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Application Modernization Framework

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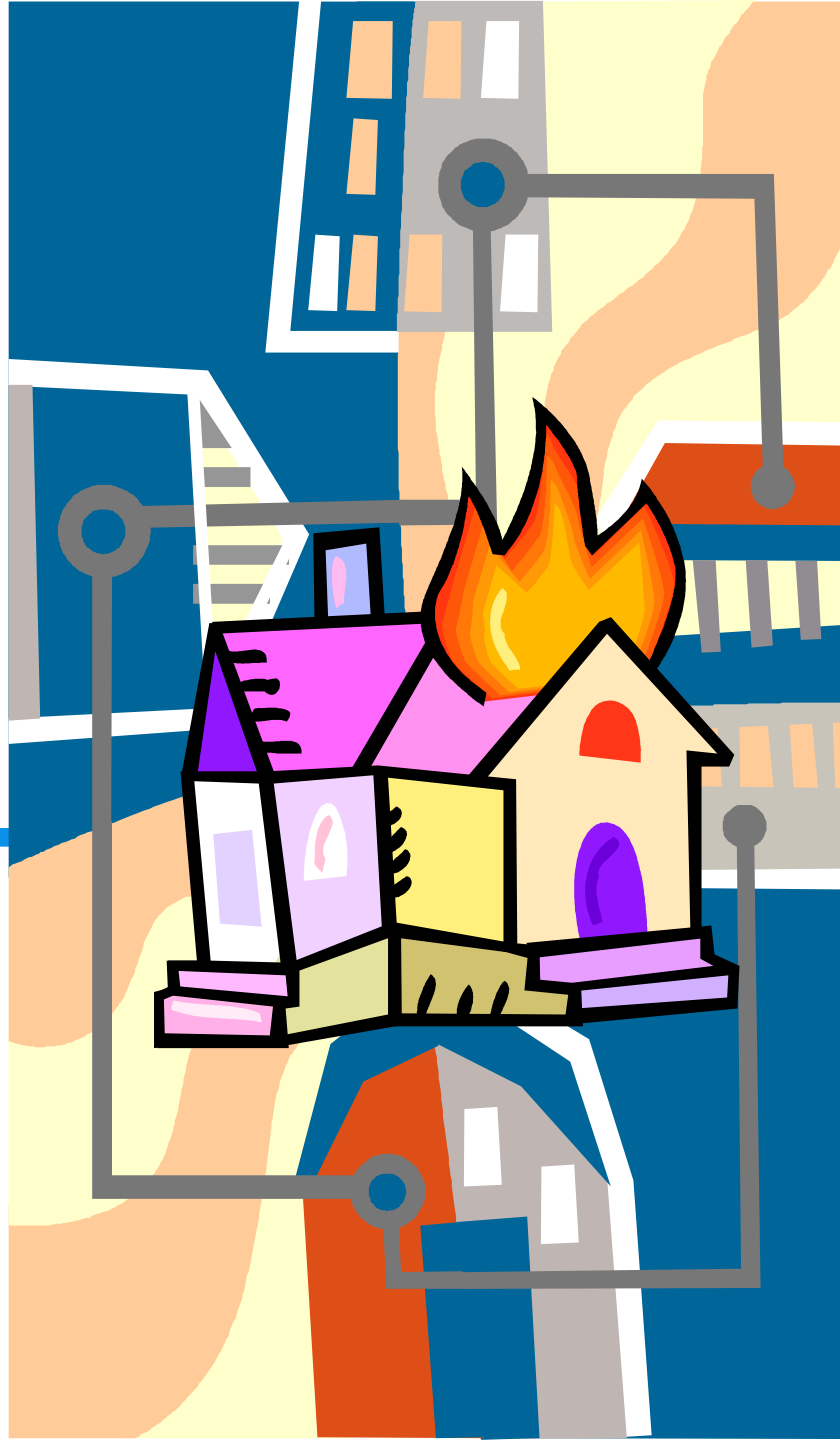
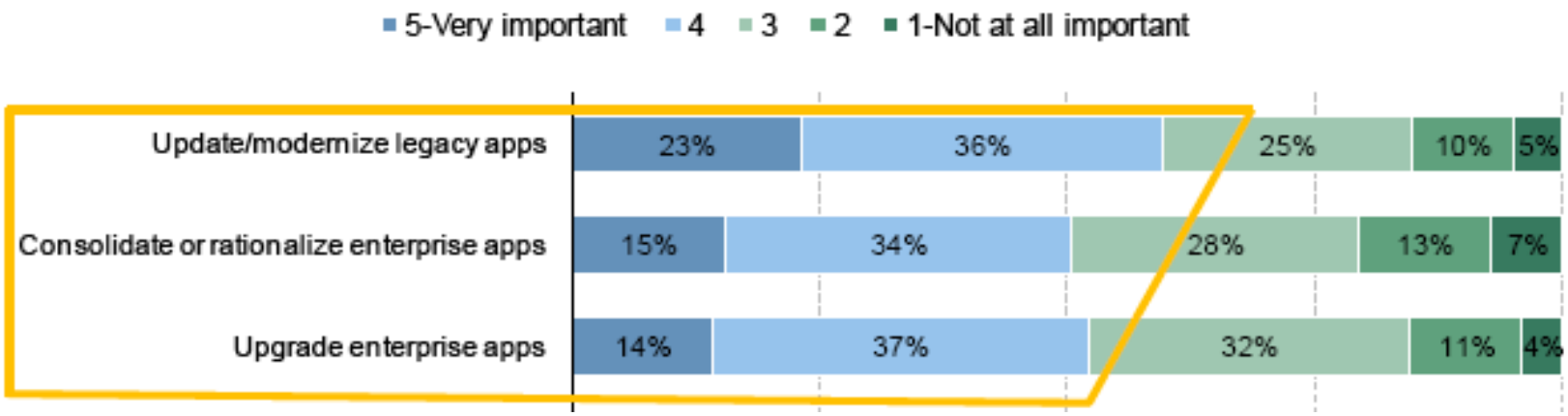
Everware-CBDI

Independent Guidance for
Service Architecture and Engineering



Top Priorities are to *"Slim Bloated Software Portfolios"*

- Modernizing legacy applications – 59% of IT leaders place modernization as the top software issue
- Packaged applications bloat - 49% will consolidate or rationalize their enterprise applications,
- Version upgrades - 51% plan to upgrade

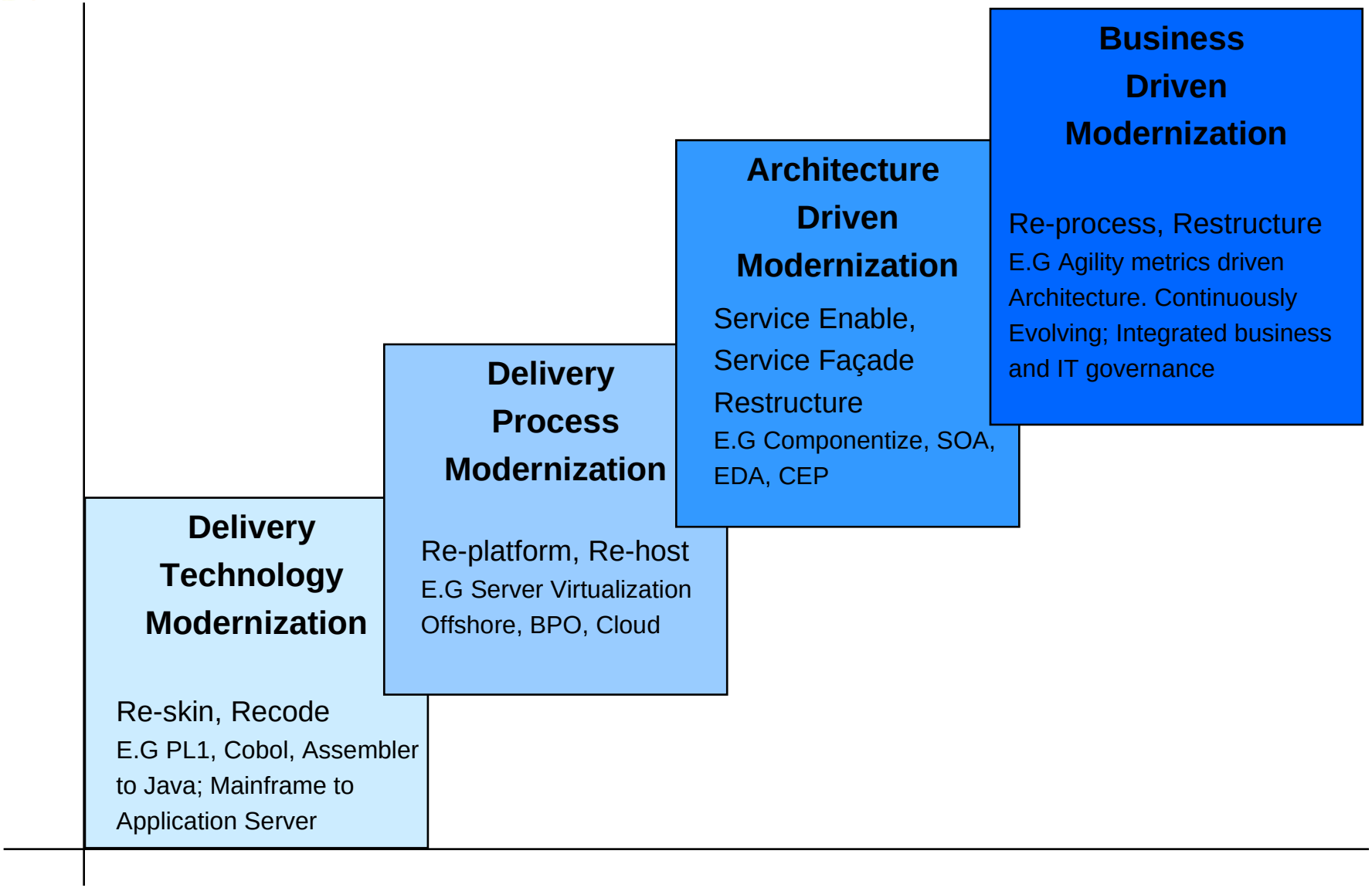


The top three software concerns named by IT decision-makers in the 2009/2010 Enterprise Software Survey by Forrester Research all point to their desire to slim bloated software portfolios.

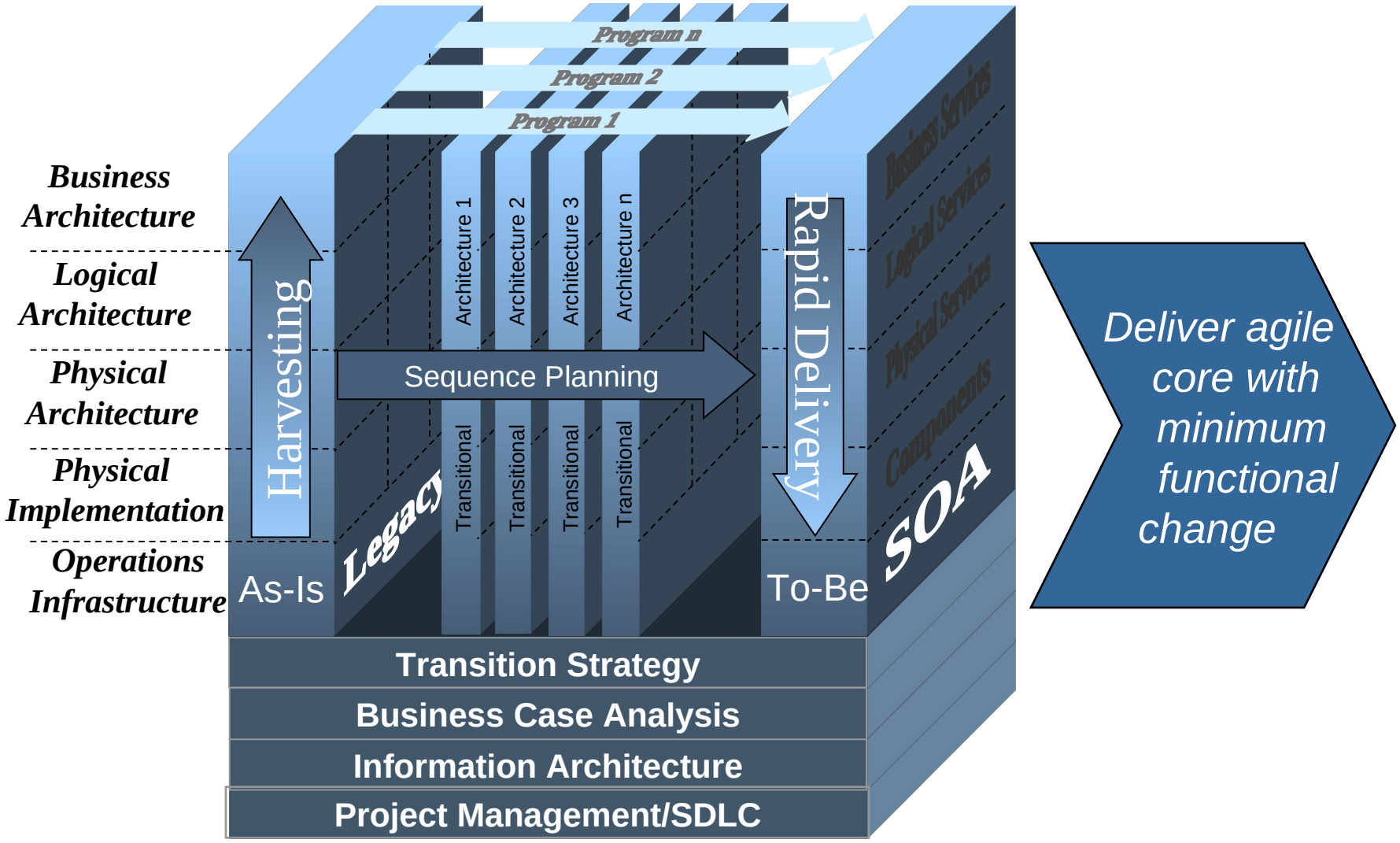
Modernization Use Cases

- UK Retail Bank Mortgage Sales rebuild
  - High functional equivalent, but with process improvement – standardize brand processes, common channel process. Adopt SOA.
- US Regional Bank - Account and Customer modernization
  - Strong business improvement theme. Common customer and channel services.
- UK Retail Bank – Complete portfolio moved from MSP to in-house
  - Application re-platforming – new packages; 90% functional equivalence. Core service architecture.
- Government department using 20 yr old development technology
  - Move to SOA to componentize, standardize process across delivery channels
- UK Corporate Banking Div. using COBOL and assembler mainframe applications
  - Façade service architecture as first step to legacy CBS retirement and upgrade.
- Major Airline – End of life support on mainframe reservations product.
  - Rewriting entire operations processes as SOA. Standardization of business process.

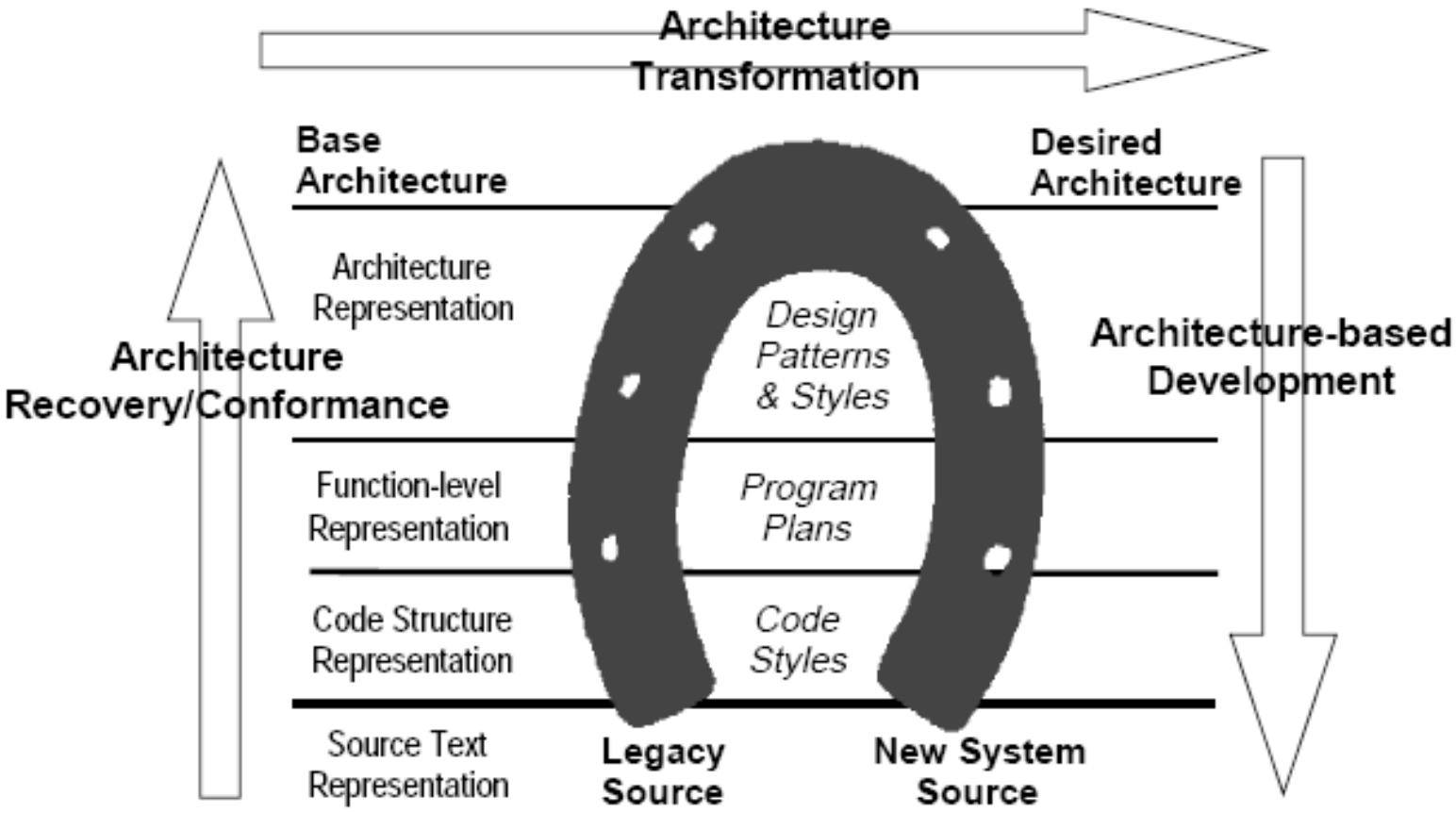
Modernization Maturity Model



Modernization Context



The Horseshoe Model



(Source SEI)

Business Driven?

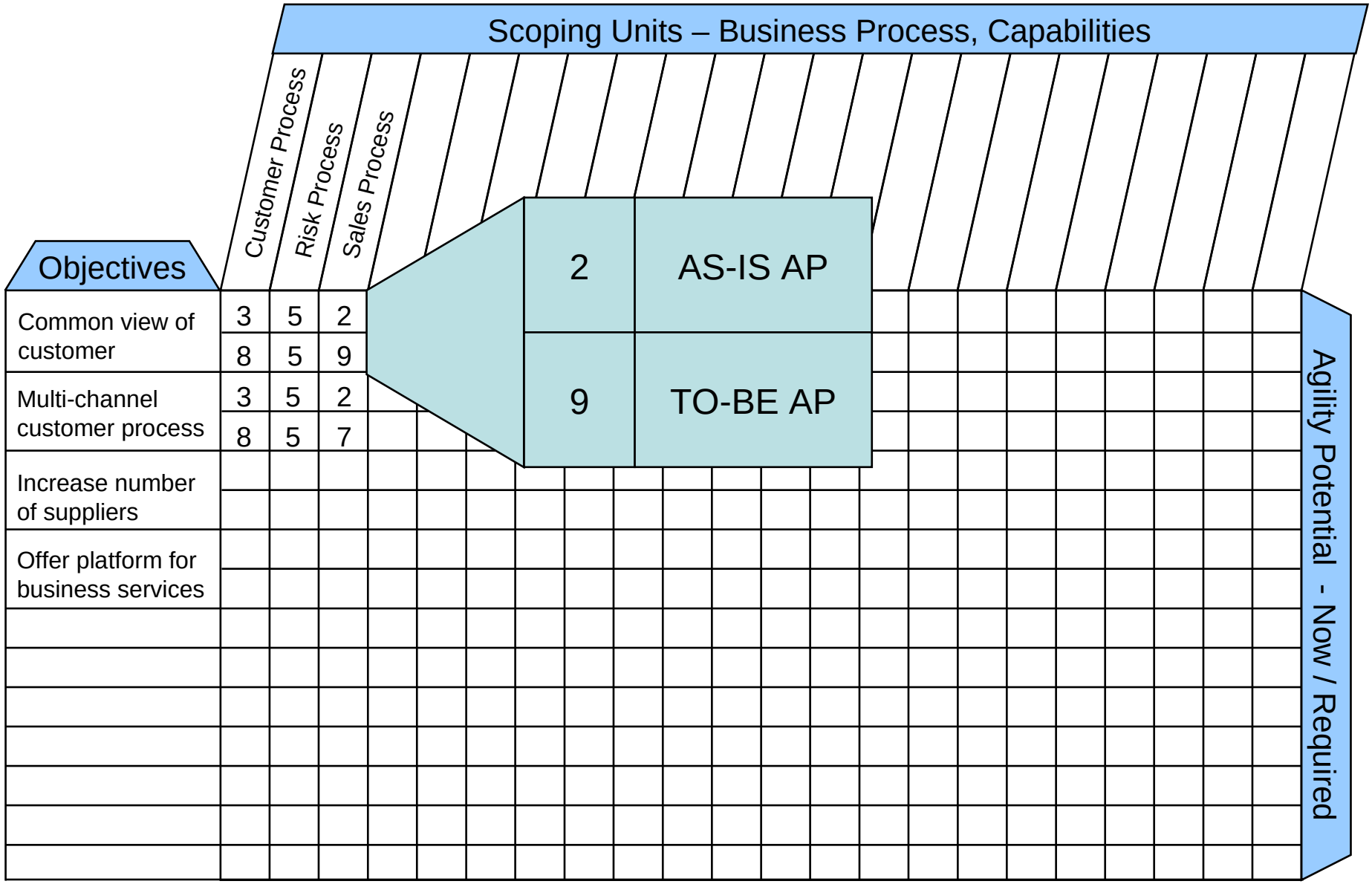
Business Capability	Areas of Potential Change	AP AS-IS	AP TO-BE	P
Business Process	New business events need to be managed	1	7	.8
	New complex events need to be communicated	1	7	.8
	Change in process logic	4	4	.9
	New process steps	4	6	.9
User Interface	White labeling	5	5	.6
	Additional attributes	5	5	.7
	Simple validation	7	5	.9
	Complex validation	4	7	.9
	New forms	6	8	.7
Channels	New technology channels	1	7	.9
	New business channels	1	8	.9
Consumer Technology	Mobile channel	1	1	.2
	Web 2.0 channel.	1	5	.5

EXAMPLE

AGILITY POTENTIAL (AP) - the relative potential agility that a business capability or business process requires.

PROBABILITY (P) - probability in the range 0 (zero) to 1, where 0 = impossible to 1 which = certain

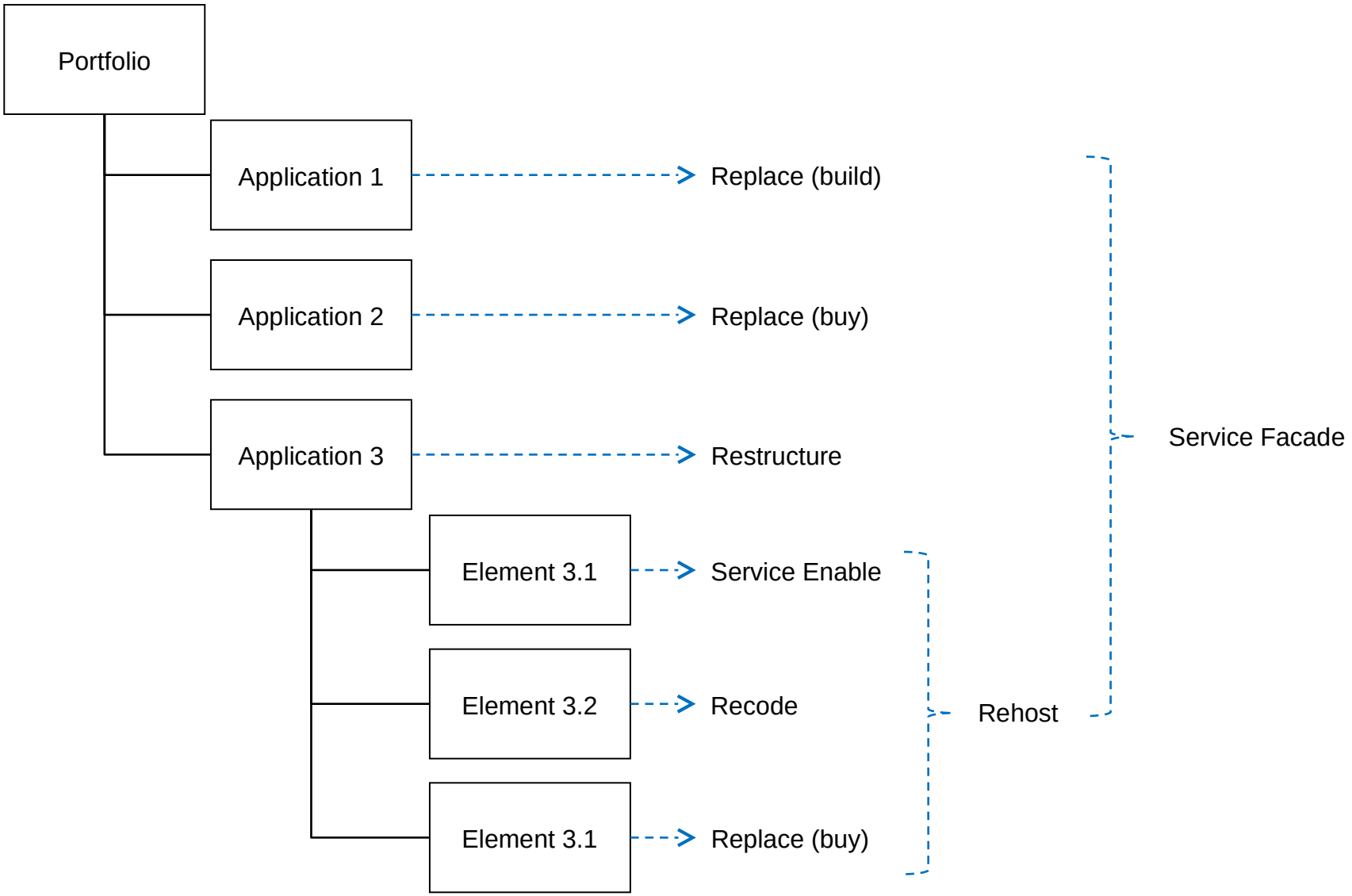
Example Agility Assessment Matrix (Partial)



Unit of Modernization Scope

Scope	Definition	TOGAF	SAE
Enterprise or Ecosystem	An enterprise, or division of An ecosystem A portfolio of applications	Architecture	
Multiple Applications or Platform	A set of applications and/ or set of services e.g. To support a Business Domain, Business Unit, or Business Process or running on a hardware or operating system platform that must be modernized	Application Architecture	Solution Architecture Service Architecture
Application	An individual application	Application Component	Solution
Element	An individual element of an applications, or a set of related elements May be common to many applications e.g. Database	Logical Application Component Data Entity Information System Service	Service Automation Unit

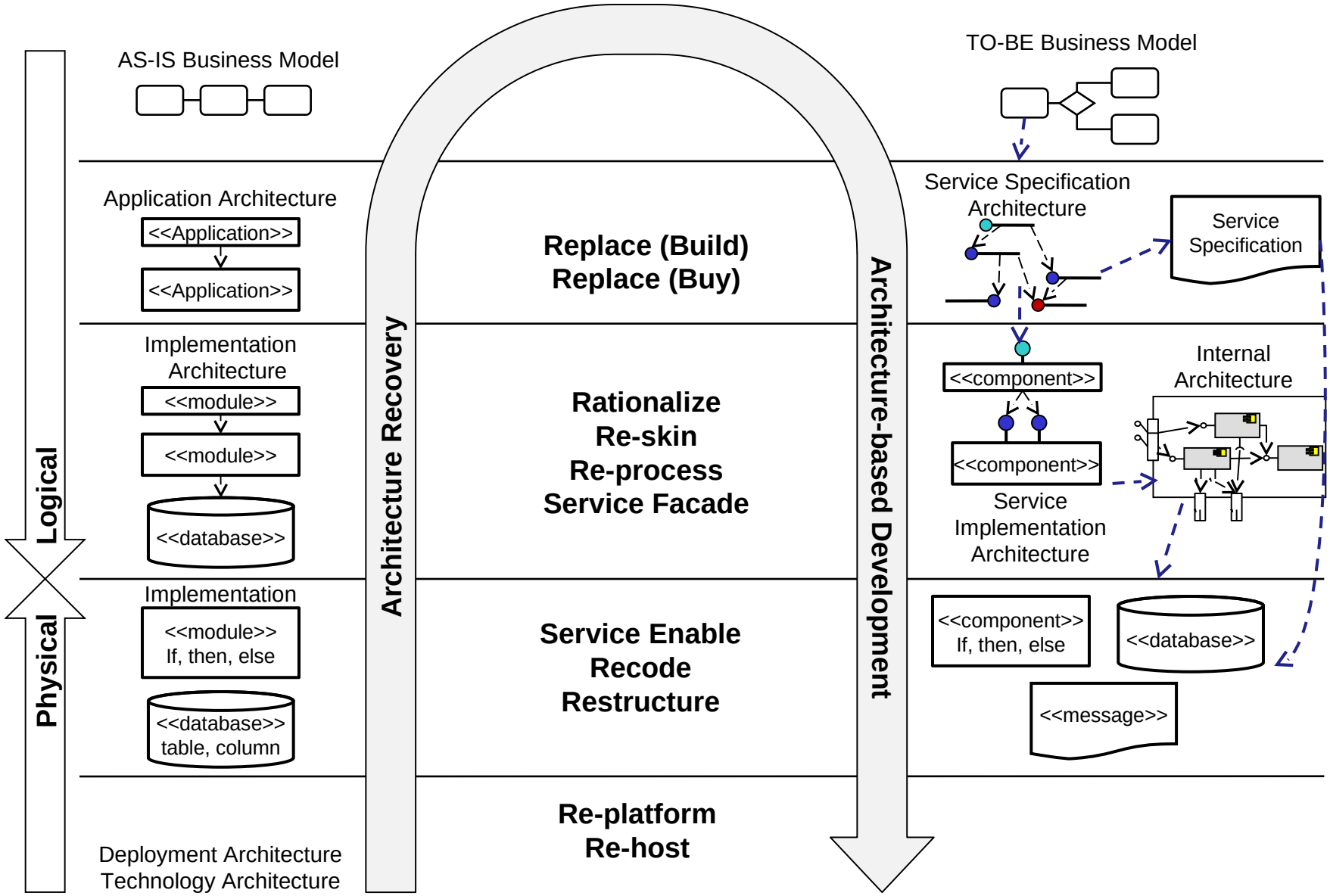
Decomposition of Scope May Result in Multiple Approaches



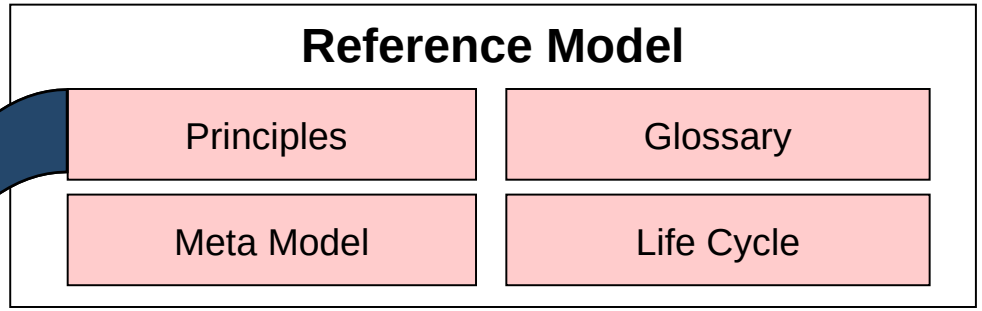
Application Modernization Approaches

Objective	Approach	Description	Applies to Scope	Other Approaches
Replace	Replace (Build)	New build, in-house, outsourced	All	Service Facade
	Replace (Buy)	New COTS	All	Service Facade
Rationalize		Consolidate and rationalize	or Ecosystem Multiple Applications	Service Façade Reengineer Replace
Modernize - Component Reengineering	Re-skin	New UI Web 2.0 enablement	Application	Service Enable
	Re-process	New Business Process	Multiple Applications May be single application	Service Enable Service Facade
	Recode	Reengineer implementation	Application Element	
	Restructure	Componentize implementation	Application	
	Re-platform	Migrate to new platform	Application Multiple Applications	Recode Restructure
	Re-host	Migrate to new servers Virtualization/Cloud	Application Multiple Applications	Re-platform Restructure
Modernize - Service Reengineering	Service Enable	New Service Interface New Data, Underlying or Exclusive service	Application Element (e.g. Database)	
	Service Facade	New Core Business Services layer or Process services layer	Portfolio	Service Enable (Underlying Services)

Approach Determines Type/Level of Activity

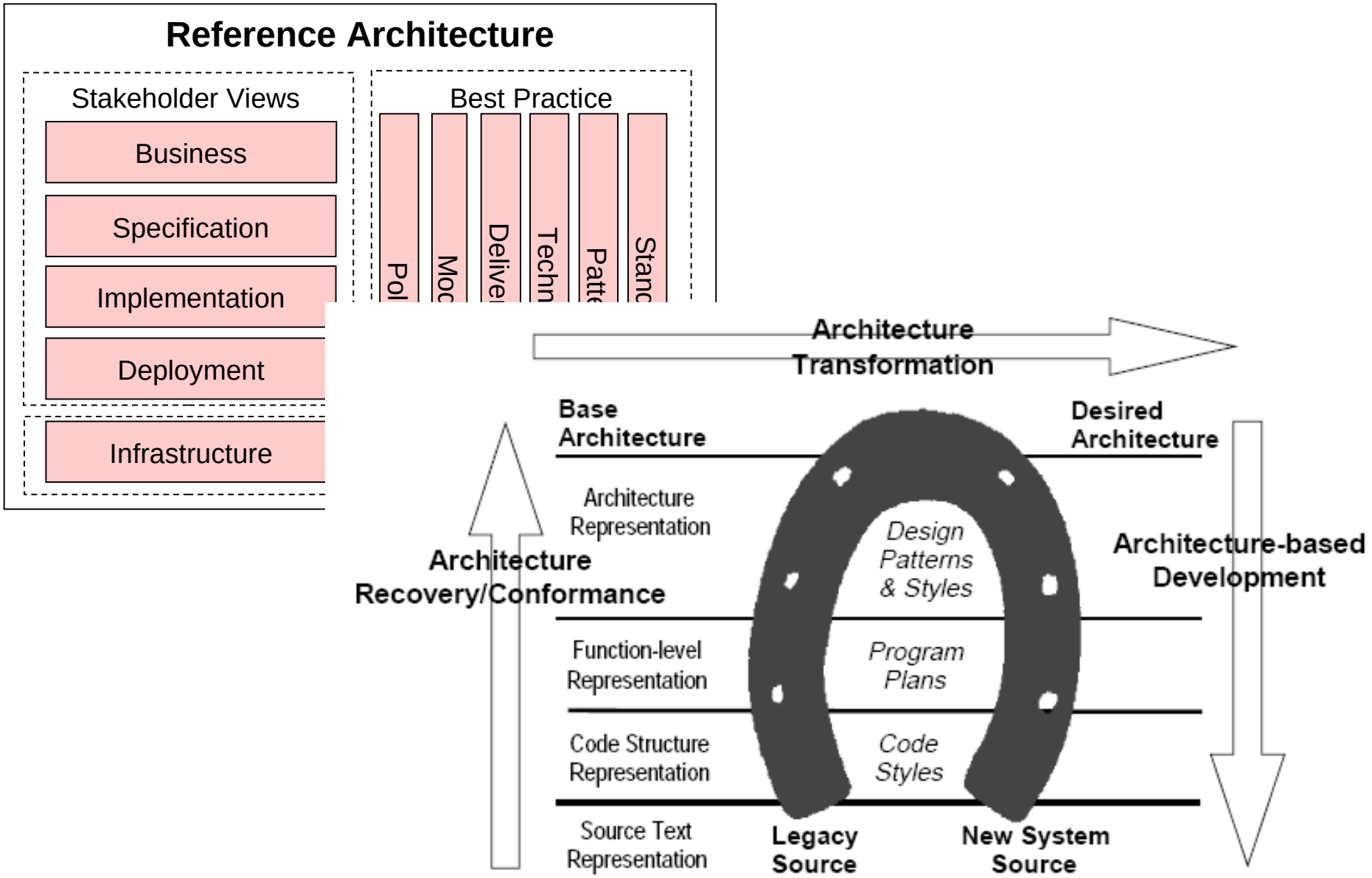


Reference Model

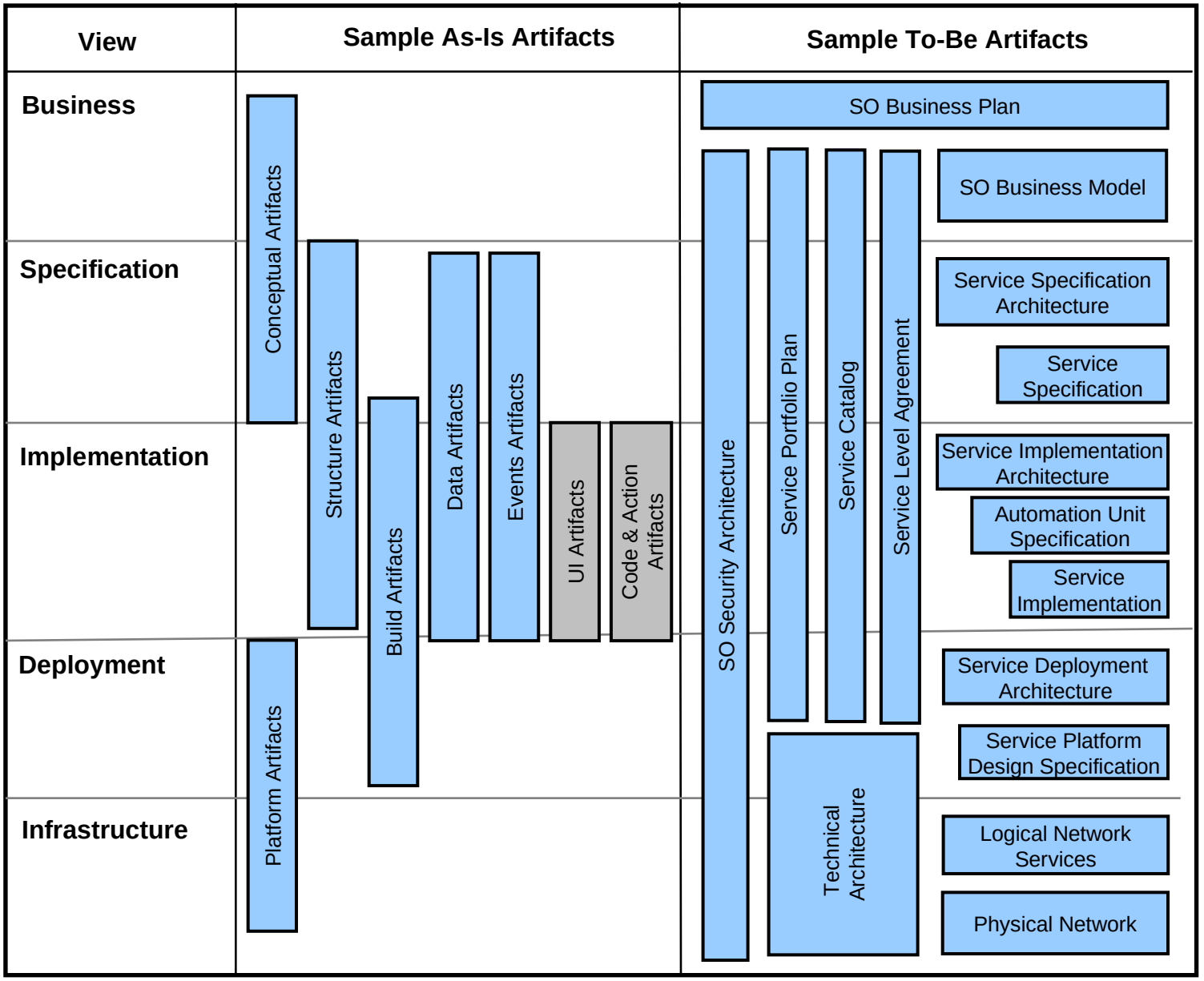


- Service enabled
- Component based
- Contract based
- Standardized (IT and business)
- Platform independent
- Virtualized
- Model driven architecture and design
- Application knowledge
- Defined change management capability

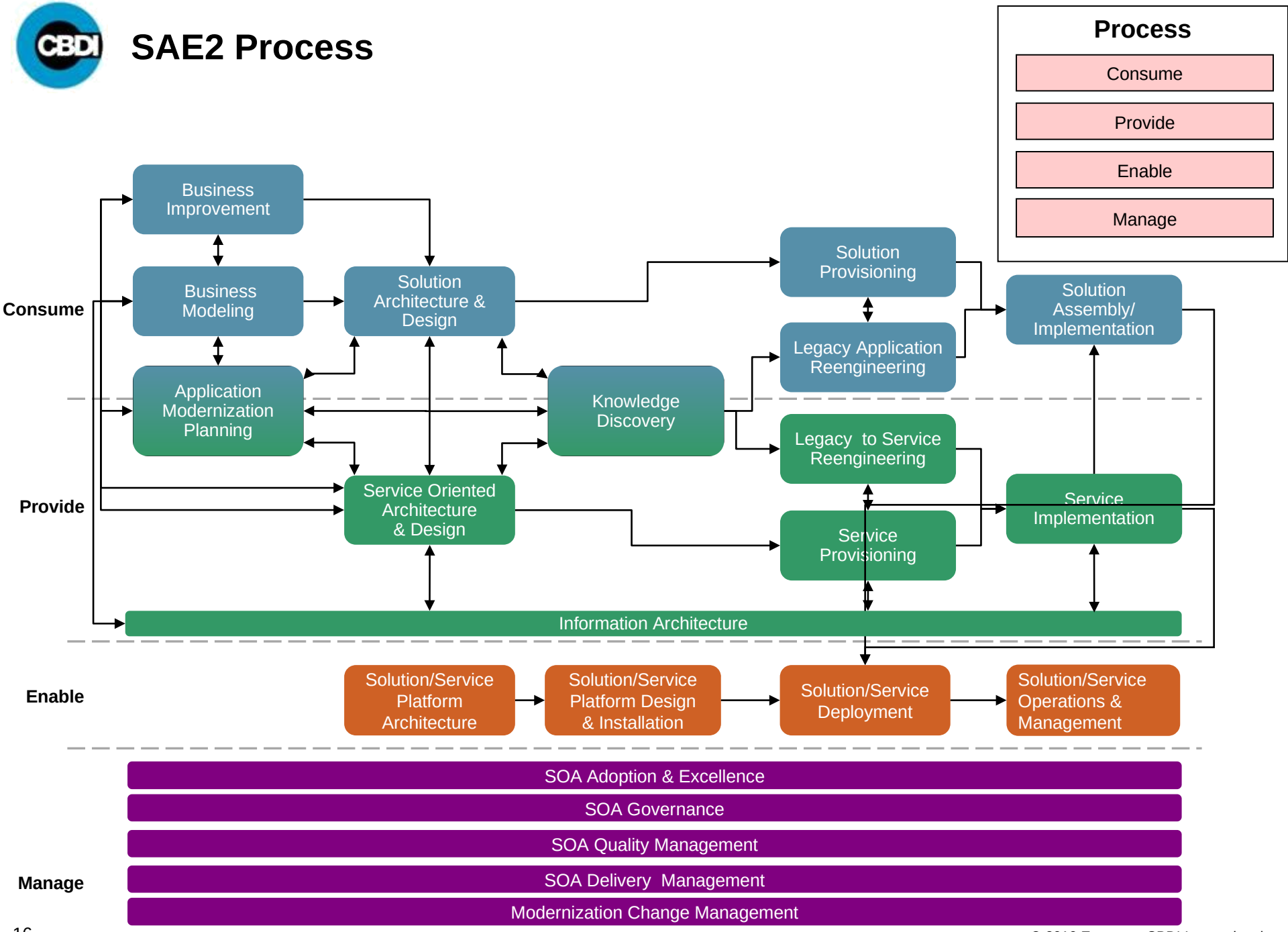
Reference Architecture



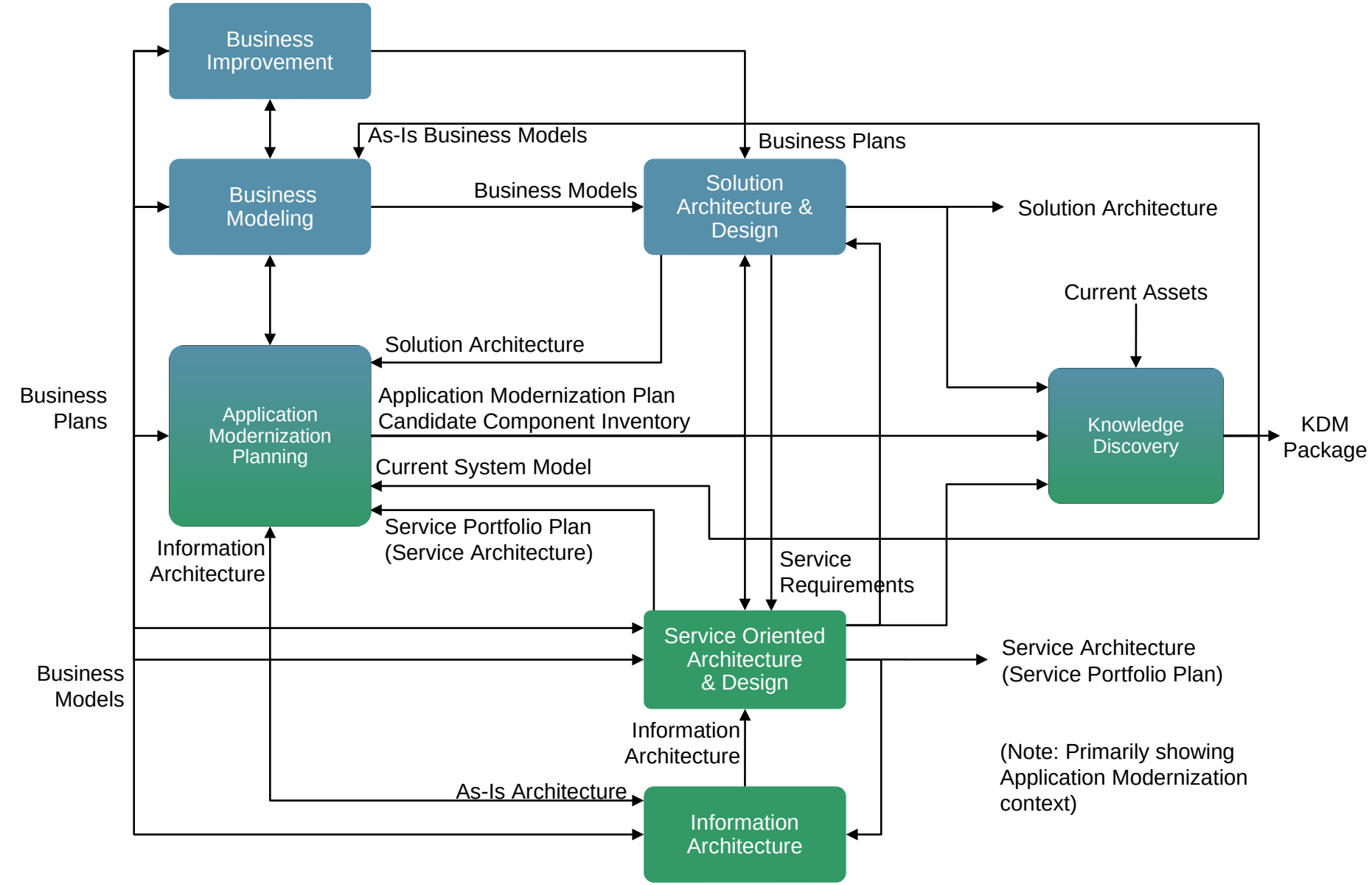
The Twin Architecture Views of SAE2



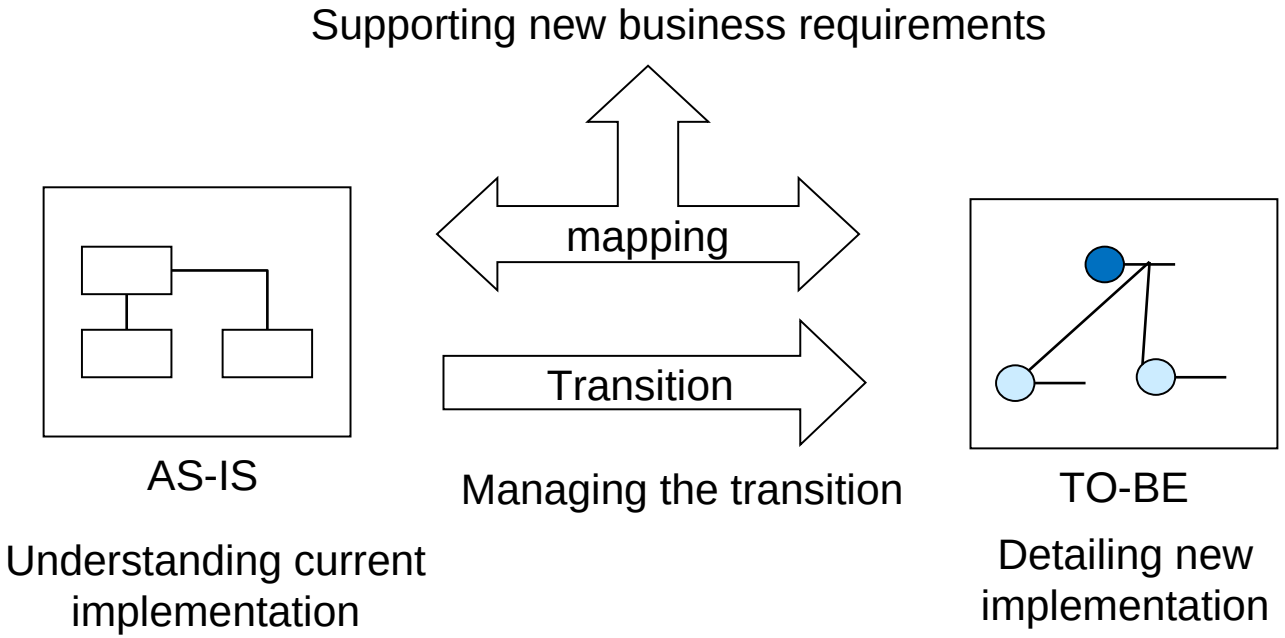
SAE2 Process



SAE2 Process Disciplines – Planning and Architecture

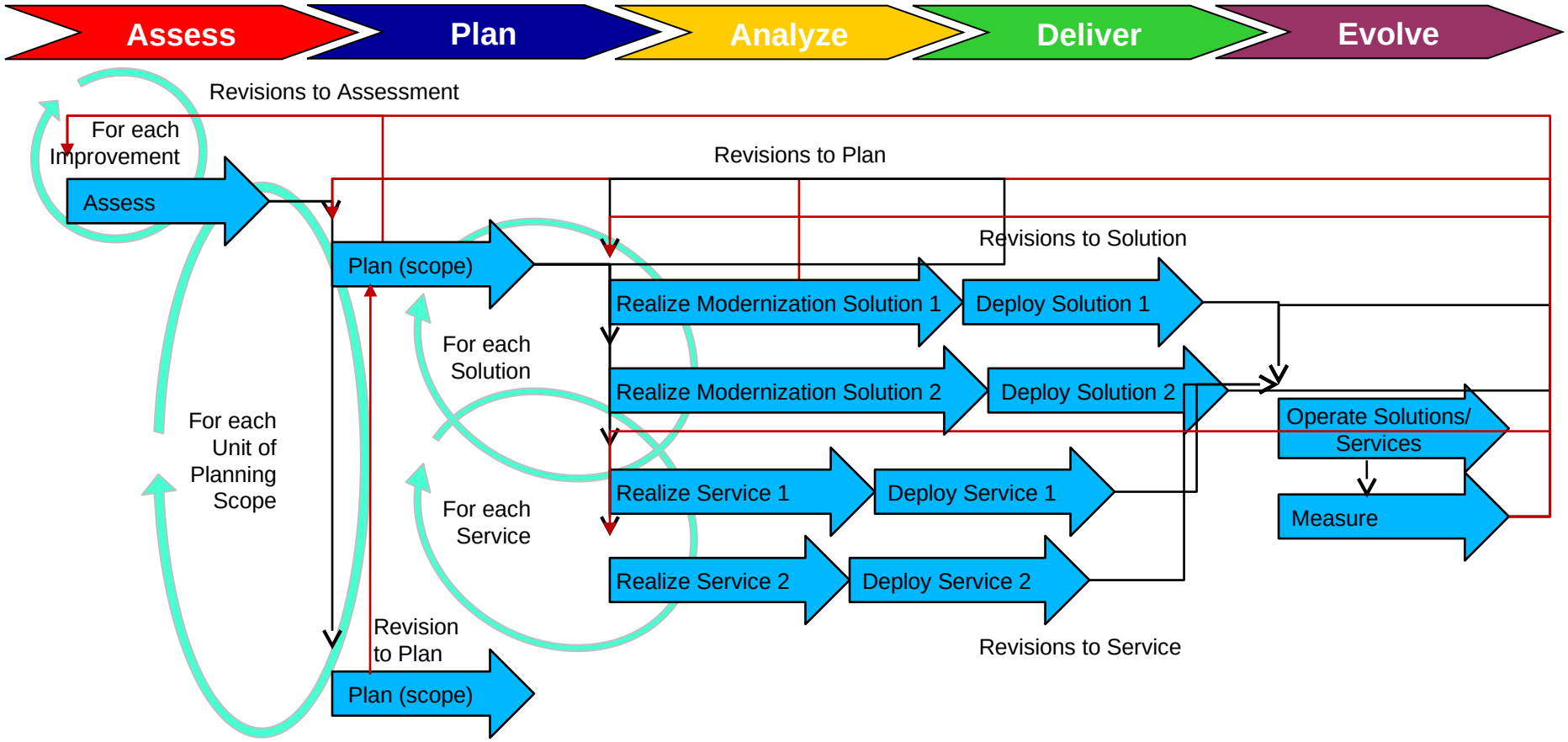


SAE2 Process Principles



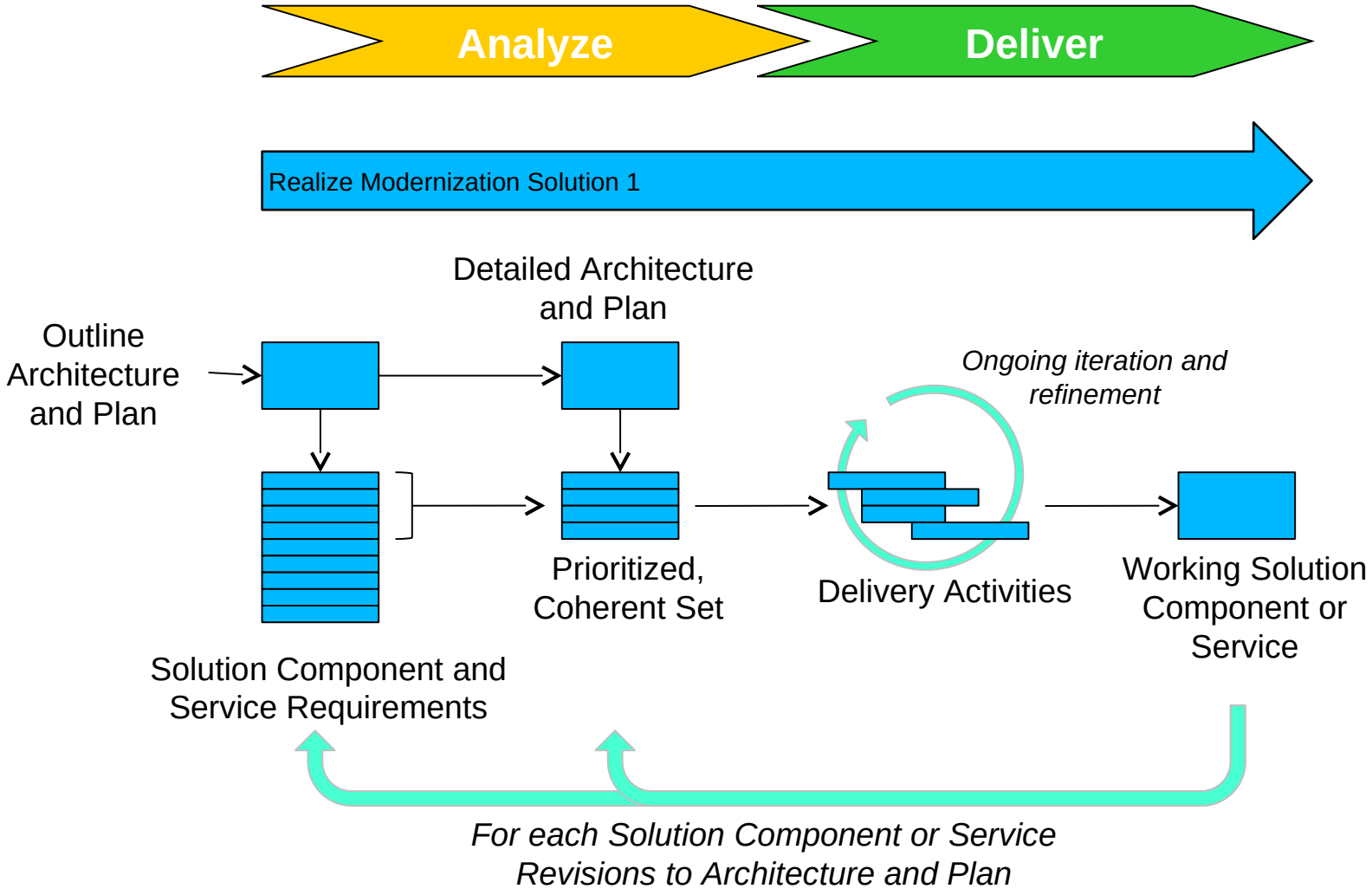
- Deliver agile core for continuous evolution
- Scoping and decomposing activities into manageable Work Packages.
- Iteration through the various Work Packages leading to revisions at all levels to fine-tune the next iteration.
- Continuous improvement of the assessment and plan
- Separation of Solution and Service Architecture, and Solution and Service Delivery, to deliver a layered Service Architecture that is not too tightly bound to a single solution
- Incremental delivery of an inventory of shared services and solution components that reduce time and effort in subsequent projects.
- Agile methods used within Work Package

Modernization in Parallel with Phased Modernization Iterations

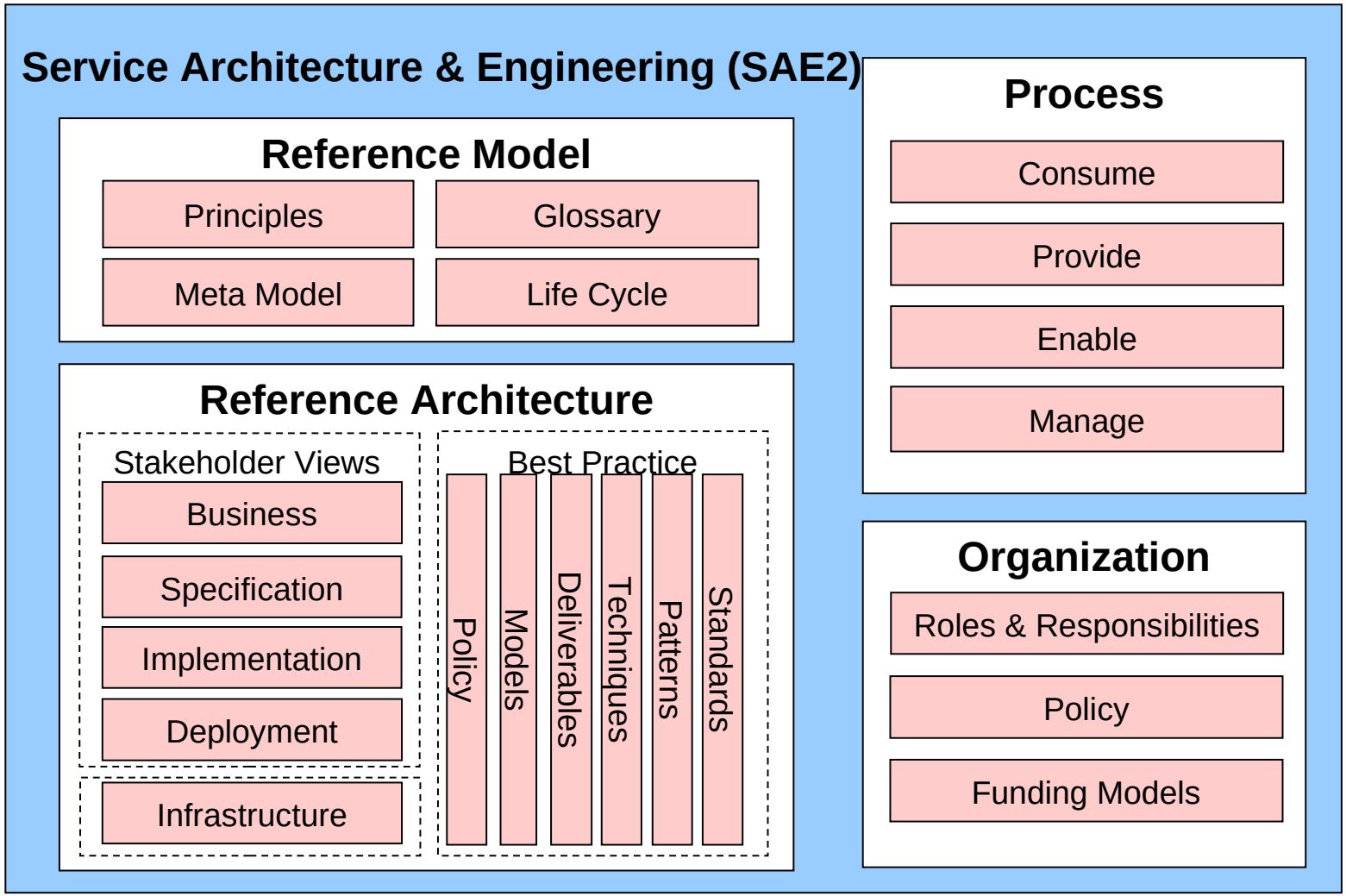


Modernization Roadmap

Agile Approach to Realization



SAE2 Reference Framework



Summary

- Application Modernization is more than technology transformation
- Business driven doesn't mean "functional requirements driven"
- Agility Potential (AP) provides structure to customer communications
- Objective is to deliver agile platform for tomorrow's business needs,
  . . . . NOT today's business needs
- Formal, defined reference framework is essential

Everware-CBDI and CBDI Forum

- Independent specialist AM/SOA firm
- Located UK and USA
- CBDI Forum
  - Practices CoE
  - Documented, published best practices, reference architecture, repeatable processes
  - Structured, meta model based, model driven, agile practices
  - Approach widely used by F1000 companies, consultancies/integrators and government departments
  - Facilitating SOA standards
  - 25,000+ subscribing architects worldwide
- Everware-CBDI
  - AM/SOA Solution Business including Consulting, Education and Knowledge products and tools

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