# Enterprise Architecture: A Key IT Management Process

*Enterprise Architecture*

***Presentation NTNU***

# What Is Enterprise Architecture?

- A planning discipline for the enterprise that goes beyond technology choices:
  - Driven by the strategic intent of the enterprise
  - Holistic in breadth
  - Designed to create a future-state “road map”
  - A bridge between strategy and implementation
  - Provides flexibility and adaptability for changing business, information, and solution needs => change enabler
- Why do this at the ENTERPRISE level?
  - To overcome religious wars concerning technology choices within projects
  - To provide consistent and disciplined use of technology
  - To reduce stovepipe solutions & reduce integration complexity

# Enterprise Architecture – bridging the gap between Business and IT

- Enhance the relationships between IT and the business
- Reinforce IT understanding of the business strategy
- Create a process for continuous IT/business alignment
- Enhance IT agility to support business changes
- Create business value from IT

# The Demand For Enterprise Agility

- Planning timeframes are compressed
- Primary problem for the Global 2000…
  - Adapt faster
- Adaptability = business risk management

***Business Process***
***Cycle Times have Collapsed!***

**Business Cycle Times — 1970s and 1980s**
**7 years**

**IT Delivery Processes**
**2-3 years**

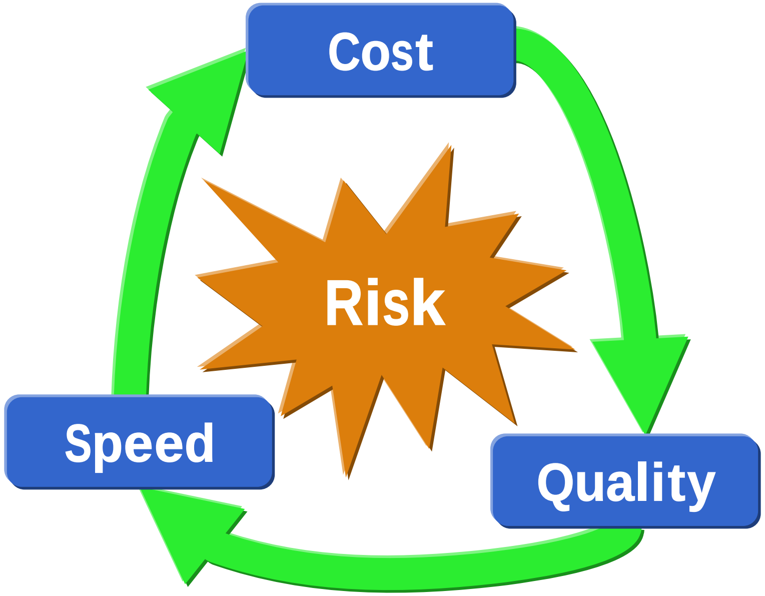
**Business Cycle Times — 1990s**
**12-18 months**

**Business Cycle Times — 2000s**
**NRT**

***Design in the ability to thrive on change, design out everything that inhibits change***

# Cyclic Fixations of Business & IT

- The fixations of business & IT
  - Previous fixation: Speed
    - When we go too fast, we lose control of our spend
  - Current fixation: Cost
    - When we cut too much, quality suffers
  - Next fixation: Quality
    - When quality controls go overboard, everything takes too long
- Risk management is at the center
  - Balance is the key!

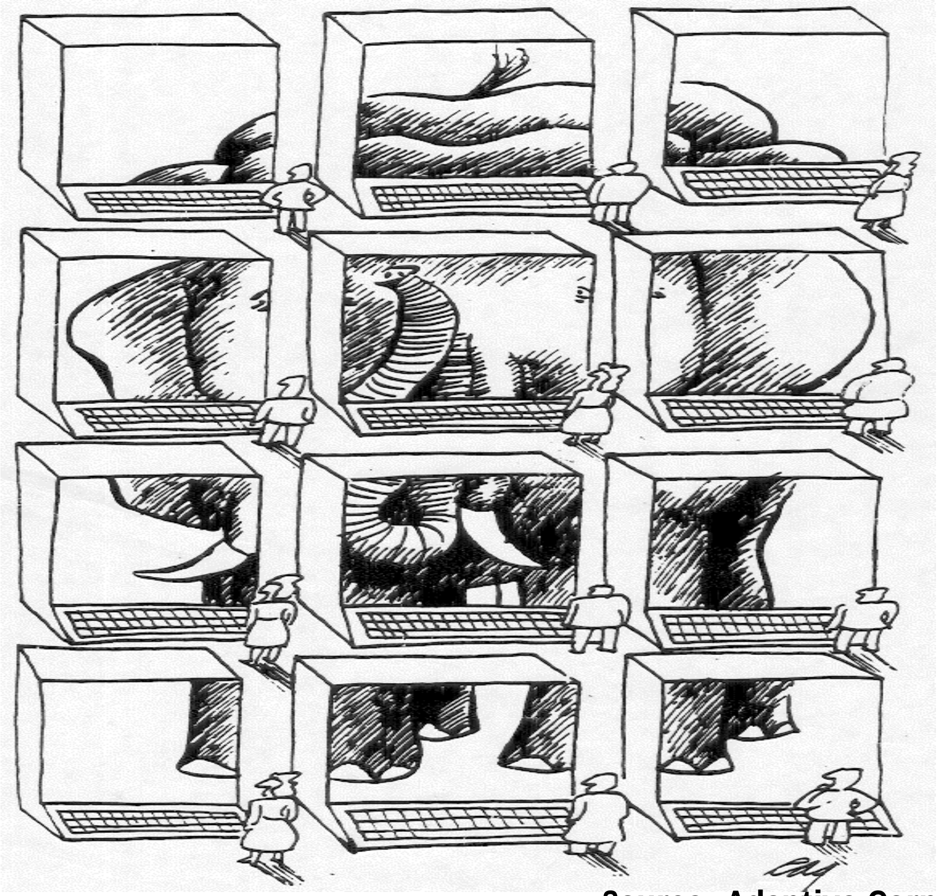


# The Enterprise View

- The enterprise view binds, scopes, and constrains the perspective in which the organization operates
- An enterprise perspective identifies the big-picture interrelationships & interdependencies to make appropriate optimization and suboptimization decisions
  - Look at “the whole,” not the piece parts
  - Look beyond narrow and restricted views
  - Look for context from the top

***The quality of all IT decisions is dependent on the enterprise view***

# The Enterprise View

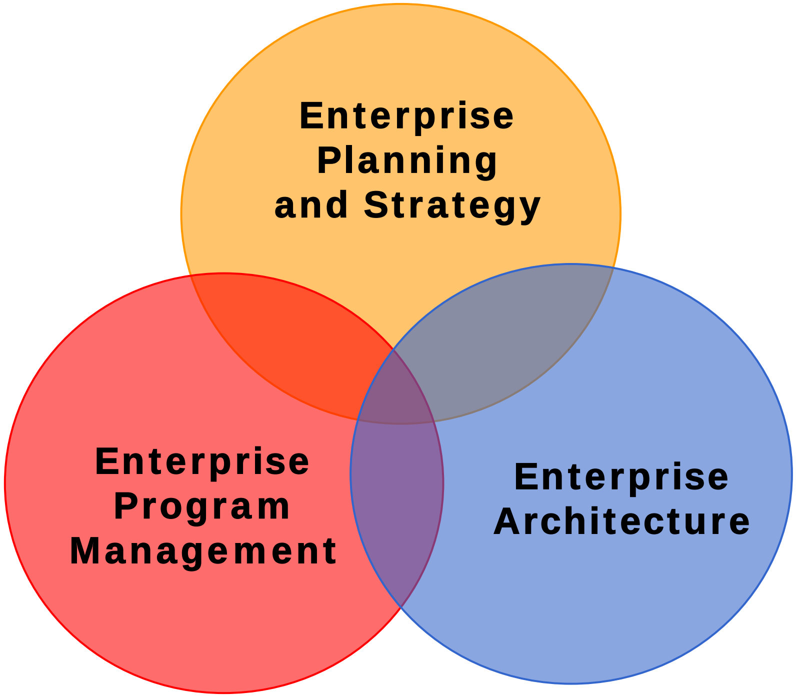


Source: Adaptive Corp.

# High Performance Enterprises Develop Integrated Strategies

- Planning and Strategy
  - Focused on integration of business and IT planning
- Enterprise Architecture
  - Goal is to provide the road map for the enterprise
- Program Management
  - Primary agent for implementing enterprise transformation

*3 Primary Elements*



**Enterprise Planning and Strategy**

**Enterprise Program Management**

**Enterprise Architecture**

# Enterprise Architecture Bridges Strategy and Implementation

## Architecture

- Business architecture
- Information architecture
- Solution architecture
- Technology architecture

## Business Strategy

- Business drivers
- Business goals
- Business policy
- Trend analysis

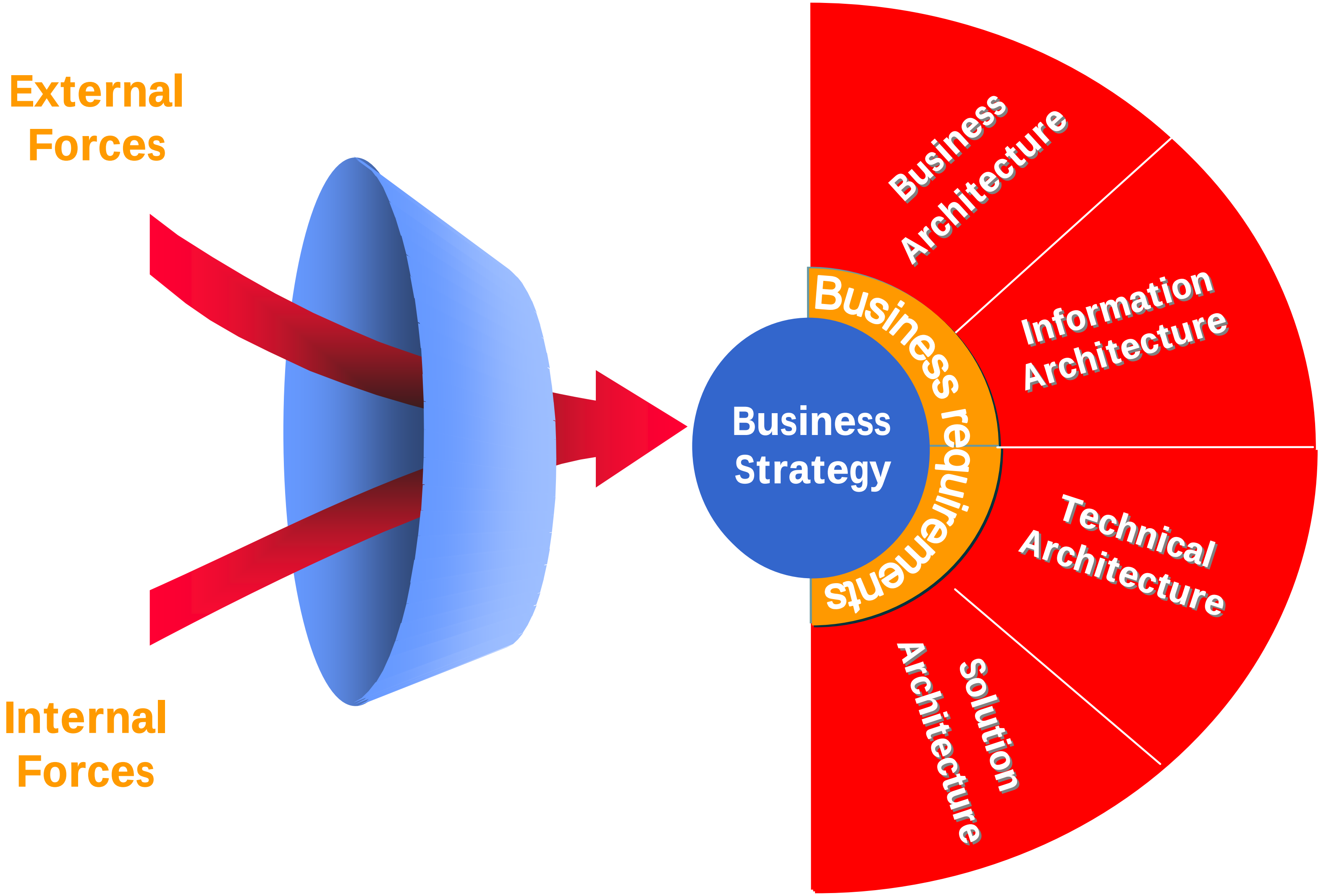
## Implementation

- Business processes
- Application systems
- Tech infrastructure
- Organizational structure

***The bridge between strategy & implementation***

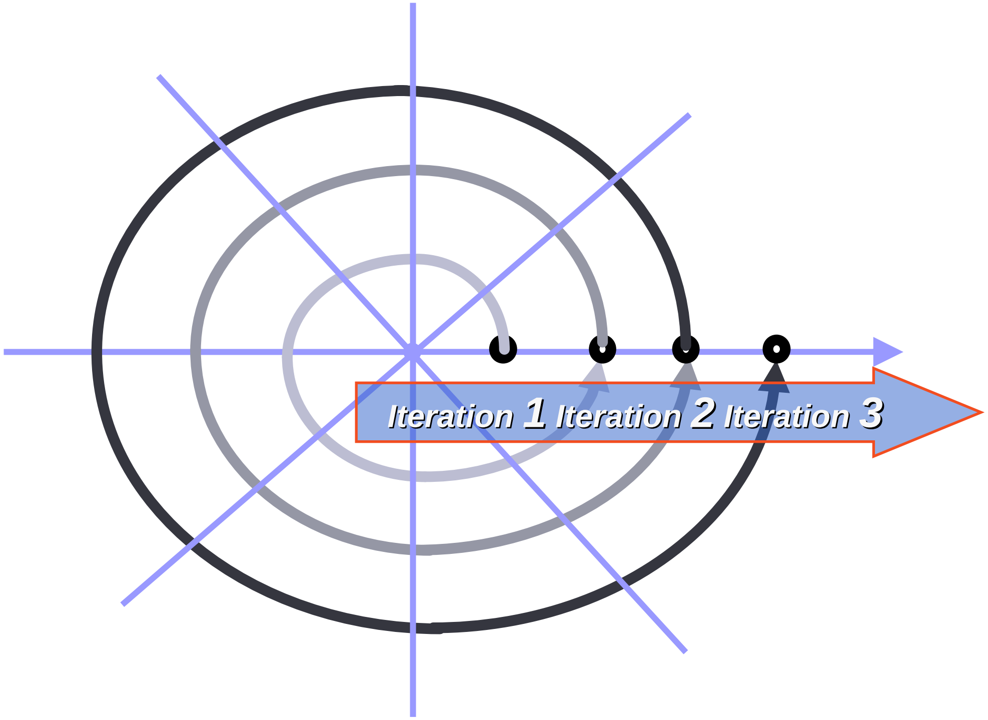
Gartner

# From Forces to Enterprise Architecture …


External Forces
Internal Forces
Business Strategy
Business requirements
Business Architecture
Information Architecture
Technical Architecture
Solution Architecture

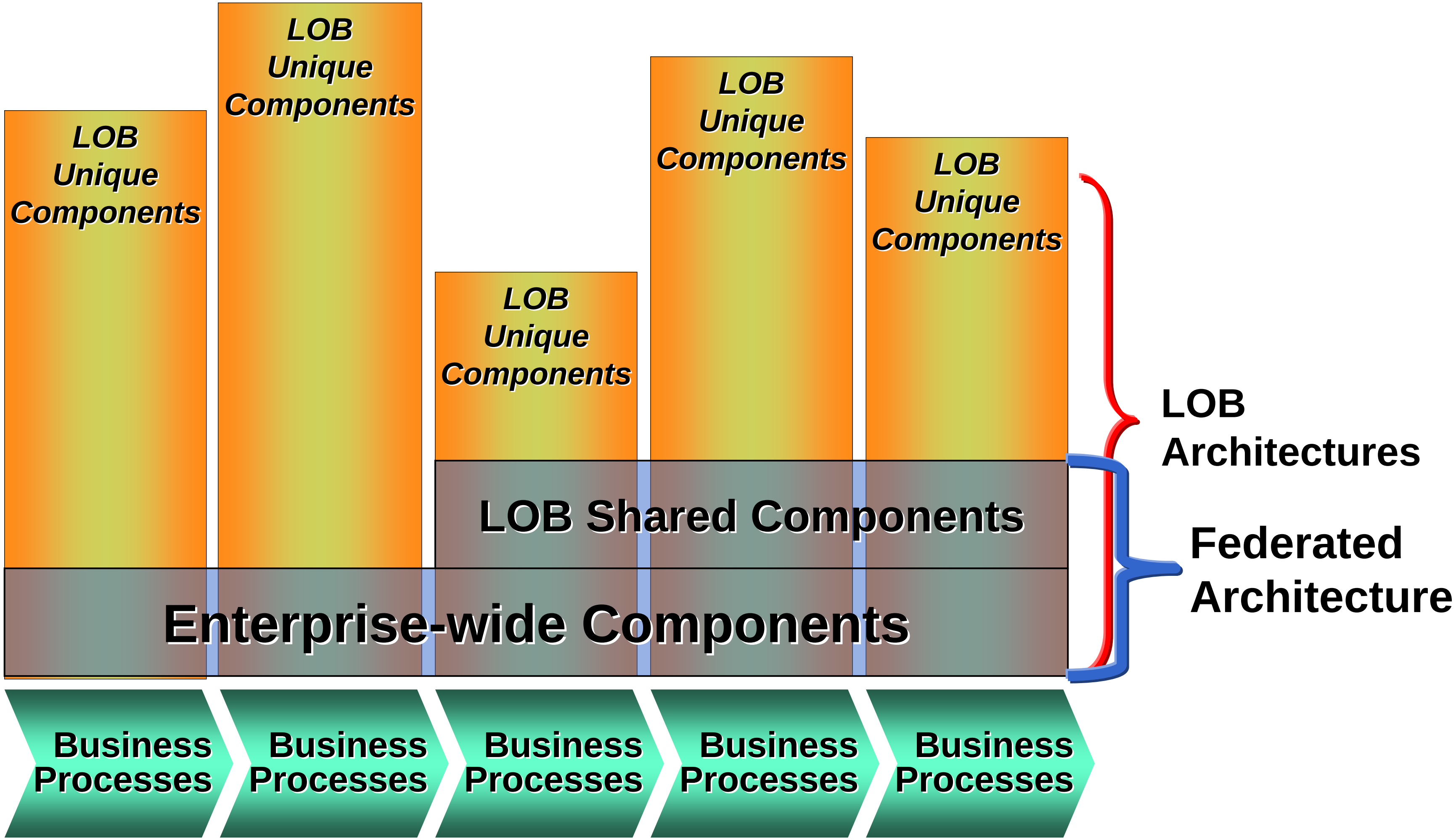
Gartner

# Evolve architecture Iteratively


Iteration 1
Iteration 2
Iteration 3

***Enterprise Architecture is not a "one-time event"***
***EA must be progressively enhanced via iterations***

# Scope: Just Enough Architecture, Just in Time



*LOB Unique Components*

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**LOB Shared Components**

**Enterprise-wide Components**

**Business Processes**

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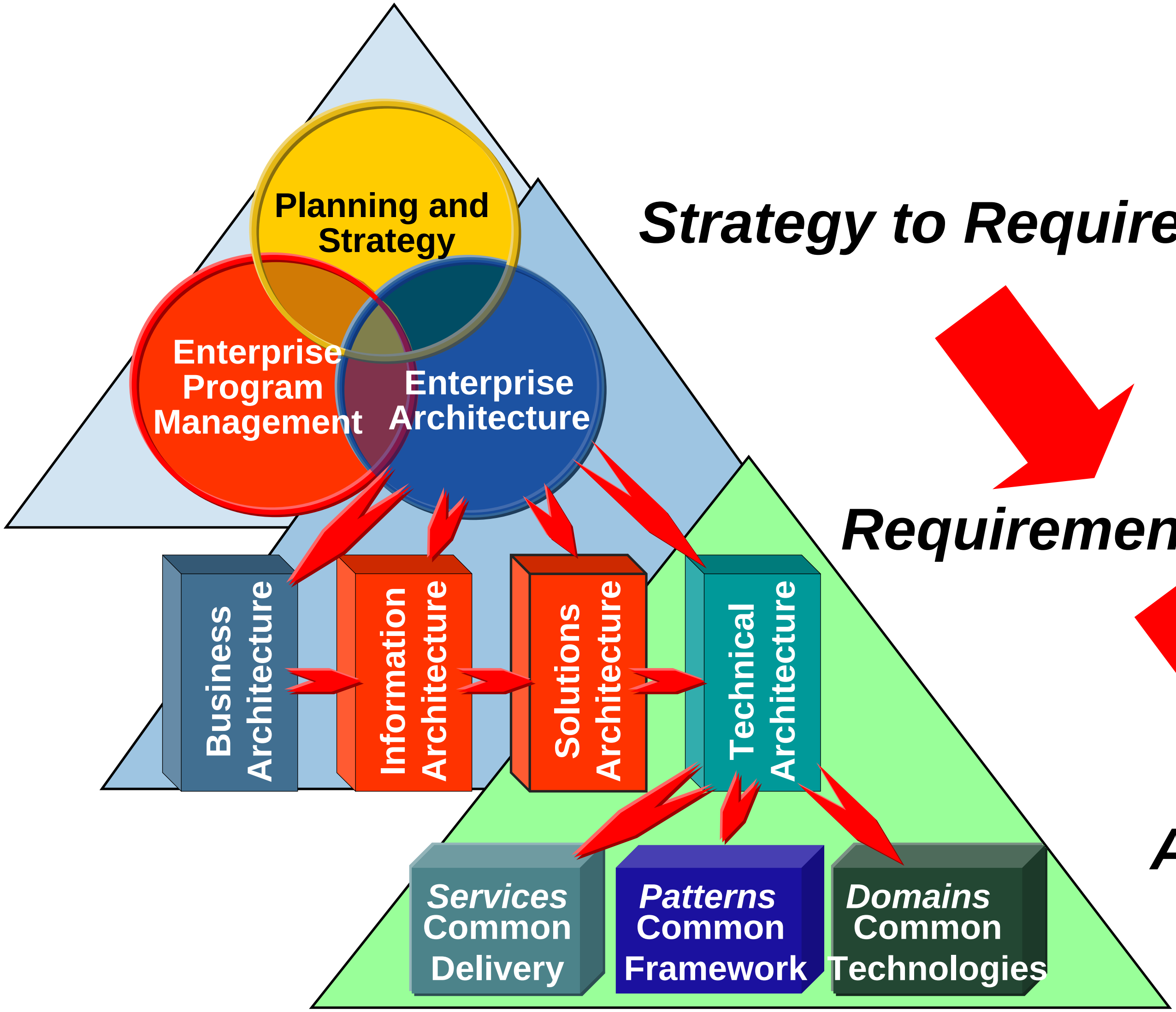
**LOB Architectures**

**Federated Architecture**

# Model Just Enough, Just In Time and link IT together


Planning and Strategy
Enterprise Program Management
Enterprise Architecture
Business Architecture
Information Architecture
Solutions Architecture
Technical Architecture
Services Common Delivery
Patterns Common Framework
Domains Common Technologies

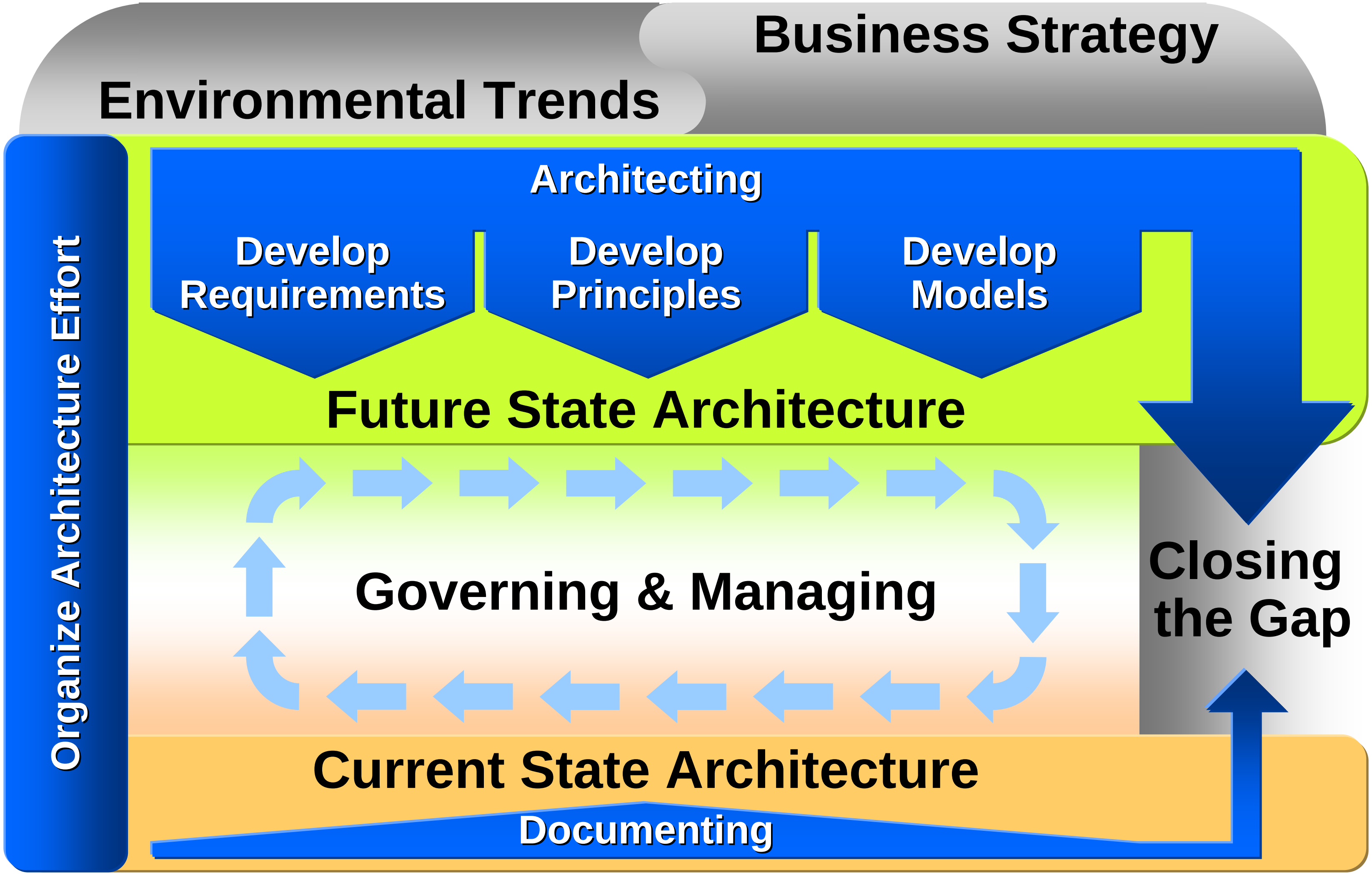
***Strategy to Requirements***

***Requirements to Architecture***

***Architecture to infrastructure***

Gartner

# The EA Process Model



Business Strategy

Environmental Trends

Organize Architecture Effort

Architecting

Develop Requirements

Develop Principles

Develop Models

Future State Architecture

Governing & Managing

Closing the Gap

Current State Architecture

Documenting

# Principles – example:
# High level requirements for ICT solutions

- Same solution for similar business needs
- Same architecture for similar solutions
- One common infrastructure throughout Statoil
- Utilize what we have
- Buy-not-build
- In-line with the market:
  - Don't be different
  - Don't be 'bleeding-edge', but
    - accept specific solutions, only if required to achieve "Competitive edge"
- Support a borderless Statoil