

# Do's and Don't for Successful SOA Deployment

Enterprise Architecture Practitioners Conference

London

Vivek Gupta  
Principal Consultant,  
Global Consulting Practice

Yogesh Vitavkar  
Lead Solution Consultant,  
Technology Solutions Group

# Agenda

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**Market Trends on SOA**

**Key Challenges**

**What went wrong with various customers**

**Do's and Don'ts for successful SOA deployment**

**Summary**



## What Analysts Say....

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Through 2010, a lack of working SOA governance arrangements will be the most common reason for SOA failure

- Source : Gartner 2008



Only 37% of companies implementing SOA report seeing positive return on investment from SOA

- Source : Nucleus Research



The biggest challenge most enterprise face in deploying SOA comes from the architecture's inherent advantage of breaking down the walls between businesses in the organisation, which therefore, requires a proper governance policy

- Source : Tower Group

# Key Challenges

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Business expects Agility from day one

High initial cost of setting up the SOA infrastructure

SOA is perceived as nice to have feature

Ownership of Business Domains, Common Services & Data domains

Master data definition and management is contentious issue

Packaged applications limit the capability to expose business services, more depends on vendors strategy

Legacy systems impose their restrictions on the business processes. Tearing down the 'working' legacy system could be prohibitive.

Further investments required for test automation & governance

## What went Wrong with various Customers?

A financial service provider selected SOA package with little or no skills available within the organisation. Completely dependent on the package vendor for strategy and direction

A leading insurer started building web services to exchange data with intermediaries without a SOA strategy and business case. Had no buy-in from the business and senior management

A telecom service provider started SOA project in a big bang approach with so much management hierarchy and minimal considerations for architecture and infrastructure principles. Lost momentum as it was difficult to manage

A new start-up organisation built every functionality as services, one and half year later had 1400 services with hardly any reuse and difficulties to control and manage them

# Ten Reasons why People make SOA Fail

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Fail to explain SOA's business value

Underestimate the impact of organisational change

Fail to secure strong executive sponsorship

Lack the required skills to deliver SOA

Attempt to do SOA "on the cheap"

Have poor project management

Think of SOA as a project instead of an architecture

Underestimate the complexity of SOA

Fail to implement and adhere to SOA governance

Let the vendors drive the architecture

Source: Computerworld

# What are the Critical Success Factors

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- Executive Buy-in
  - Strategy and SOA roadmap
  - Collaboration across Business & IT
  - Governance
  - Scalable Architecture
  - Granularity of Services
  - Selection of Tool set
  - Benefit realisation



# Strategy and Planning



## Do's

- Do make SOA a strategic initiative across the enterprise
- Do create an incremental SOA road map for existing portfolio of projects with a vision for long term benefits
- Do begin with realistic expectations
- Do the upfront planning and place the proper management processes around the technology infrastructure



## Don't

- Don't have a big bang approach for SOA
- Don't make it a IT only initiative.
- Don't use SOA as a way of realising business process standardisation without business buy-in
- Don't do SOA just because everyone is doing it
- Don't do SOA as a one of project



# Business Case for SOA



## Do's

- Do align SOA with business requirements. Substantial benefits can be shown by combining BPM with SOA.
- Do pay-as-you-go cost structure
- Do keep business case as a live document
- Do show savings by leveraging existing assets
- Do define a value measurement framework to track and measure benefits from services delivered



## Don't

- Don't go for complete replacement of existing infrastructure
- Don't go on a buying spree for new tools and technology. See what you really need
- Don't expect quick results in terms of reuse and cost savings
- Don't rely on what's working with other companies

# Governance



## Do's

- Do establish an executive and operation team for deploying SOA
- Do involve Business in decision making process to ensure commitment
- Do establish a Centre of Excellence to deliver SOA
- Do define ownership of services
- Do use of toolset to enforce design time and run time governance



## Don't

- Don't leave establishment of governance framework for a later stage
- Don't see investment on governance as a cost overhead
- Don't treat SOA deployment like any other application development project
- Don't develop services in silos

# People



## Do's

- Do plan for organisational change as SOA brings massive amount of change
- Do receive guidance and direction from experienced practitioner of SOA
- Do infuse and develop strong SOA skill sets within the organisation to support the SOA infrastructure
- Do create specialised roles for SOA deployment such as SOA architects, process modellers
- Do create awareness on SOA with business



## Don't

- Don't leave SOA to 'techies' only
- Don't leave SOA for experimentation by a novice
- Don't just depend on in-house expertise, look at industry best practices
- Don't blindly depend on product vendors to define your architecture

# SOA Architecture



## Do's

- Do define and publish standards, architecture principles, definitions for services
- Do define optimal granularity to the extent of reuse and flexibility required
- Do always consider reusing legacy logic before replacing it
- Do give proper attention on data
- Do focus on building a set of patterns, framework utilities, functions and services and realise that they are part of a 'core'.
- Do define SOA Policy Management



## Don't

- Don't forget about Non-functional Requirements
- Don't marry standards. Don't wait for standards to mature before you move into SOA governance ... You might have to wait for a long time

# SOA Design & Development



## Do's

- Do insulate services - separating internal data structures and details from the external interfaces i.e. via 'facades'. It should be a major way to help make services reusable.
- Do encourage culture of service re-use
- Do understand the consumers of services. Also whether they are to be used within an organisation or externally.



## Don't

- Don't forget about error handling - both within the service, how errors are communicated to the service consumer, and how they are reported / alerted to a support organisation. Experience shows this is a large and complex area to address, so it shouldn't be underestimated
- Don't forget about data modelling, UI design and all the other traditional application development disciplines. SOA doesn't replace them, it is more about utilising them in a more efficient, flexible and reusable manner

# SOA Design & Development (Contd..)



## Do's

- Do remember security - If implemented correctly then internally service interfaces can be treated as trusted. If not then each service has to consider security separately.
- Do recommend extensive logging (at least during initial troubleshooting) to track the flow of messages across the SOA infrastructure
- Do have a robust mechanism for configuration management and version control of services



## Don't

- Don't over do on emerging WS-standards
- Don't underestimate the effort required for Testing. Give proper focus for Testing. Plan for at least 30% of development effort on integration testing

# Managing Tools and SOA Infrastructure



## Do's

- Do evaluate toolset against the SOA infrastructure requirements
- Do prototype and pilot tools to minimise risk
- Do make sure tools adopt industry standards to future proof technology investments
- Do emphasis on application infrastructural components like security, systems management , repository. SOA testing which form the foundation for the architecture



## Don't

- Don't define a monolithic architecture or technology architecture with huge variety of technology tools.
- Don't go for a SOA component like repository or governance only because it's part of a suite of software as this might not meet all your requirements

# Monitoring & Benefit Realisation



## Do's

- Do establish and measure key performance indicators for services deployed
- Do use of service management tools to monitor service performance
- Do track the business value measurement (e.g. agility to launch a new product, reduction in IT maintenance cost etc)
- Do use value measurement output to refine strategic planning, investment prioritisation and benefit realisation

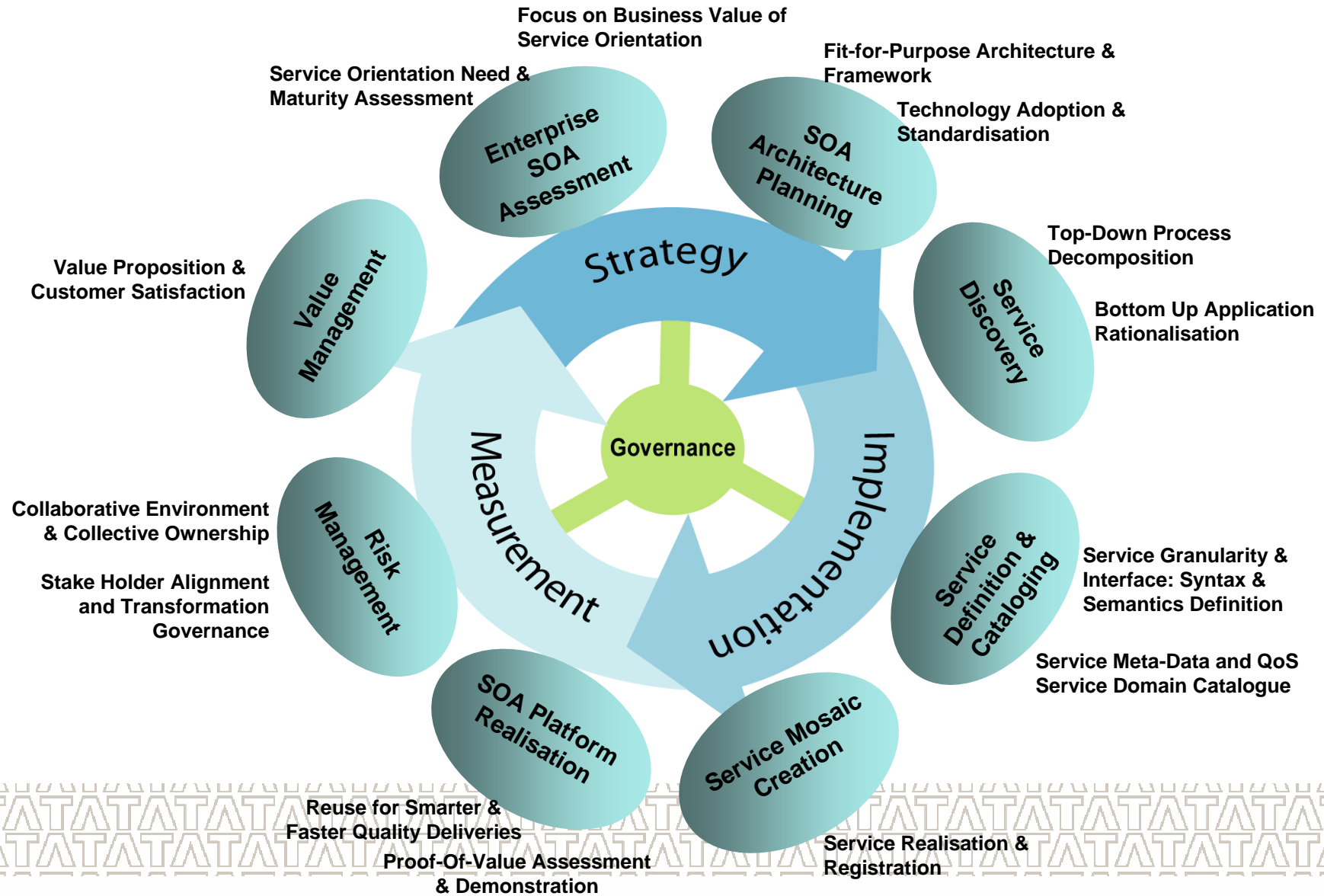


## Don't

- Don't leave measurement as the one-off activity (Measure periodically to monitor the incremental benefits)
- Don't have measurement as a last process



# Framework for SOA deployment



# Summary

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SOA has value despite the various failures



SOA has to be an enterprise wide initiative with executive buy-in



Adopt an incremental approach with pay as you go cost model



Make governance implicit part of your SOA programme



Leverage tools & existing assets to reduce total cost of ownership



# Thank You

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Vivek Gupta  
Vivek1.gupta@tcs.com

Yogesh Vitavkar  
Yogesh.vitavkar@tcs.com

