

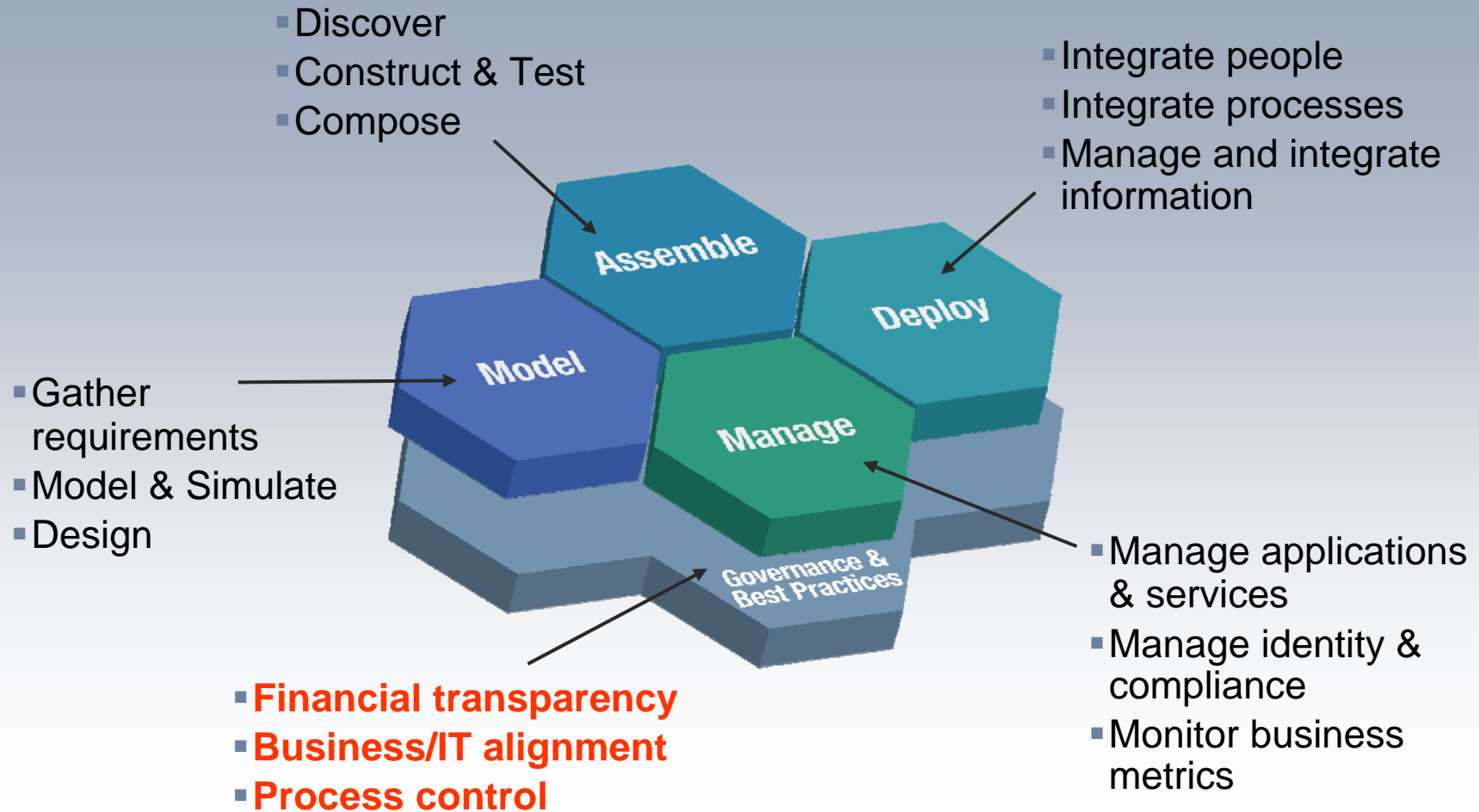


IBM SOA PoT

C1060 – SOA Governance and Repository / Registry Introduction



Governance within the SOA Lifecycle



What is Governance?

Establishing decision making rights associated with IT

Establishing mechanisms and policies used to measure and control the way IT decisions are made and carried out

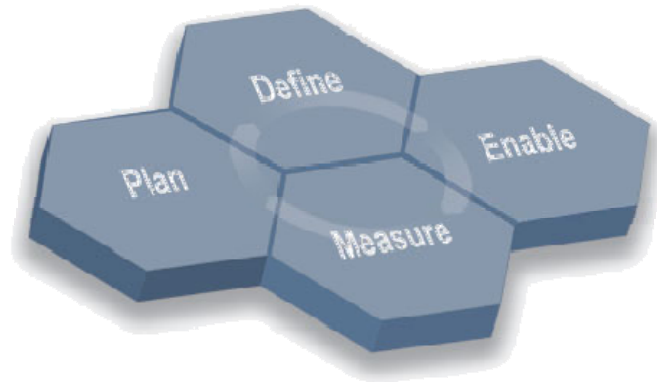


What is SOA Governance?

A style of IT governance focused on the lifecycle of services and other SOA artifacts to ensure the business value of SOA

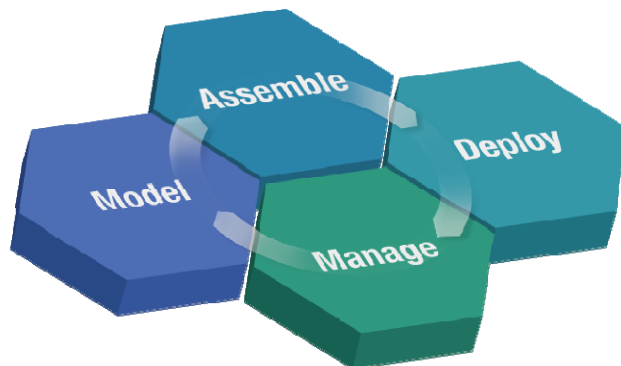
SOA Governance is a catalyst for improving overall IT governance

SOA Governance Definition and Enforcement



SOA Governance Lifecycle

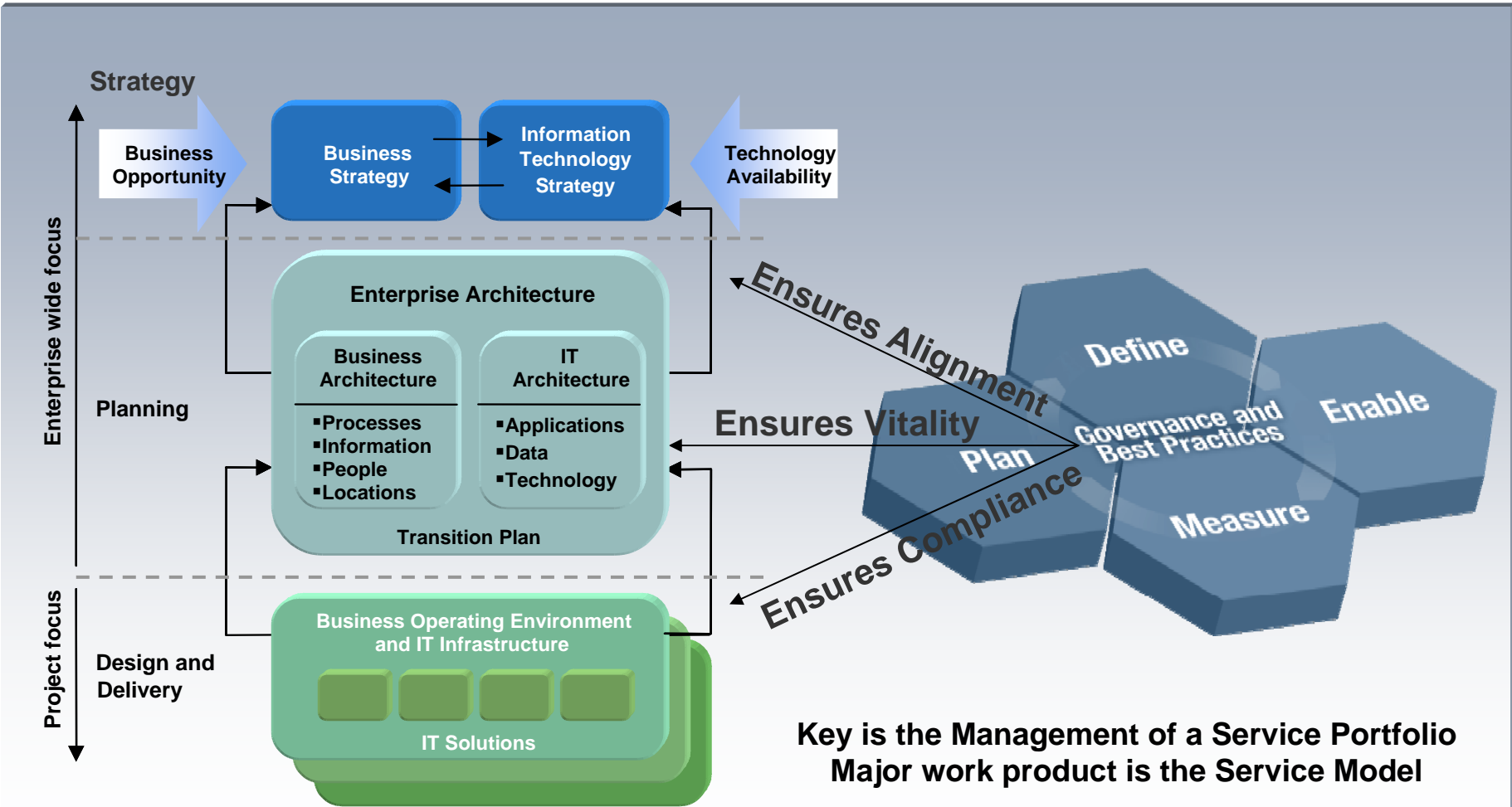
- the process in which **SOA Governance is defined**



SOA Service Lifecycle

- the processes being governed
- the processes in which **SOA Governance is enforced**

Enterprise Architecture and SOA Governance



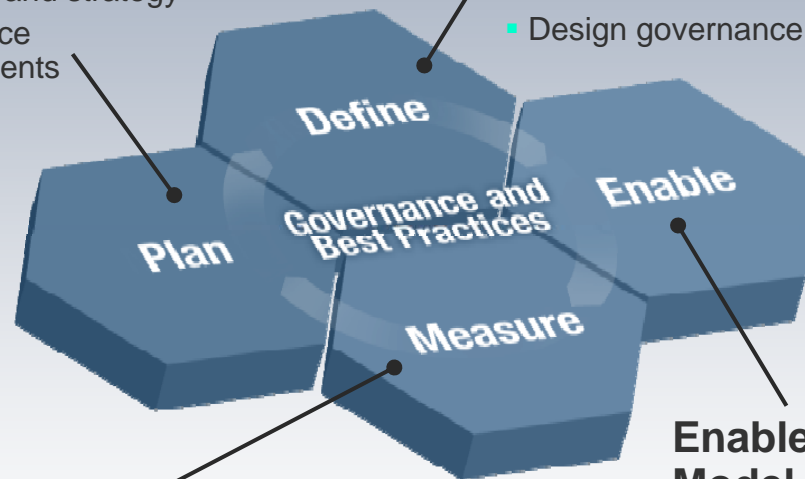
SOA Governance Lifecycle – How to establish?

Plan 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

Define 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



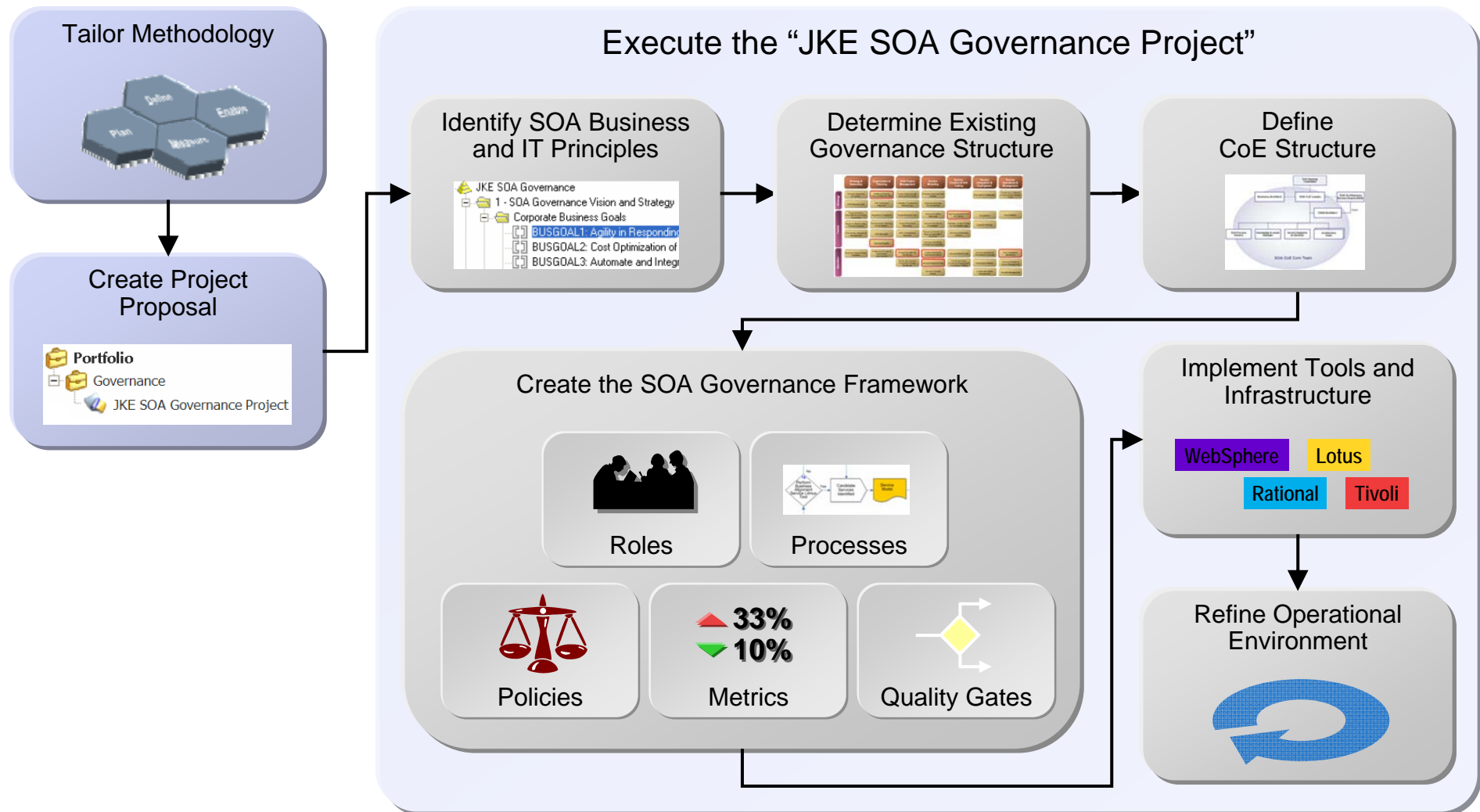
Monitor and Manage the Governance Processes

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

Enable the Governance Model Incrementally

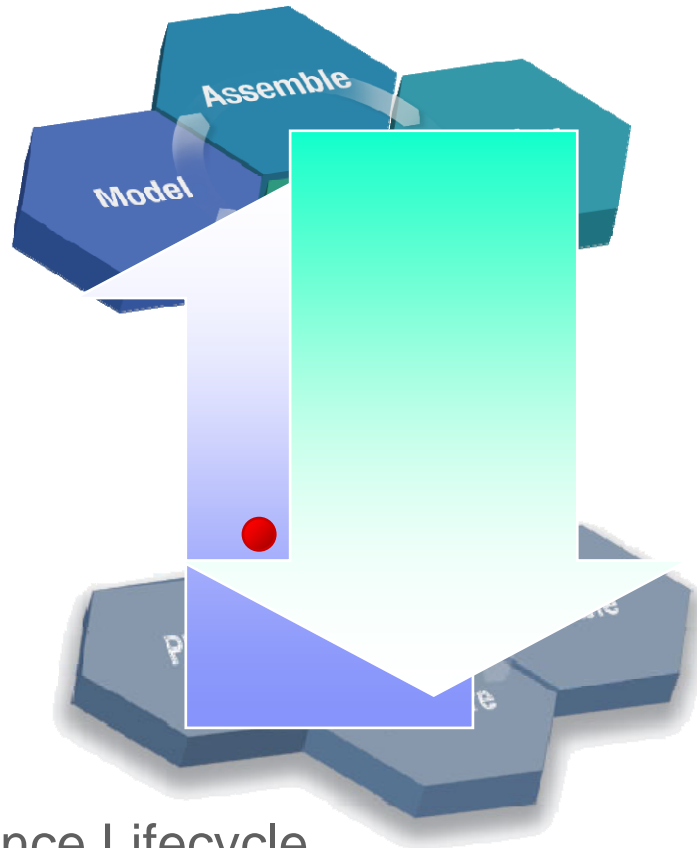
- Deploy governance mechanisms
- Deploy governance IT infrastructure
- Educate and deploy on expected behaviors and practices
- Deploy policies

Defining the Governance Solution (Example)



Interaction Between the Lifecycles

Service Lifecycle

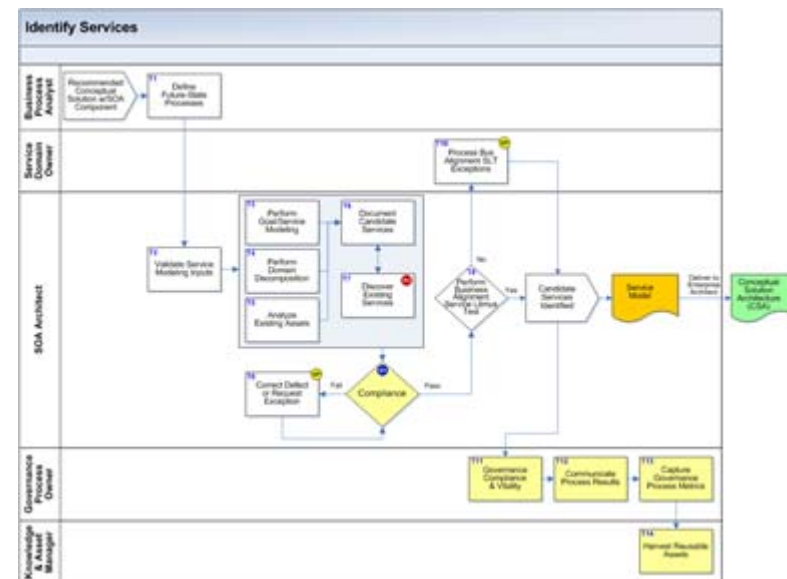
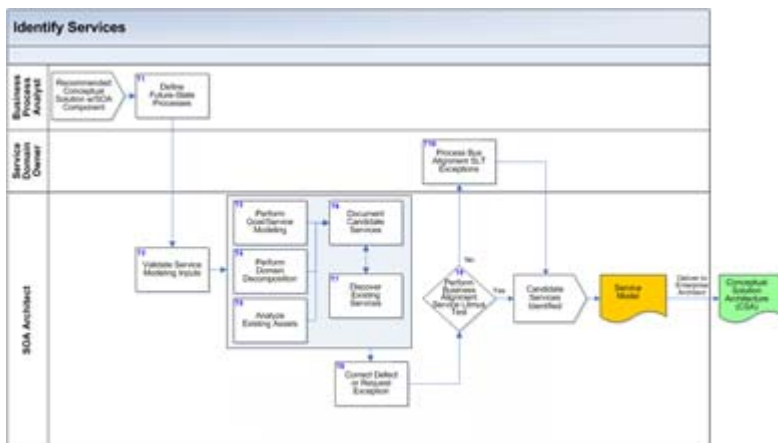
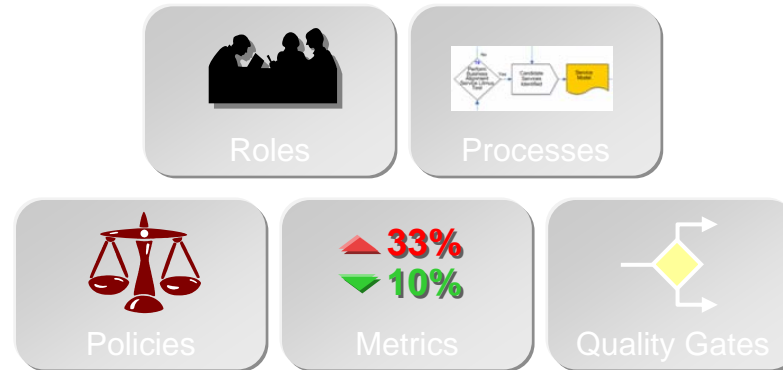


Governance Lifecycle

- **Policies**
 - quality gates
 - controls
 - metrics
 - standards
- **are defined in the Governance lifecycle (for different aspects of Governance)...**
- **...and they are enforced in the service lifecycle**
- **metrics are captured to improve governance process**

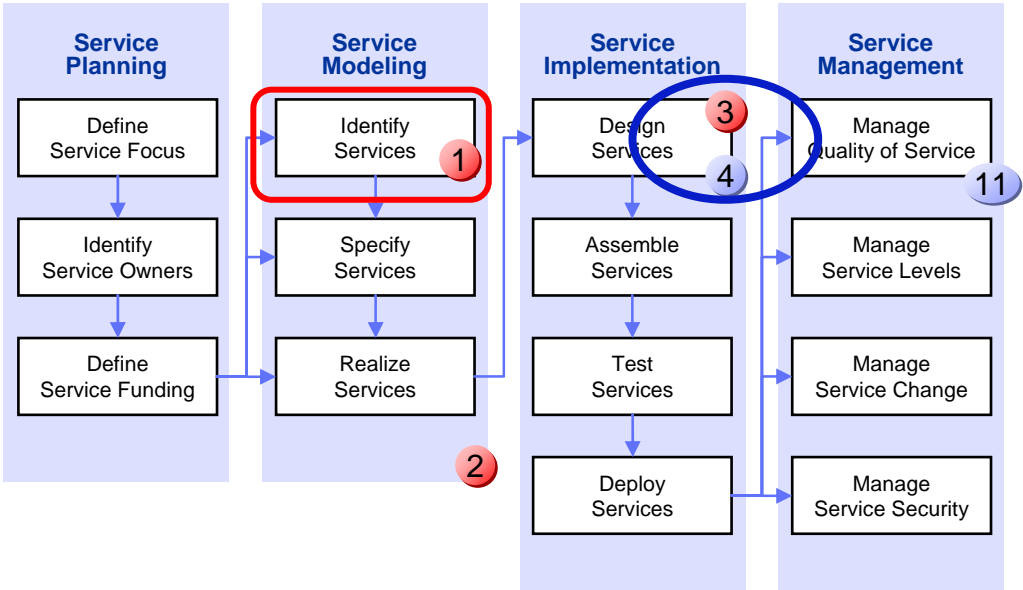
The Governance Framework

- All the “elements” that we need to add to make a process well-governed



Example – Enforcing Service Reuse Policy

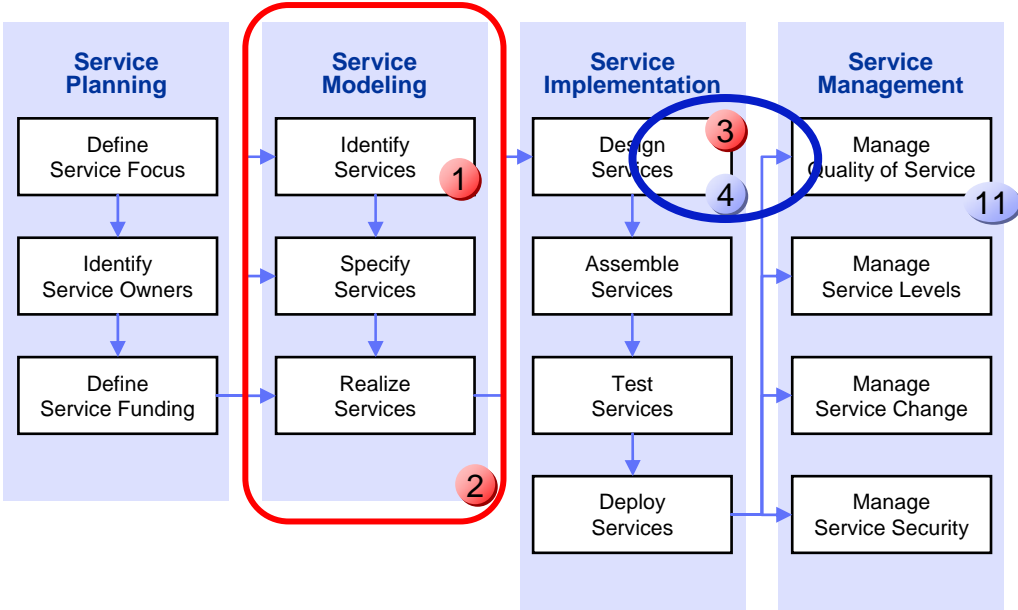
- During the “Identify Services” activities, the SOA Architect implements the **Service Reuse policy** searching for existing services
- At the **Validate Service Design** quality gate the policy is enforced



- Policy** 1 Services should be reused instead of created whenever possible
- Quality Gate** 4 Validate Service Design, semi-automatic enforcement during development

Example – Enforcing Architecture Compliance Policy

- The SOA Architect implements the **Compliance with the Reference Architecture policy** during all the activities in the Service Modeling phase
- At the **Validate Service Design** quality gate the policy is enforced with a manual review of the service model



- Policy** 2 Services must be compliant with the existing reference architecture
- Quality Gate** 4 Validate Service Design, manual enforcement during development

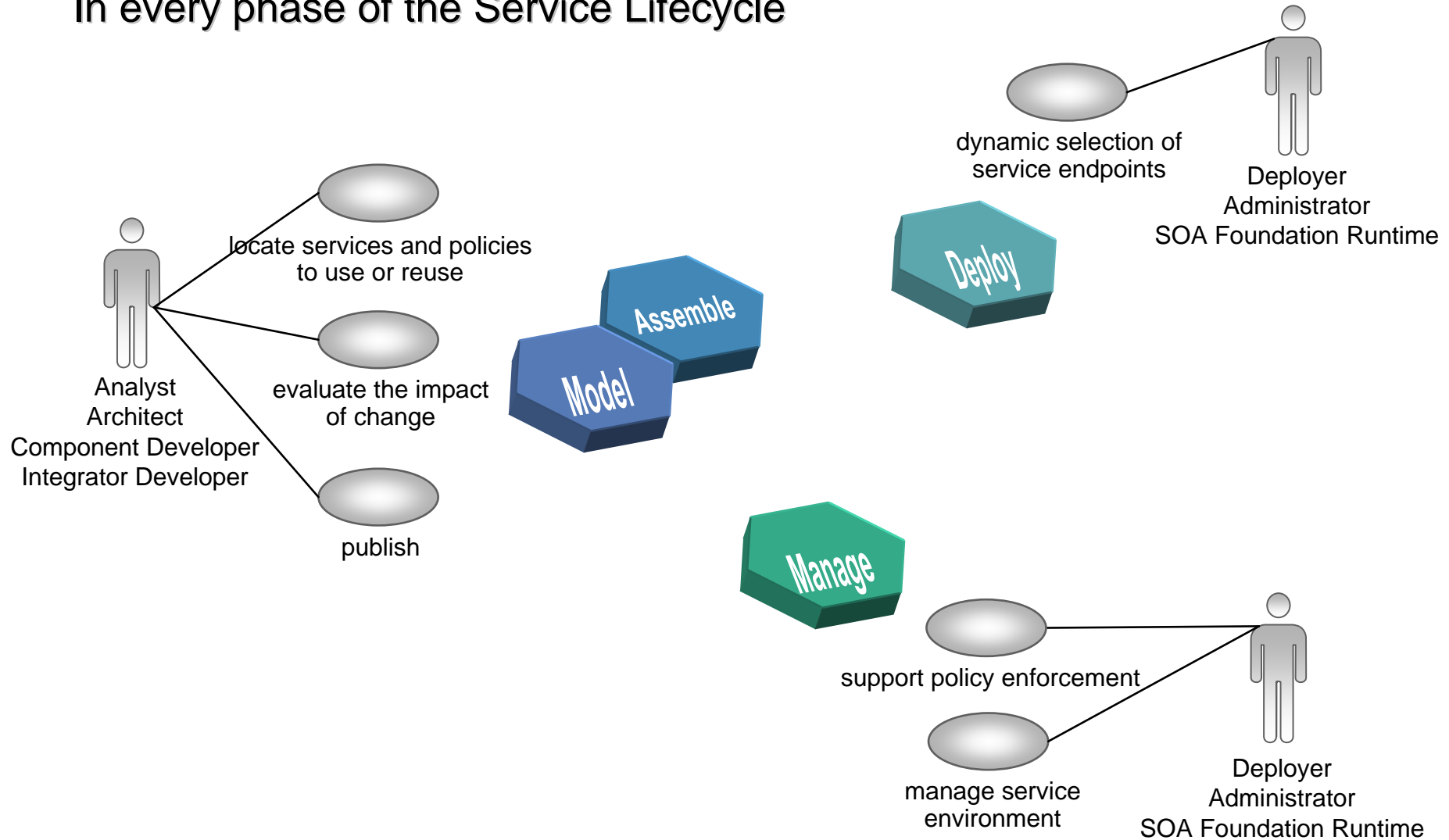
Use of WSRR

What is a Service Registry and Repository?

- It is the master location where to **store, find** and **manage** service and service-related information
- supports the **governance** of the service lifecycle
 - promotion of services through phases of the lifecycle
 - controlled visibility and access to service information
 - manage versions
 - manage change
 - impact analysis
 - monitor usage

When is WSRR Used?

In every phase of the Service Lifecycle



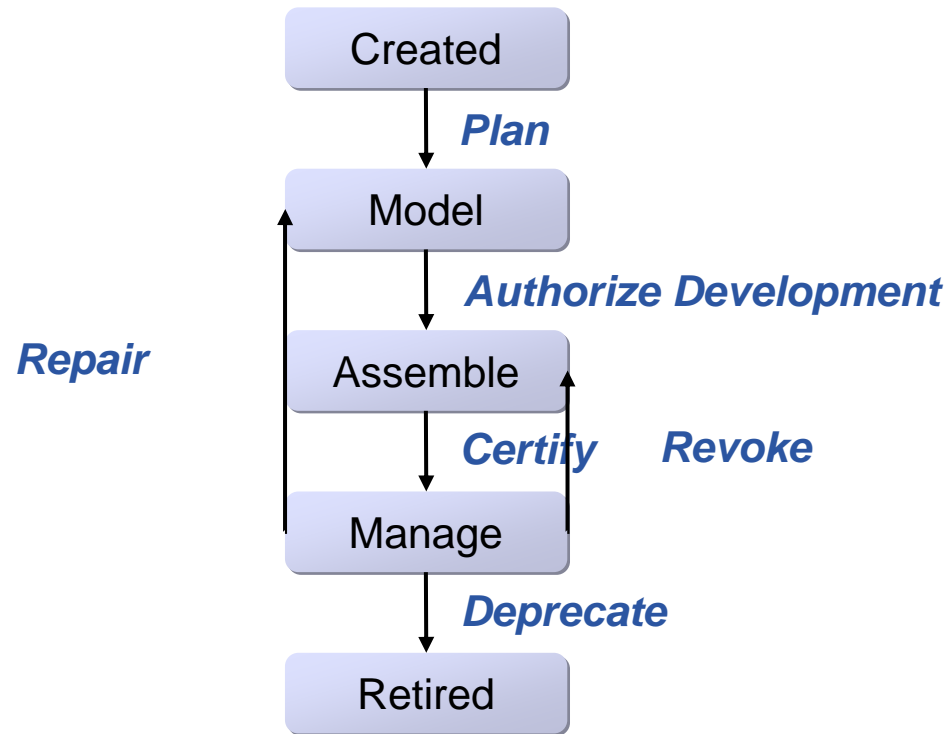
WebSphere Service Registry and Repository An Enabler of SOA Governance

- Supports a **service taxonomy** to define domains and functional areas
- **Business domains/classifications based access** to service metadata
- Supports **design time** discovery and **runtime** access
- **Manages the service lifecycle** in a shared environment
- **Notification** to keep all required parties informed of important events / changes to service metadata
- Ability to handle **multiple versions** of a service
- **Impact Analysis with graphical view**
- **Service Discovery** to discover and reconcile deployed services



WebSphere Service Registry and Repository

Supporting the Steps of Service Life Cycle



What is a registry ... a repository?



Registry?
Contains Service
Metadata



Repository?
Stores Service Artifacts

*An integrated Registry / Repository Solution
is needed govern and manage SOA for maximum value*



**Business
process vitality**



**New value
through reuse
of assets**



**Improved
connectivity**

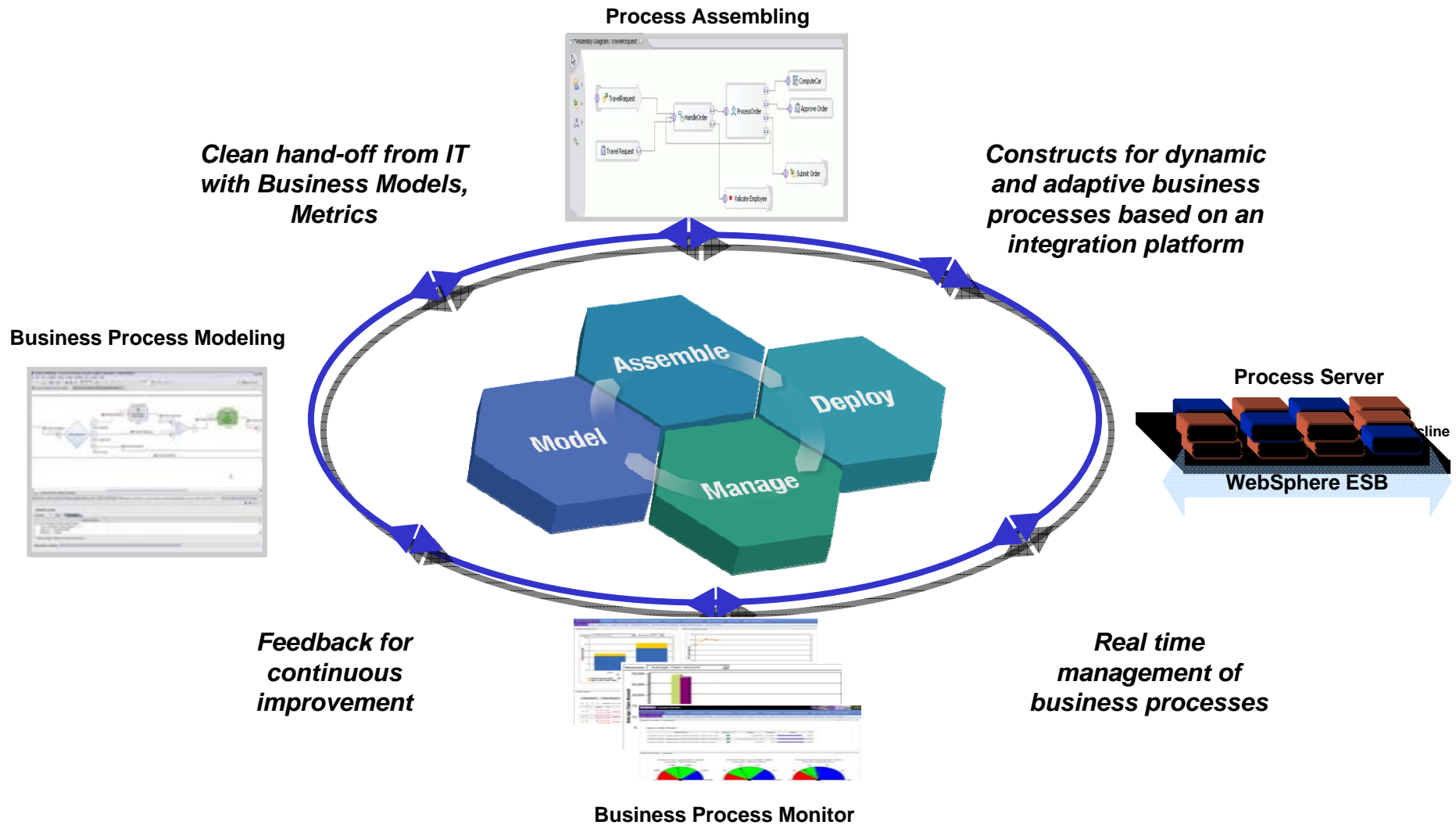


**Closer
alignment of IT
to business**



**Business
Flexibility**

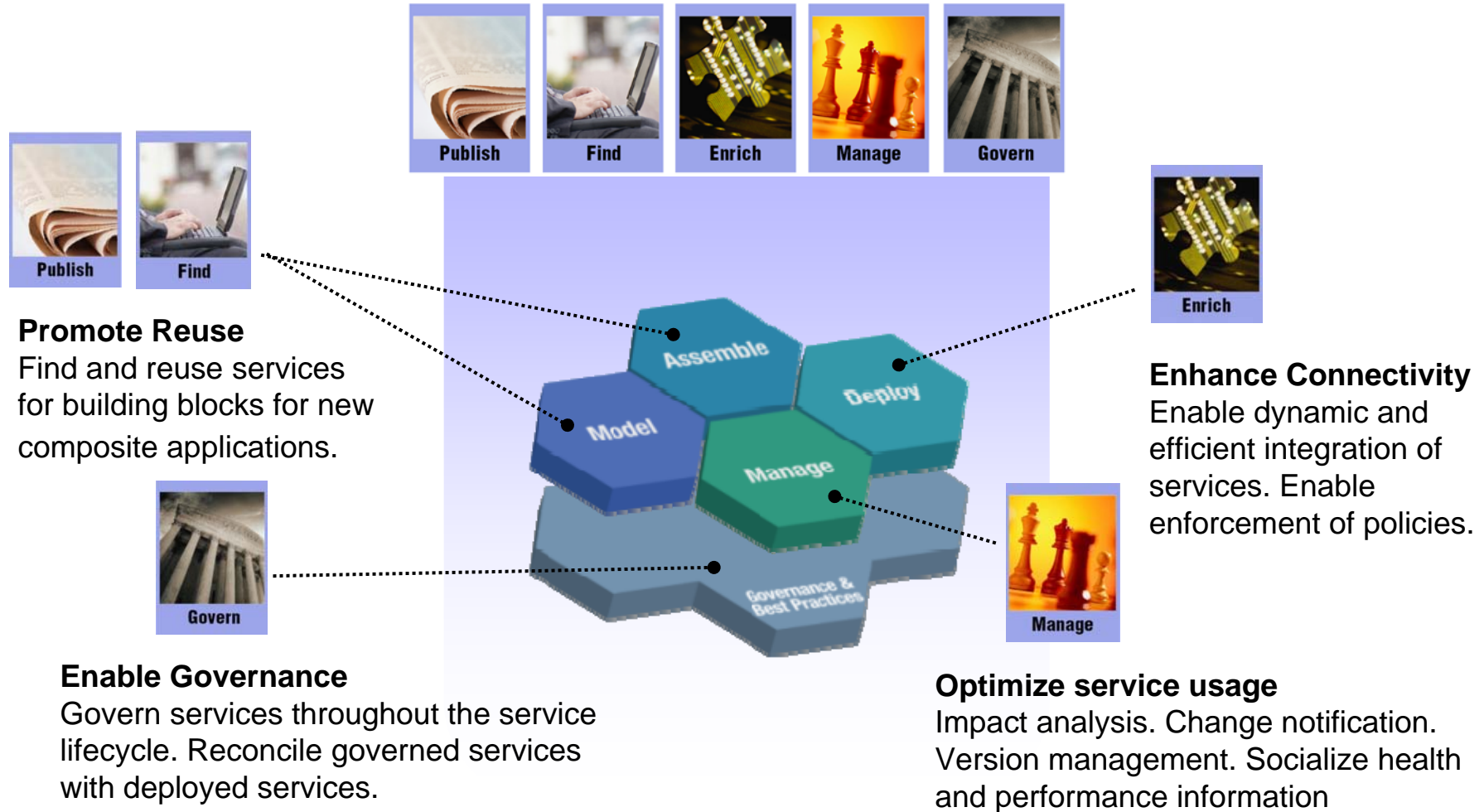
SOA Governance of Business Process Management



WebSphere Service Registry and Repository

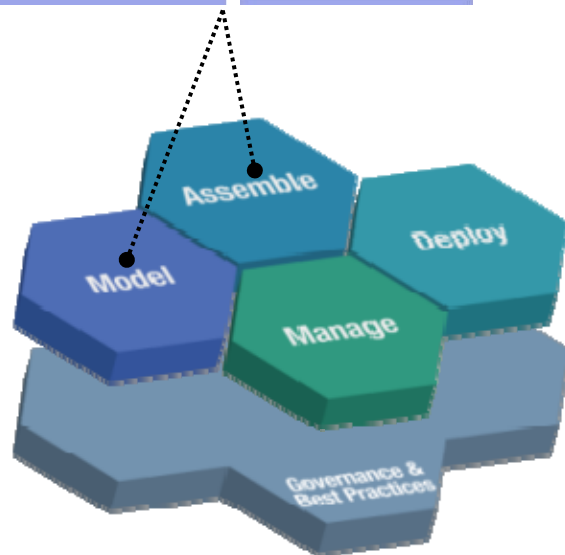
Provides value throughout the SOA lifecycle

WebSphere Service Registry and Repository



Promote Reuse – Publish and Find Capabilities

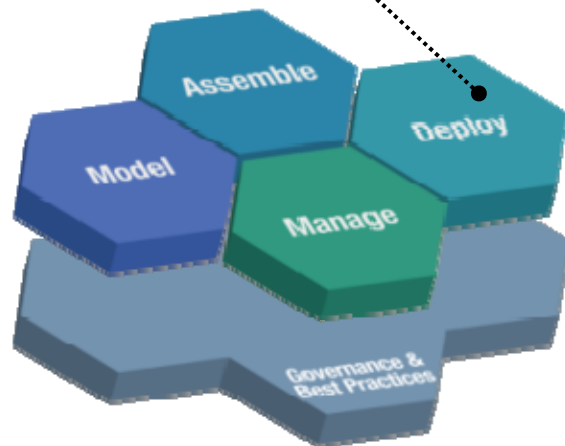
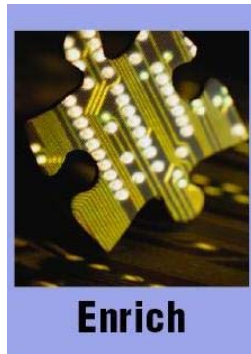
Build a catalog of trusted, high quality services



- Multiple methods to publish services and associate meta-data
- Customizable ontologies to classify services aligned with your business domain
- Powerful query mechanism to search for best-fit services
- Standards based API support to access content including REST interfaces (Web 2.0)
- *Service Discovery* to discover deployed services on .NET and WAS servers
- *Faceted Search* for a natural, user-friendly way to refine search using attributes, document types or classification
- *Extensible Parsing* to capture non-Web services using WSDL e.g. support MQ Service Definition specification

Enhance Connectivity – Enrich capability

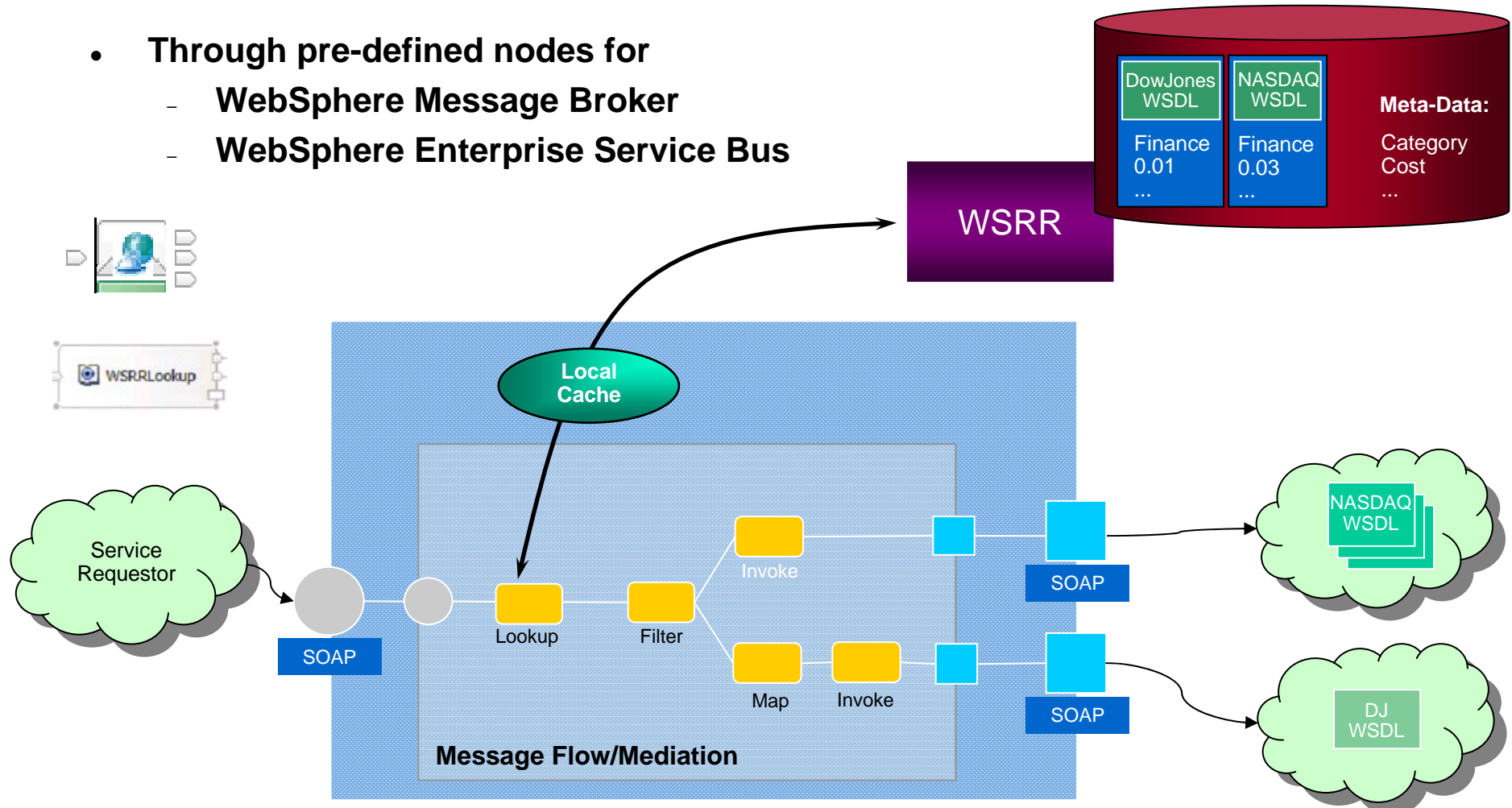
Increase runtime flexibility of applications in your SOA



- **Pre-built integration points allow applications to query WSRR for service end-points and associated metadata during runtime**
- **Standards based API support to access content**
 - Java APIs
 - SOAP APIs
 - UDDI V3 APIs
 - REST interfaces

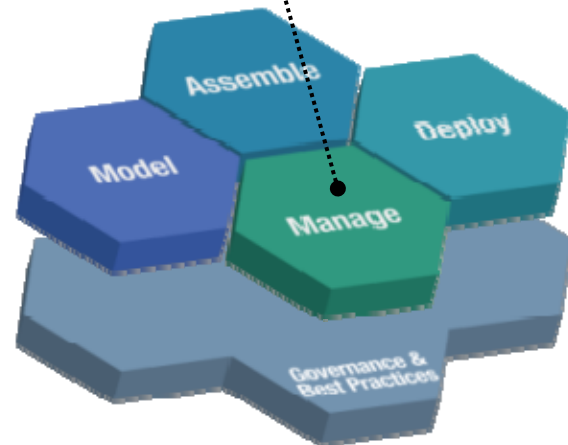
WebSphere Service Registry and Repository Makes It Easy..... To Enhance Connectivity

- Through pre-defined nodes for
 - WebSphere Message Broker
 - WebSphere Enterprise Service Bus



Optimal Service Usage – Manage capability

Ensure utilization, health and performance of services

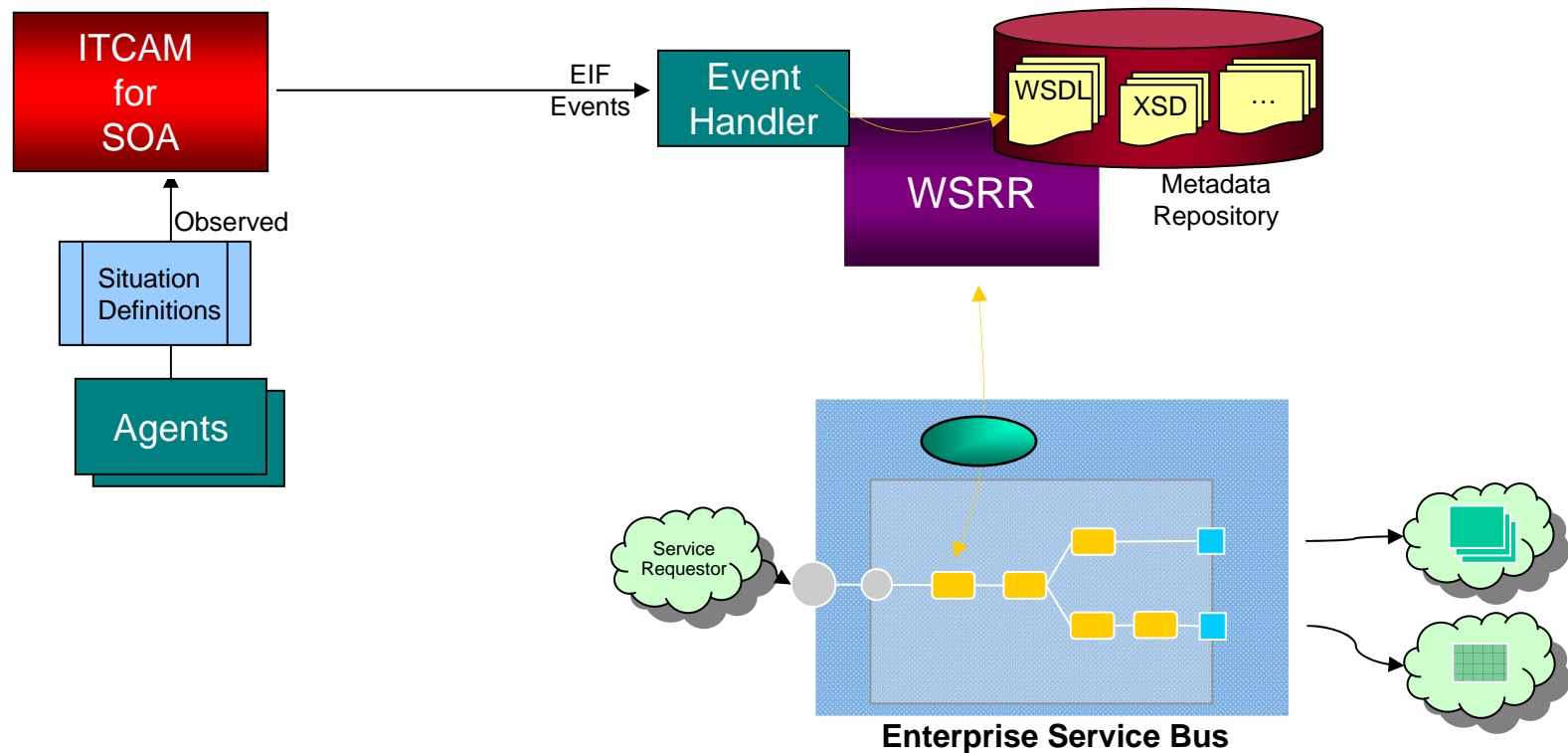


- **Manage policies**
- **Manage change and versioning of services**
- **Impact analysis using intuitive graphical views of service relationships**
- **Manage dynamic service metadata – health and performance information**
- **Manage and analyze service consumers**

IBM WebSphere Service Registry and Repository

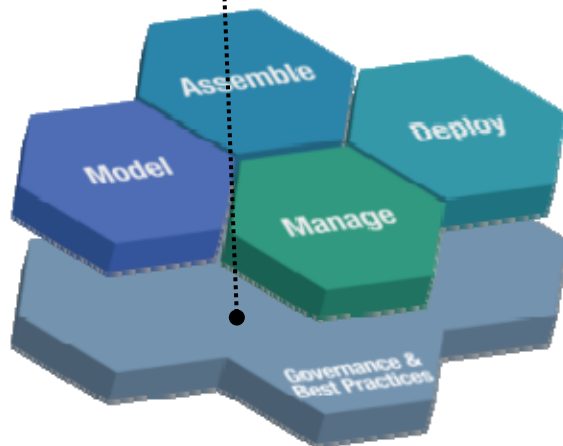
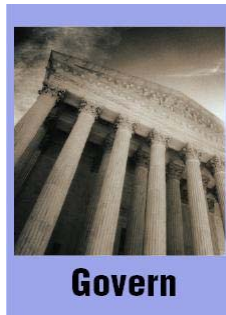
Makes It Easy..... To Manage Service Metadata

- Capturing runtime data that is in relationship with service requests



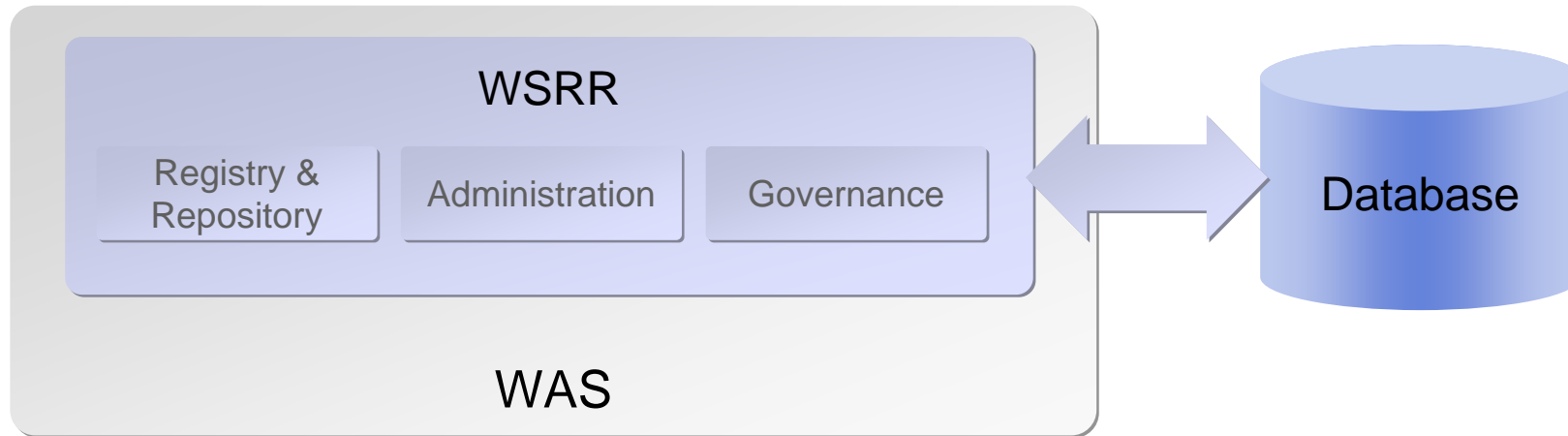
Enable enterprise governance – Govern capability

Better control your SOA through governance



- **Complete service life cycle management**
 - User definable collections of service metadata that can be governed together
- **Controlled lifecycle state transitions**
 - Customizable validators
 - Subscriber notifications
- **Support for service promotion from one environment to another (e.g. staging to production)**
- **Role based access to services for sharing and reuse**
 - Easy to use access-control editor
- **Governance profile that includes templates, lifecycles, generic validator, classifications and roles to help you get started quickly**

WSSR Architecture



- **WSRR is a J2EE application running on WAS**
 - it provides a core group of functions such as
 - *registry & repository*
 - *governance*
 - *administration*
- **It uses a relational database**
 - as a backend store for service information and metadata persistence

NEXT: Lunch