IBM SOA

Advancing the Business/IT linkage with SOA Governance and Service Lifecycle Management

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Governance is critical to overall SOA Success

NEW! **Technical Changes**

NEW! **Cultural Changes**

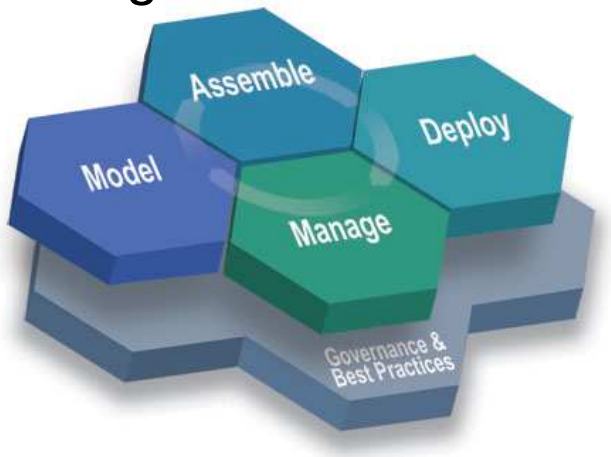
Key Enabling Tools
Enhanced WebSphere Registry & Repository
New Rational Asset Manager

Fostering a culture of reuse
SOA Governance and Mgmt Method
GBS SOA Services

What's new in SOA Governance and Service Lifecycle Management to support Business and IT alignment

Agenda

- SOA Governance and Management Method
- SOA Center of Excellence and Services
- SOA Governance Registry and Repository Strategy
- Service and Asset Management



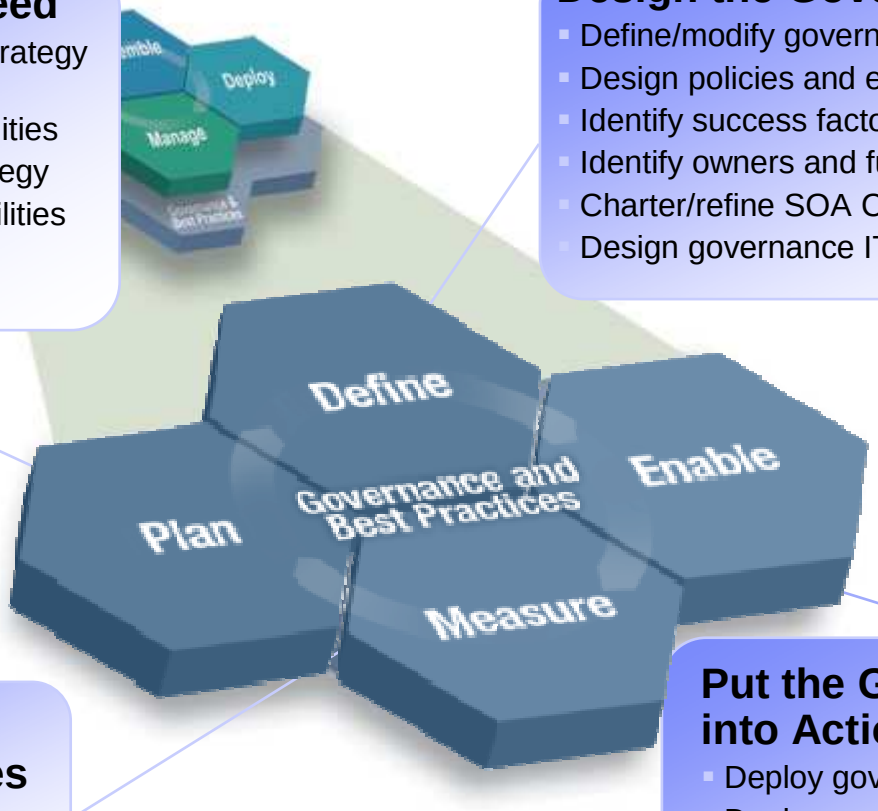
SOA Governance Lifecycle drives business/IT alignment at the beginning of SOA deployment

Scope the Governance Need

- Document and validate business strategy for SOA and IT
- Assess current IT and SOA capabilities
- Define/Refine SOA vision and strategy
- Review current Governance capabilities and arrangements
- Layout governance plan

Design the Governance Approach

- Define/modify governance processes
- Design policies and enforcement mechanisms
- Identify success factors, metrics
- Identify owners and funding model
- Charter/refine SOA Center of Excellence
- Design governance IT infrastructure



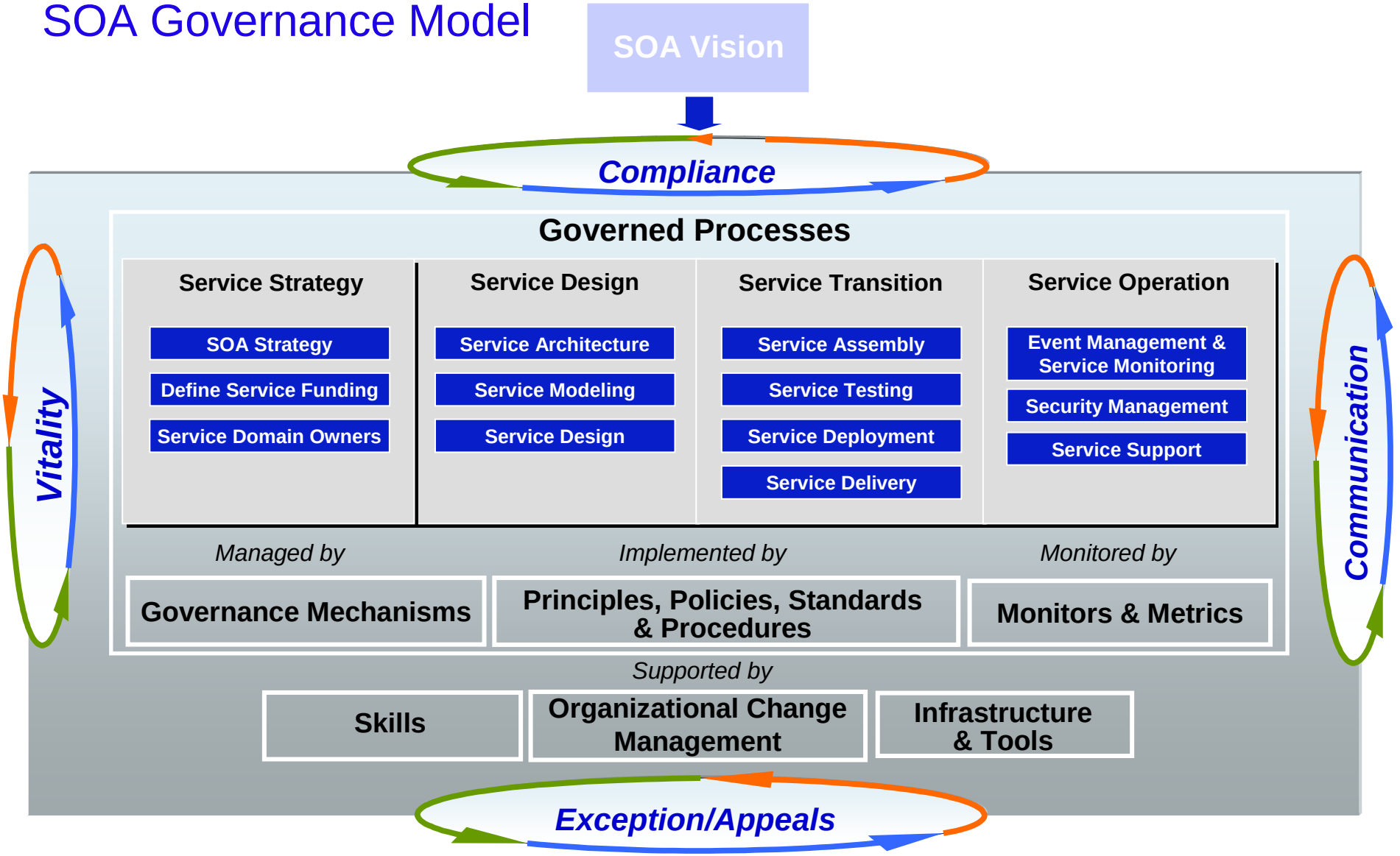
Manage & Monitor the Governance Processes

- Monitor compliance with policies
- Monitor compliance with governance arrangements
- Monitor IT effectiveness metrics

Put the Governance Model into Action

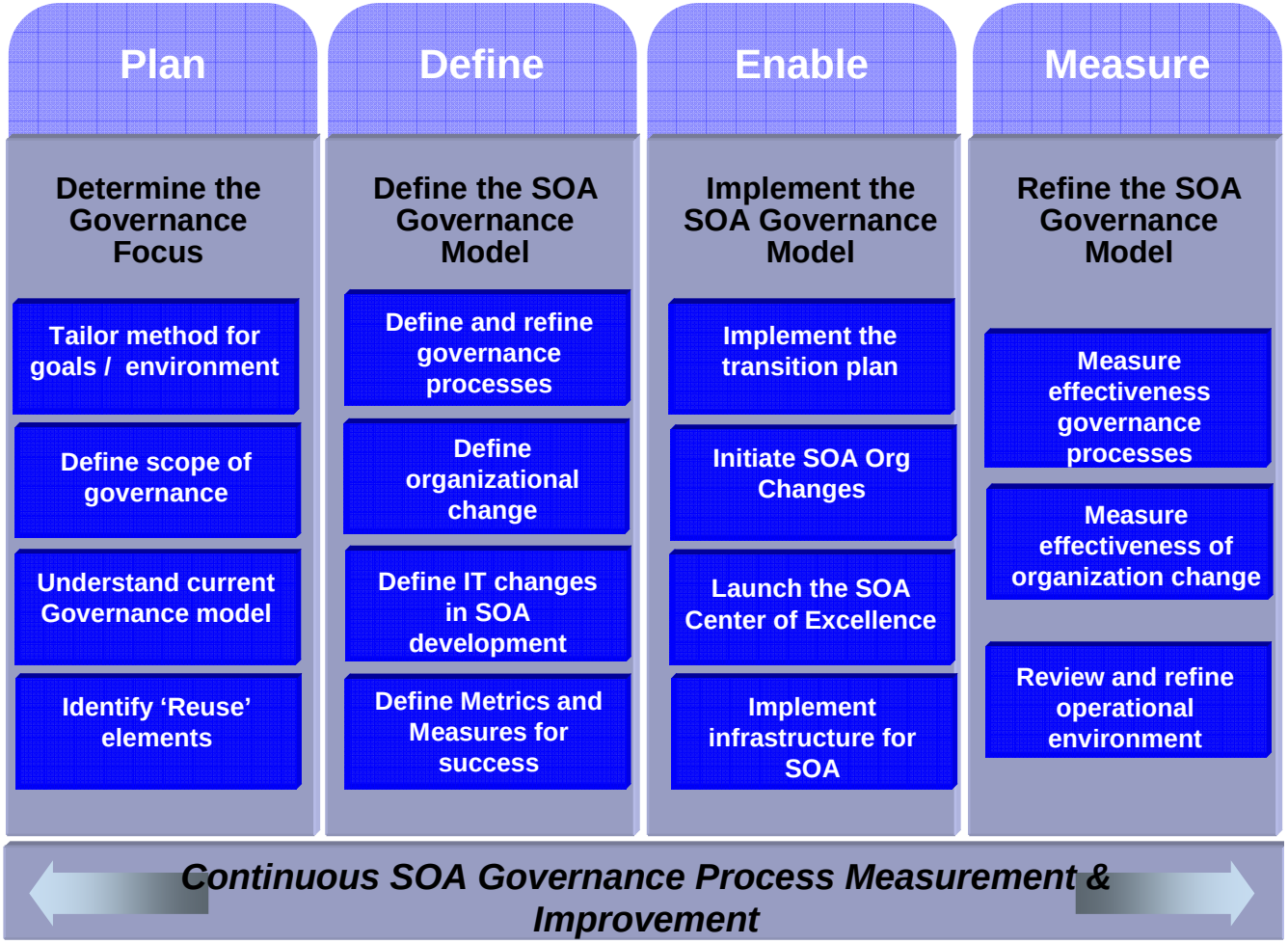
- Deploy governance mechanisms
- Deploy governance IT infrastructure
- Educate and deploy on expected behaviors and practices
- Deploy policies

SOA Governance Model



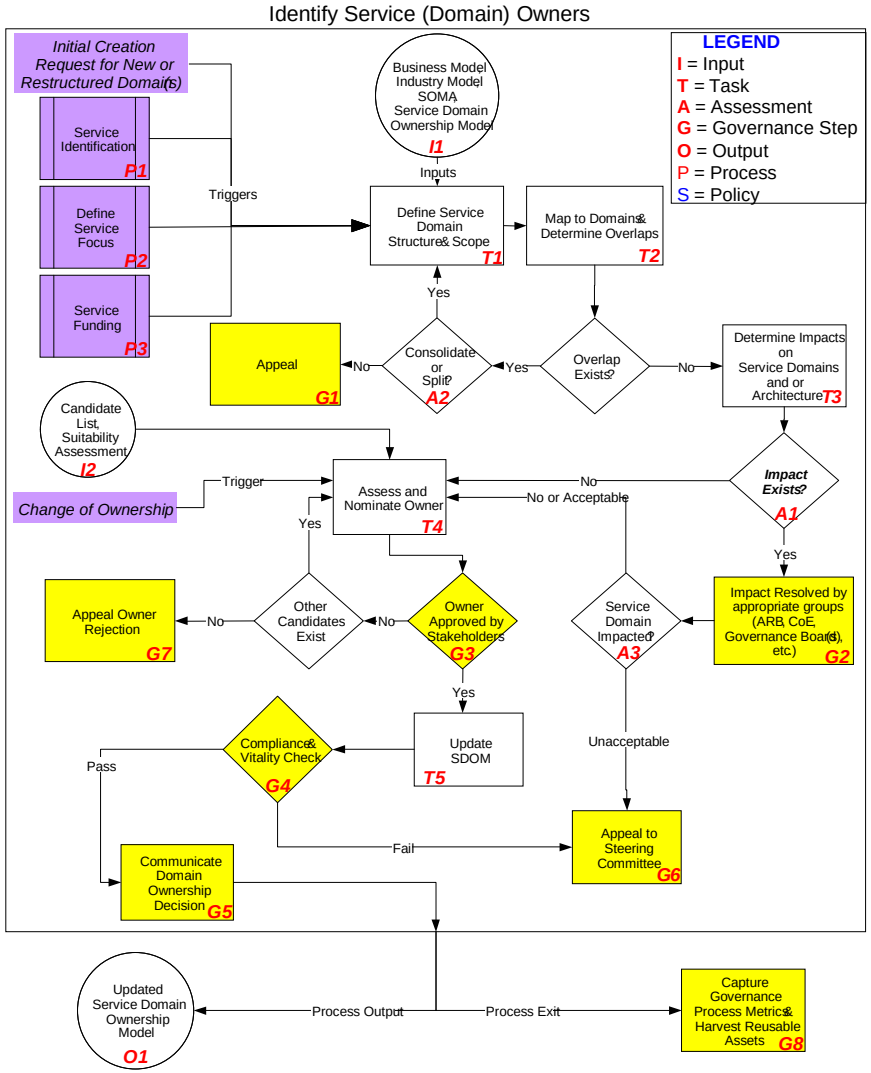
SOA Governance and Management Method aligns business and IT strategy for successful SOA implementation

- Customer tested SOA Governance Method
- Leverages existing governance model
- Detailed governance process guidance
- Comprehensive framework and processes span lifecycle of SOA governance
- Methodology to help clients establish SOA Centers of Excellence



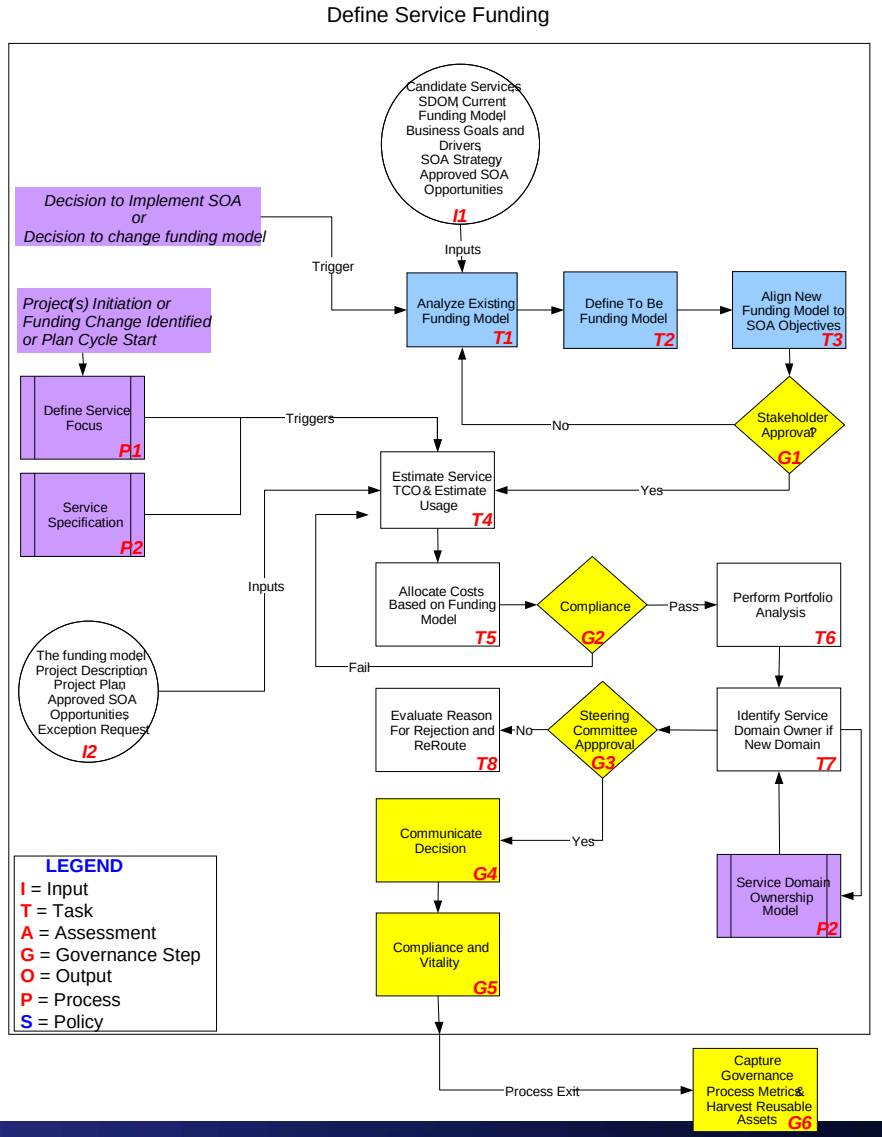
Service Domain Ownership Model helps business and IT cooperation

- Service Ownership is one of the most important yet difficult processes to implement for SOA.
- The Domain Ownership Model *should* align with the businesses structure but Political and Cultural issues increases the difficulty to adopt and implement.
- Commitment throughout the organization but especially at higher levels in the organization will make this less difficult.
- This process will make possible a number of SOA benefits and drive the adoption of other processes like the Funding Process which is closely linked to Domain Ownership



Incentive to align is driven by the Define Service Funding Model

- Important yet difficult processes to implement for SOA.
- Drives a number of SOA benefits and make SOA adoption possible.
- Diagram addresses service funding definition and the governance of a defined model, but not the funding model.
  - Funding Model should address funding of initial projects but more importantly day to day funding of services, their use, maintenance, development and versioning.



SOA Governance and Management Method vision of success includes the Organizational Change and Change Management

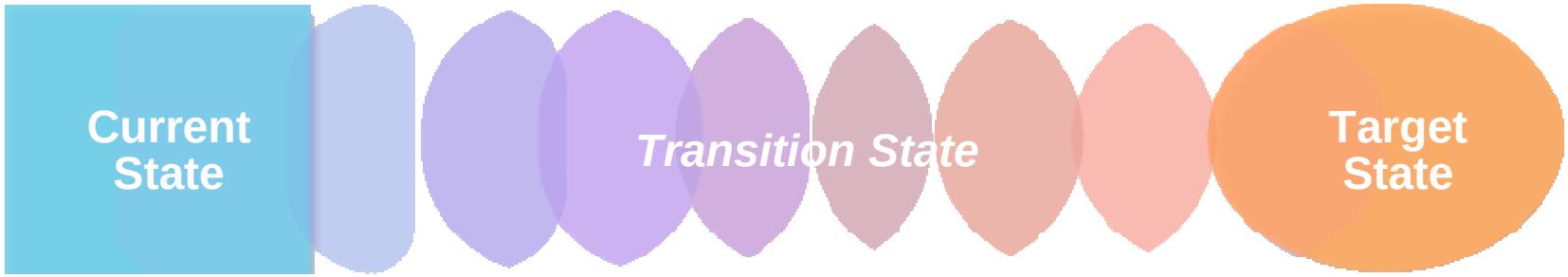
"Help ensure that people impacted by the changes….

- **Understand**
- **Accept**
- **Are Prepared for, and**
- **Are Committed to**

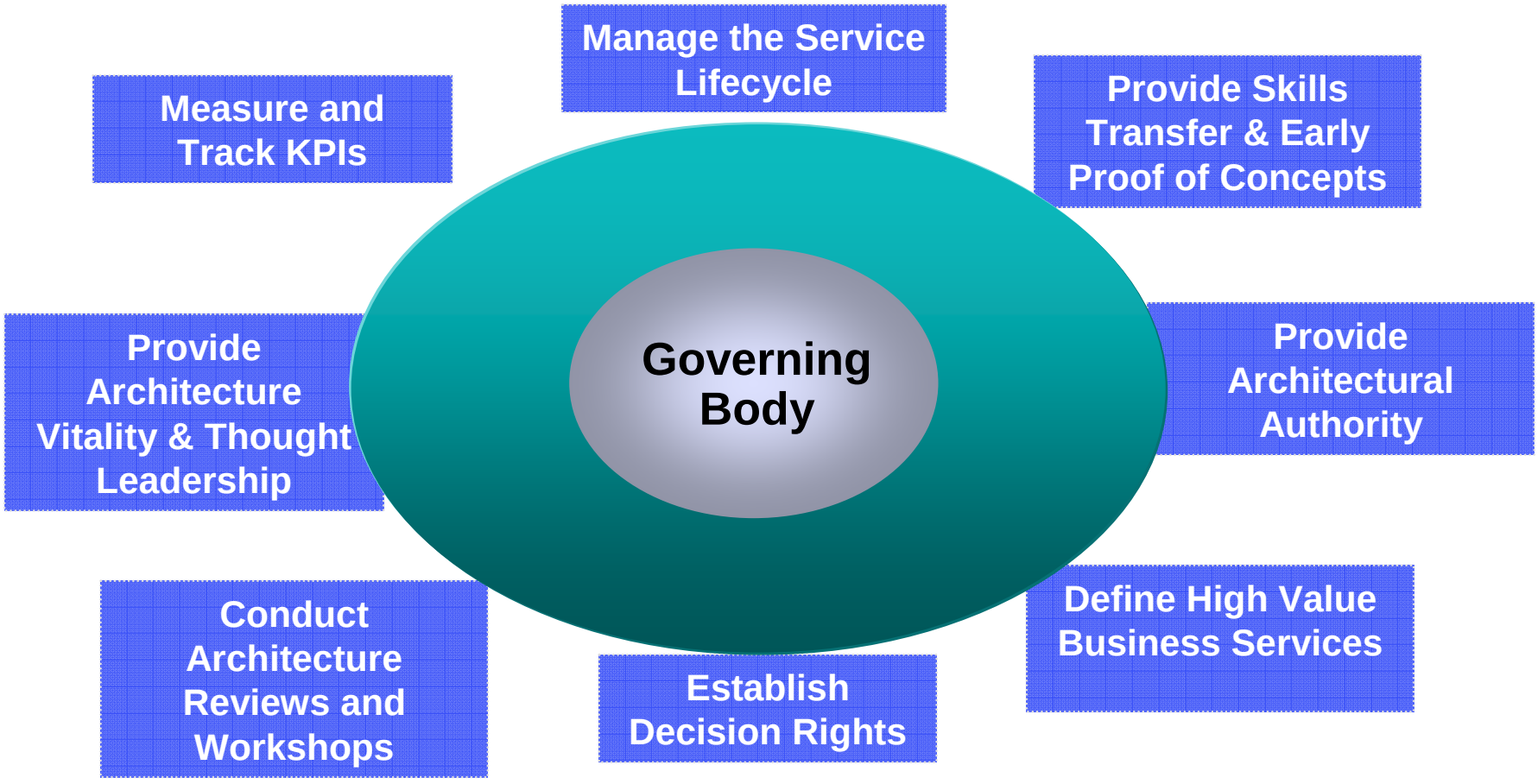
the changes that will affect them."

The Change Management Pattern will:

- Mitigate risks with appropriate oversight & control
- Increase reuse & buy-in promoting the use of Services
- Speed Adoption of the Governance model enabling a successful implementation
- Facilitate the achievement of program benefits



A Governing Body is needed to manage shared services across the business/IT organization



Center of Excellence (CoE) can improve the opportunity for SOA implementation success

Governance Method supplies templates to create CoE

Delivery:
Enables successful delivery of your business strategy with establishment of technical resources.

Knowledge:
A CoE serves to supply the expertise to the organization for SOA implementation and execution

Customization:
Assist in customization of SOA Governance Method to meet unique requirements

Capabilities:
- SOA Architecture Workshop
- SOA Architecture Design and Customization
- SOA Architecture Review
- Software environment installation and configuration
- Education and Skills Transfer

IBM offers 6 key service offerings to assist in SOA implementations. All supported by SOA Governance

SOA Governance

SOA Strategy	▪ Helps a C-level exec layout a complete SOA Strategy, Architecture and Roadmap to transformation organization and systems towards a service oriented model.
SOA Diagnostic	▪ For clients that have already started their SOA transformation but want IBM to evaluation how they are doing and make improvement recommendations.
Business Process Management Enabled by SOA	▪ It is a discipline that enables effective management of core business processes across an organization.
SOA Implementation Planning	▪ Helps a Line of Business or Application Group define future business process, the high impact services and the corresponding solution architecture
SOA Design, Development, and Integration Services	▪ The core implementation of an SOA solution. It is designed to be a follow-on from an early BPM or SOA planning phase.
SOA Management	▪ Helps an organization ensure that the required processes, controls, responsibilities and activities are deployed to successfully manage SOA solutions

Getting started with SOA Governance is faster and easier with SOA Governance Method, a CoE and Services

Improve Organization Change capability	Use Proven Best Practices Approach	Develop customized processes faster
SOA requires not just technical, but organizational education supplied with SGMM V2 documentation	*Detailed usage and process maps allow for faster development of SOA Governance environment*	*Creation of a COE and use of GBS expertise allows fast start based on initially supplied expertise*
Accelerate acceptance of new SOA paradigm	**Minimize time and effort to get started**	**Create environment for SOA success with expertise and customized approach**

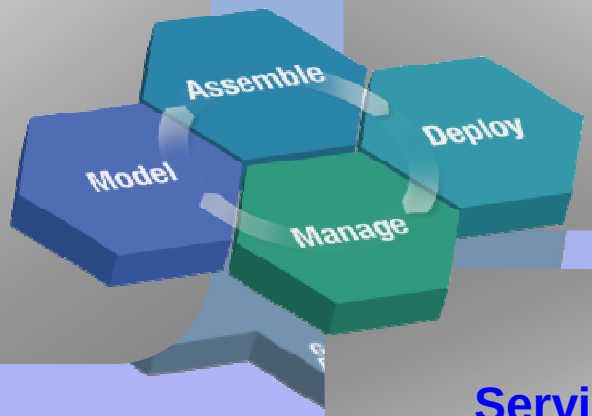
Each phase of the SOA Lifecycle has different ***challenges*** requiring different governance capability

Service Development

Optimizing service interactions to business process

Poor communication and collaboration within teams

Creating the same service multiple times



Service Deployment

Need to control and eliminate and "rogue services"

Service compliance important but difficult

Testing service interactions complex

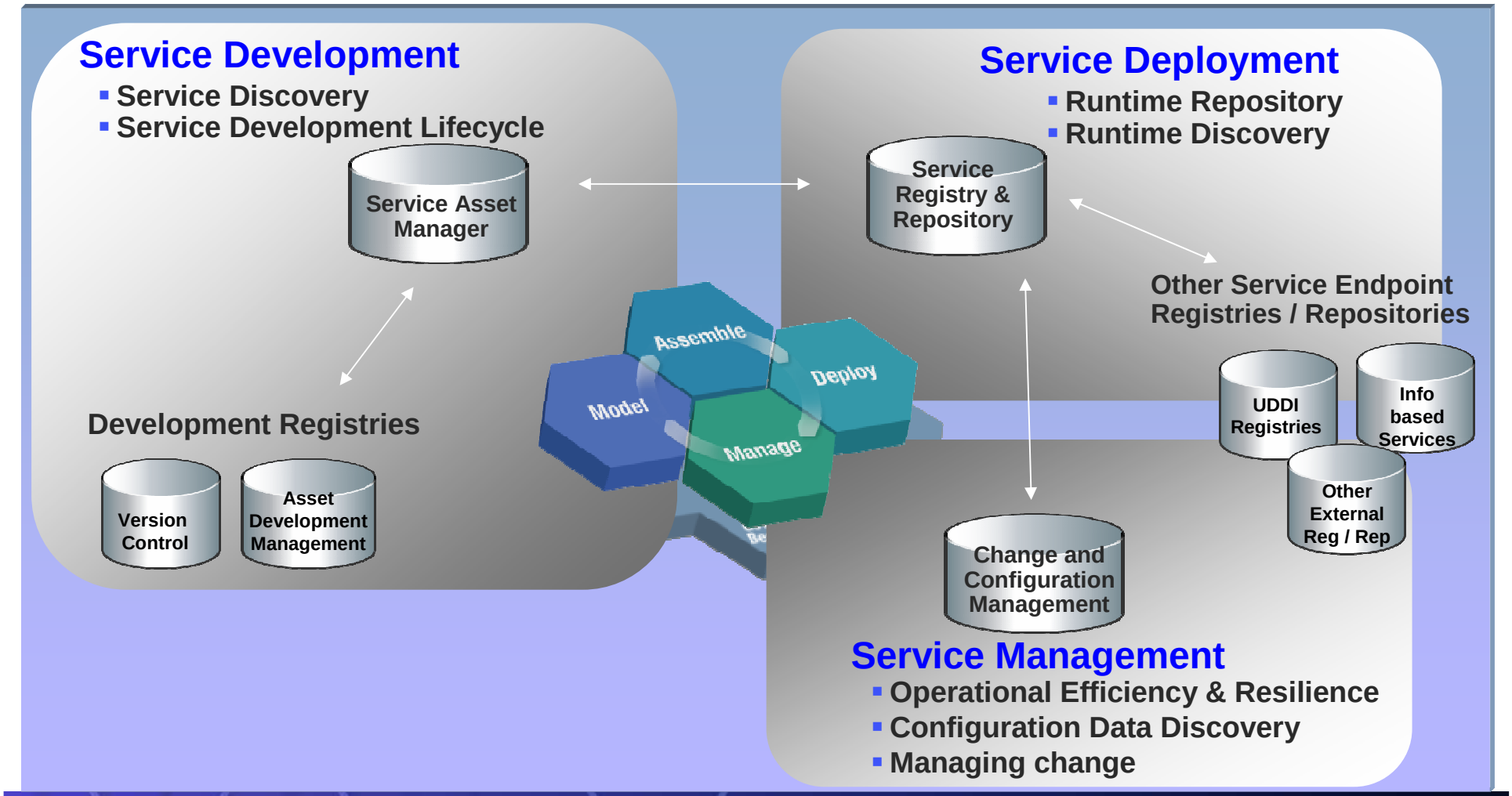
Service Management

Enforcement of policies needed on-the-fly

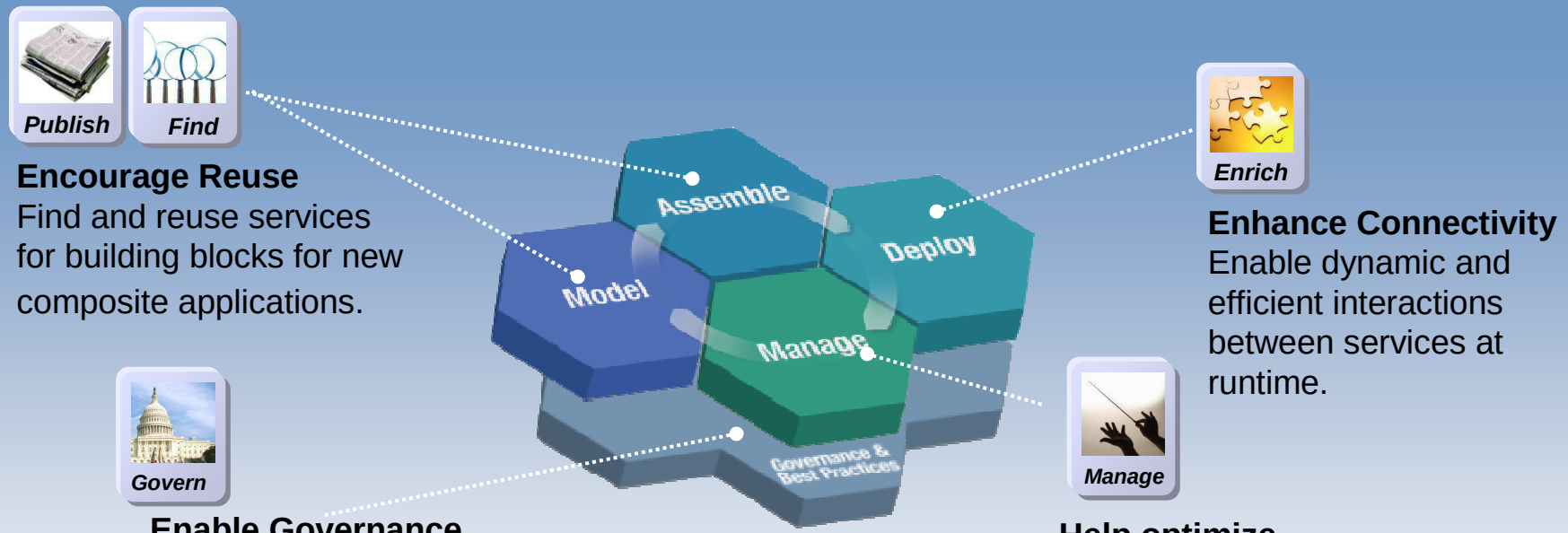
Dynamic service reporting complex

Developing a governance approach requires corporate commitment

Governance is supported by a federated set of capabilities to meet the challenges of service lifecycle management



Successful SOA service strategy requires a deployment tool to manage and control services at runtime



Service management and control will require the functionality in a federated registry/repository strategy

Promotes reuse and eliminate redundancies

- Publish and find services and related metadata through all stages of SOA
- Integration and federation with other standard registries and repositories

Address the IT pain point of poor reuse and duplication

Enriches SOA runtime interaction

- Enable optimized access to service metadata
- Manage service interactions and policies

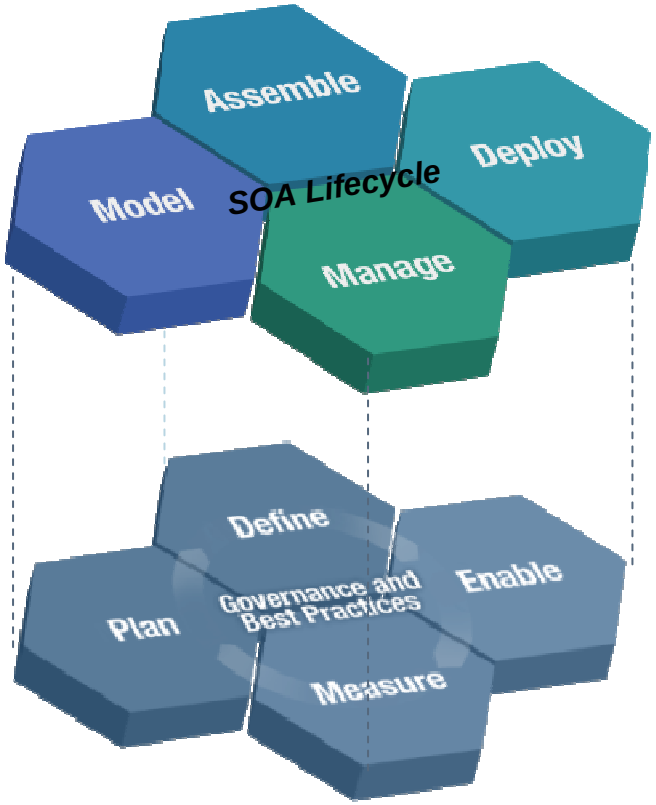
Reduce huge maintenance costs by enabling a flexible infrastructure

Enables better control of SOA with governance

- Facilitates SOA focused service lifecycle management
- Analyze impacts of service introduction, retirement or alteration by maintaining relationships

Eliminate lack of ownership and misalignment of activities with business initiatives

Service Development and Delivery Management focuses on creation and updating services as assets



Service Lifecycle Management

Service Development and Delivery Management

Enforce, execute, automate process and policies

Infrastructure and Management In Support of SOA

Monitor and control operational policies

SOA Governance

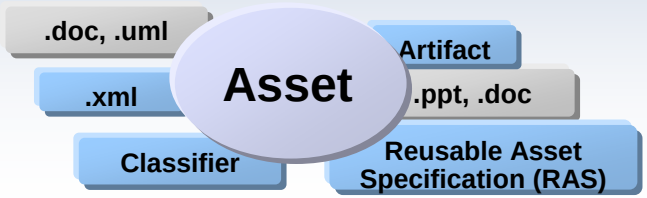
SOA Governance and Management Method

Establish Process, Policies and Organizational Change

Development and delivery asset management tracks IT assets needed to implement an SOA

- Uses Reusable Asset Specification (RAS) to describe/classify assets
- Handles multiple types of assets
  - Services, source code, documentation, presentations, patterns, process flows
    (Collections of artifacts associated with a particular business requirement)

- Benefits:
  - Reduce software development and operational costs
  - Improve quality by facilitating the reuse of approved & proven assets
  - Integrated with other Rational, Websphere and Tivoli products
  - Federated with Websphere Service Registry and Repository (WSRR)



An Asset Manager supports development and delivery management of services and composite business services

New!

Rational Asset Manager (RAM) is a collaborative software development asset management solution for:

- *Design*
- *Development*
- *Consumption*

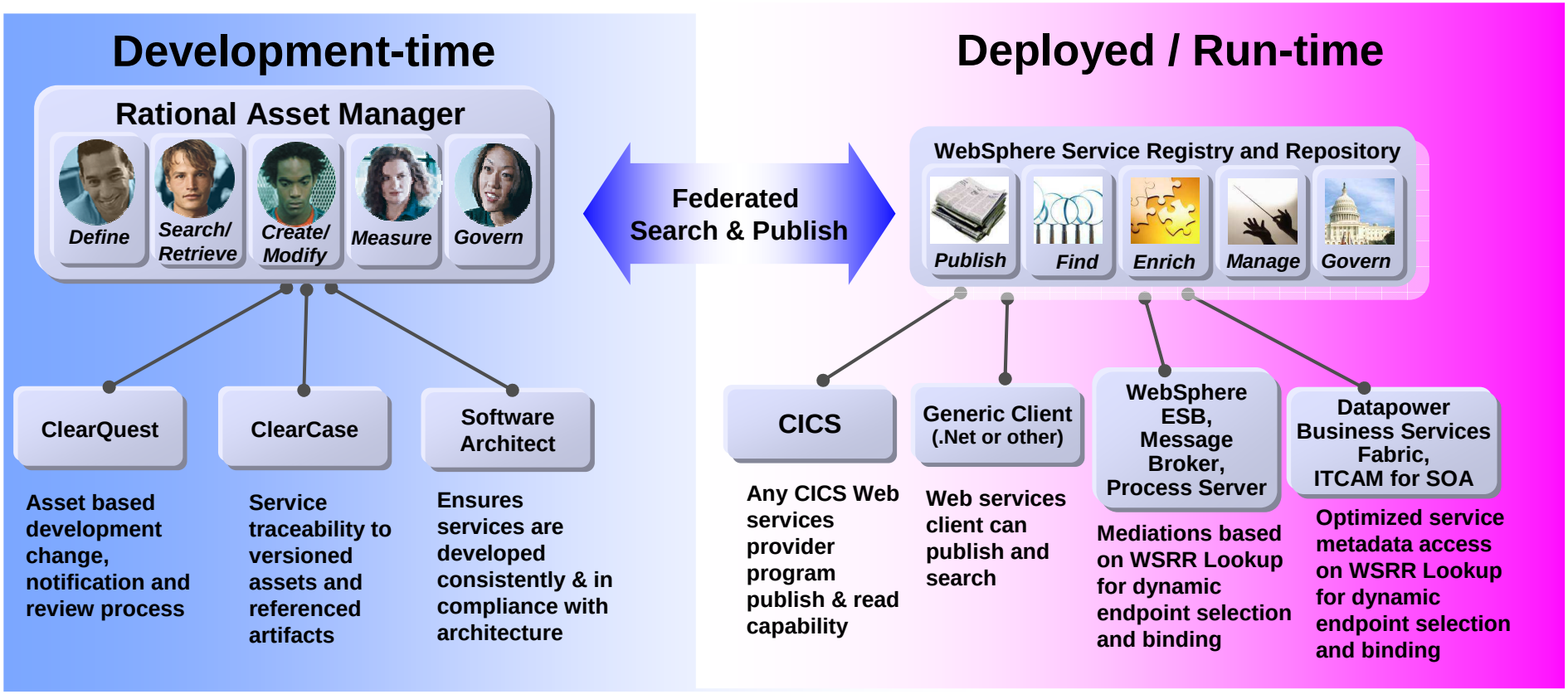
of services as part of an SOA initiative or other development environments

Registries and Repositories can work separately or federated together based on the business/IT SOA requirements

- **Rational Asset Manager (RAM)**
  - Key requirement is tracking assets in a development environment
  - Beginning to be interested in creating services new asset
  - Converting current applications into Services

- **WebSphere Service Registry and Repository (WSRR)**
  - Bringing in Services to implement SOA
  - Web based environment moving to SOA
  - Managing Services in an operational environment
  - Services being used from many sources and/or repositories

Development and deployment of services in SOA will have different requirements within the Lifecycle



- Not every deployed service is a reusable asset and not every reusable asset is a deployed service
- A service will be one of many types of assets managed by Rational Asset Manager

Improve business flexibility and service reuse within SOA development and deployment by adding Asset Manager

Improve quality while reducing development cost and time

- *Managing and facilitate software reuse of assets, including Services*
- *Drive improvements in end-to-end service quality*

Promote cross project communication of reusable assets

- *Promote reusable asset sharing*
- *implement a cross org workflow*
- *Faster delivery of assets*

Manage compliance and govern multi-platform development assets to

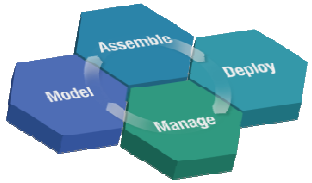
- *Enforce and monitor integrity*
- *Definable and auditable processes*
- *Incorporated in overall SOA Governance*

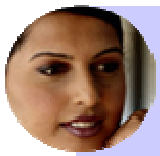
- **Accelerate delivery**
- **Increase quality**
- **Improve reliability**

- **Unify disparate development teams**
- **Enable reuse and eliminate rework**

- **Enforce and govern architectural standards**
- **Control access and utilization of assets.**

Service Lifecycle Management tools enhance each team members ability to be successful





Business Executive

Model business goals

Websphere Business Modeler

Identify key business goals

Websphere Integration Developer

IT Executive

Establish quality management process

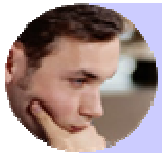
Rational Method Composer

Align key business goals

Rational RequisitePro

Track Service Development

Rational Portfolio Manager



Developer

Create/Govern New Services

RBDe
Rational Software Architect

Discover services for reuse / publish service

WSRR
Rational Asset Manager

New and Enhanced!

Manage and build run time assets

Rational ClearCase and Build Forge

Tester

Test Changes

Rational Tester for SOA Quality
Rational Performance Tester Extension for SOA Quality

Ensure signoff and create audit trail for change

Rational ClearQuest

Track service information

Tivoli ITCAM DataPower

Deployment Manager

Iterative & continuous

PROCESS

Key Takeaways

1. Adopt an end-to-end framework to support a long-term approach toward service orientation
2. Implement a Stakeholders Management & Communication Strategy to gain adoption of ESB and service orientation
3. Communicate clear roles and responsibilities, including job impacts, at various levels of the organization
4. Establish Governance Scenarios to promote an “enterprise view” on shared services
5. Integrate the Services Lifecycle into the current SDLC or systems delivery process
6. Apply lessons learned from previous enterprise effort to build momentum and gain support from management

Governance should not an "afterthought"; it matters because without it success is not achievable

Lack of working governance mechanisms in midsize-to-large (greater than 50 services) post-pilot projects will be the most common reason for project failure (0.8 probability). *(Gartner)*

Focus on business benefits

- Add flexibility to business process
- Improve time to market

Governance isn't optional- it's imperative. Without it, ROI will be low and every project out of pilot phase will be at risk. *(Gartner)*

Mitigate risk and regain control

- Maintain quality of service
- Ensure consistency of service

Professional investors are willing to pay premiums of 18-26% for stock in firms with high governance. (McKinsey Quarterly)

Improve team effectiveness

- Measure the right things
- Communicate clearly between business and IT