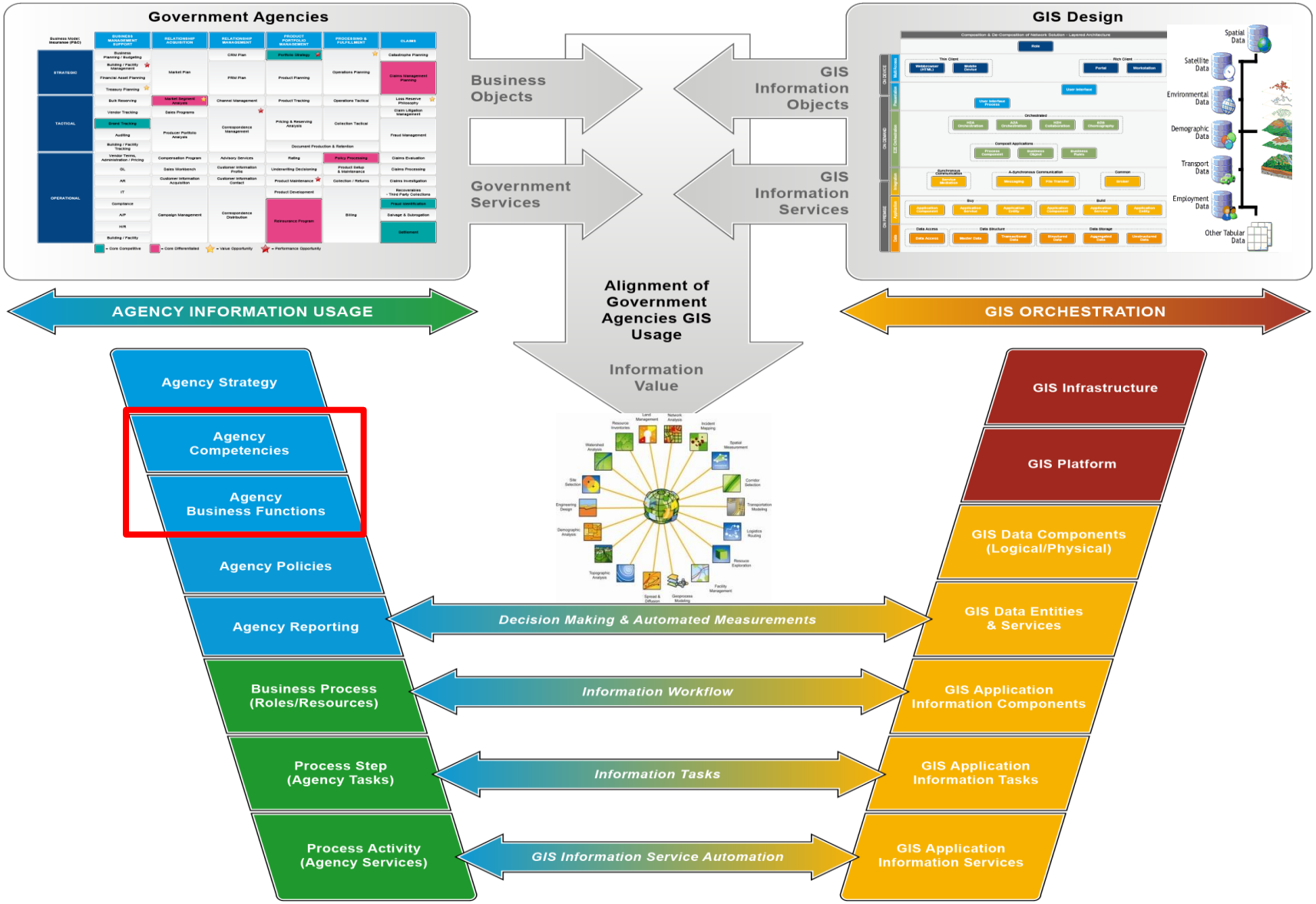
LEADing Practice GIS Maps, Matrices and Models

		GIS Vision, Mission & Goals (VMG)	GIS Requirement (Rq)	Stakeholder (ST)	GIS Strategy (S)	GIS Balanced Scorecard (BSC)	GIS Performance (Pe)	GIS Measurement & Reporting (MR)	Business Competency/Business Model (BC)	GIS Information (I)	GIS Owner (O)	GIS Services (Se)	GIS System Measurements/Reporting (AM)
Purpose & Goal	GIS Vision & Mission	1			2								
	Government Agency Strategy		2		1,2,3				2,3			2	
	Agency Goal (e.g. business, information etc)	2	2		2							2	
	Agency Objectives (Critical Success Factor, Plan, Forecast, Budget)				1,2,3	1		2,3	2,3			2	
	Performance Indicator and measurements Tier (Strategic, Tactical or Operational KPI)				2,3	1	1,2,3	2,3	2			2	2
	Agency Value Expectation		1,2	1	2							2	
	Agency Value Driver			1,2,3					2				
	Agency Performance Expectation		1,2	1,2								2	
	Agency Performance Driver			2,3			2,3		2				
	Agency Policies & Reporting		1,2		2	2	2	1,2,3	2,3	2	1,2		

1=Map 2=Matrix 3=Model

A part of the LEADing Practice GIS Templates

The Way of Working - Geographical Information System Competency Templates



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The Way of Working - Geographical Information System: Agency Competency Tasks

Relation to Strategy

- Analyze relevant Agency Competencies
- Link Custom & Border Service GIS Strategy map to relevant Agency Competencies
- Identify and define relevant Agency Competencies transformation drivers
- Understand business model of the involved Agencies
- Develop Custom & Border Service GIS business model based on strategic Custom & Border Service GIS alignment

Focus Area

- Custom & Border Service GIS Business model development (level 1, 2 and 3)
- Develop map of common agency competencies and business functions
- Identify organizational specific requirements
- Focus on Custom & Border Service GIS specific challenges and issues
- Develop Custom & Border Service GIS business concept design
- Develop Custom & Border Service GIS business standards
- Ensure business integration, optimization and improvement (across agencies)
- Custom & Border Service GIS Business architecture strategy and alignment
- Custom & Border Service GIS Scorecard map alignment across multiple agencies and branches

The Way of Working - Geographical Information System: Agency Competency Tasks

Tasks & Services

- Identify and define the different Custom & Border Service agency competency areas, groups and operational competencies
- Define organizational transformation need
- Identify core competitive and core differentiated Custom & Border Service agency competencies/services and or information
- Identify the different Custom & Border Service agency non-core competencies for cost cutting and full standardization
- Identify business functions and select business tasks that need the Custom & Border Service GIS information
- Identify level of Custom & Border Service GIS business standardization and integration
- Develop Custom & Border Service GIS business measurements and reporting
- Assess and develop the different Custom & Border Service agency competency maturity levels across agency/departments

The LEADing Practice Geographical Information System Way of Working - Business Layer: Custom & Border Service GIS Competency templates

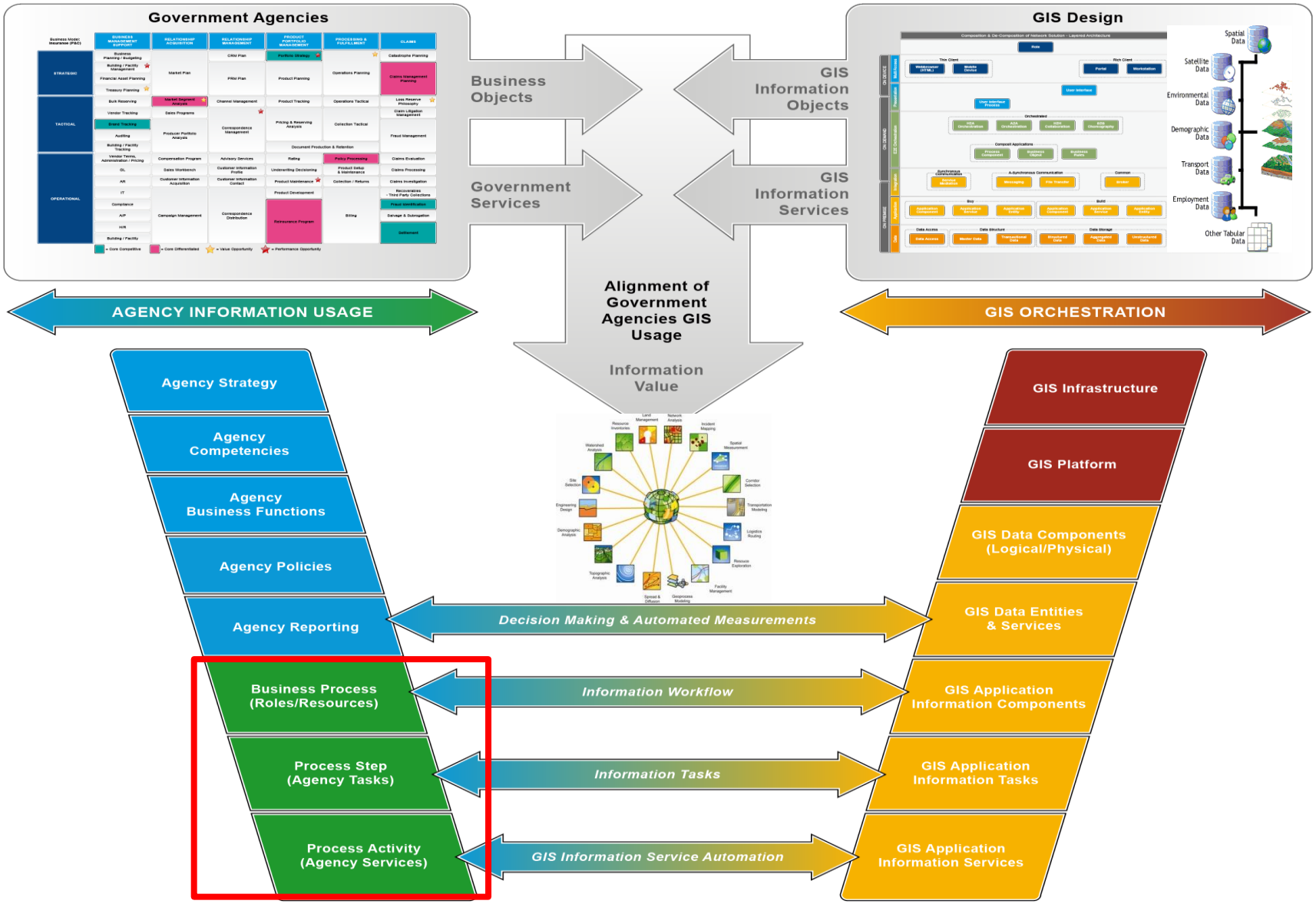
LEADing Practice GIS Maps, Matrices and Models

		GIS Vision, Mission & Goals (VMG)	GIS Requirement (Rq)	Stakeholder (ST)	Business Competency/Business Model (BC)	GIS Operating (Op)	GIS Information (I)	GIS Role (Ro)	GIS Owner (O)	GIS Objects (Ob)	Workflow (WF)	Rule (Ru)	Channel (Ch)	Media (Me)	BPM Notations (BPMN)	GIS Services (Se)	GIS Application Service (AS)	GIS Application Roles (ARo)	GIS Application Rules (AR)	GIS System Measurements/Reporting (AM)	GIS Compliance (C)
Agency Competency	Agency Organizational Construct				2																
	Agency Department Areas			2	1,2,3	1															
	Agency Department Groups			2	1,2,3	1															
	Agency Capabilities		1,2		2	1,2															
	Agency Department Business Function		1,2		1,2,3	1															
	Agency Department Resources		1,2		2,3	1,3										2					
	Agency Department Business Roles				2,3	1,3		1,2								2		2			
	Agency Competency Type (Diff, Comp, Non-Core)				1,2,3	1,3										2					
	Object (Business & Information)						3			1,2	3	2									
	Agency Business Owner	2	1,2		2,3		2		1,2											1,3	
	Agency Department Policies & Rules		1,2							2		1,2			3				2		2
	Agency Department Compliance		1,2									2,3									
	Business Channels		1,2										1,2	2							
	Business Media		1,2										2	1,2							
	Agency Business Workflow		1,2		2						1,2					2	2				

1=Map 2=Matrix 3=Model

A part of the LEADing Practice GIS Templates

The Way of Working - Geographical Information System Process Templates



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Business Layer: Business Process
Way of Thinking – Strategic Aspect Tasks

Relation to Strategy

- Ensure Custom & Border Service GIS execution planning in aligning process goals to business goals and objectives
- Enable business decision making through real time Custom & Border Service GIS information and Custom & Border Service GIS process measurement (link PPI's to KPI's)
- Link process transformation activities to the different Custom & Border Service agency
- Work with the different Custom & Border Service agency process owners, business owners and executives to ensure Custom & Border Service GIS governance and Continuous improvement

Focus Area

- Analyze the different Custom & Border Service agency business process requirements
- Ensure that the different Custom & Border Service agency process design is based on Custom & Border Service GIS information and transformation need
- Custom & Border Service GIS Process implementation to guarantee Custom & Border Service GIS business standardization
- Start define link to Custom & Border Service GIS Continuous process improvement

Business Layer: Business Process
Way of Working – Tactical Aspect Tasks

Tasks & Services

- Benchmark Custom & Border Service GIS maturity levels
- Categorize Custom & Border Service GIS processes according to the main, management and supporting processes
- Identify and categorize Custom & Border Service GIS relevant process area and group
- Identify the different Custom & Border Service agency business functions/tasks and services in the process workflow
- Identify relevant Custom & Border Service GIS business objects, information objects and data objects
- Ensure that the Custom & Border Service GIS system flow encompasses the organizations service, information and process flow
- Analyze and design business processes to ensure business and Custom & Border Service GIS IT standardization and integration
- Setup process measures and ensure the level of automation e.g. system measurements
- Develop business monitoring and reports in cockpits, dashboards and scorecards
- Identify business rules and ensure process compliance
- Ensure interlink between Custom & Border Service GIS Business and Process Ownership
- Ensure process models incorporate right Custom & Border Service GIS process

The LEADing Practice Geographical Information System Way of Working - Business Layer: Custom & Border Service GIS Process templates

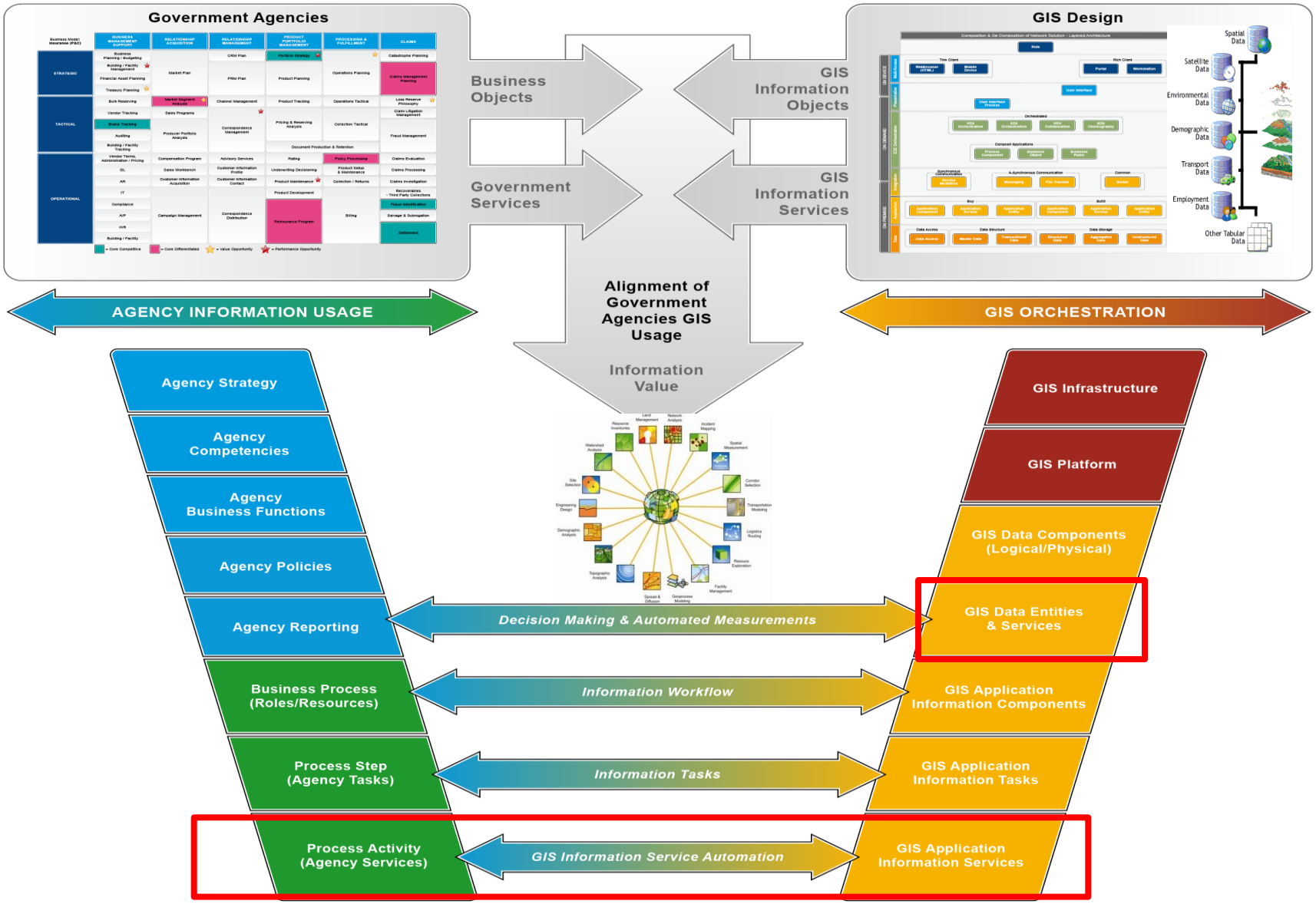
LEADing Practice GIS Maps, Matrices and Models

		GIS Requirement (Rq)	Stakeholder (ST)	GIS Performance (Pe)	GIS Measurement & Reporting (MR)	Business Competency/Business Model (BC)	GIS Operating (Op)	GIS Owner (O)	GIS Objects (Ob)	Workflow (WF)	Rule (Ru)	Process (P)	BPM Notations (BPMN)	GIS Services (Se)	GIS Applications (A)	GIS Application Service (AS)	GIS Application Rules (AR)	GIS System Measurements/Reporting (AM)	GIS Application Interface (AI)	GIS Information Screen (Asc)	GIS Compliance (C)
Business Process	Agency Process Area (categorization)					2	1					1,2									
	Agency Process Group (categorization)					2	1					1,2	3								
	Agency Business Process	1,2				2	1					1,2	3	2	2						
	Agency Process Step											1,2	3	2	2						
	Agency Process Activity											1,2	3	2	2						
	Agency Events											1	3	2		3					
	Agency Gateways										2	1	3	2		3					
	Agency Object (Business & Information & Data)								1,2			3	3	2							
	Agency Process Type (main/mgmt./support)						2					1									
	Agency Process Flow (incl. Input/output)									1,2		3	3	2		3			3	3	
	Agency Process Rules										1,2	2	3				2				2
	Agency Process Measurement (PPI)			1,2	1,2							2	3					2			
	Agency Process Owner		2				1,2	1,2				2									

1=Map 2=Matrix 3=Model

A part of the LEADing Practice GIS Templates

The Way of Working - Geographical Information System Service Templates



Business Layer: Business Service
Way of Thinking – Strategic Aspect Tasks

Relation to Strategy

- Capture the different Custom & Border Service agency service purpose and goals
- Align the different Custom & Border Service agency business service to the specified Custom & Border Service GIS strategy
- Define the different Custom & Border Service agency service transformation needs and wants

Focus Area

- Identify Custom & Border Service GIS service requirements
- Focus on service issues and weaknesses cluster
- Develop service standards
- Ensure service integration (across business areas and systems/data)
- Interlink Custom & Border Service GIS service aspects to the Governance & Continuous improvement approach

Business Layer: Business Service
Custom & Border Service GIS Way of Working – Tactical Aspect Tasks

Tasks & Services

- Identify and define Custom & Border Service GIS service flow (data and information service provider and service consumer)
- Service construct and delivery in all the different Custom & Border Service agencies
- Identify and define service level agreements (SLA's) and service measurements throughout the different Custom & Border Service agencies
- Benchmark Custom & Border Service GIS application, data and information service maturity
- Identify and define Custom & Border Service GIS service media, channel and tiers
- Identify and define Custom & Border Service GIS service enablement needs e.g. Cloud such a SaaS, DaaS, PaaS, IaaS.
- Identify and define Custom & Border Service GIS service map and service flow

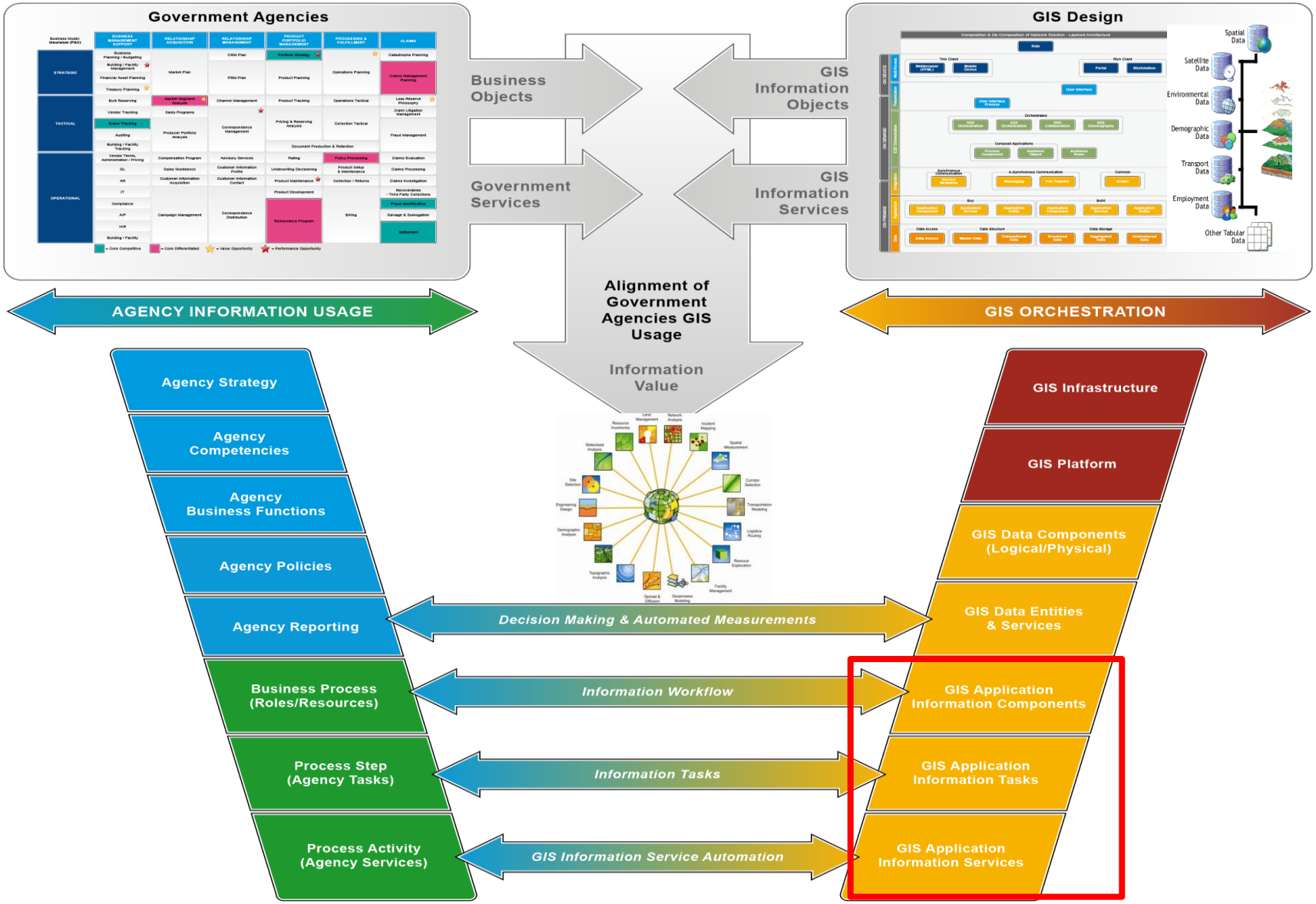
The LEADing Practice Geographical Information System Way of Working - Business Layer: Custom & Border Service GIS Service templates

LEADing Practice GIS Maps, Matrices and Models		GIS Requirement (Rq)	Stakeholder (ST)	GIS Performance (Pe)	GIS Measurement & Reporting (MR)	Business Competency/Business Model (BC)	GIS Operating (Op)	GIS Information (I)	GIS Role (Ro)	GIS Owner (O)	GIS Objects (Ob)	Workflow (WF)	Rule (Ru)	Channel (Ch)	Media (Me)	BPM Notations (BPMN)	GIS Services (Se)	GIS Application Service (AS)	GIS Application Rules (AR)	GIS Data Service (DS)	GIS Platform Service (PLS)	GIS Infrastructure Service (IFS)
Business Service	Service Construct (setup & delivery)		3			2	3										1,2,3					
	Agency Service Area																1,2					
	Agency Department Service Groups																1,2					
	Agency Business Service	1,2														2,3	1,2,3	2		2	2	2
	Agency Service Type (Main/Mgmt./Support)															2,3	1,2					
	Agency Service Flow (incl. output/input)											2, 3					1,2			2	2	2
	Agency Service Tier (Strategic/Tactical/Operational)												2				1,2					
	Agency Department Object (Business & Information)							1,2,3			1,2	3	2			2,3	2					
	Agency Service Measurements (Level Agreements)			2,3	2,3												2,3					
	Agency Service Owner		2				1,2			1,2							2					
	Agency Service Roles								1,2							2,3	2					
	Agency Service Rules												1,2				2		2			
	Agency Service Channel													2	2		1,2					

1=Map 2=Matrix 3=Model

A part of the LEADing Practice GIS Templates

Architecture Custom & Border Service GIS Modelling: Geographical Information System Application Templates



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Application Layer: Application
Way of Thinking – Strategic Aspect Tasks

Relation to Strategy

- Develop Custom & Border Service GIS information systems solutions (application solutions) based on business/IT Custom & Border Service GIS requirements
- Define Custom & Border Service GIS solution functions linked to business functions
- Develop Custom & Border Service GIS solutions and goals based on operational objectives from the different Custom & Border Service agencies
- Link business KPI's to system KPI's
- Ensure correct system reporting in terms of reports, cockpits, dashboards and scorecards

Focus Area

- Identify Custom & Border Service GIS application requirements and goals
- Business and IT (application/software) design
- Focus on Custom & Border Service GIS application development and configuration (solutions/projects)
- Develop Custom & Border Service GIS application standards for the different Custom & Border Service agencies
- Ensure application integration where needed
- Ensure correct application testing

Application Layer: Application
Custom & Border Service GIS Way of Working – Tac
Aspect Tasks

Tasks & Services

- Benchmark Custom & Border Service GIS application maturity
- Define level of application service standardization and integration throughout the different Custom & Border Service agencies
- Develop application functions, tasks and features based on agreed level of standardization
- Identify application to application (data/information) communication
- Identify application components and services
- Define application components and modules
- Define information objects and system flow
- Design system measurements and reports
- Select application functions, tasks, features and services that need to be integrated
- Define Custom & Border Service GIS roles (users)
- Define application rules
- Ensure information compliance to governance, business, process and service rules
- Develop Custom & Border Service GIS system flow for all the relevant Custom & Border Service agencies
- Enable various application channels and media
- Enable devices to work with Custom & Border Service GIS information
- Set up system measures and monitoring
- Develop system cockpits, dashboards and scorecards

The LEADing Practice Geographical Information System Way of Working - Application Layer: Custom & Border Service GIS Application templates

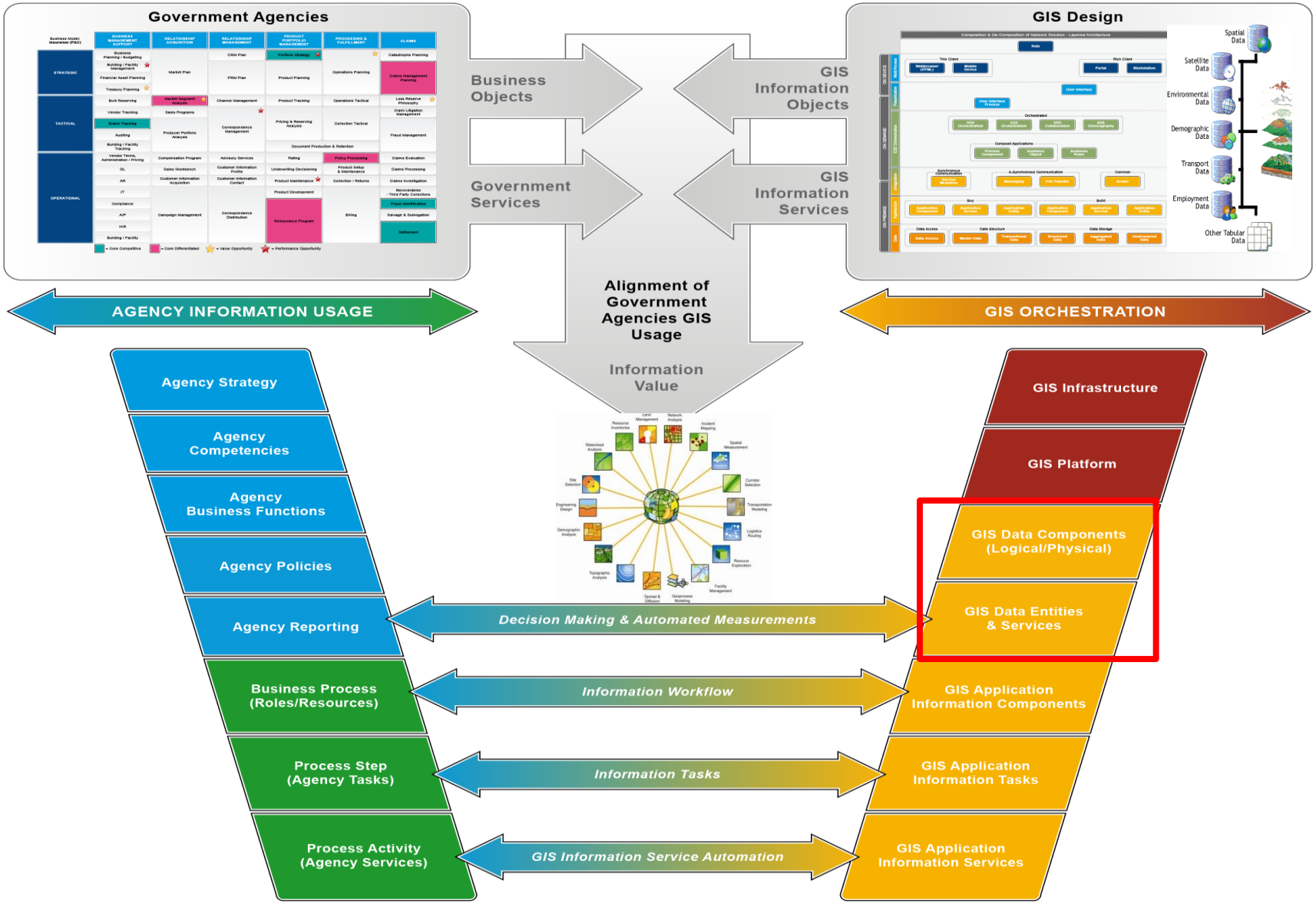
LEAD Objects with LEAD Maps, Matrices and Models

		GIS Requirement (Rq)	GIS Measurement & Reporting (MR)	Business Competency/Business Model (BC)	GIS Information (I)	GIS Role (Ro)	GIS Owner (O)	Process (P)	BPM Notations (BPMN)	GIS Services (Se)	GIS Applications (A)	GIS Application Service (AS)	GIS Application Roles (ARo)	GIS Application Rules (AR)	GIS System Measurements/Reporting (AM)	GIS Application Interface (AI)	GIS Information Screen (Asc)	GIS Compliance (C)	GIS Data (D)	GIS Data Service (DS)	GIS Data Rules (DR)	GIS Platforms (PL)	GIS Platform Service (PLS)	GIS Platform Distribution (PLD)
Application Layer	Application	Logical GIS Application Component									1,3				1,3						3		3
		Physical GIS Application Component									1							2,3			3		
		GIS Application Module									1,3				1,3								
		GIS Application Feature	1,2								1												
		GIS Application Function	1,2		2					2,3		1,2,3	2,3		2	1	1,3						2	
		GIS Application Task								2,3		1,2	2,3	2		2		1		2				
		GIS Application Service	1,2							2,3	2,3	1,2,3	1,2,3	2			1,2,3	1,3	2	2	3		2	2	
		GIS System flow											1,3			3	3	3							
		GIS System Measurements		1					2	2,3		2				1,3			2						
		GIS System Reports		2,3								2				1,2,3									
		GIS System Owner						1,2				1	1			2,3	1		2						
		GIS Application Roles					1,2						3	1,2				1							
		GIS Object (Information & Data)				1,2				2,3			3			2,3	2,3								
		GIS Application Rules											3		1,2	2		3	1,2						
		GIS Application Compliance														2			1,2						
		GIS Application Channel										3					1,2,3	1					2,3		
		GIS Application Media															2	1					2,3		

Map 2=Matrix 3=Model

A part of the LEADing Practice GIS Templates

The Way of Working - Geographical Information System Data Templates



((o))LEADing Practice for a Geographical Information System

Application Layer: Data

Custom & Border Service GIS Way of Thinking – Strategic Aspect Tasks

Relation to Strategy

- Develop Custom & Border Service GIS data warehouse based on business/IT requirements
- Develop Custom & Border Service GIS data solutions and goals based on the different operational the Custom & Border Service agencies objectives
- Link the different Custom & Border Service agencies business KPI's to system KPI's
- Ensure correct data reporting in terms of system reports, cockpits, dashboards and scorecards

Focus Area

- Identify Custom & Border Service GIS data requirements and goals
- Map the relevant information and data objects
- Agree on Data structure
- Define data types (master data, meta data and classifications)
- Custom & Border Service GIS solution (data) design
- Develop data standards
- Focus on data development and configuration (solutions/projects) considering the different Custom & Border Service agencies data and information usage
- Ensure data integration
- Ensure correct data testing

Application Layer: Data
Way of Working – Tactical Aspect Tasks

Tasks & Services

- Develop and define data components (logical and physical)
- Identify Data entities and data types
- Benchmark data maturity throughout the entire data flow
- Ensure data services are enabled
- Define new information and data objects and system flow
- Develop Custom & Border Service GIS data rules
- Define data standardization level
- Define data integration needs and wants
- Check when Data as a Service (DaaS) can be used for cloud enabled data sharing and usage
- Ensure data compliance to governance, Custom & Border Service agencies business information usage, process, application and service rules
- Develop data flow
- Enable data Custom & Border Service GIS channels and media
- Enable devices to work with Custom & Border Service GIS data
- Set up data measures and monitoring

The LEADing Practice Geographical Information System Way of Working - Application Layer: Custom & Border Service GIS Data templates

LEAD Objects with LEAD Maps, Matrices and Models

		GIS Requirement (Rq)	GIS Information (I)	GIS Owner (O)	BPM Notations (BPMN)	GIS Services (Se)	GIS Application Service (AS)	GIS System Measurements/Reporting (AM)	GIS Application Interface (AI)	GIS Compliance (C)	GIS Data (D)	GIS Data Service (DS)	GIS Data Rules (DR)	GIS Platforms (PL)	GIS Platform Service (PLS)
Data	GIS Data Component										1,3			3	
	GIS Object (Information & Data)		1,3		2,3			2,3	2,3		1,2				
	GIS Data Entity		1								1,2				
	GIS Data Type										1				
	GIS Data Service	1,2			2,3	2,3	2		1,2,3		1,2	2,3		2	2
	GIS Data Flow											3			
	GIS Data Owner			1,2				2,3			2				
	GIS Data Rules				2,3								1		
	GIS Data Compliance (incl. Security)		3							1,2	3				
	GIS Data Media								2,3		1			2,3	
	GIS Data Channel										1			2,3	

1=Map 2=Matrix 3=Model

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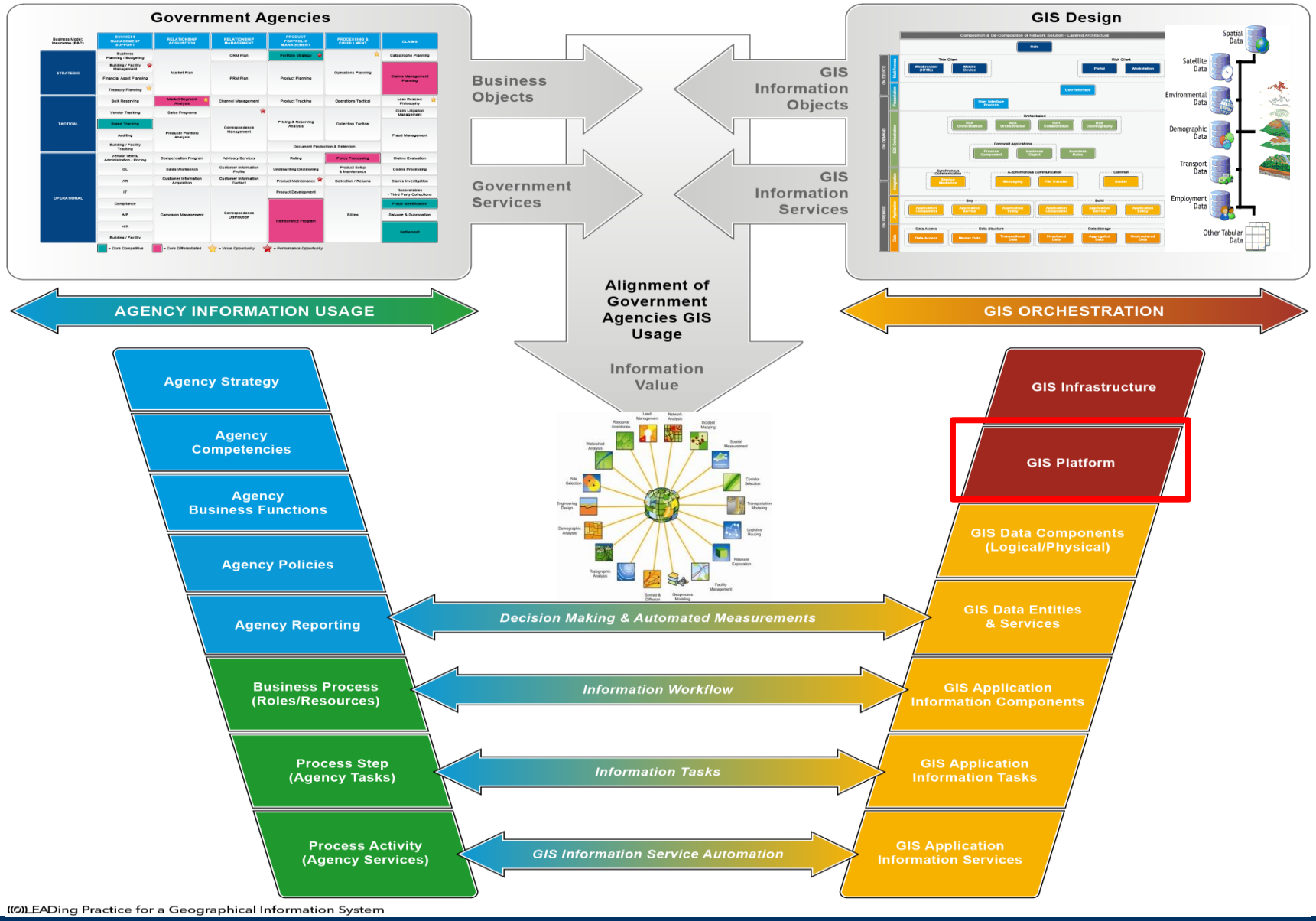
The Way of Working - Geographical Information System Platform Templates



Technology Layer: Platform
Way of Thinking – Strategic Aspect Tasks

Relation to Strategy

- Develop platform solutions based on the Custom & Border Service GIS data and information requirements
- Develop platform maturity throughout the different Custom & Border Service agencies
- Define platform services linked to the different Custom & Border Service agencies services
- Develop platform solutions based on different operational Custom & Border Service agencies objectives and goals

Focus Area

- Identify Custom & Border Service GIS platform requirements
- Develop a Platform Custom & Border Service GIS design strategy
- Focus on Custom & Border Service GIS platform development and configuration
- Develop Custom & Border Service GIS platform standards
- Ensure platform integration, harmonization, consolidation and testing
- Maintain and optimize cross agency platform development

Technology Layer: Platform
Way of Working – Tactical Aspect Tasks

Tasks & Services

- Benchmark Custom & Border Service GIS platform maturity
- Define Custom & Border Service GIS platform standardization and integration
- Define Custom & Border Service GIS platform components
- Define Custom & Border Service GIS platform devices
- Develop Custom & Border Service GIS platform rules
- Develop cross agency Custom & Border Service GIS platform requirements
- Develop Custom & Border Service GIS platform services
- Ensure platform Custom & Border Service GIS compliance to governance, business, process, service, application and data rules
- Enable Custom & Border Service GIS platform channels
- Set up Custom & Border Service GIS platform media
- Enable devices to work with the different Custom & Border Service GIS platforms

The LEADing Practice Geographical Information System Way of Working - Technology Layer: Custom & Border Service GIS Platform templates

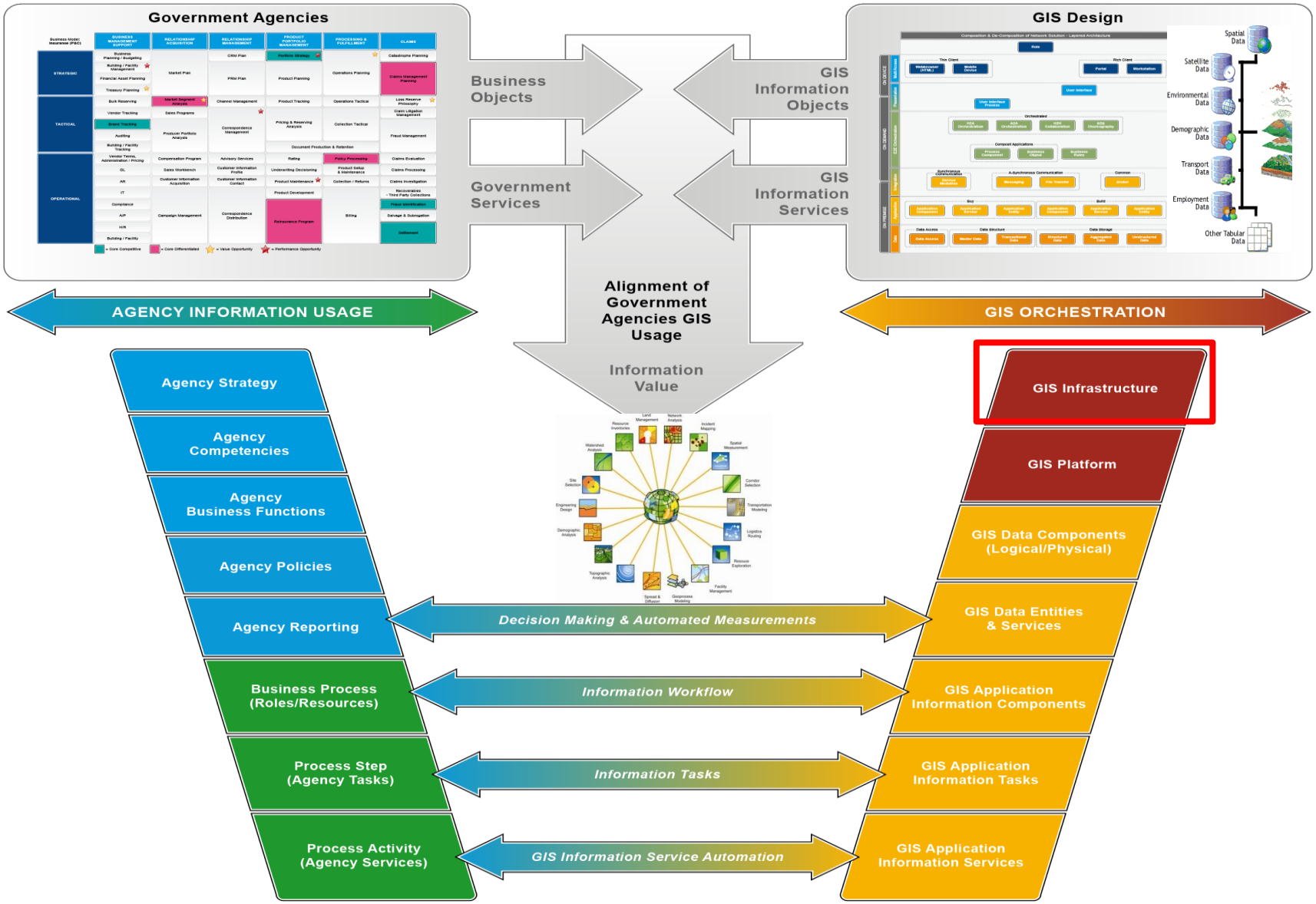
LEAD Objects with LEAD Maps, Matrices and Models

Technology Layer		GIS Requirement (Rq)	GIS Owner (O)	GIS Services (Se)	GIS System Measurements/Reporting	GIS Application Interface (AI)	GIS Compliance (C)	GIS Platforms (PL)	GIS Platform Service (PLS)	GIS Platform Rules (PLR)	GIS Platform Distribution (PLD)
Platform	Logical GIS Platform Component							1,3			
	Physical GIS Platform Component							1,3			
	GIS Platform Device							1,3			
	GIS Platform Function	1,2						1,3			
	GIS Platform Service	1,2		2,3				1,2,3	2		3
	GIS Platform Owner		1,2		2,3			2			
	GIS Platform Rules									1	
	GIS Platform Compliance (incl. Security)						1,2	3			3
	GIS Platform Media					2					
	GIS Platform Channel							1,3			

1=Map 2=Matrix 3=Model

A part of the LEADing Practice GIS Templates

The Way of Working - Geographical Information System Platform Templates



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Technology Layer: Infrastructure

Custom & Border Service GIS Way of Thinking – Strategic Aspect Tasks

Relation to Strategy

- Define Custom & Border Service GIS infrastructure services linked to the cross Custom & Border Service agency business services
- Develop Custom & Border Service GIS infrastructure solutions based on the cross Custom & Border Service agency information requirements
- Develop Custom & Border Service GIS infrastructure solutions based on the different operational Custom & Border Service agency objectives and goals
- Develop Custom & Border Service GIS infrastructure maturity throughout the Custom & Border Service agencies

Focus Area

- Identify Custom & Border Service GIS infrastructure requirements
- Custom & Border Service GIS Infrastructure design strategy
- Focus on Custom & Border Service GIS infrastructure development and configuration (agency access and Information flow)
- Develop Custom & Border Service GIS infrastructure standards
- Ensure cross agency infrastructure integration, harmonization and consolidation
- Optimize cross Custom & Border Service GIS infrastructure development and analyze where Infrastructure as a Service (IaaS) can be used within a Cloud

Technology Layer: Infrastructure

Custom & Border Service GIS Way of Working – Tactical Aspect Tasks

Tasks & Services

- Benchmark Custom & Border Service GIS infrastructure maturity
- Develop enterprise infrastructure requirements
- Define Custom & Border Service GIS infrastructure standards for all involved Custom & Border Service GIS information sources
- Ensure relevant infrastructure integration
- Define Custom & Border Service GIS relevant infrastructure components (physical and logical)
- Specify agency devices used and which infrastructure components are effected
- Define Custom & Border Service GIS infrastructure rules
- Ensure infrastructure service usage and deployment as a Infrastructure as a Service (IaaS) within a Cloud
- Ensure Custom & Border Service GIS infrastructure compliance to governance, cross agency process, service, application, data and platform rules
- Enable Custom & Border Service GIS infrastructure channels
- Set up Custom & Border Service GIS infrastructure media
- Enable Custom & Border Service GIS access devices to work with infrastructure

The LEADing Practice Geographical Information System Way of Working - Technology Layer: Custom & Border Service GIS Infrastructure templates

LEAD Objects with LEAD Maps, Matrices and Models

		GIS Requirement (Rq)	GIS Owner (O)	GIS Services (Se)	GIS System Measurements/Reporting (AM)	GIS Compliance (C)	GIS Platform Service (PLS)	GIS Infrastructure (IF)	GIS Infrastructure Service (IFS)	GIS Infrastructure Rules (IFR)	GIS Virtualization (IFV)	GIS High Availability (IFH)
Technology Layer Infrastructure	Logical GIS Infrastructure Component							1,3			3	
	Physical GIS Infrastructure Component							1,3				3
	GIS Infrastructure Device							1,3				
	GIS Infrastructure Function							1,3				
	GIS Infrastructure Feature	1,2						1				
	GIS Infrastructure Service	1,2		2,3			2	1,2,3	2		3	3
	GIS Infrastructure Owner		1,2		2,3			2				
	GIS Infrastructure Rules									1		
	GIS Infrastructure Compliance (incl. Security)					1,2		3			3	3
	GIS Infrastructure Media											
	GIS Infrastructure Channel							1,3			3	3

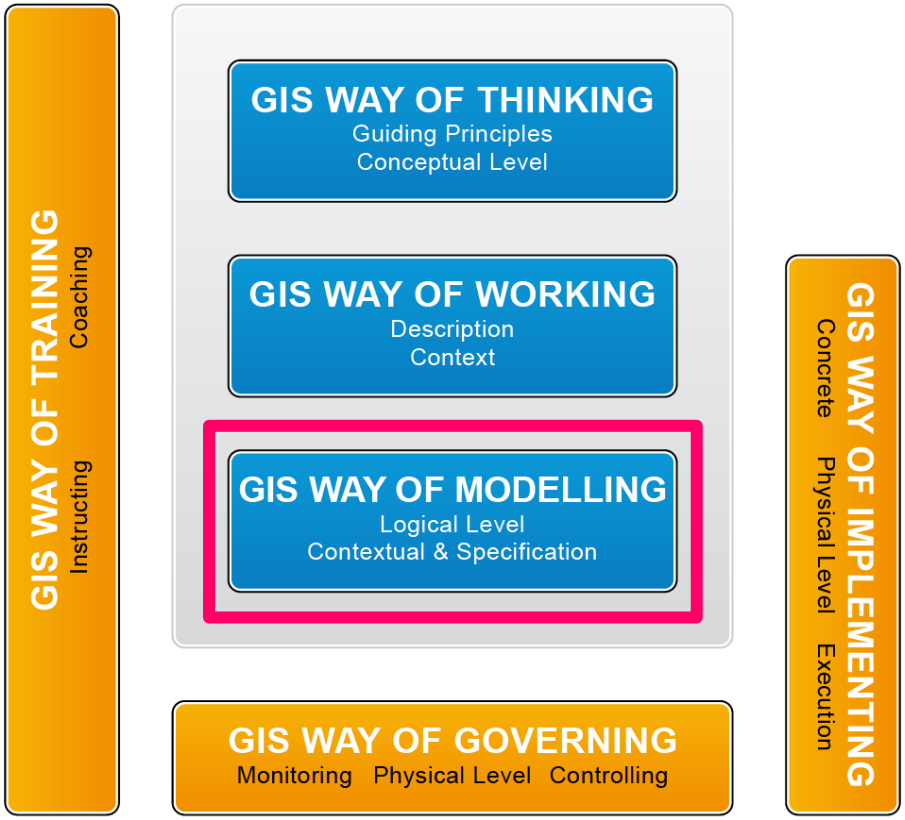
1=Map 2=Matrix 3=Model

A part of the LEADing Practice GIS Templates

The LEADing Practice Geographical Information System Structural Way of Modelling

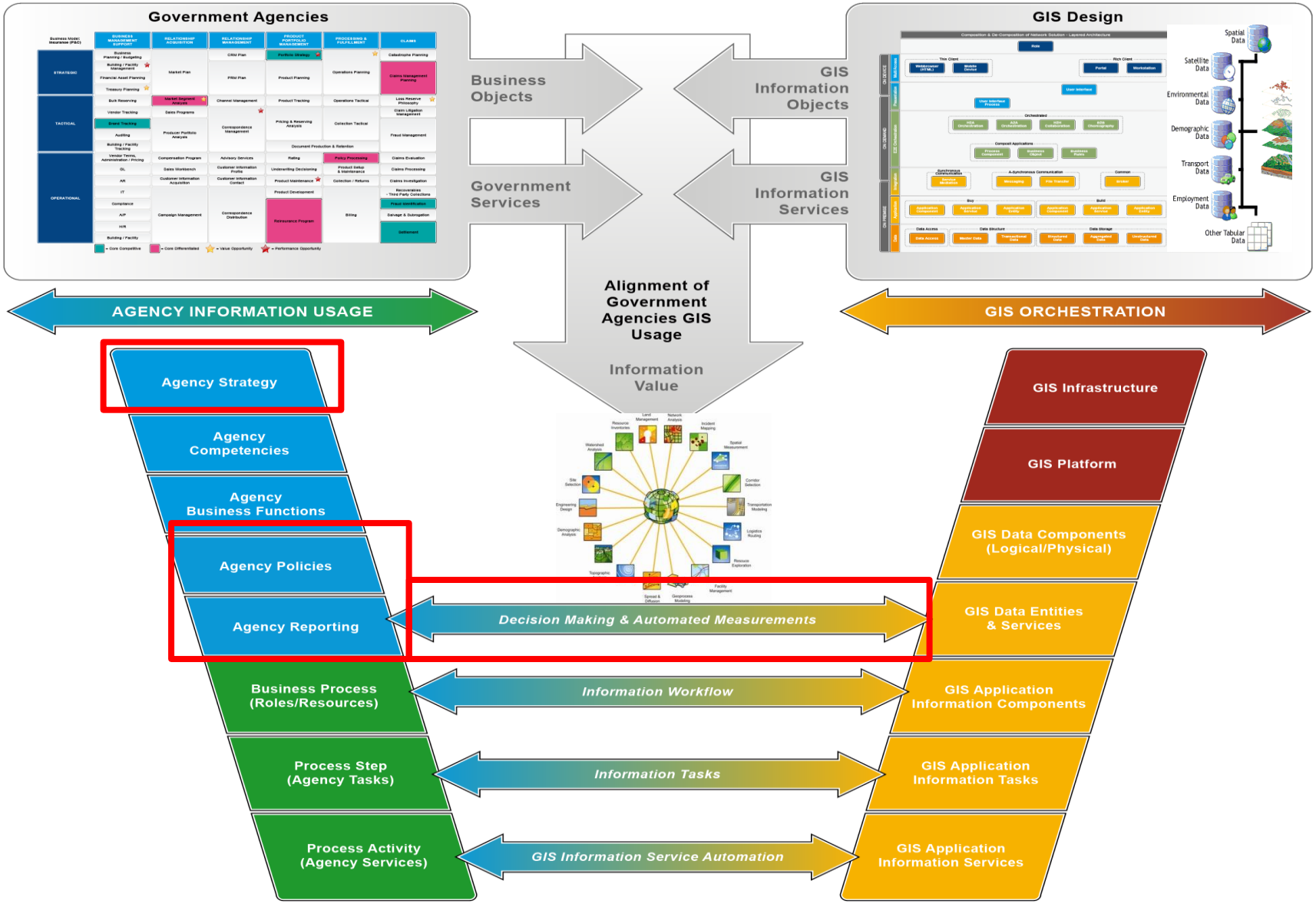
Custom & Border Service GIS Way of Modelling:

The Custom & Border Service GIS way of modelling provides a uniform and formal description of the Geographical Information System model objects and artifacts within one or different model types using decomposition and composition modeling techniques at the different layers e.g. business, application, technology.



Structural Way of ((o))LEADing Practice

The Way of Modelling - Geographical Information System Strategy & Goal templates



Business Layer: Purpose & Goal (Value)
Custom & Border Service GIS Way of Modelling Tasks

Custom & Border Service GIS Modelling Tasks & Services:

- Populate the Custom & Border Service GIS Vision, Mission & Goals map and matrices
- Fill out the Custom & Border Service GIS Requirement matrices
- Specify the Custom & Border Service GIS strategy map
- Map all the Custom & Border Service GIS relevant policies
- Create specific Custom & Border Service GIS agency scorecards
- Create Custom & Border Service GIS goal/value matrix
- Create Custom & Border Service GIS performance measurements
- Define the Custom & Border Service GIS Measurement & Reporting matrices
- Prioritize Custom & Border Service GIS transformation initiatives
- Define the Agency Competency/Business Model
- Custom & Border Service GIS Information

Geographical Information System Way of Modelling: Business Layer templates: Example of Custom & Border Service GIS Goal/Value Matrix

GIS Requirement Matrix	GIS Requirement #	Who/Whom specification e.g. Stakeholder/Owner involved	Where specification e.g. Layer, Objects, Area (process, service, data, infrastructure)	What specification: High Level GIS Requirements	What specification: Detailed GIS Requirements
Whither Information specification e.g. Core Differentiated, Core Competitive or Non-Core Information aspects	#				
Why, in terms of reason specification e.g. Motivation and Drivers for change	#				
Whither specification e.g. GIS Goal & Objective (Business/Application/Technology)	#				
Which GIS expectation specification e.g. Agency GIS Value/Performance expectations	#				
Whither Information specification e.g. Core Differentiated, Core Competitive or Non-Core Information aspects	#				
Why, in terms of reason specification e.g. Motivation and Drivers for change	#				
Whither specification e.g. GIS Goal & Objective (Business/Application/Technology)	#				
Which GIS expectation specification e.g. Agency GIS Value/Performance expectations	#				
		A part of the LEADing Practice GIS Modelling and Architecture Principles and Templates			

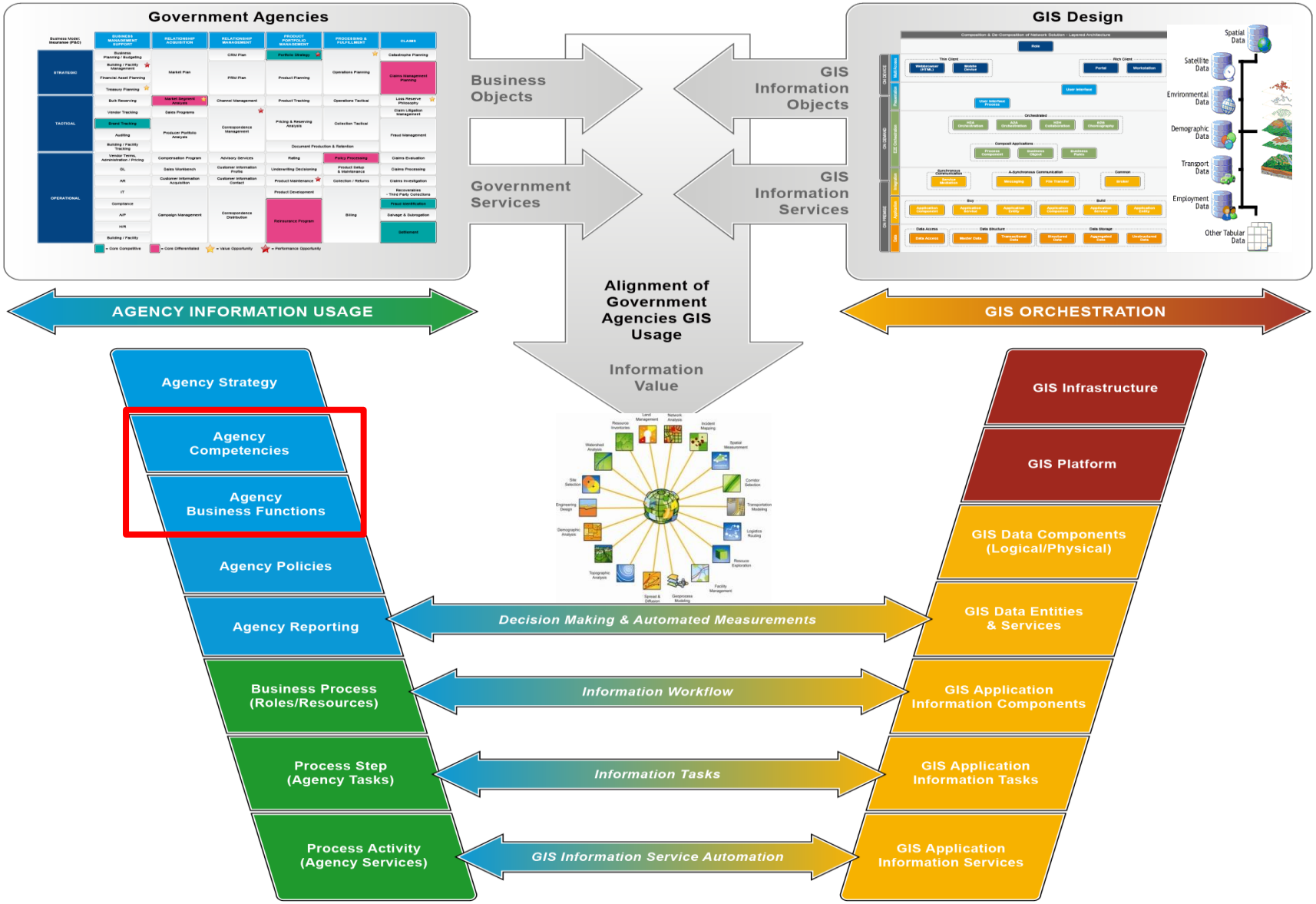
Geographical Information System Way of Modelling: Business Layer Templates: Example of Custom & Border Service GIS Requirement Matrix

	#	What specification: Custom & Border Service GIS Information needed	Why specification: Custom & Border Service GIS Strategy (strategic business objective)	Why specification: Custom & Border Service GIS value Driver	Whither specification: Custom & Border Service GIS Goal (business/application/technology)	What/Which specification: Custom & Border Service GIS Objective (CSF, plan, forecast, budget)	What/Which specification: Custom & Border Service GIS Performance Indicator (Strategic/Tactical/Operational)	What specification: Custom & Border Service GIS Value Proposition
Custom & Border Service GIS Requirement (What is required to execute the value creation process)	#							
Custom & Border Service GIS Owner (Whom is ultimately responsible for the Information usage)	#							
Agency & Group (Which area and group is the Custom & Border Service GIS solution usage a part of)	#							

Geographical Information System Way of Modelling: Business Layer Templates: Example of Custom & Border Service GIS Measurement/Reporting Matrix

GIS Measurement-Reporting Matrix		What/which specification:		Where specification:		Who/whom specification:	
	GSI relevant Measurements & Reports #	GSI Objective (CSF, plan, forecast, budget)	GSI Performance Indicator (Strategic/Tactical/Operational)	Agency Service Measurements (GSI Service Level Agreements)	Process Measurements (PPI)	GSI relevant Reports	GSI System Reports
Policies (Which policies are relevant for the measurements and reporting)	#						
Requirement (What are the GSI requirements for measuring and reporting results)	#						
Agency Business Area & Group (What agency business area and group does the measurement and reporting	#						
Agency Service Area & Group (What agency service area and group does the measurement and reporting	#						
Process Area & Group (What process area and group does the measurement and reporting belong to)	#						
Policies (Which policies are relevant for the measurements and reporting)	#						
Requirement (What are the GSI requirements for measuring and reporting results)	#						
Agency Business Area & Group (What agency business area and group does the measurement and reporting	#						
Agency Service Area & Group (What agency service area and group does the measurement and reporting	#						
Process Area & Group (What process area and group does the measurement and reporting belong to)	#						

The Way of Working - Geographical Information System Competency Templates



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Business Layer: Business Competency
Custom & Border Service GIS Way of Modelling Tasks

Custom & Border Service GIS Modelling Tasks & Services:

- Specify Custom & Border Service GIS Stakeholders
- Map Agency Competency Requirements
- Define Custom & Border Service GIS cost model
- Develop value model
- Define business functions
- Prioritize innovation and transformation initiatives
- Map the different Agencies Business Competencies
- Develop the Agency Custom & Border Service GIS Business Model
- Define the Custom & Border Service GIS Operating Model
- Map the involved Custom & Border Service GIS Roles
- Identify the Custom & Border Service GIS Owner (O)
- Map the relevant Custom & Border Service GIS Business Objects (Ob)

- Map the Business Workflow
- Map the relevant Business Rule
- Define the Business Channels and Media used

Geographical Information System Way of Modelling: Business Layer Templates: Example of Custom & Border Service GIS Stakeholder Map

Custom & Border Service GIS Stakeholder #	Who specification:	Who - in terms of ownership:			Where specification: Custom & Border Service, Agency, Group, Service Area or Team, etc.		
	Custom & Border Service GIS Stakeholder	Stakeholder (Agency)	Stakeholder (Department)	Stakeholder (Operational Manager)	Agency/Service Area	Competency Groups	Operational Competencies
#							
#							
#							
#							
#							
#							
#							
#							
#							
#							

Geographical Information System Way of Modelling: Business Layer Templates: Example of Competency Map

Agency Competency #	What specification:			Who/Whose specification:					
	Agency Competency Area	Agency Competency Groups	Agency Business Functions	Stakeholder involved	Custom & Border Service GIS Owner	Managers involved	Roles/Resources involved	Business Model Level	Business Owner
#									
#									
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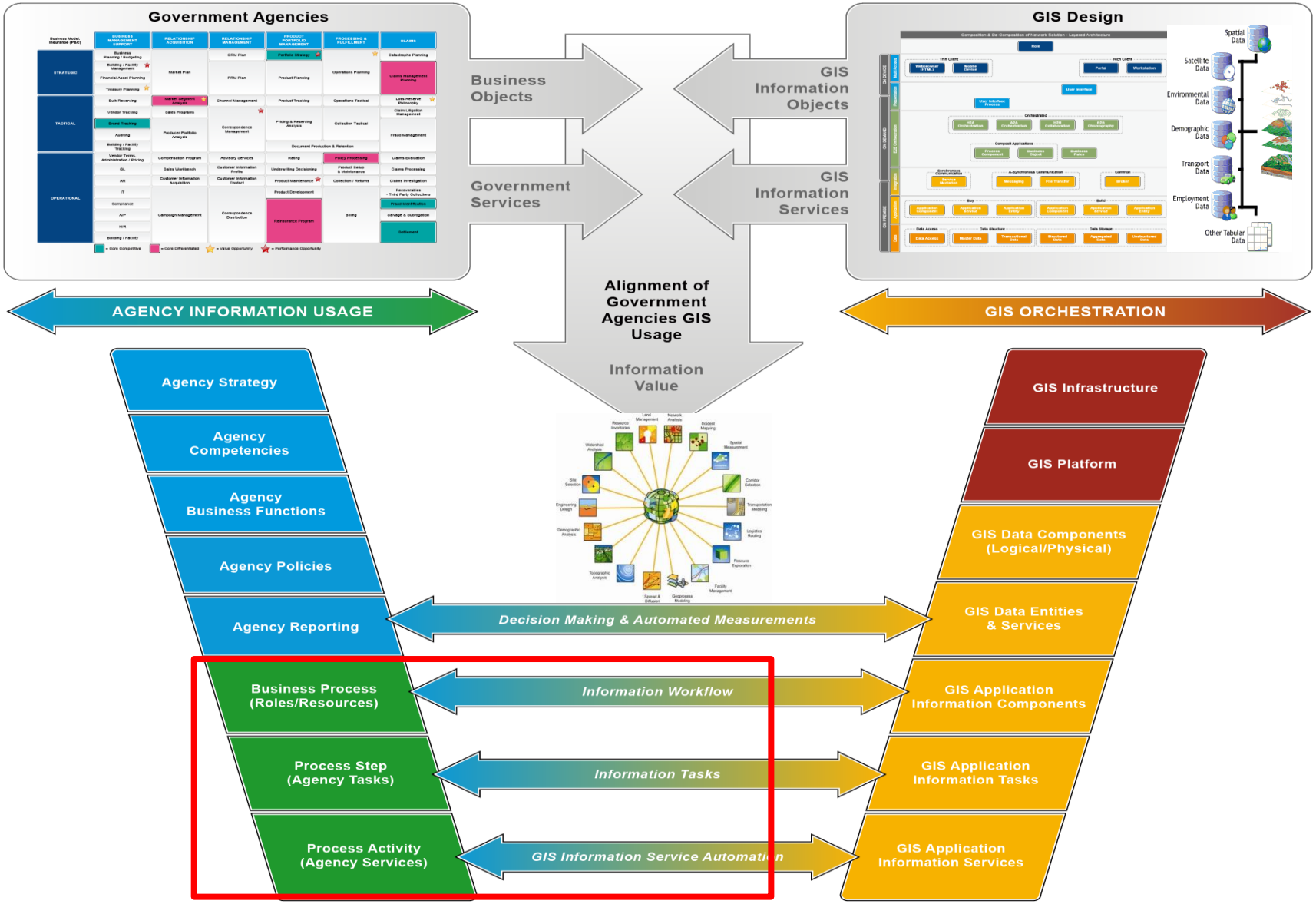
#									
#									
#									

Geographical Information System Way of Modelling: Business Layer Templates: Example of Competency Matrix

	Agency Competency #	What specification:			Who/Whose specification:			
		Agency Competency Area	Agency Competency Groups	Business Functions	Stakeholder involved	Custom & Border Service GIS Owner	Managers involved	Roles/Resources involved
Whither specification e.g. Core Differentiated, Core Competitive or Non-Core Agency Competency	#							
Where, in terms of level of information used e.g. Strategic/Tactical/Operational	#							
How n in terms of manner of Custom & Border Service GIS information delivered e.g. Tiered delivery model	#							
Why in terms of reason and drivers for organizational change	#							
Whither in terms of Custom & Border Service GIS goal specification e.g. SBO, Plans, Forecast, Budgets etc	#							

The Way of Working - Geographical Information System Process Templates



Business Layer: Business Process
Custom & Border Service GIS Way of Modelling Tasks

Tasks & Services:

- Map Custom & Border Service GIS process', steps and activities
- Process composition, considering business purpose/goals, business competencies, services, objects, business flows, roles, business rules, compliance, measurements and the IT aspects of applications, data, media, platform and infrastructure
- Model Custom & Border Service GIS process artifacts throughout the different layers e.g. business, application and technology
- Map the Custom & Border Service GIS Business, Information and Data Objects into the process workflow
- Specify the Custom & Border Service GIS Rules within the process models
- Define which processes can be automated with the different Custom & Border Service agencies in the process notations (automated process)
- Define which service can be automated with the different Custom & Border Service agencies in the process notations (automated service)

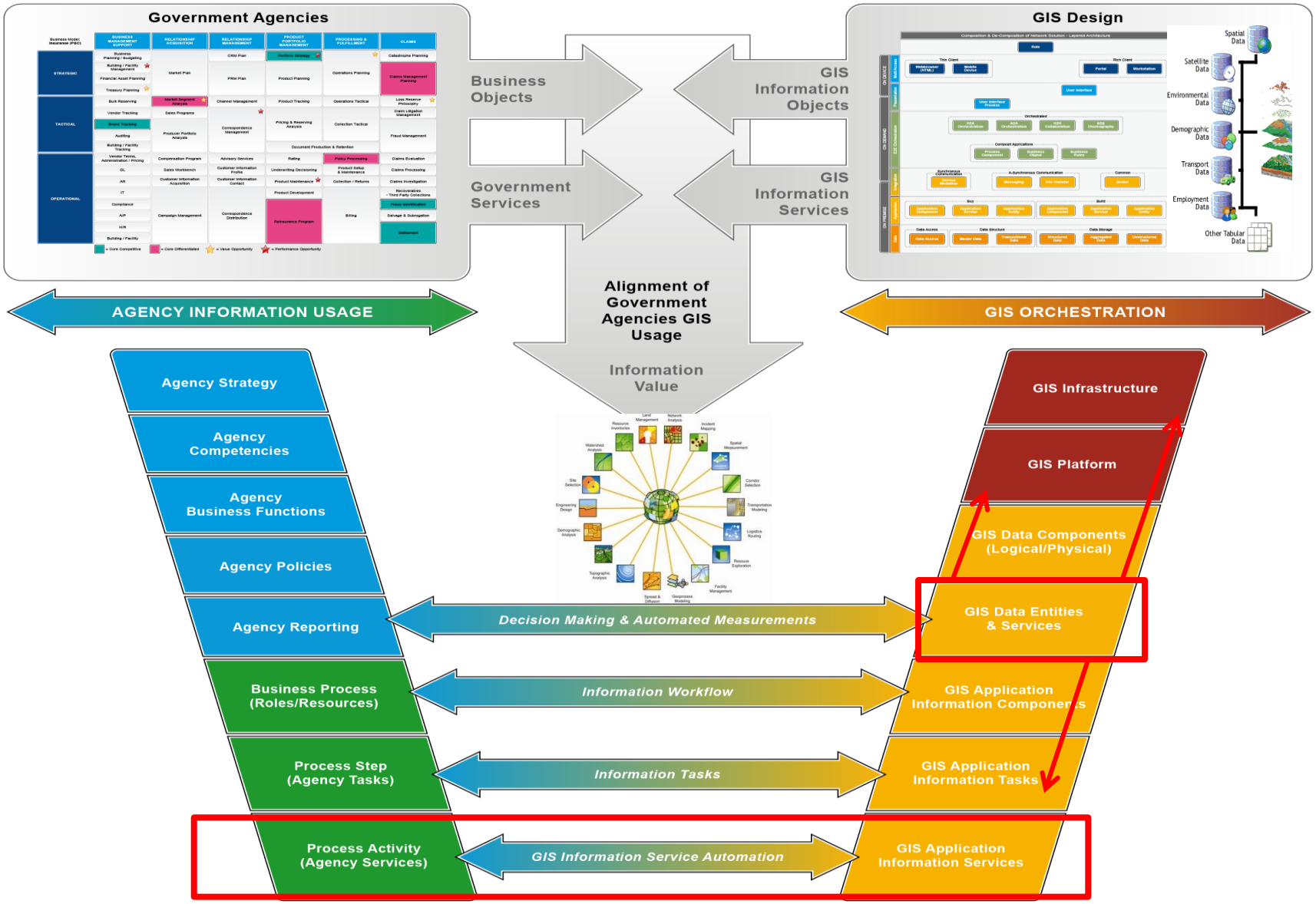
Geographical Information System Way of Modelling: Business Layer Template: Example of Process Matrix

	Custom & Border Service GIS Process #	What specification:					Who/Whose specification:			
		Agency Process Area	Agency Groups	Business process	Process Steps	Process Activities	Stakeholder involved	Custom & Border Service GIS Information Owner	Managers involved	Roles/Resources involved
Whither (option) specification e.g. Custom & Border Service GIS Events, gateways and measures (manual/automated)	#									
Where, in terms of level e.g. Strategic/Tactical/ Operational	#									
How in terms of Custom & Border Service GIS manner e.g. management, main or supporting	#									
Why in terms of reason of behaviour e.g. Custom & Border Service GIS Rules and compliance aspects	#									
Whither in terms of Custom & Border Service GIS goal specification e.g. goals, plans, requirements etc	#									

Geographical Information System Way of Modelling: Business Layer Template: Example of Process Matrix

GIS Process-Application matrix		<Application Component Name>	<Application Module Name>	<Application Task Name>	<Application Service Name>	<Application Component Name>2	<Application Module Name>2	<Application Task Name>2	<Application Service Name>2
<Process Roles>	#								
<Process Tasks>	#								
<Process Business Object>	#								
<Process Information Object>	#								
<Process Data Object>	#								
<Process Rules>	#								
<Process Service>	#								
<Process measure>	#								

The Way of Working - Geographical Information System Service Templates



Business Layer: Business Service
Custom & Border Service GIS Way of Modelling Tasks

Tasks & Services:

- Map Custom & Border Service GIS services
- Model Custom & Border Service GIS service artifacts throughout the different layers e.g. business, application and technology
- Map the Custom & Border Service GIS Business, Information and Data Objects into the service workflow
- Specify the Custom & Border Service GIS Service Rules
- Define which agency service can be automated (automated service)
- Map the Business Services to the Custom & Border Service GIS Services
- Link Custom & Border Service GIS Application Service with Data Service, Custom & Border Service GIS Platform Service and Custom & Border Service GIS Infrastructure Services

Geographical Information System Way of Modelling: Business & Application Layer Template: Example of Service Matrix

	Custom & Border Service GIS Service #	What specification				Who/Whose specification:			
		Custom & Border Service GIS Service Area	Custom & Border Service GIS Service Group	Agency Business Service	Custom & Border Service GIS Service Channel	Stakeholder Involved	Service Owner	Manager Involved	Role/Resource Involved
Whether (option) specification e.g. Custom & Border Service GIS Service nature (simple, generic, complex)	#								
Where - Agency level e.g. Strategic/Tactical/Operational	#								
How is the manner of the service: e.g. management, main or supporting	#								
Why in terms of reason of service behaviour e.g. Agency Rules and compliance aspects	#								
Whither in terms of Custom & Border Service GIS goal specification e.g. goals, plans, requirements etc	#								
Which Service measurements, reporting, channels are involved	#								

Geographical Information System Way of Modelling:
Cross Layers Template: Example of Custom & Border Service GIS Automated Service Matrix

GIS Automated Service Matrix	GIS Automation specification:			
	Application Service #	Data Service #	Platform Service #	Infrastructure Service #
Business Competencies (which automated GIS service enables the business competencies)				
Business Functions (which automated GIS service enables the business Function)				
Business Service (which automated GIS service enables the business service)				
Service Flow (which automated GIS service enables the service flow -input/output)				
Service Measurements (which Service Level Agreements a apart of the GIS service model)				

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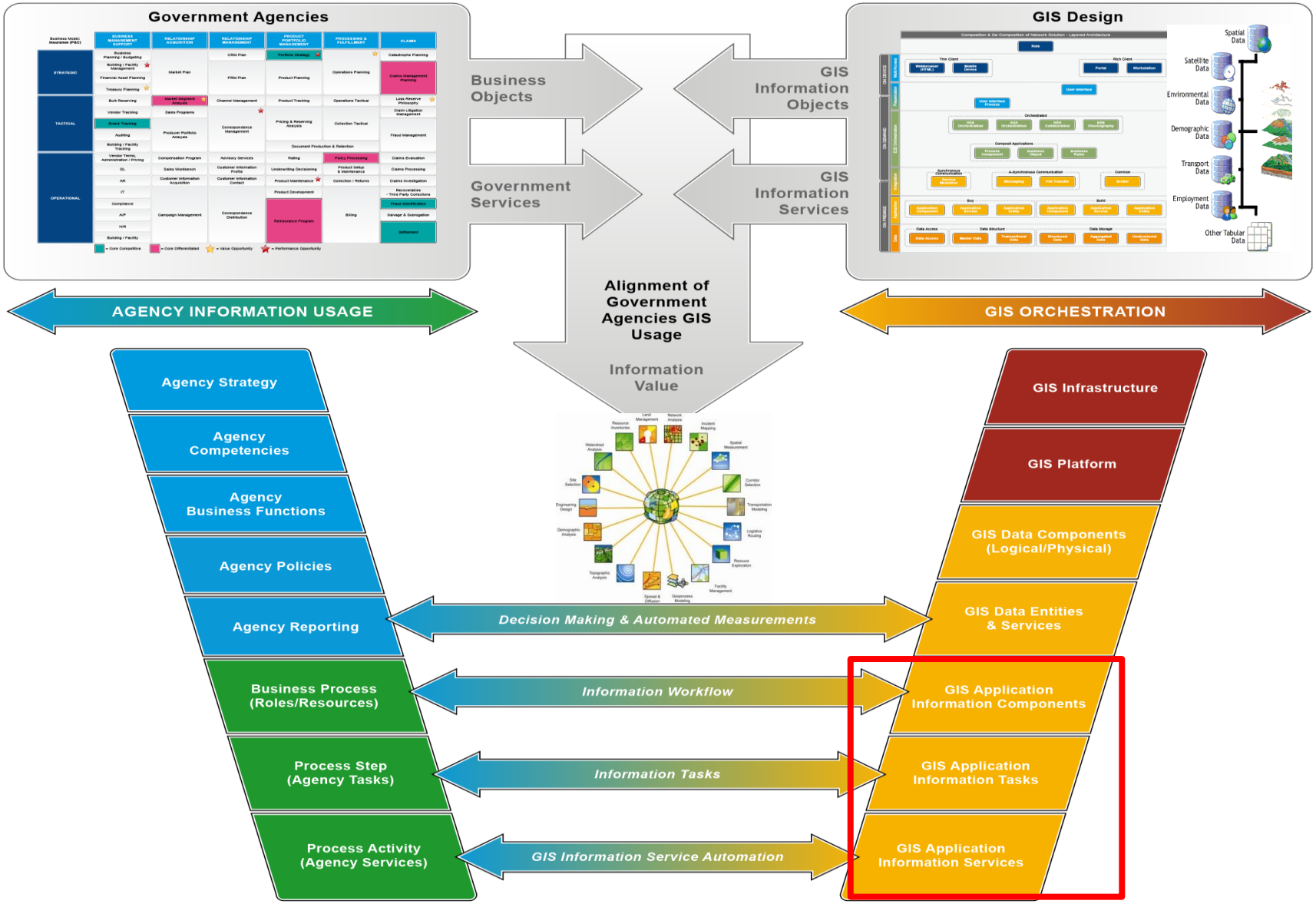
Architecture Custom & Border Service GIS Modelling: Geographical Information System Application Templates



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Application Layer: Application
Custom & Border Service GIS Way of Modelling Tasks

Tasks & Services

- Collect Custom & Border Service GIS application goals
- Capture Custom & Border Service GIS application requirements
- Analyze Custom & Border Service GIS application functions
- Decompose Custom & Border Service GIS Information input/output model to Custom & Border Service agency business competencies and their functions
- Define Custom & Border Service GIS screen flows, interface map and application landscape and service flows
- Map application tasks to Custom & Border Service agency tasks
- Compose application map, application information/data matrix and application service model
- Decompose and compose Custom & Border Service GIS application objects (business objects, information and data objects needed)
- Align application service flows to Custom & Border Service agency business service flow

Geographical Information System Way of Modelling: **Application Layer Template:** Example: Application Map

Custom & Border Service GIS Component #	Whence specification:	What/Which specification:				
	Version number	Logical/Physical Custom & Border Service GIS Component	Application Module	Application Function	Application Feature	Application Task

Geographical Information System Way of Modelling: **Application Layer Template:** Example: Application Matrix

GIS Application Matrix	GIS specification:			
	GIS Application Service #	GIS Application Service #	GIS Application Service #	GIS Application Service #
Application Task (which application task enables the application service)				
Application Interface (where is the service a part of an application interface)				
Application Screen (when and where is the service a part of the application screen)				
Data Service (which data service is collaborating with the application service)				
Platform (on what platform does the service reside)				
Platform Service (which platform service is collaborating with the service)				

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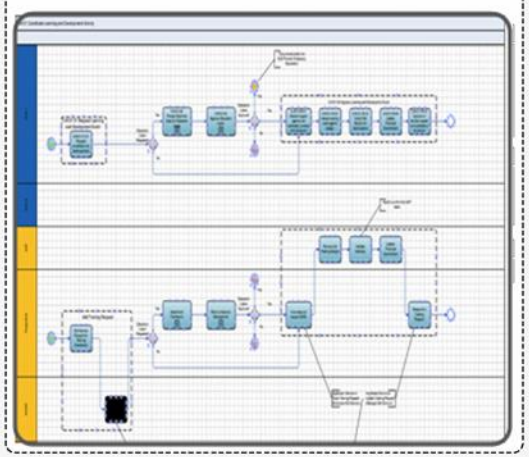
Application Layer Templates: Custom & Border Service GIS Application Architecture Artifacts

GIS Application Requirement Map

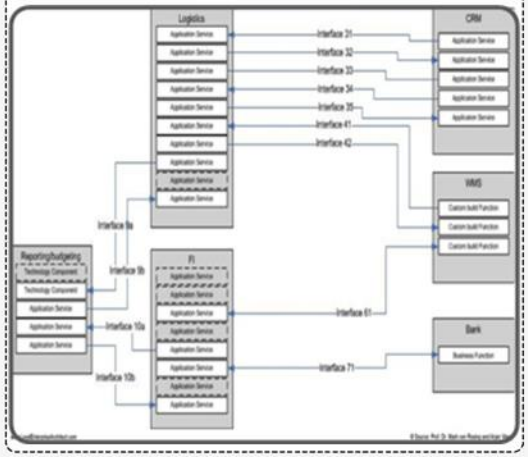
GIS Application Map

GIS Application Service Model

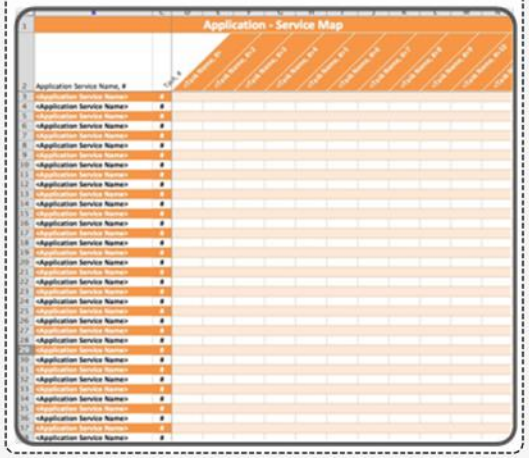


GIS Application-Information Matrix

GIS Application Model

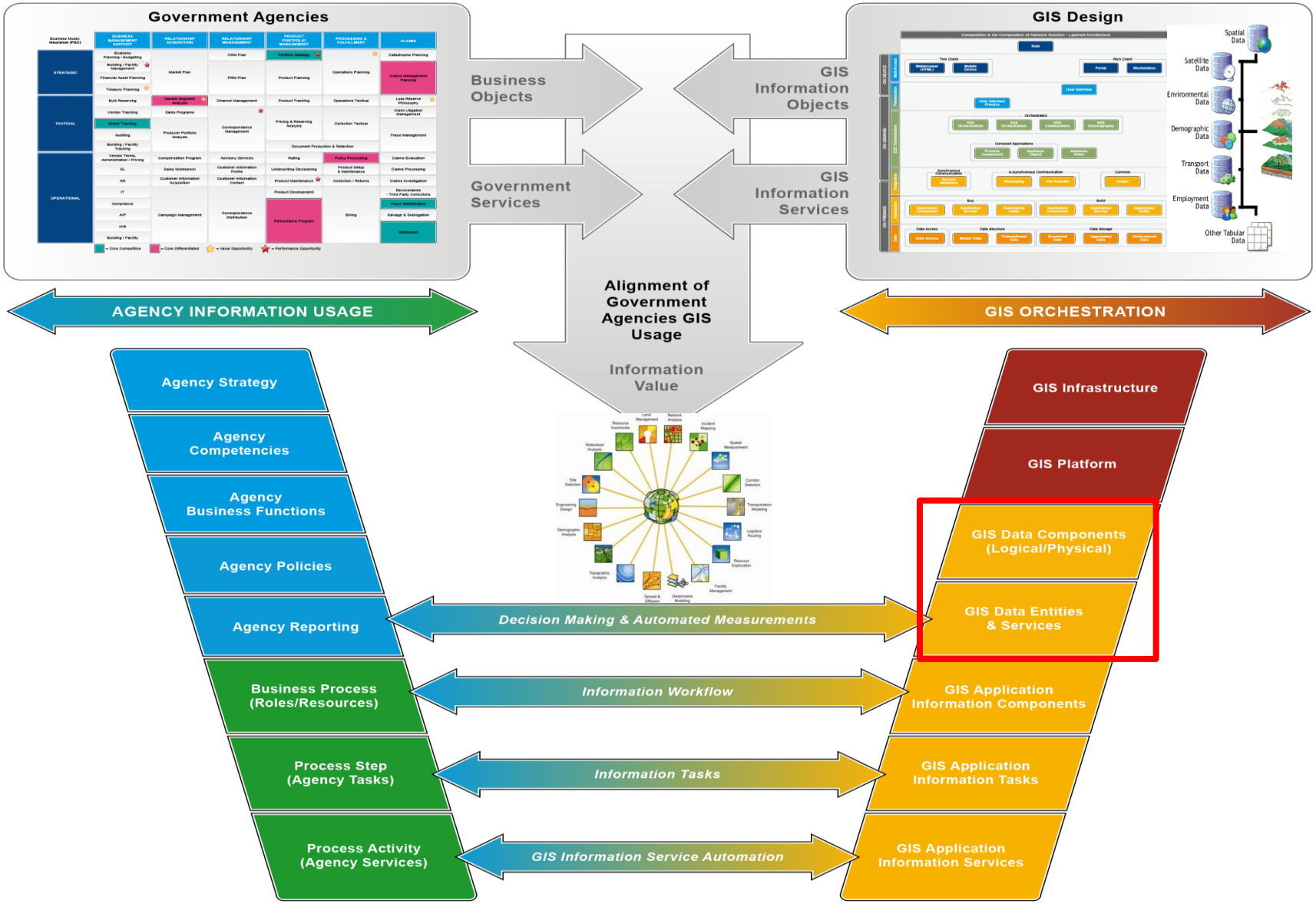


GIS Application Service Matrix



A part of the LEADing Practice Custom & Border Service GIS Modelling and Architecture Principles and Templates

The Way of Working - Geographical Information System Data Templates



((o))LEADing Practice for a Geographical Information System

Application Layer: Data
Custom & Border Service GIS Way of Modelling Tasks

Tasks & Services

- Collect data goals and requirements
- Map relevant Custom & Border Service GIS Data Object (Information & Data)
- Specify data entities and services into the Custom & Border Service GIS Data Maps
- Classify data types into meta data and master data
- Identify and define data components (logical & physical)
- Map data flow (input/output)
- Compose data map and data service matrix and model
- Define Custom & Border Service GIS data distribution scenarios linked to the different Custom & Border Service agencies
- Define level of Custom & Border Service GIS data service standardization and integration
- Define data interface map
- Align data service flows to information service flows
- Identify application to application communication and data dissemination
- Define Custom & Border Service GIS Data Rules
- Ensure Custom & Border Service GIS Data Compliance (incl. Security)

Geographical Information System Way of Modelling: **Application Layer Template:** Example: Data Map

	What/which specification:					Who is involved:		Where is it used:	
Custom & Border Service GIS Data #	Data Component	Data Object (information/data)	Data Entity	Data Type	Custom & Border Service GIS Data Service	Data Owner	Data Users	Data Channel	Custom & Border Service Agency Channel

Geographical Information System Way of Modelling: Application Layer Template: Example: Data Matrix

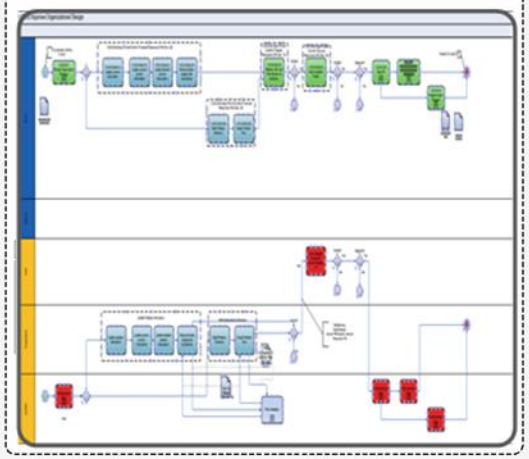
Custom & Border Service GIS Data Matrix	Custom & Border Service GIS Data #	What/which specification:				Who is involved:		Where is it used:	
		Custom & Border Service GIS Physical Application Component	Data Object (information/data)	Data Entity	Custom & Border Service GIS Data Service	Data Owner	Custom & Border Service GIS Data User	Custom & Border Service GIS Channel	Custom & Border Service GIS Media
Agency Business Service (which Agency business service does the data service collaborate with)									
Application Service (which application service does the data service collaborate with)									
Application Task (which application task uses the data)									
Data Requirement (what Agency business requirement does the data have to meet)									
Data Goal (to what end or purpose is the data required)									
Data Rule (what rule governs the data)			A part of the LEADing Practice Custom & Border Service GIS Modelling and Architecture Principles and Templates						
Data Compliance (in what way does the data have to comply)									

Application Layer Templates: Custom & Border Service GIS Data Architecture Artifacts

GIS Data Requirement Map

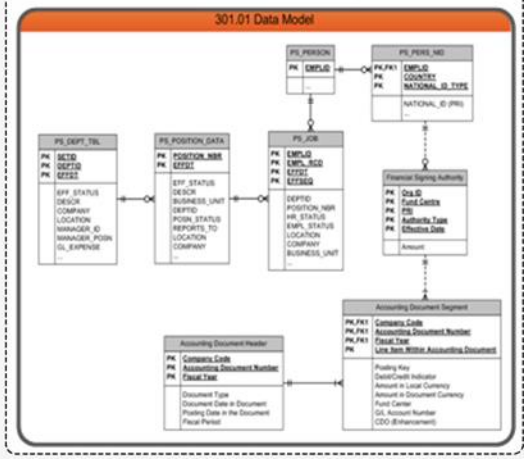
GIS Data Map

GIS Data Service Model

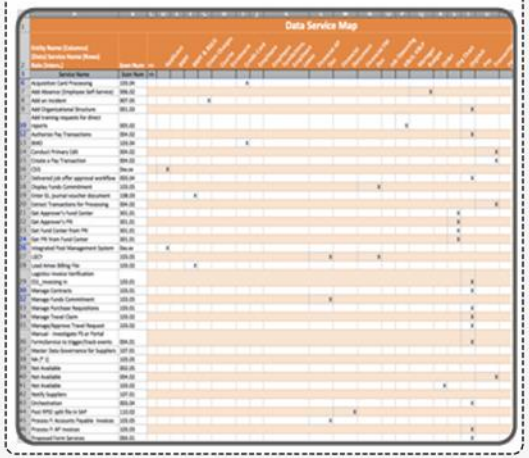


GIS Data Application Matrix

GIS Data Model

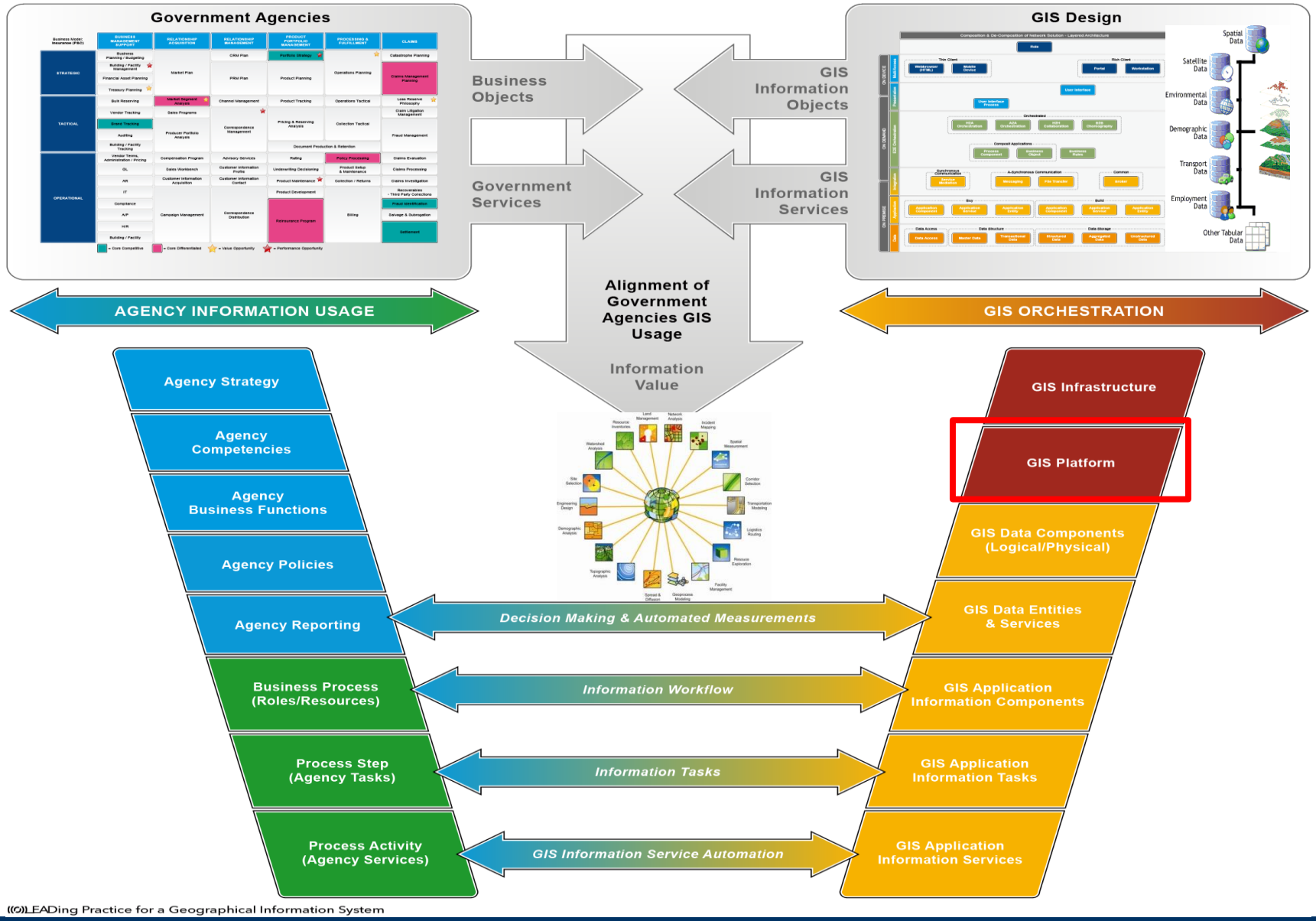


GIS Data Service Matrix



A part of the LEADing Practice Custom & Border Service GIS Modelling and Architecture Principles and Templates

The Way of Working - Geographical Information System Platform Templates



Technology Layer: Platform
Custom & Border Service GIS Way of Modelling Tasks

Custom & Border Service GIS Platform Tasks & Services

- Define Custom & Border Service GIS platform goals and requirements
- Map platform functions
- Decompose platform functions and capabilities to compose platform services
- Determine platform components to deploy platform services, application components and data components
- Identify platform services, components, software distribution, software virtualization, high availability requirements
- Map platform services to application and data services
- Compose platform map and platform application matrix
- Define level of platform service standardization and integration
- Compose platform model, landscape and distribution model
- Map Custom & Border Service GIS Platform Rules
- Define the Custom & Border Service GIS Platform Distribution Model

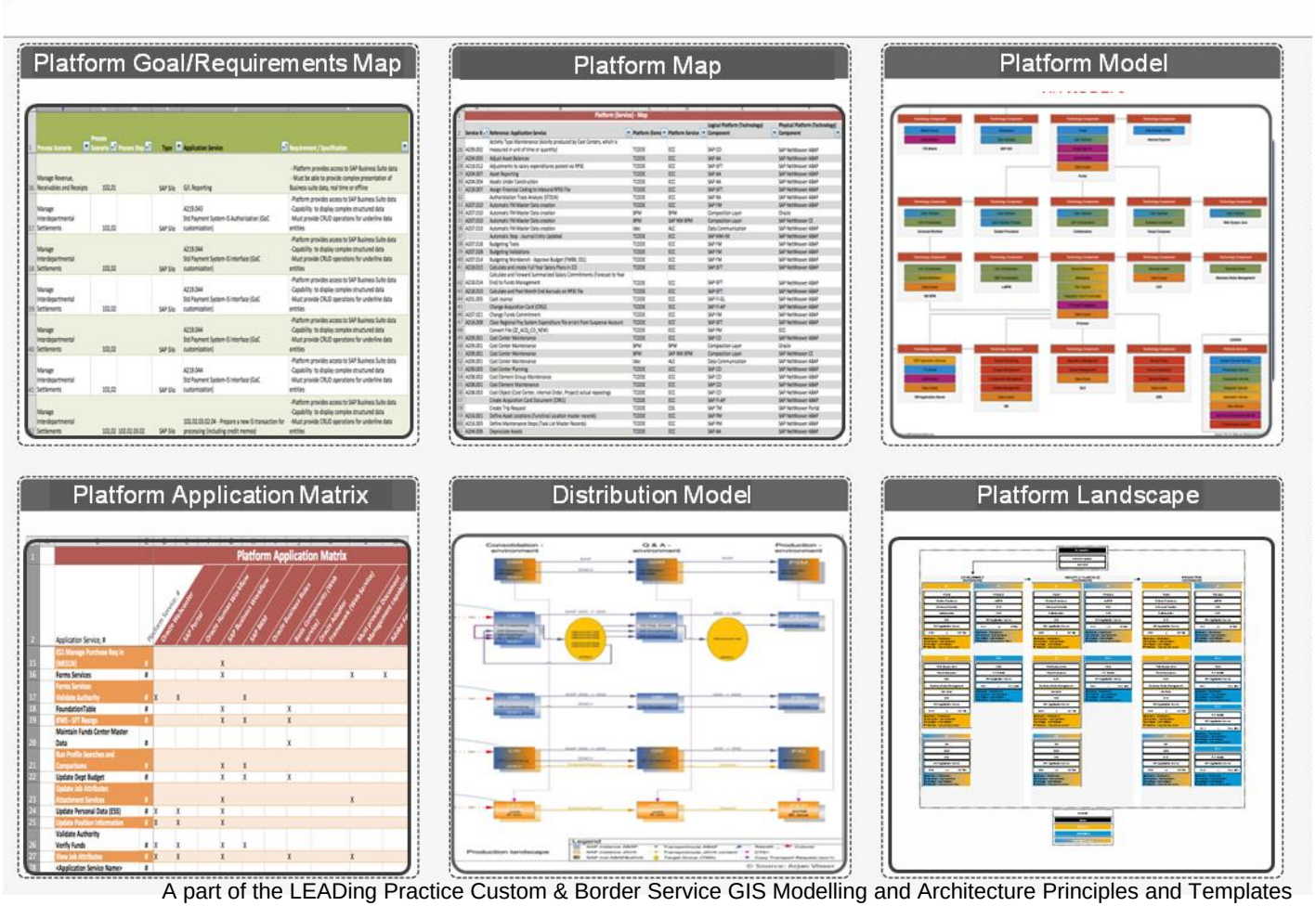
Geographical Information System Way of Modelling: Technology Layer Template: Example: Platform Map

	What/Which				Who is involved:		Where	
Custom & Border Service GIS Platform #	Logical/Physical Component	Custom & Border Service GIS Device	Platform Function	Custom & Border Service GIS Platform Service	Owner	Users	Custom & Border Service GIS Platform Channel	Custom & Border Service GIS Platform Media

Geographical Information System Way of Modelling: **Technology Layer Template:** Example: Platform Matrix

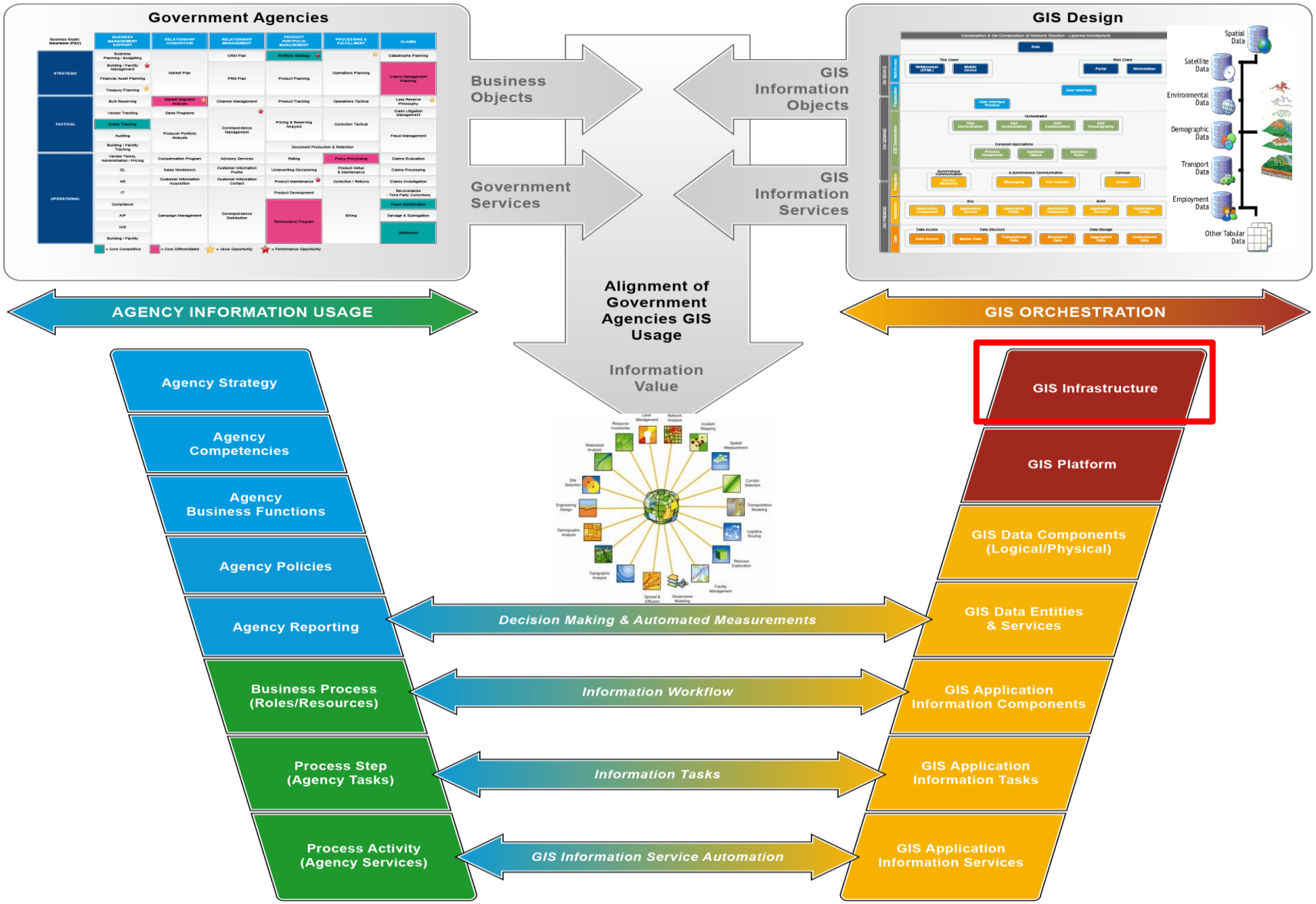
Custom & Border Service GIS Platform Matrix	Custom & Border Service GIS Platform #	What specification:				Who is involved:		Where specification:	
		Logical/Physical Component	Custom & Border Service GIS Device	Platform Function	Platform Service	Owner	Users	Custom & Border Service GIS Platform Channel	Custom & Border Service GIS Platform Media
Custom & Border Service GIS Platform Requirement (what Custom & Border Service Agency requirement does the platform have to meet)									
Custom & Border Service GIS Platform Goal (to what end or purpose is the Custom & Border Service GIS platform required)									
Custom & Border Service GIS Platform Rule (what rule governs the platform)									
Platform Compliance (in what way does the platform have to comply to agency policy)									
Custom & Border Service GIS Platform Requirement (what Custom & Border Service Agency requirement does the platform have to meet)									
Custom & Border Service GIS Platform Goal (to what end or purpose is the Custom & Border Service GIS platform required)									
Custom & Border Service GIS Platform Rule (what rule governs the platform)									
Platform Compliance (in what way does the platform have to comply to agency policy)									

Technology Layer Templates: Custom & Border Service GIS Platform Architecture Artifacts



A part of the LEADing Practice Custom & Border Service GIS Modelling and Architecture Principles and Templates

The Way of Working - Geographical Information System Platform Templates



((o))LEADing Practice for a Geographical Information System

Technology Layer: Infrastructure
Custom & Border Service GIS Way of Modelling Tasks

Tasks & Services

- Collect infrastructure goals and requirements
- Analyze infrastructure functions
- Decompose infrastructure functions and capabilities to compose infrastructure services
- Identify infrastructure services, hardware distribution and hardware virtualization
- Map infrastructure services to platform services
- Compose infrastructure map, matrix, model and landscape
- Define level of infrastructure service standardization and integration
- Define high availability scenarios
- Determine infrastructure services to support platform services
- Determine infrastructure components to deploy platform components

Technology Layer: Infrastructure

Infrastructure Map

	What/Which specification:					Who is involved:		Where is it used:
Infrastructure #	Logical/Physical Component	Device	Function	Feature	Service	Owner	Users	Channel

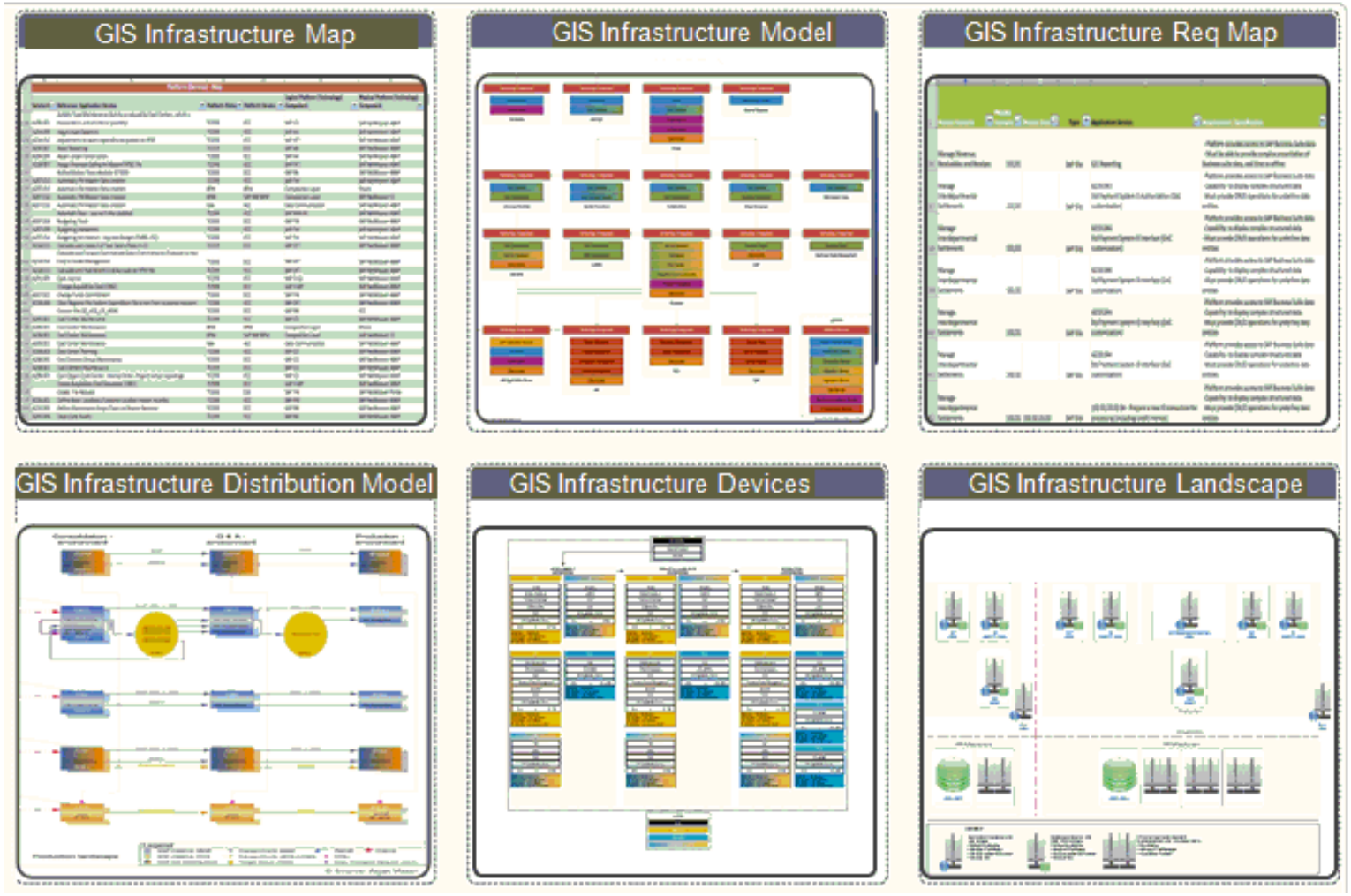
A part of the LEADing Practice Custom & Border Service GIS Modelling and Architecture Principles and Templates

Technology Layer: Infrastructure

Infrastructure Matrix

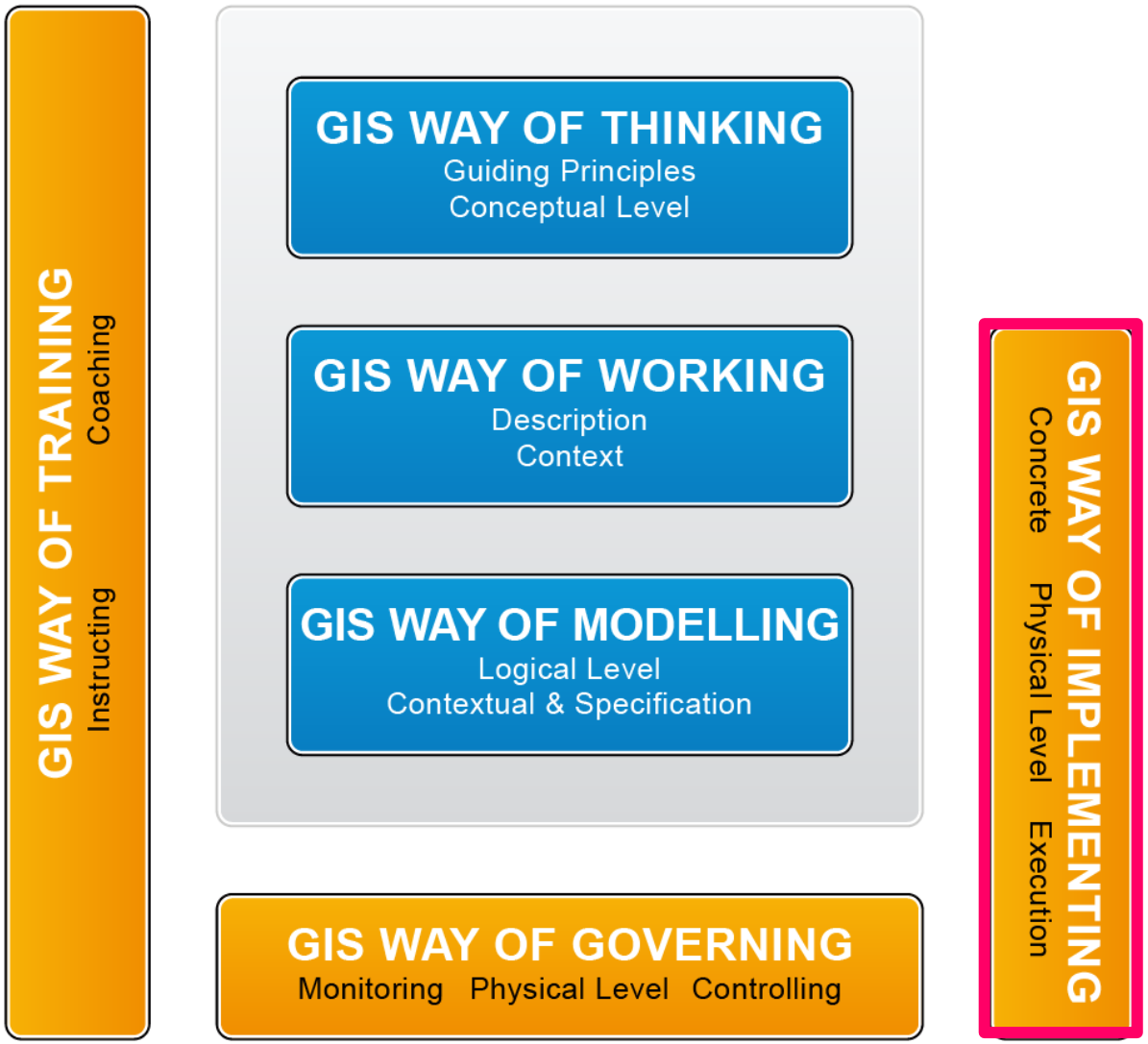
Custom & Border Service GIS Infrastructure Matrix	Custom & Border Service GIS Infrastructure #	What specification:				Who is involved:		Where specification:	
		Logical/ Physical Component	Custom & Border Service GIS Infrastr. Device	Custom & Border Service GIS Infrastr. Function	Custom & Border Service GIS Infrastr. Service	Owner	Users	Custom & Border Service GIS Infrastr Channel	Custom & Border Service GIS Infrastr Media
Custom & Border Service GIS Infrastructure Requirement (what Agency requirement does the infrastructure have to meet)									
Custom & Border Service GIS Infrastructure Goal (to what end or purpose is the infrastructure required)									
Custom & Border Service GIS Infrastructure Rule (what rule governs the infrastructure)									
Infrastructure Compliance (in what way does the infrastructure have to comply)									
Custom & Border Service GIS Infrastructure Requirement (what Agency requirement does the infrastructure have to meet)									
Custom & Border Service GIS Infrastructure Goal (to what end or purpose is the infrastructure required)									
Custom & Border Service GIS Infrastructure Rule (what rule governs the infrastructure)									
Infrastructure Compliance									

Technology Layer Templates: Custom & Border Service GIS Infrastructure Architecture Artifacts



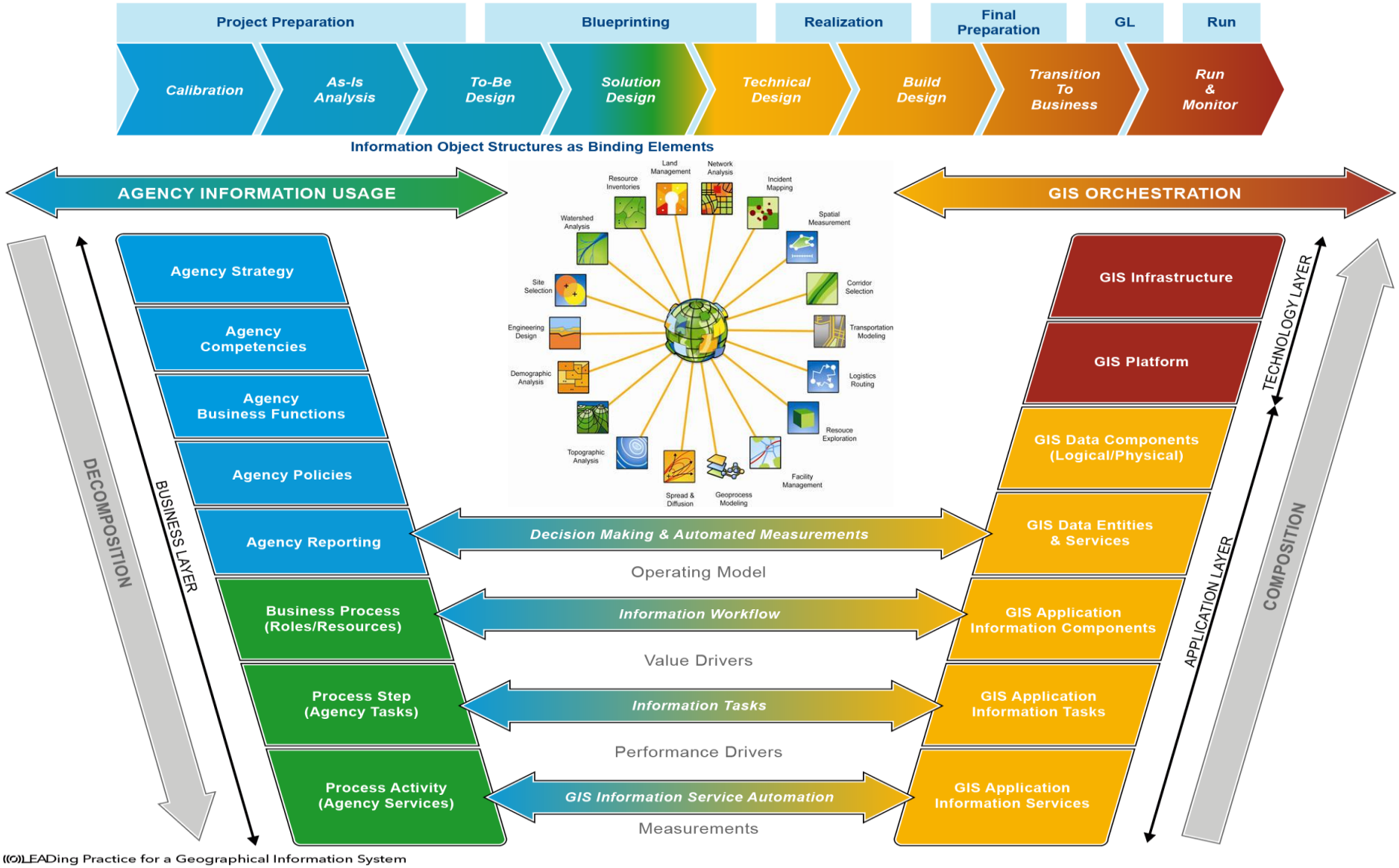
A part of the LEADing Practice Custom & Border Service GIS Modelling and Architecture Principles and Templates

The LEADing Practice Geographical Information System Structural Way of Implementation



Structural Way of ((O))LEADing Practice

The LEADing Practice Geographical Information System structural Way of Implementation

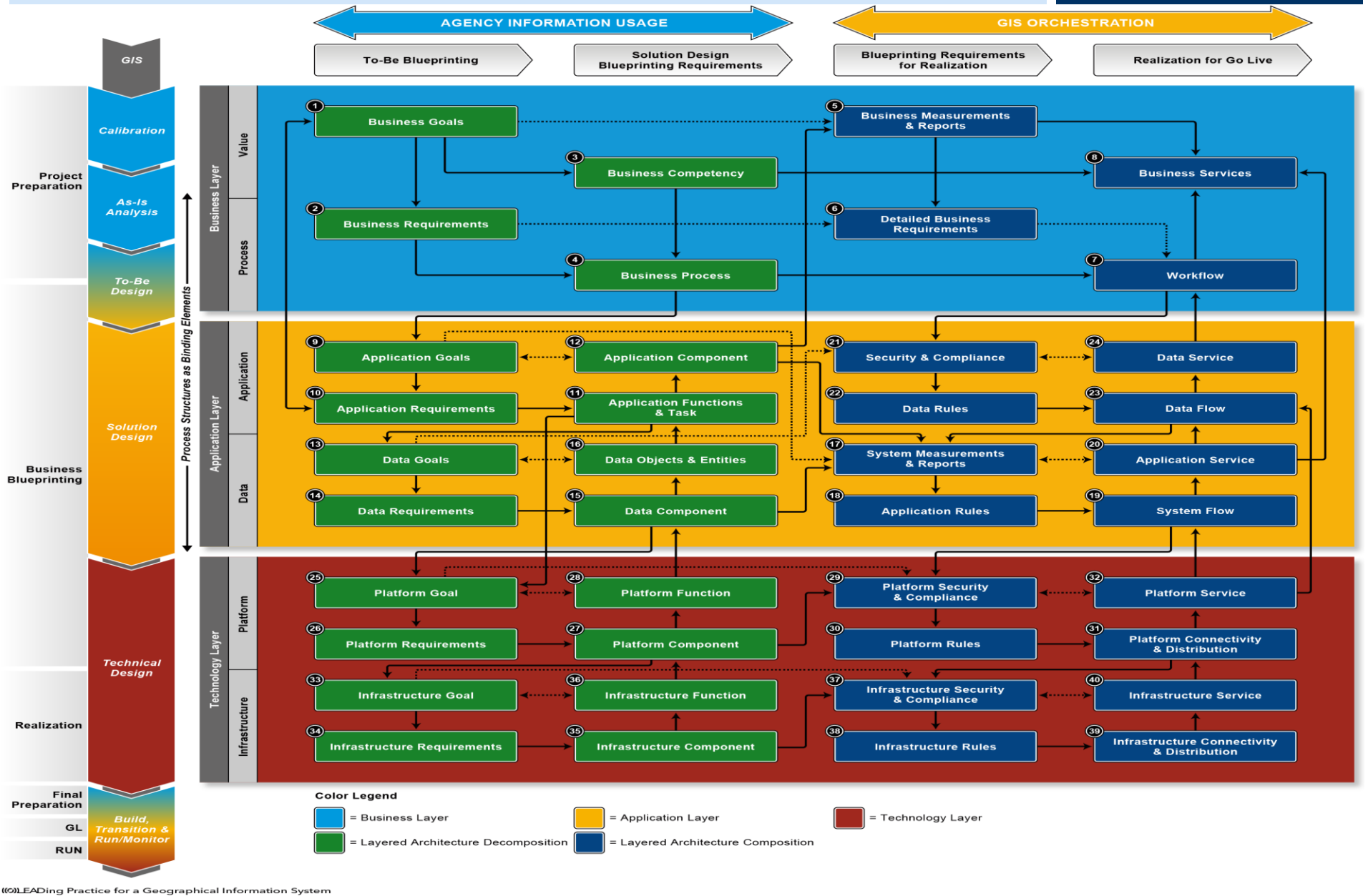


((o))LEADing Practice for a Geographical Information System

The LEADing Practice Geographical Information System structural Way of Implementation

- The LEADing Practice Geographical Information System Structural Way of Implementation combines the Enterprise Modelling and Enterprise Architecture principles in an order to apply the way of working and modelling into the physical and thereby the execution and concrete relevant aspects.
- Most implementations fall short of transforming the business and creating real value due to the fact that they automate the existing way of working. Thereby actually reinforcing a siloed and ineffective way of automation. Hence, the Custom & Border Service GIS implementation approach is not only about identifying and minimizing duplication of Custom & Border Service agency business functions, roles in terms of employees, process's, services and many other cost cutting potential. It is in addition about the possibility to totally rethink the information workflow, the service flow, the process flow as well as the measurement and reporting flow. It can fundamentally rethink and transform the different Custom & Border Service agencies.
- The LEADing Practice Way of Custom & Border Service GIS Implementation has been developed as a fully integrated part of the Custom & Border Service GIS concept and details a series of steps to be taken in order to produce a fully integrated concept .
- The LEADing Practice Custom & Border Service GIS Structural Way of Implementation provides a uniform and formal implementation description of the specific LEAD Custom & Border Service GIS meta objects and artifacts by using decomposition and composition modelling techniques within the implementation

The LEADing Practice Geographical Information System structural Way of Implementation



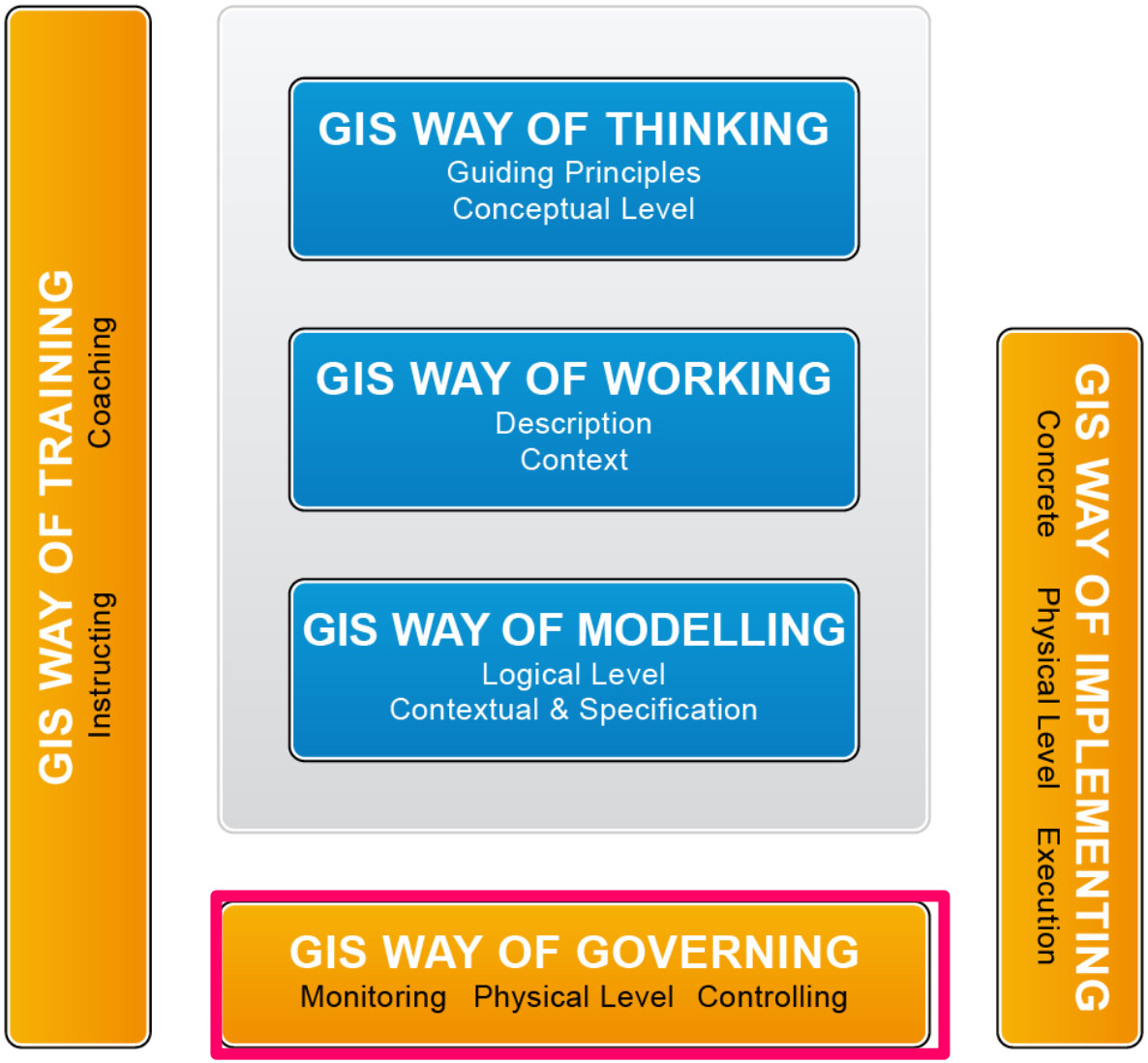
The LEADing Practice Geographical Information System structural Way of Implementation

- The LEADing Practice Geographical Information System structural Way of Implementation is not only about identifying how to use the Custom & Border Service GIS information and data, but also to rethink the usage and re-use of information and data, minimizing the way of working across Custom & Border Service agencies.

- The LEADing Practice Custom & Border Service GIS implementation approach has been developed as a fully integrated part of how to produce a wanted Custom & Border Service GIS result.

- The LEADing Practice Custom & Border Service GIS implementation approaches structure the various practitioner's way of modelling in the specific areas with a supporting scope, concept, roadmap and templates. The Custom & Border Service GIS implementation approach is designed so that a Custom & Border Service can do a full Custom & Border Service GIS blueprint and implementation approach. Also preparing for the Custom & Border Service GIS Custom & Border Service and continuous improvement phase.

The LEADing Practice Geographical Information System Structural Way of Governance



Structural Way of ((O))LEADing Practice

The LEADing Practice Geographical Information System structural Way of Governance

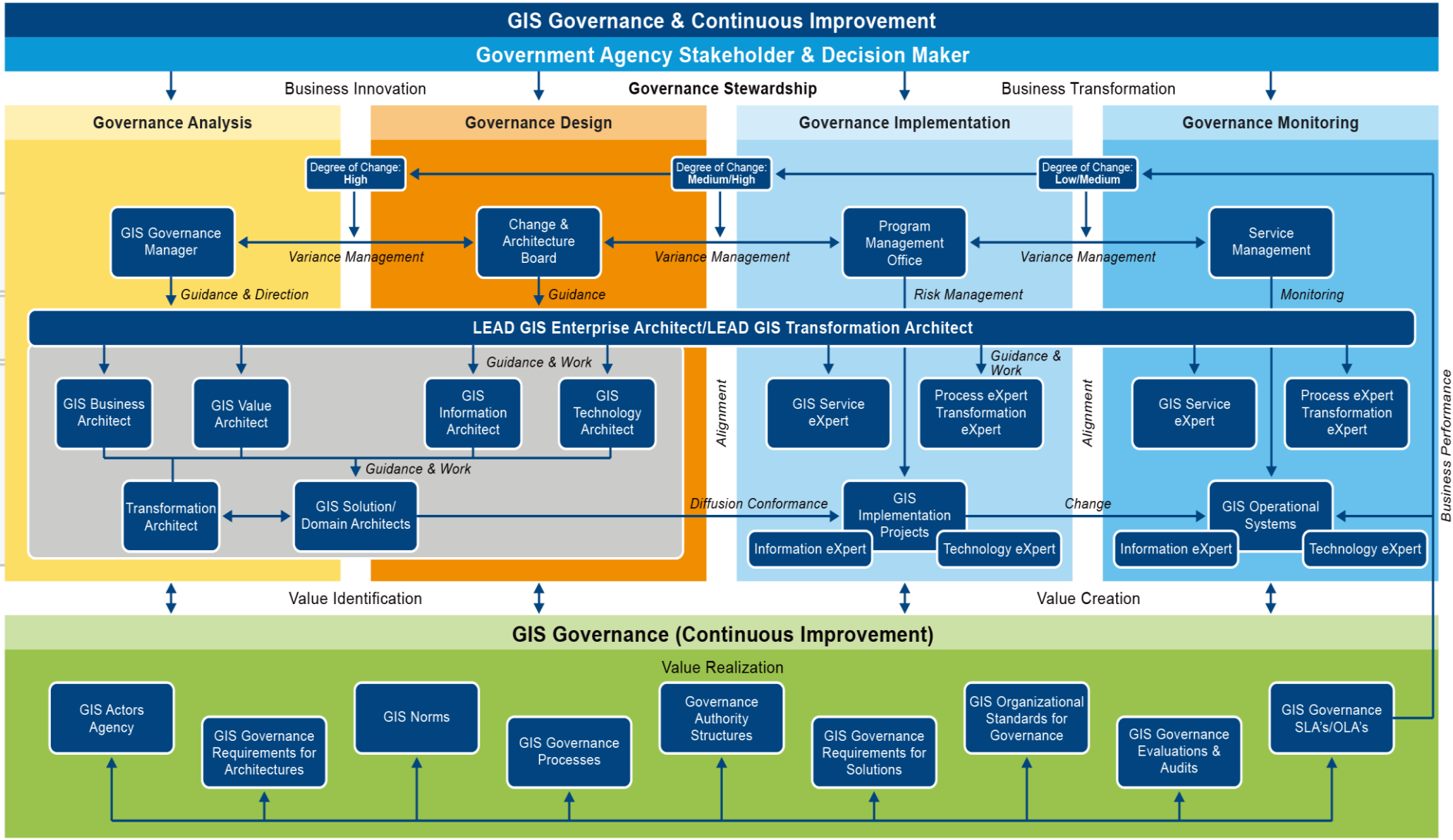
The LEADing Practice Custom & Border Service GIS Governance and Continuous Improvement approach is an essential part of administrating, governing what exists or in the process of getting developed/deployed as well as building in an improvement concept.

The Custom & Border Service GIS Governance and Continuous Improvement approach relates to the Custom & Border Service GIS decisions and guidance that define expectations and direction, grant power, or verify and ensure value identification and creation. It consists both of a project governance as well as a ongoing Custom & Border Service GIS governance.

A part of the Custom & Border Service GIS governance concept, consists of the set of Custom & Border Service GIS regulatory requirements, Custom & Border Service GIS standards, Custom & Border Service Agency authority structure, Custom & Border Service GIS solutions, Custom & Border Service Agency organizational standards, Custom & Border Service GIS information rules and guidelines as well as Custom & Border Service GIS service level agreements/operating level agreements, affecting the way the Custom & Border Service Agencies use administer or control information.

The Way of Custom & Border Service GIS Governance also includes the relationships among the many Custom & Border Service Agencies players involved (the stakeholders) and their specific business goals and how the changes of the Custom & Border Service GIS solution is improved/optimized during the LifeCycle.

The LEADing Practice Geographical Information System structural Way of Governance



A part of the ((o))LEADing Practice for a Geographical Information System

LEADing Practice Custom & Border Service GIS Governance & Continuous Improvement Lifecycle

The LEADing Practice Lifecycle Method is the course of developmental changes through which the lifecycle evolves in terms of innovation and/or transformation as it passes during its lifetime. The lifecycle phases covers the entire lifetime of the subject from analysis, strategy, requirements, component and task design and features, service definition, operations, improvements, optimization and changes.

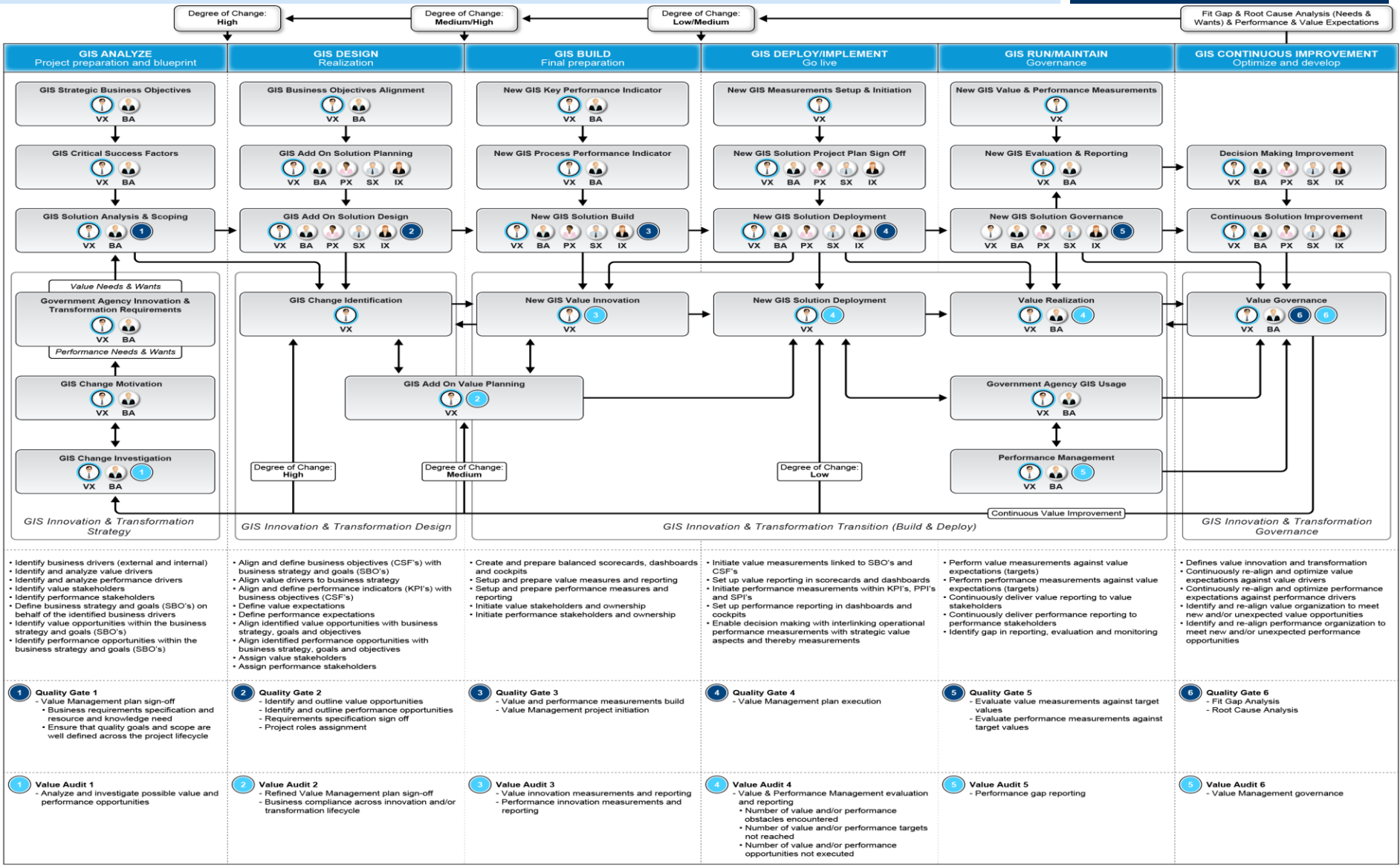
The lifecycle consists of a set of steps/phases in which each phase uses the results of the previous one. It provides a sequence of phases and activities for subject matter experts and architects alike to identify, create, develop, launch, maintain and continuously optimize value for the enterprise in many different areas.

The LEADing Practice Lifecycle Method concept interlinks and can be integrated with other lifecycles and methodologies; they do, however, focus on all aspects from requirements to architecture:

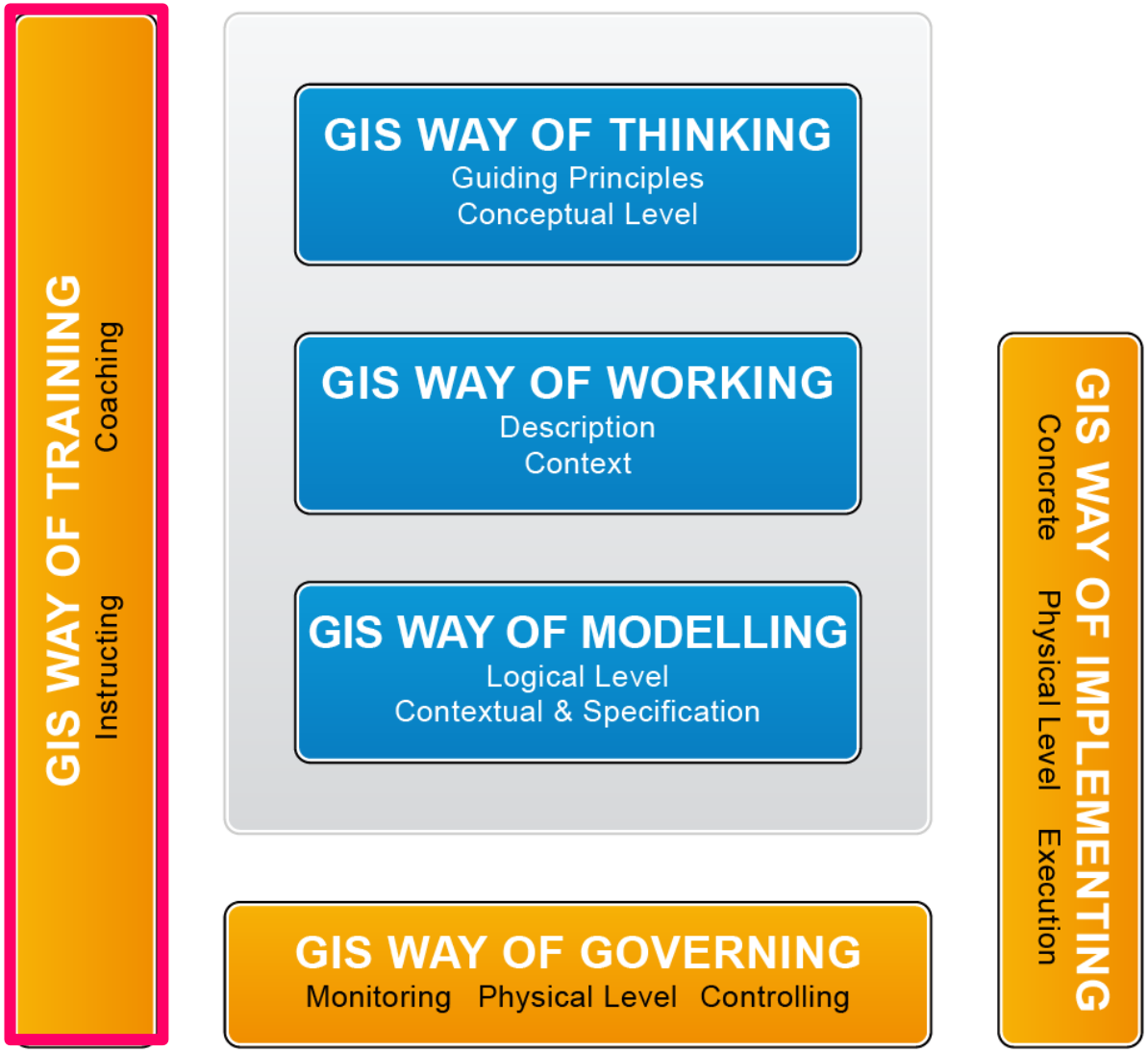
LEADing Practice Custom & Border Service GIS Governance & Continuous Improvement Lifecycle

1. **Analysis:** The phase where ones strategy is defined based on requirements (e.g. business needs and wants) as well as demands. Then goals and detailed requirements are defined and choices are clarified, and through blueprinting the maps, matrices and models are developed.
2. **Design:** The phase where one initiates, aligns, arranges, categorizes, charts, defines, determines, quantifies, drafts, outlines and designs the concept. The design phase considers the identified requirements and the specific design considerations for components, functions, modules, features, tasks and services.
3. **Build:** The phase where one creates, sets up, builds, integrates, standardizes, harmonizes, consolidates as well as test the product or solution.
4. **Deploy/Implement:** The phase where one launches, implements, executes, deploys, activates, completes, concludes and transitions the product or solution to execution (go live).
5. **Run/Maintain:** The phase where the product or solution is managed in terms of their components, services, incidents/issues and change request fulfillments, etc.
6. **Continuous Improvement:** The phase where one improves upon the existing features of the product or solution and evaluates, adjusts, alters, amends, changes, corrects, eliminates, enhances, increases, modifies, optimizes and/or excludes specific parts.

LEADing Practice Custom & Border Service GIS Governance & Continuous Improvement Lifecycle



The LEADing Practice Geographical Information System Structural Way of Training



Structural Way of ((O))LEADing Practice

The LEADing Practice Geographical Information System Structural Way of Training

- The LEADing Practice Geographical Information System career path is one of the few in the world offering a full career path for the various Custom & Border Service GIS experts and architect needed for business and IT modelling in a full Custom & Border Service GIS project. The Custom & Border Service GIS career path curriculum is built on international education standards and requirements from business and IT organizations education programs, such as ISO 9000/9001 and those needed specific for Custom & Border Service GIS implementation and governance.

- The Custom & Border Service GIS career path meets today's market and organizations need for cross-disciplinary competencies with an emphasis on value, process, services, enterprise architecture, information, technology and transformation. Ensuring that cross capability and skills with both business and IT modelling principles are meet to ensure success in the Custom & Border Service GIS modelling , implementation and governance. The Custom & Border Service GIS career path is about more than skill sets and certifications – it's also about a Custom & Border Service GIS project implementation.

- The Custom & Border Service GIS career path offers the opportunity to become certified as eXperts, Architects and LEAD Architects and the training is used to blueprint and implement the Custom & Border Service GIS project. This helps the organization implementing Custom & Border Service GIS, both to train/up skill their people as well as to work on the Custom & Border Service GIS project.

The LEADing Practice Custom & Border Service GIS Career Path (training)

((o))LEADING PRACTICE GEOGRAPHICAL INFORMATION SYSTEM CAREER PATH

CERTIFIED GIS EXPERT

- **VALUE EXPERT** (Track 1 and 2)
- **SERVICE EXPERT** (Track 1 and 2)
- **PROCESS EXPERT** (Track 1 and 2)
- **INFORMATION EXPERT** (Track 1 and 2)
- **TECHNOLOGY EXPERT** (Track 1 and 2)
- **ENTERPRISE ARCHITECTURE EXPERT** (Track 1 and 2)
- **TRANSFORMATION EXPERT** (Track 1 and 2)

10 days of classroom training, 1 day of Individual Performance Mentoring and 1 certificate

GIS eXpert Certification Program

Developed for professionals aspiring to become certified GIS eXperts in the field of Value, Service, Process, Transformation, Enterprise Architecture, Information and Technology.

The GIS eXpert program meets today's organizations cross-disciplinary competency requirements for full GIS development and governance.

The Learning Model is uniquely structured so that modelling (level 1) competencies are gained and applied by combining classroom training with individual mentoring in the participant's selected GIS project.

Each participant will become able to apply the GIS modelling principles in their field of GIS expertise.

CERTIFIED GIS ARCHITECT

- **BUSINESS ARCHITECT** — VALUE 1, 2 + PROCESS 1, 2
- **VALUE ARCHITECT** — VALUE 1, 2 + EA 1, 2
- **PROCESS ARCHITECT** — PROCESS 1, 2 + EA 1, 2
- **INFORMATION ARCHITECT** — INFORMATION 1, 2 + EA 1, 2
- **TECHNOLOGY ARCHITECT** — TECHNOLOGY 1, 2 + EA 1, 2
- **SERVICE ARCHITECT** — SERVICE 1, 2 + EA 1, 2
- **TRANSFORMATION ARCHITECT** — VALUE 1, 2 + TRANSFORMATION 1, 2

20 days of classroom training, 2 days of Individual Performance Mentoring and 3 certificates

GIS Architect Certification Program

Developed for professionals with >3 years of experience aspiring to become a certified GIS Architect in the specialized field of Business, Value, Service, Process, Transformation, Information and Technology.

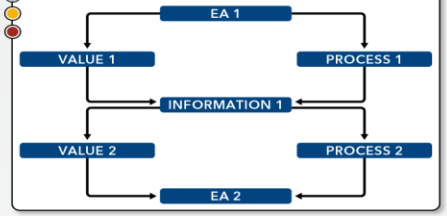
The GIS Architect program meets today's organizations cross-disciplinary GIS modelling requirements.

The Learning Model is uniquely structured so that GIS modelling (level 2) competencies are gained and applied by combining classroom training with individual mentoring at the participant's selected GIS project.

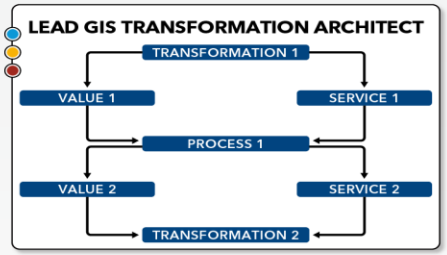
Each participant will become able to apply GIS architectural modelling principles and supporting frameworks, methods and approaches in their field of GIS architecture.

CERTIFIED LEAD GIS ARCHITECT

LEAD GIS ENTERPRISE ARCHITECT



LEAD GIS TRANSFORMATION ARCHITECT



35 days of classroom training, 3 days of Individual Performance Coaching and 5 certificates

LEAD GIS Architect Certification Program

Designed for senior professionals leading IT projects with enterprise architecture and modelling experience aspiring to become a certified LEAD GIS Architect in the fields of Transformation or Enterprise Architecture.

Each LEAD GIS program meets today's organizations GIS requirement to lead cross-disciplinary modelling projects.

The Learning Model is uniquely structured so that advanced GIS modelling (level 3) competencies are gained and applied by combining classroom training with individual coaching in the participant's selected GIS project.

Each participant will become able to LEAD GIS project teams in applying advanced GIS modelling principles, frameworks, methods and approaches across GIS disciplines and architectures.

= Business Layer Focus = Application Layer Focus = Technology Layer Focus

The LEADing Practice Geographical Information System Structural Way of Training

The Custom & Border Service GIS certification path is not like many curriculums 'one size fits all' or 'one solution fits everything', it is based on the ability to choose ones specific area of expertise and thereby develop ones Custom & Border Service GIS modelling specialization competencies. This is one of the strengths of the tailored Custom & Border Service GIS certification path, participants will be in the their specific area and knowledge they need of either Custom & Border Service GIS strategy/value capturing, process mapping, service modelling, enterprise architecture and transformation considerations. All combined into specific areas of skills development as:

- Custom & Border Service GIS Business Architect; to define the Custom & Border Service GIS Custom & Border Service Agency concept
- Custom & Border Service GIS Value Architect; to link the Custom & Border Service Agency strategy, objectives and goals as well as identify the Custom & Border Service GIS value concept
- Custom & Border Service GIS Process Architect; to identify, design the Custom & Border Service Agency processes and define the Custom & Border Service GIS standard as well as operating model
- Information Architect; to identify the information objects, information flow, define the information and data standard. Develop a common data and information model
- Service Architect; to identify the Custom & Border Service Agency service flow, service rules, define the information service, data service as well as platform and infrastructure service standard. Develop a common Custom & Border Service GIS service model
- Technology Architect; to identify the relevant platform and infrastructure components, devises as well as platform and infrastructure integration aspects.
- Transformation Architect; map the needed change, optimization and transformation aspects and then make sure that change and transformation really happy in all layers relevant for a

LEADING PRACTICE

Questions?

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LEAD Enterprise Architect

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For more information:
For more information or questions about business architecture, business models, strategy maps, value map examples, and business architecture templates, please visit **www.LEADingPractice.com**

Geographical Information System Project Concept

- To lead a coordinated, multi-agency effort to create a digital repository of geographic data in order to improve Custom & Border Service efficiency by facilitating data access and by eliminating the development of duplicate databases.
- To provide leadership, co-operation and co-ordination of Geospatial data, services, applications, and activities among Custom & Border Service agency geospatial stakeholders and users in building the national Custom & Border Service GIS infrastructure and database.
- To provide adequate infrastructure and coordination and development of an enterprise Custom & Border Service GIS which is impacted owing to lack of resources and professional development.
- The rapid increase of the potential users over the recent years is continuously overloading the communications/linkages with other Custom & Border Service agencies about their needs and initiatives. Multiple versions of data sets are stored at various agencies and opportunities for co-operation have been neglected.
- The new approach to National Custom & Border Service GIS should take into consideration a better coordination of the Geospatial activities of Custom & Border Service agencies in a more collaborative and managed environment, including continuous professional development.

Critical areas to consider

- Data standards and data issues
- Legal and policy frameworks, including critical issues related to authoritative data
- Promoting data sharing, accessibility and distribution
- National strategic framework for geospatial information management
- Assuring quality of information
- Promoting advocacy and awareness
- Partnership with private sectors
- Linking geospatial information to statistics
- Data provisioning
- Geodetic reference framework
- National Custom & Border Service GIS for sustainable economic development
- Training mechanism