



Enterprise Architecture A Case Study from the Year 2019

William Sheleg
Darryl Humphrey
Deloitte Consulting
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Basis for the Case Study: A Vision of EA in the Year 2019

Fictitious Company(FC) Case Study

FC Overview and Strategy

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EA Framework (TOGAF 2020)

Architectures

EA Tools

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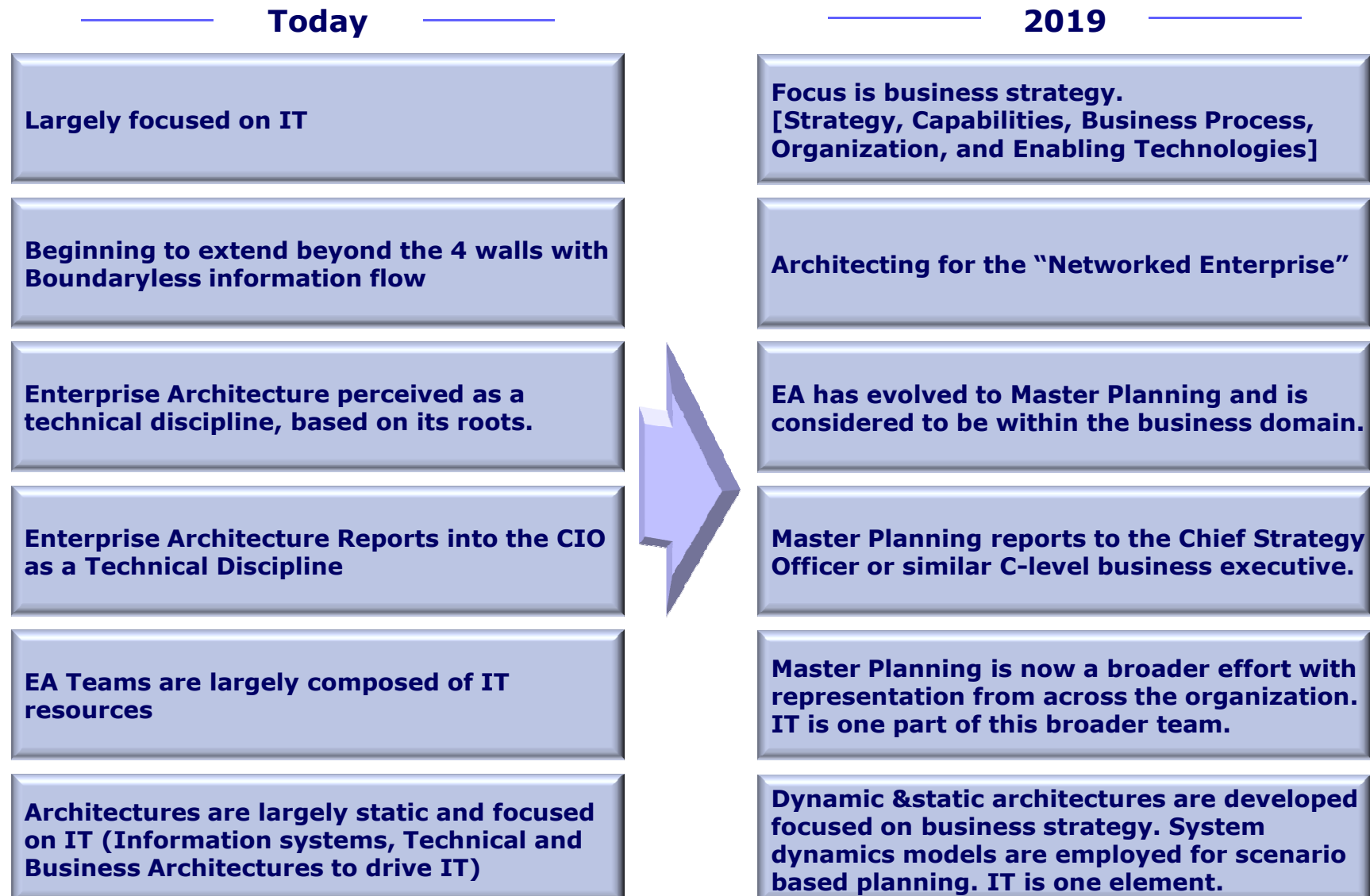
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A Vision for the Future - EA in the Year 2019



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Overview & Strategy

Fictitious Company Overview

- FC is a global medical products firm with operations in 27 countries.
- They have CAGR of 20% with Operating Profit of 27%.
- They employ a networked innovation model, partnering on product design, and development.
- They operate in a growing but highly competitive market.
- Information technology is critical to their operations, supporting both internal operations, and collaboration with trading partners, boundaryless information flow having become a reality.
- They perform annual strategic planning, continuously monitor performance to plan and market conditions, and adjust their plan quarterly as needed as part of a continuous strategy improvement process.

Overview & Strategy

Fictitious Company Strategy

- **FC follows a differentiation competitive strategy.**

Differentiation of its products in the marketplace allows it to charge a premium related to the unique fit of its products to the personalized health needs of its customer base.

- **FC collaborates on product design and development.**

They maintain close networks with producers of science, key opinion leaders, and governmental agencies that monitor disease states, and leading innovations in **response to known targets**.

- **FC outsources manufacturing and distribution.**

Manufacturing and distribution is not considered strategic and is therefore outsourced.

- **FC maintains a specialized sales force that allows it to own the relationship with its customer base.**

This closeness to the marketplace feeds product innovation through continual analysis of market needs. Social networking technologies provide them continual and immediate access to market opinion, reaction to products and suggestions for improvements.

- **Innovation is critical to its continued market leadership.**

Today 80 % of its revenue comes from products that did not exist 3 years ago.

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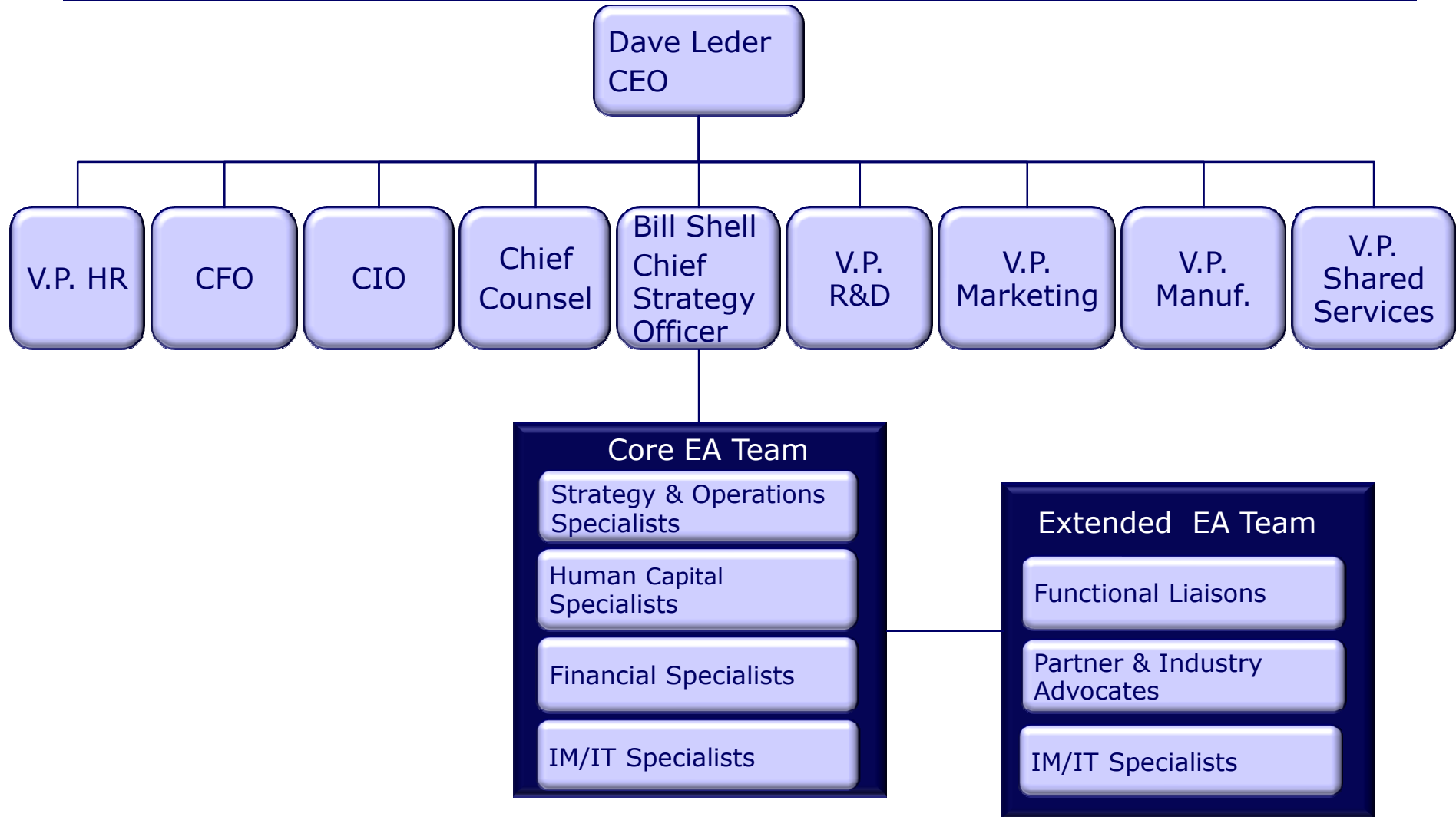
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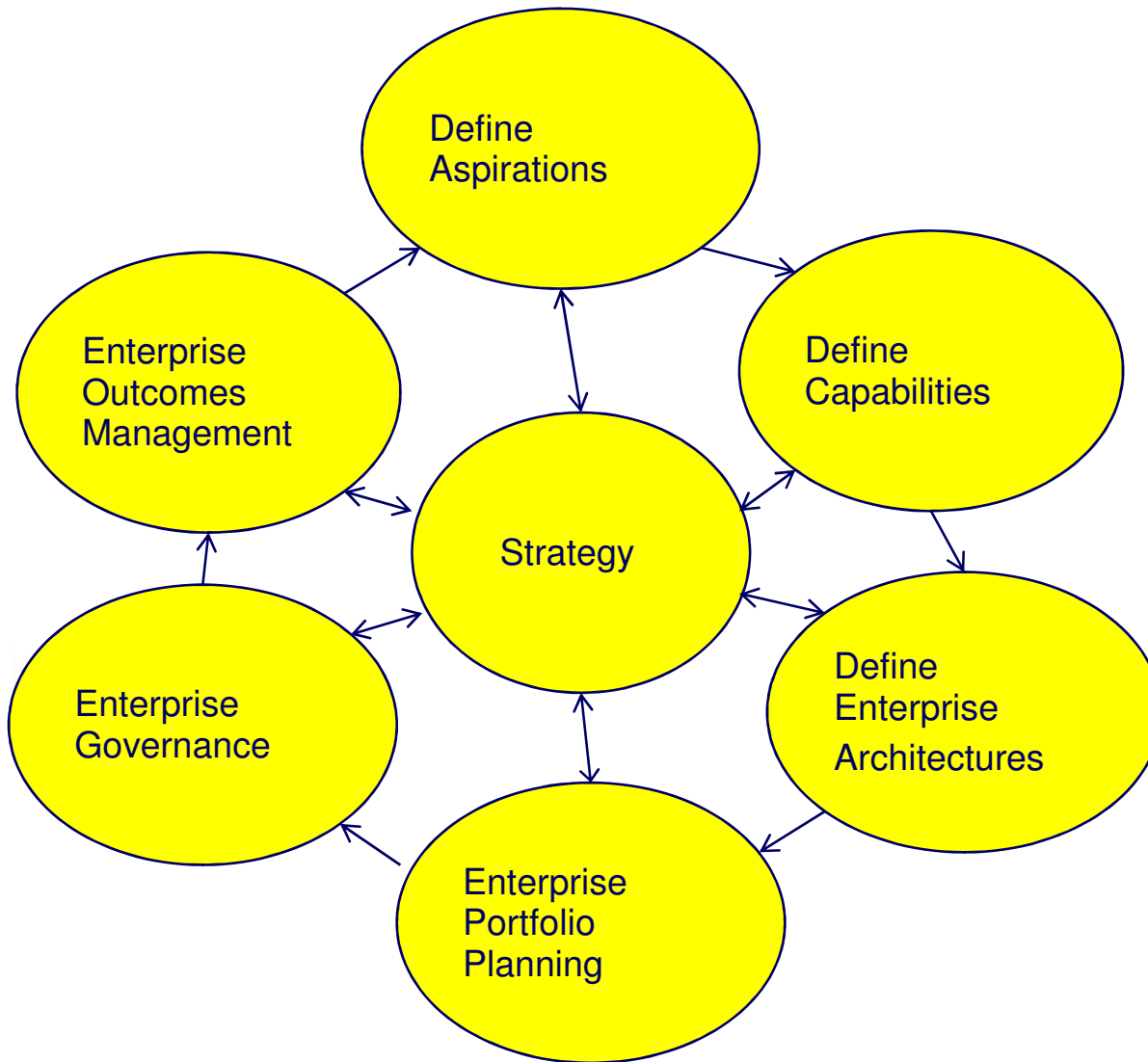
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EA Framework

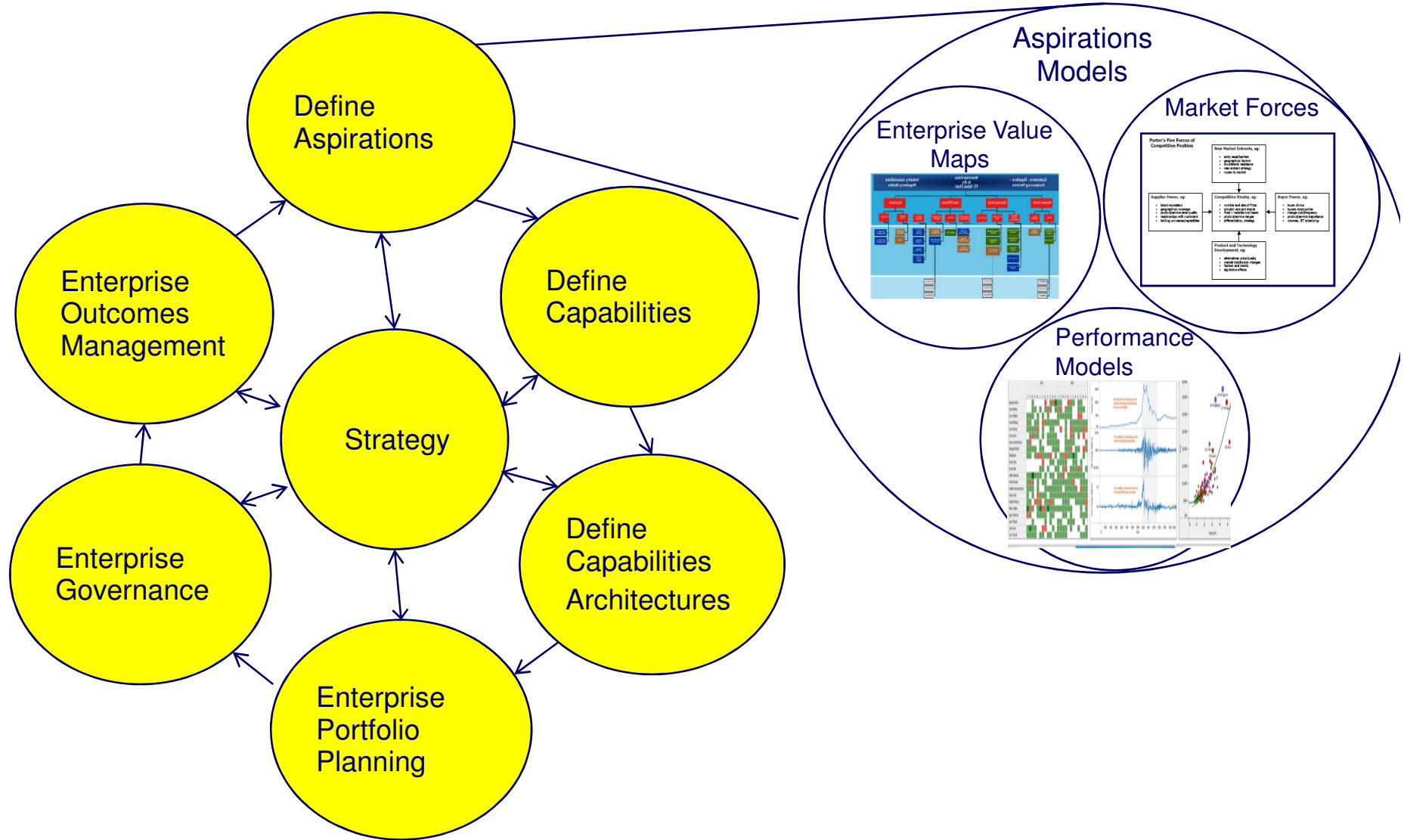
TOGAF 2020

1. TOGAF has become the dominant framework across both the commercial and public sector allowing us to work easily with partners and regulatory agencies.
 - TOGAF has established the needed common semantics for EA work.
2. Supports modeling of market forces / dynamics.
3. Supports networked value chain architectures – building on earlier boundaryless information flow.
4. Supports both dynamic and static modeling and scenario based planning.
5. Support Business Process Improvement and Reengineering
6. Strong in organizational modeling, stakeholder value maps, and communications planning
7. Extended to support Performance Management architectures with strong support for short-term metrics and dash boards to measure progress toward strategy achievement
8. Clearly distinguishes transitional activities & metrics from steady state models.
9. Has been adopted as a standard in business schools curriculum leading to both MBP (Master of Business Planning) and MBSE (Master of Business Strategy Execution) concentrations within MBA programs.
10. There is a strong labor force of certified and experienced TOGAF professionals across disciplines.

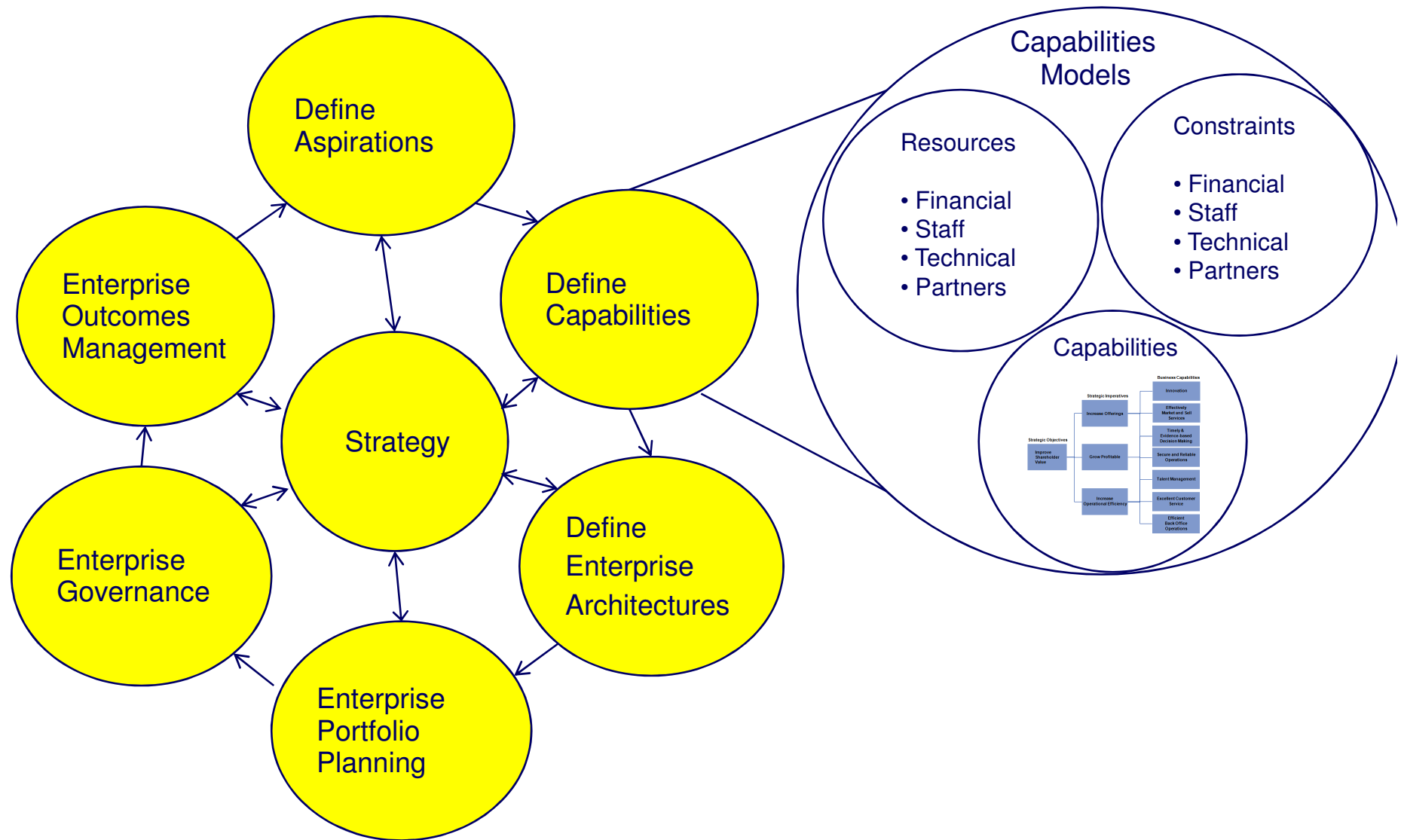
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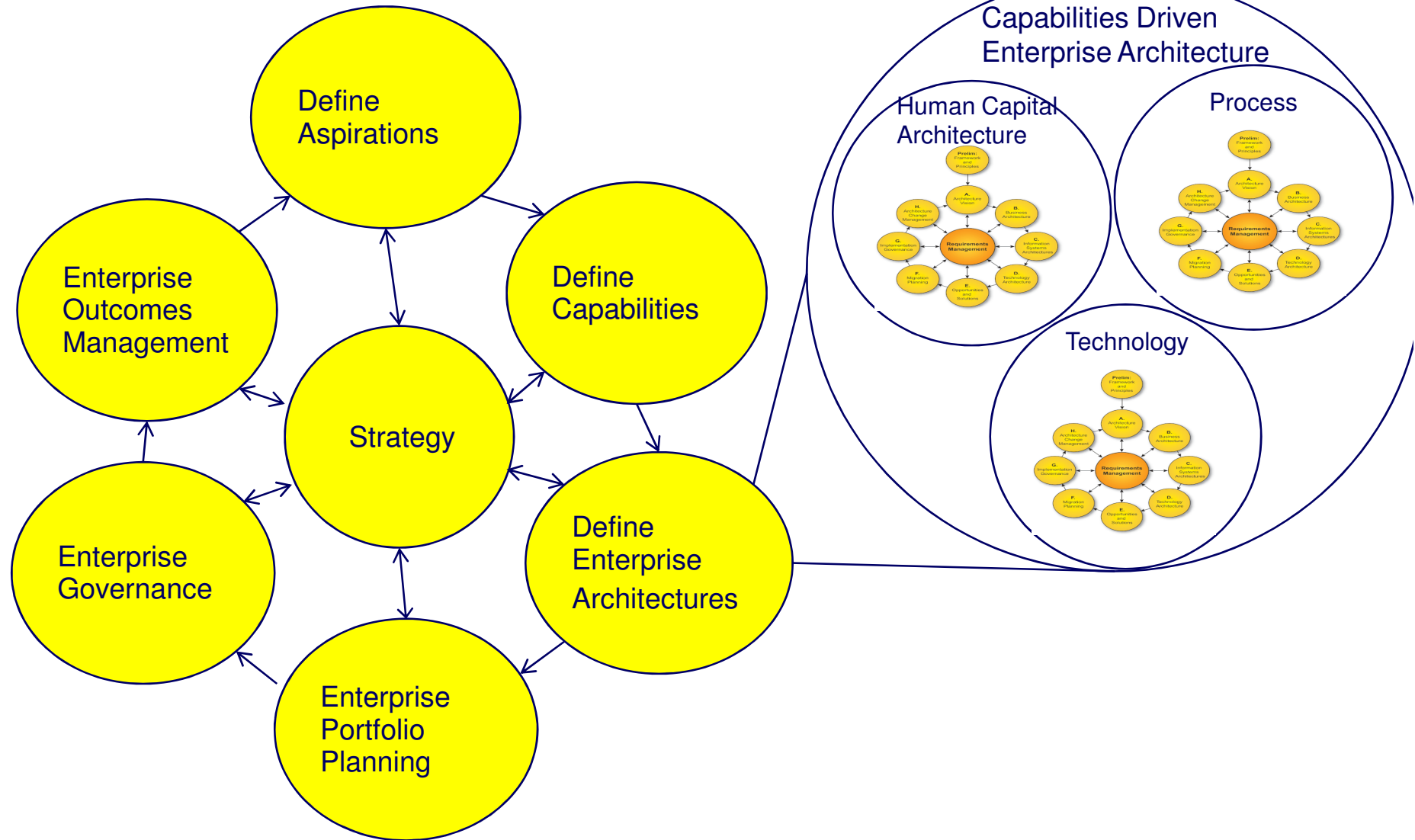
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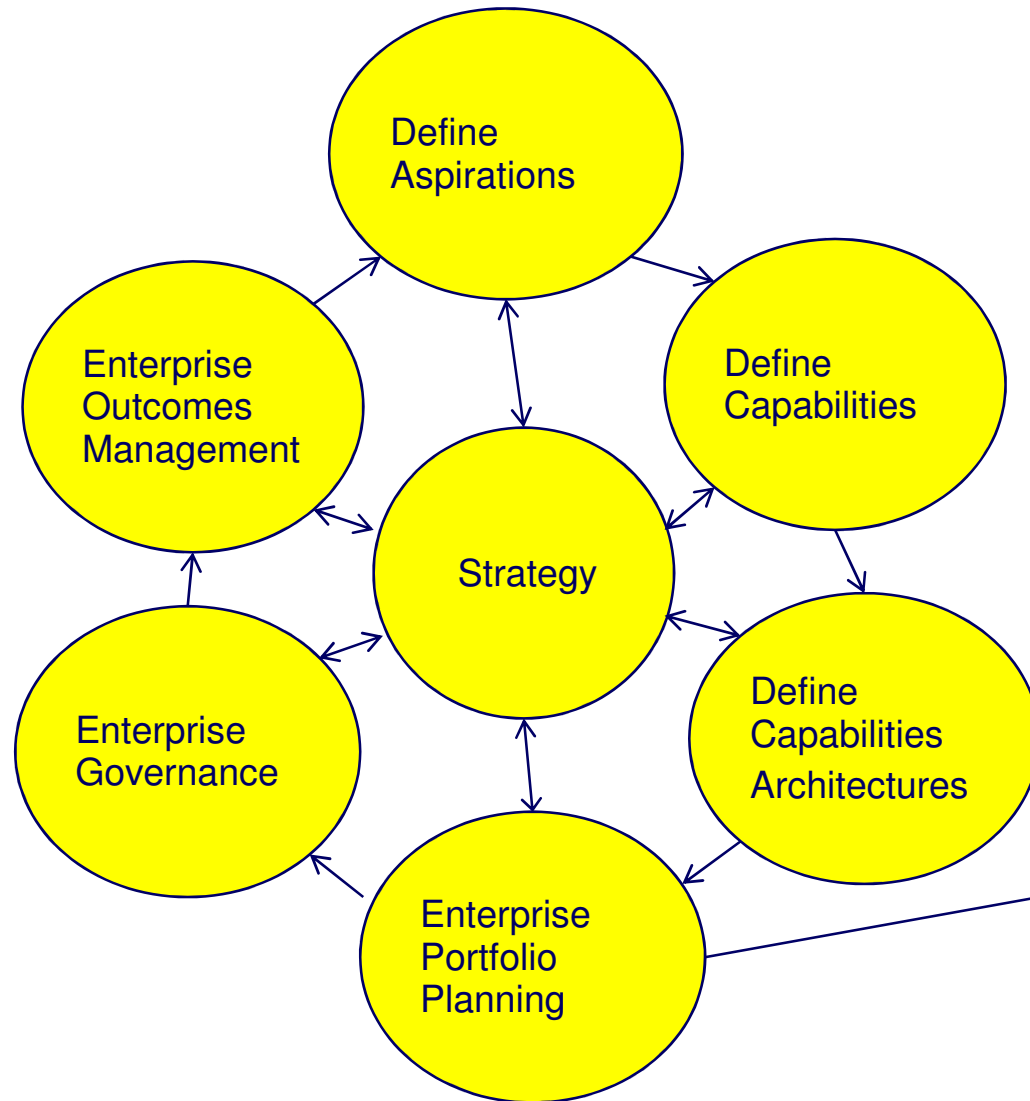
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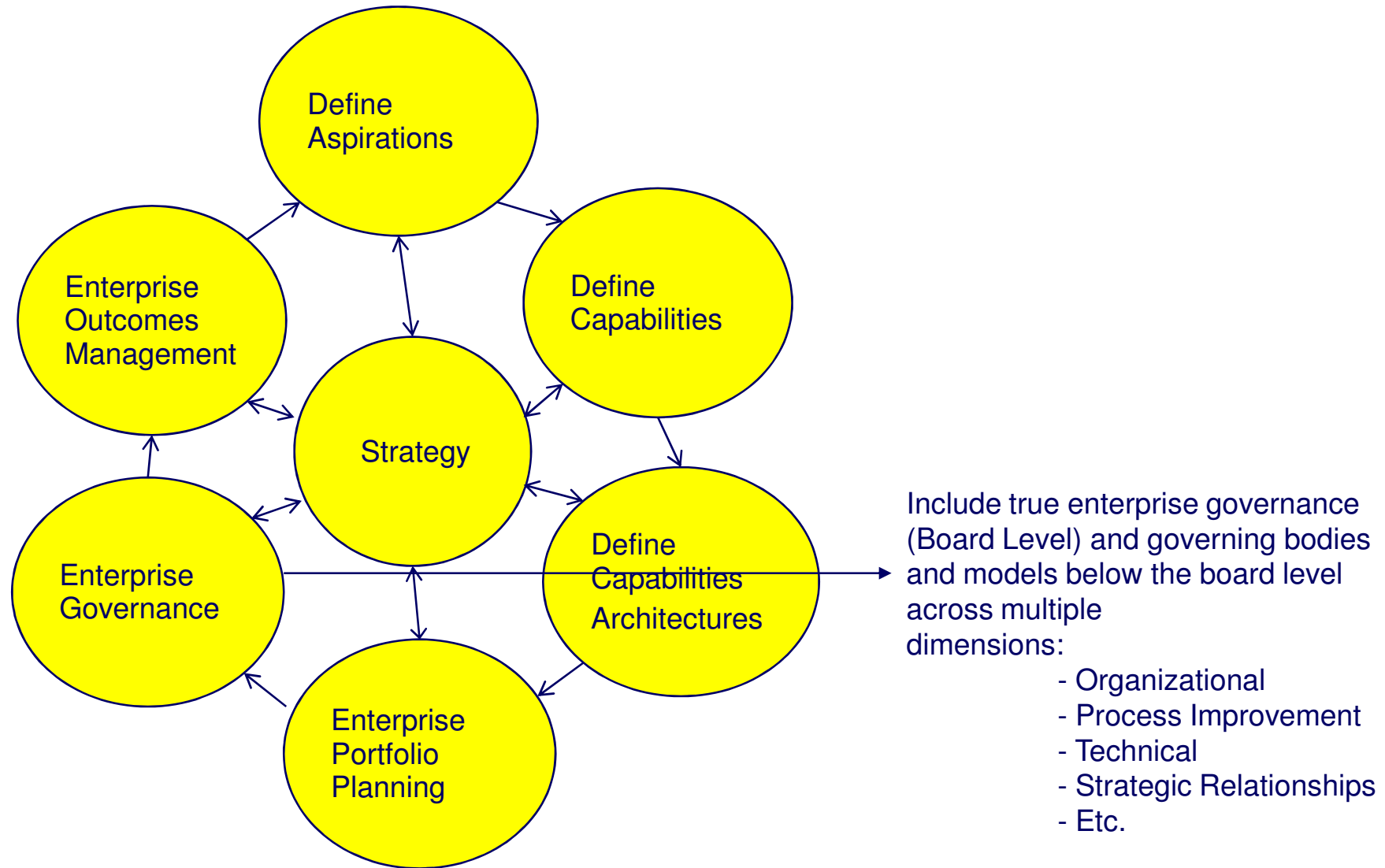
TOGAF 2020



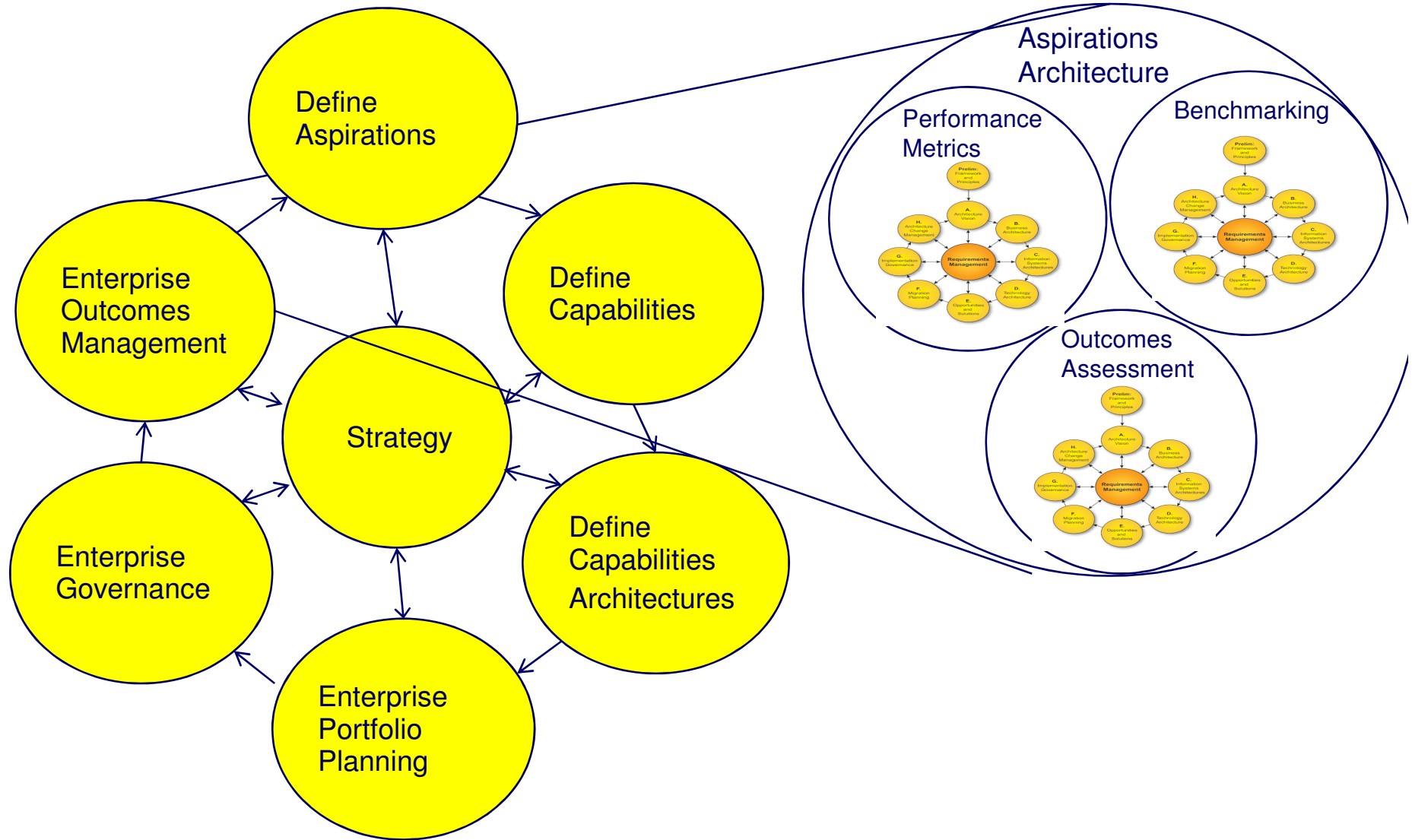
Include projects / programs along multiple Dimensions:

- Organizational
- Process Improvement
- Technical
- Partner Relationships
- Etc.

TOGAF 2020



TOGAF 2020



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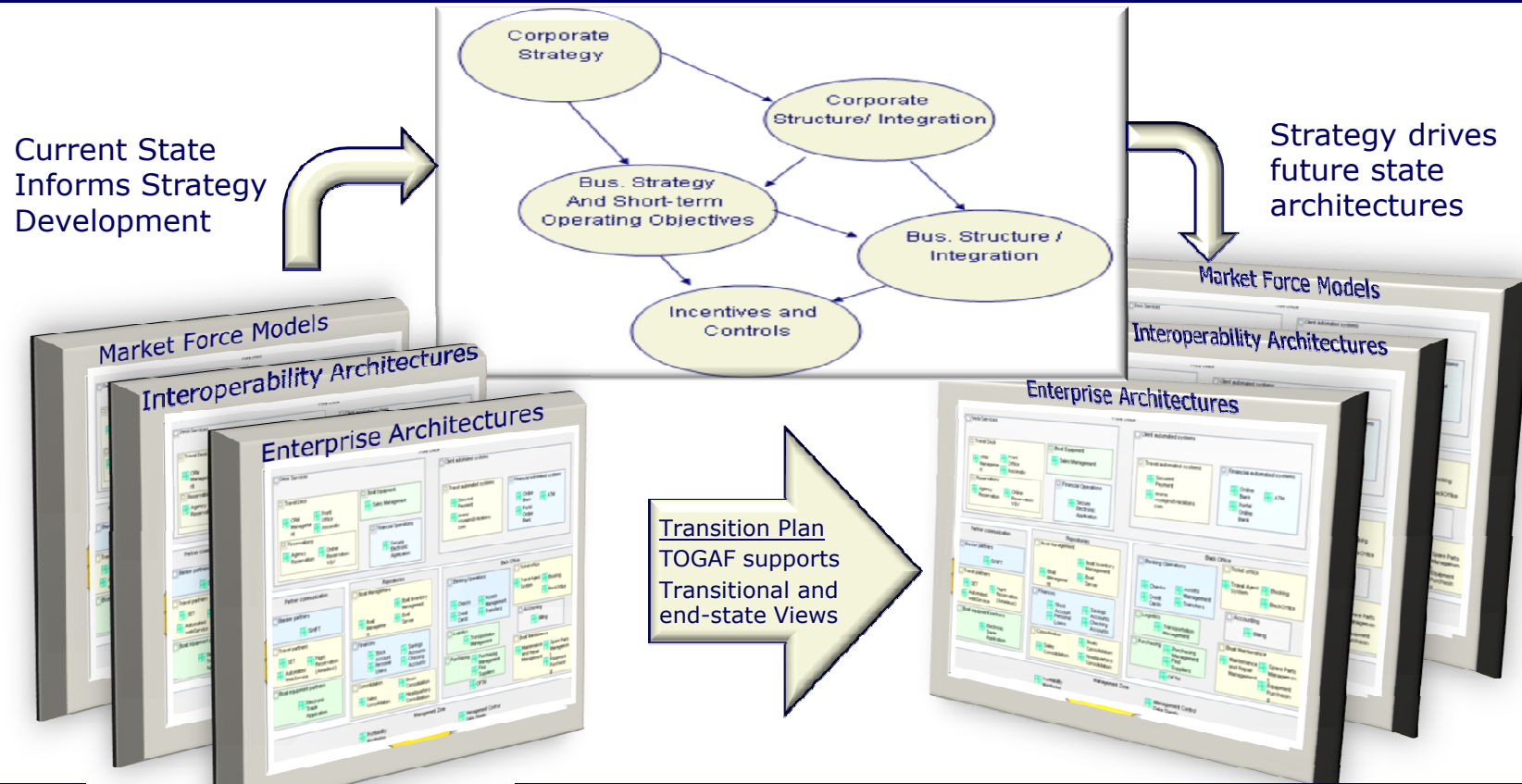
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At FC strategy is informed by the current capabilities of the organization and drives the future state.



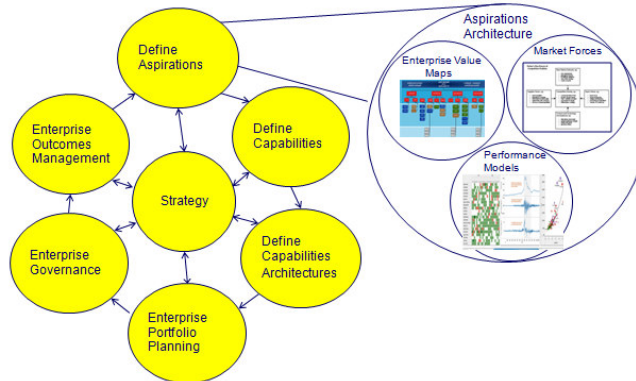
Strategy Considerations	
Structure	Centralized / decentralized / Federated / Networked
Capabilities	Competencies and skills and where they reside
Standardization	Level of standardization / SOPs / standards for interoperability and information exchange in a networked model
Assignments	Roles & responsibilities and where they reside in a networked governance model
Coordination	Communications and integrating activities
Resources	Level required (e.g. a low cost strategy may demand investments in technology to lower costs)

FC employs features of TOGAF's dynamic & static architectures to align elements of successful strategy execution



Extended Considerations	Actions
Incentives, performance measures, and improvement	<ul style="list-style-type: none"> ▪ Align short term objectives to the longer term strategy. ▪ Align Incentives / controls to strategy and short term and long term objectives. ▪ Establish controls that monitor performance against strategy. ▪ Analyze variance and root cause so adjustments can be made.
Managing change	<ul style="list-style-type: none"> ▪ Communicate the rationale, implications, value and benefit of the change. ▪ Ensure the individual's role in effecting the change is understood. ▪ Ensure they understand what it means to them (i.e. timing, and other factors). ▪ These factors are important to securing their buy-in.
Culture	<ul style="list-style-type: none"> ▪ If the culture is not conducive to a successful implementation address behavioral and cultural change as part of the implementation master plan. ▪ Adjustments can range from staff changes to changes in reward structures.
Power & influence	<ul style="list-style-type: none"> ▪ Individuals / organizations want to preserve their power base. ▪ Manage power shifts with appropriate executive leadership.

FC Employs TOGAF's 2020s Dynamic Models for Scenario Based Planning and Continuous Strategy Improvement

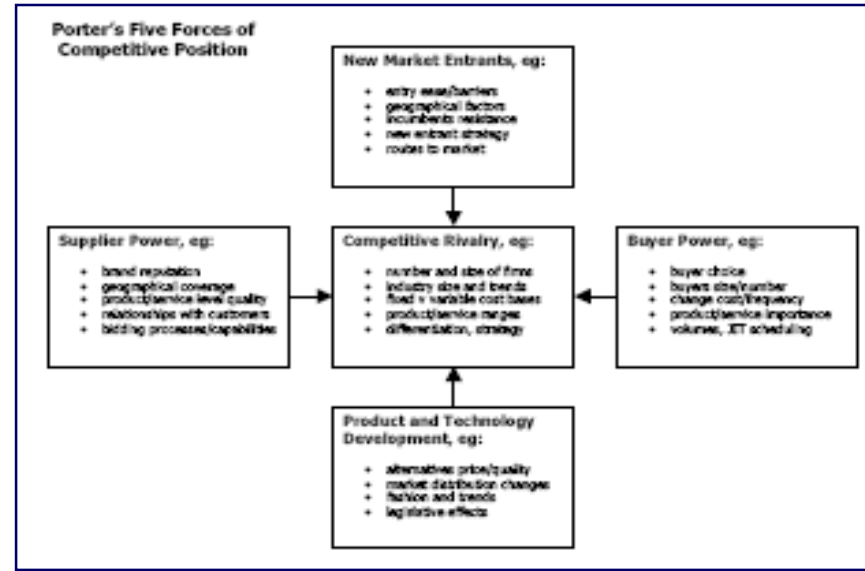
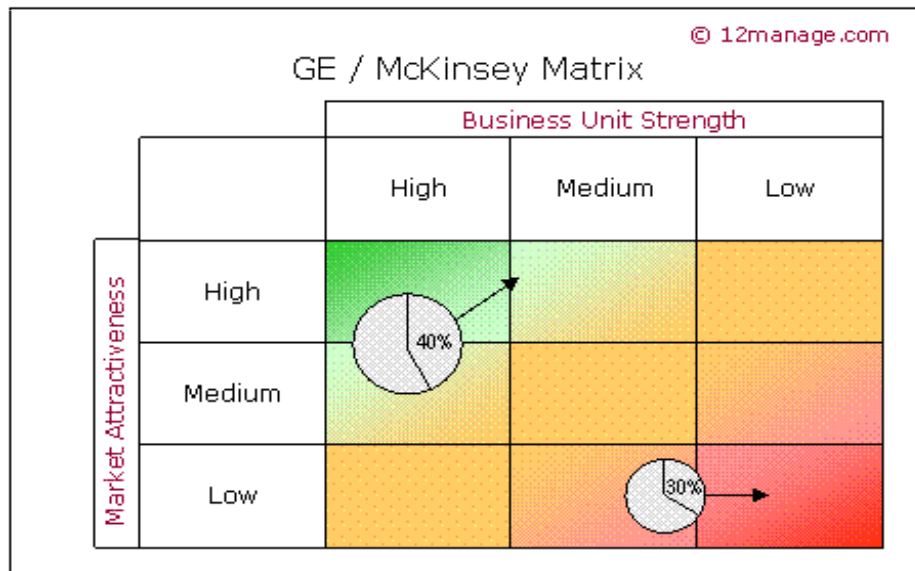


Dynamic Corporate Strategy Dashboard:

What was once the static result of an extended Corporate Strategy effort, is now a dynamic exercise supported by strategic dashboards.

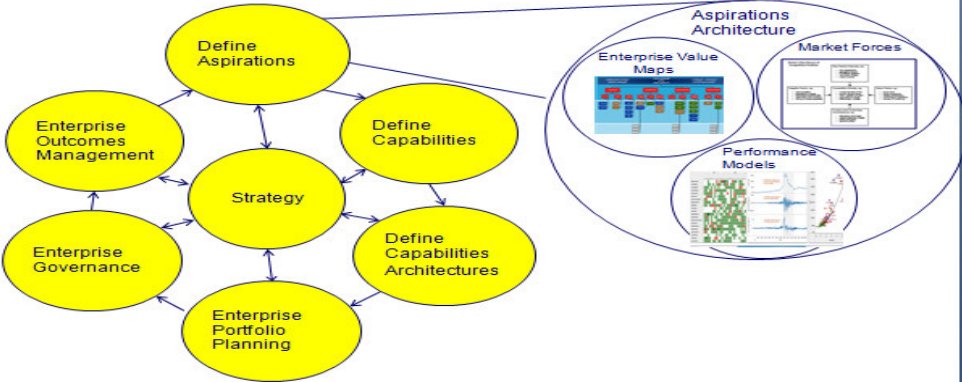
Regularly reported indicators monitor buyer & supplier power and competitive rivalry. Market watches track new entrants and product & technology developments that affect forces that influence competitive position.

IT plays an important role in collecting and reporting the information in the dashboard, but more importantly, the information is fed into dynamic Enterprise Architecture models that help staff throughout the organization interpret and respond to changing market conditions.



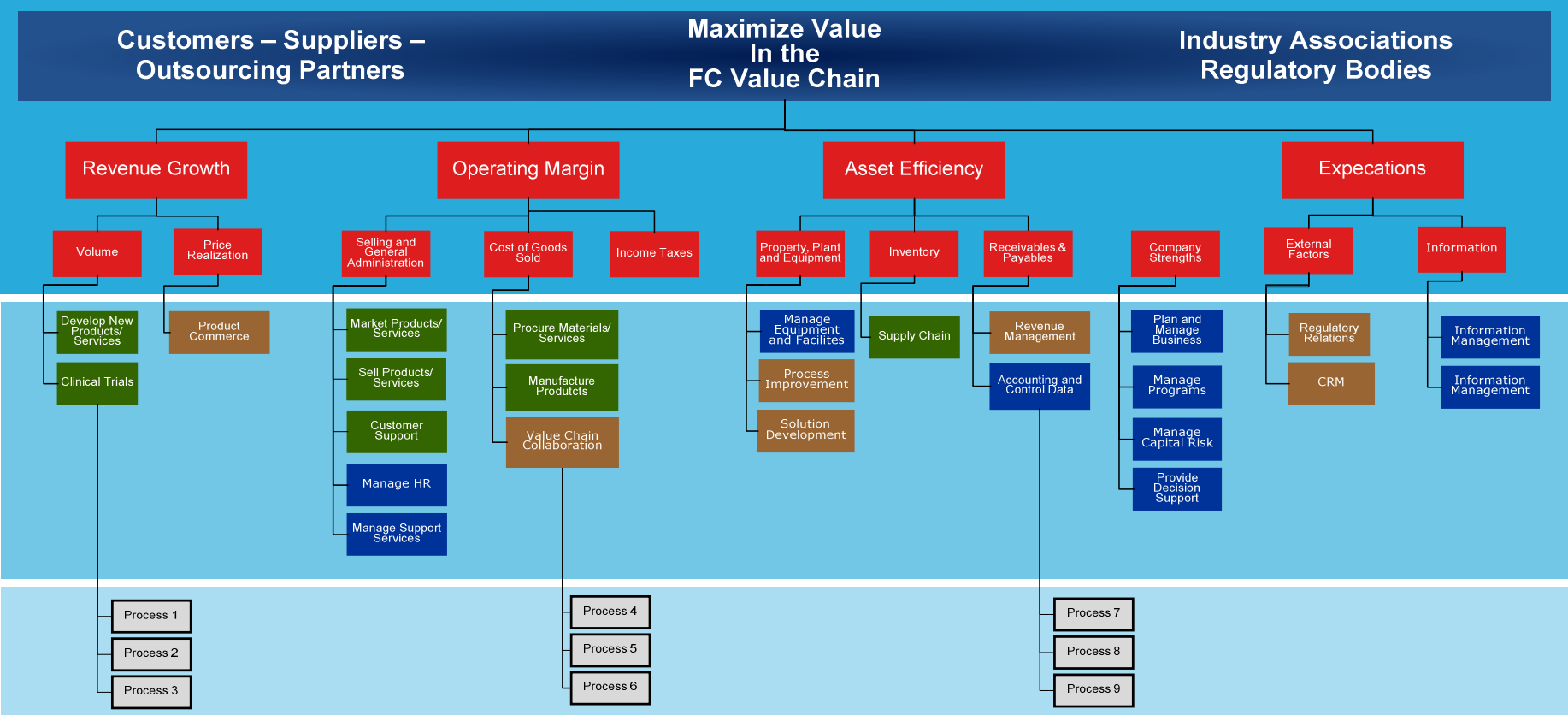
The firm knows on a continuous basis Market Characteristics and how each business unit is performing.

Defining Capabilities from Aspirations



Aspirations are evaluated according to the Enterprise Value Map. From this we can define capabilities that might:

- Grow Revenue
- Improve Margin
- Increase Asset Efficiency
- Improve Expectations

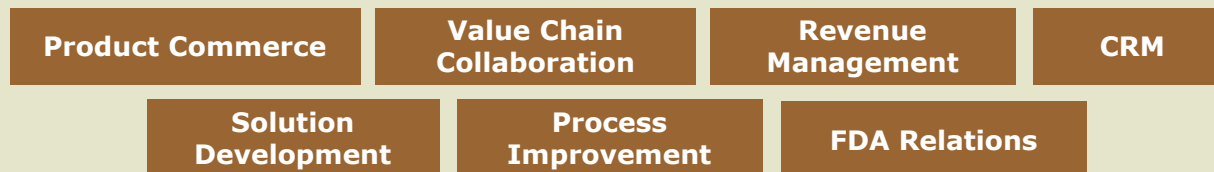


FC's Business Capabilities

Primary



Enabling



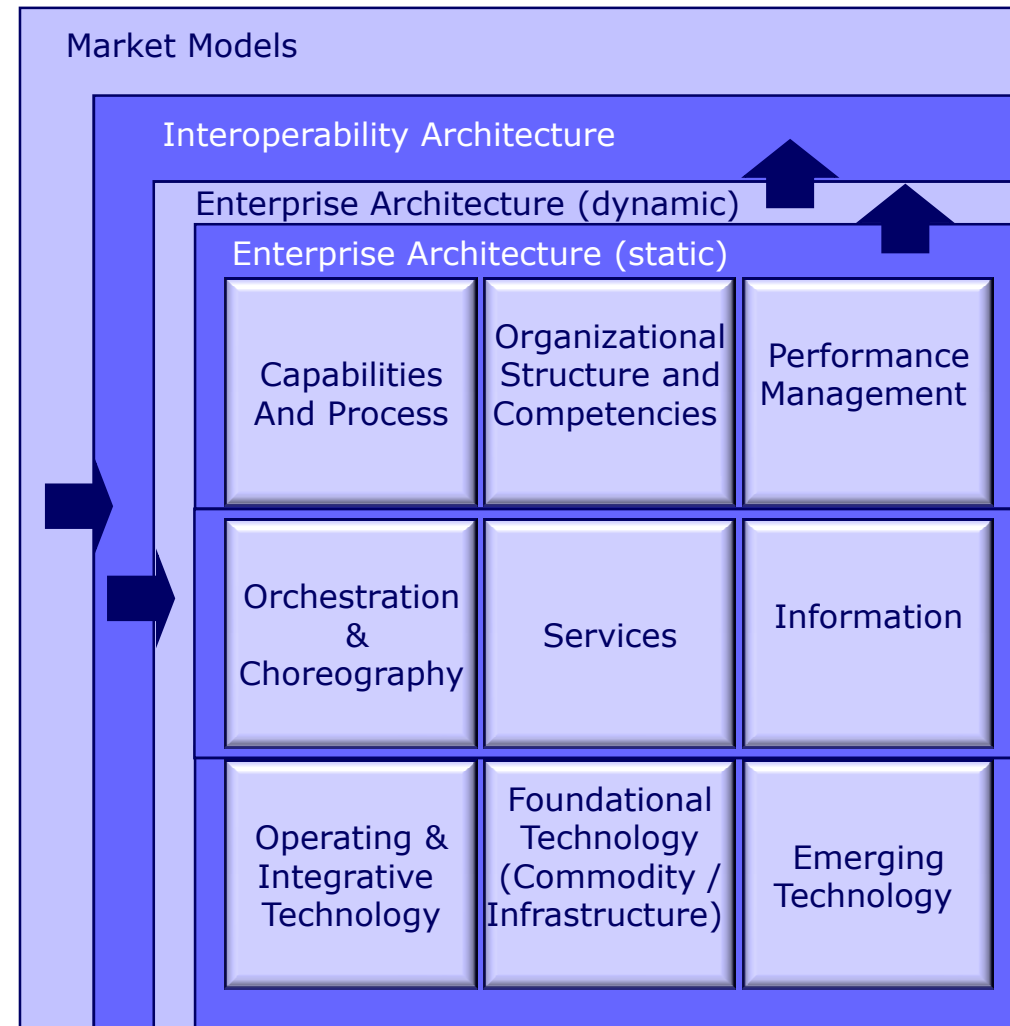
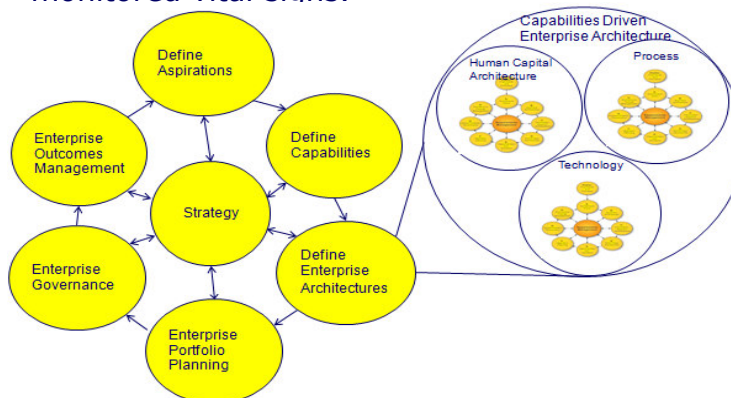
Supporting



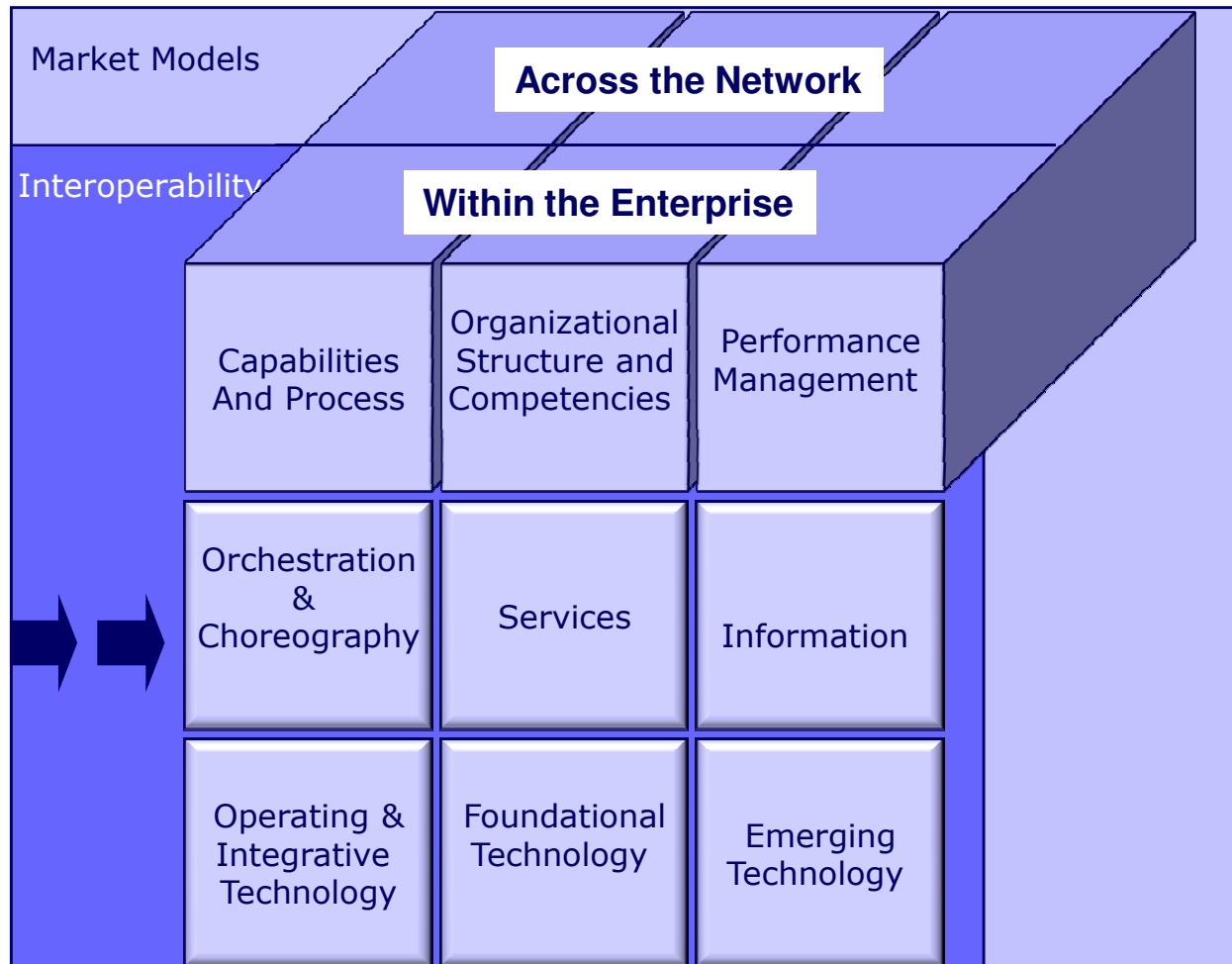
FC's architectures extend to business partners and links to models of the marketplace which are monitored continuously

Information and information technology has become increasingly important :

1. FC seeks to understand the market dynamics and characteristics which influence strategy and drives ENTERPRISE architecture.
2. FC links strategy to the design of business processes and organization structure and then we measure performance to determine how well we're executing strategy AND whether the strategy had the desired outcome.
3. Architectures have become more sophisticated. Once static business architectures have become dynamic models with continuous performance monitoring to evaluate results.
4. Information is king. Application architectures now consist of services and orchestration or choreography as networked models have grown in importance to FC.
5. Technologies continue to migrate to infrastructure status, with integrative technologies (ESB, BPM) continuing to increase in importance.
6. Strategy has changed from an annual exercise to an on-going monitored continuous process with carefully monitored vital signs.



FC's Enterprise view includes our networked partners



As networked innovation and delivery become more important to FC, Information architecture now extends beyond the 4-walls of the enterprise.

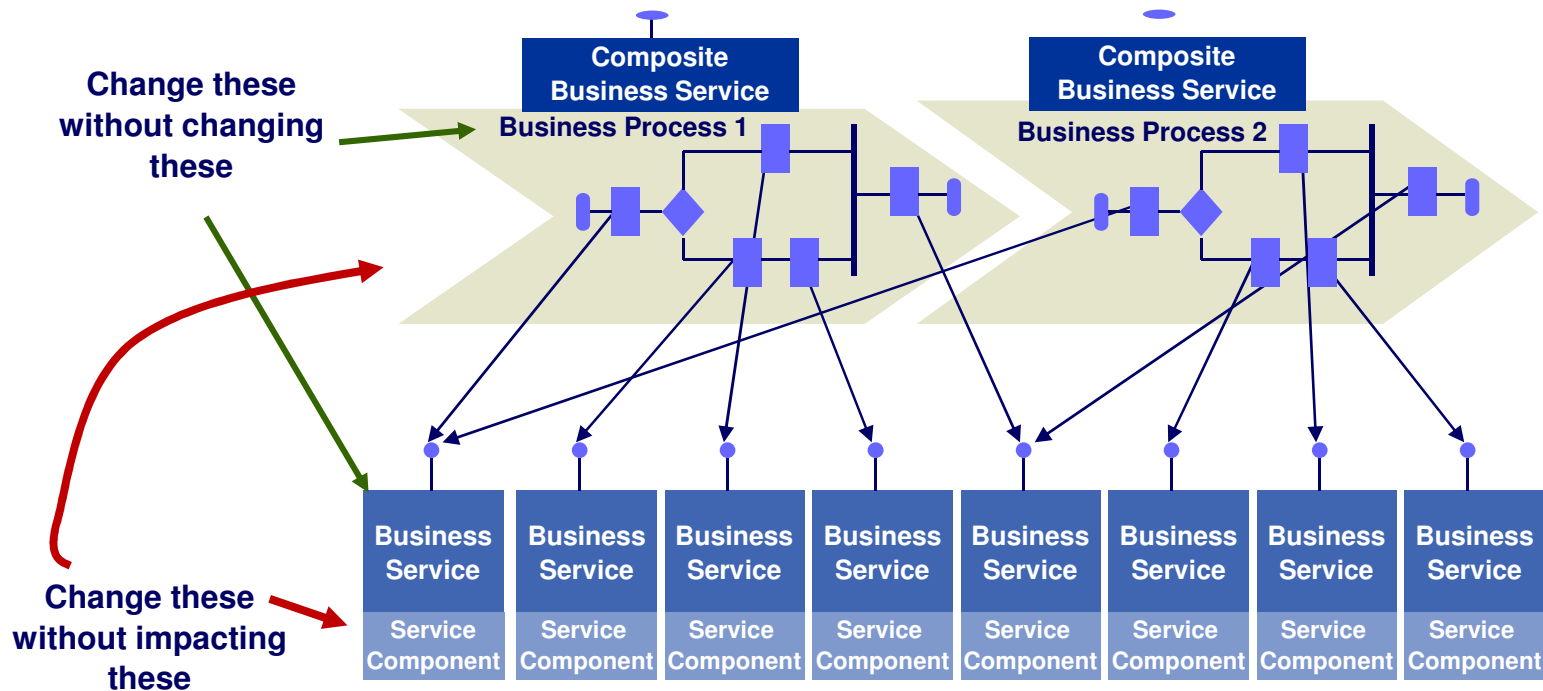
Capabilities & Processes become those things required to create value and meet needs of the marketplace, but more & more it is a collaboration that achieves capability, and FC's business architecture recognizes that.

Organization structure and competencies is now a network extending beyond the 4 walls of the FC.

Performance management measures the performance of the network not just the enterprise.

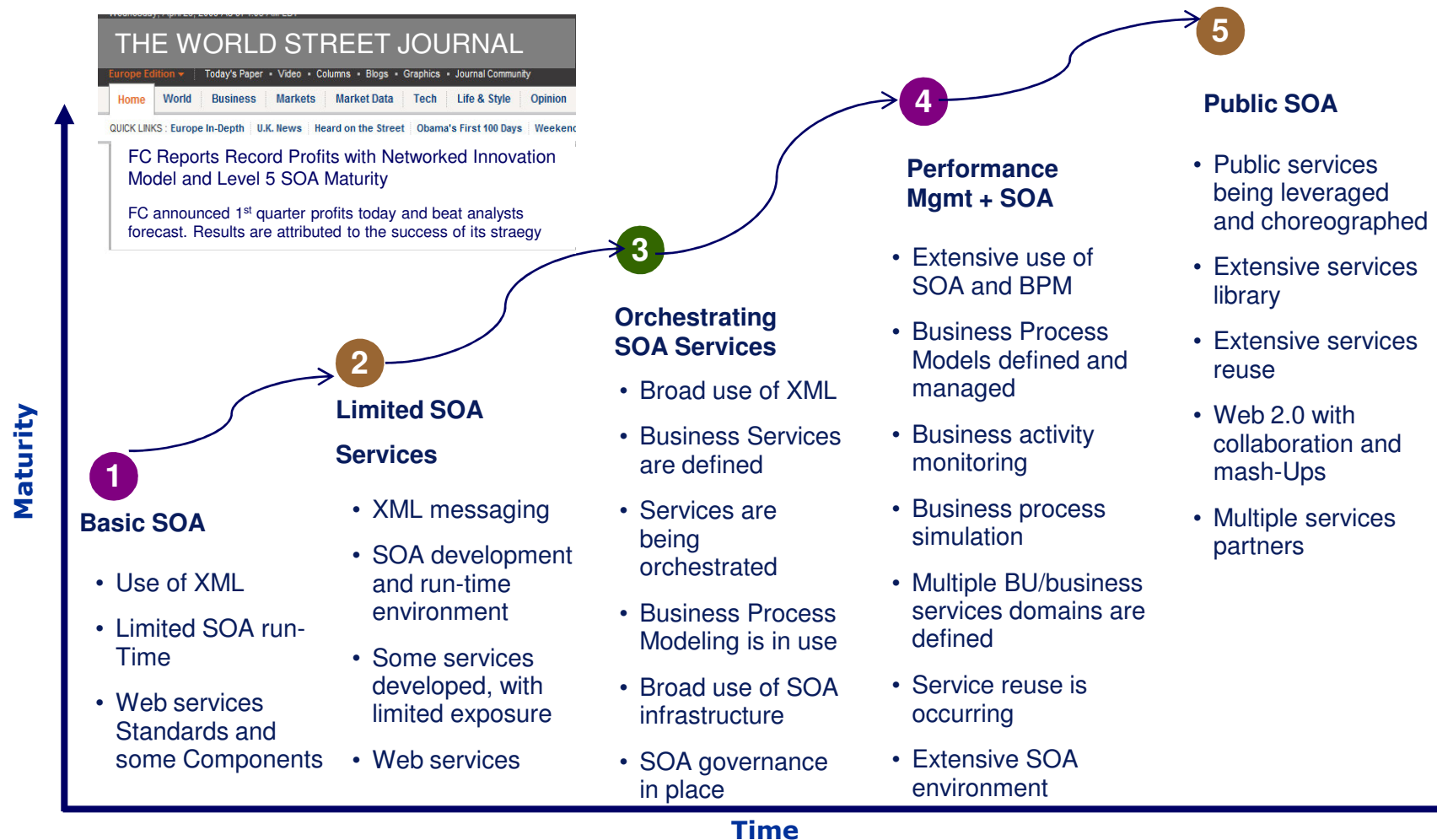
SOA – Business Processes

- Business Services may be comprised of many business process tasks and may in turn invoke other business services.
- Business Processes are defined outside of the IT applications and can be quickly reconfigured to react to a changing environment.
- Business Process Management technology can “orchestrate” the back-end interactions with IT components from a single console.

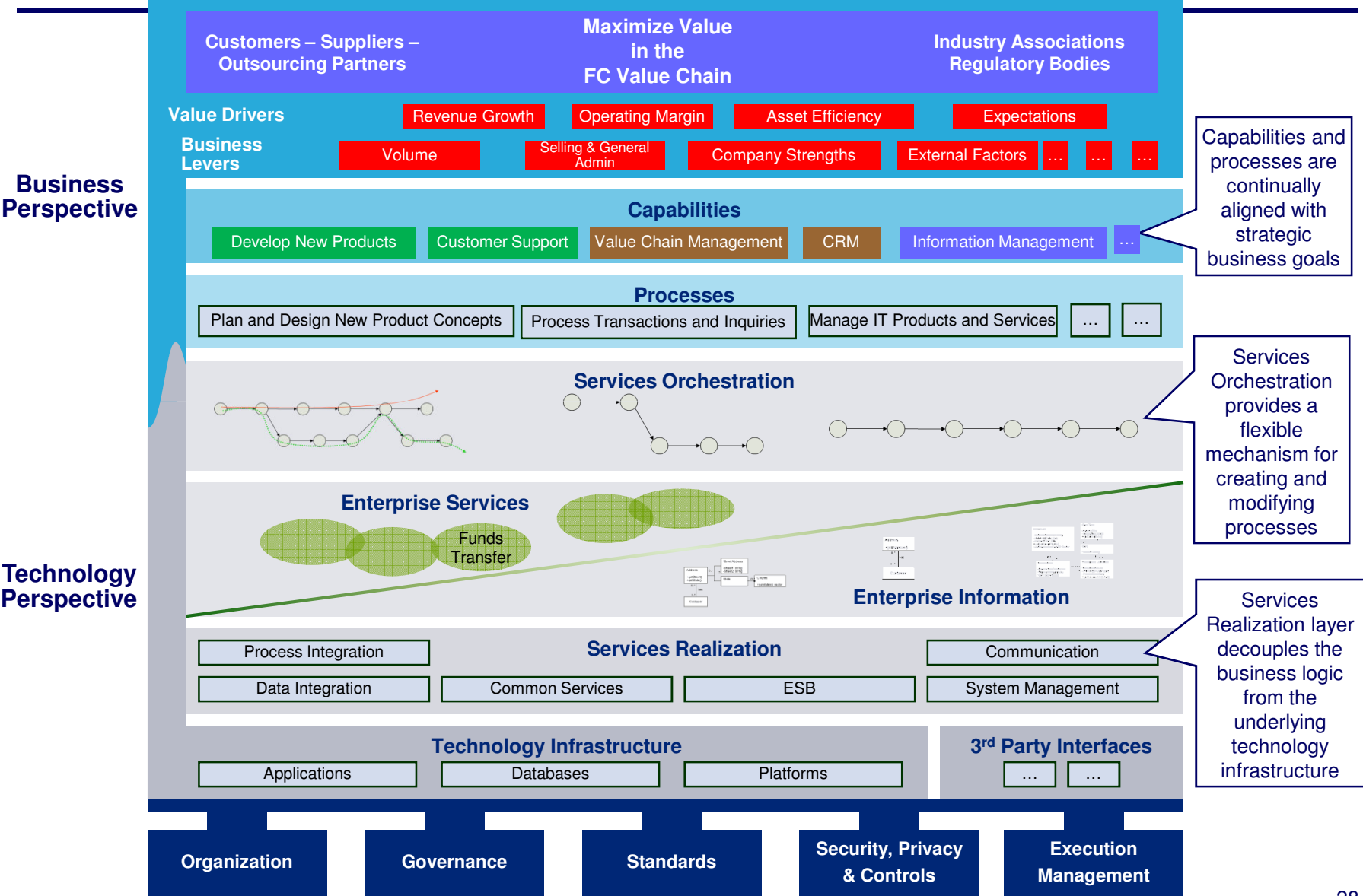


SOA Maturity

SOA services typically evolve from meeting specific business needs to represent "enterprise nervous systems" which optimizes business goals



FCs Integrated Architecture



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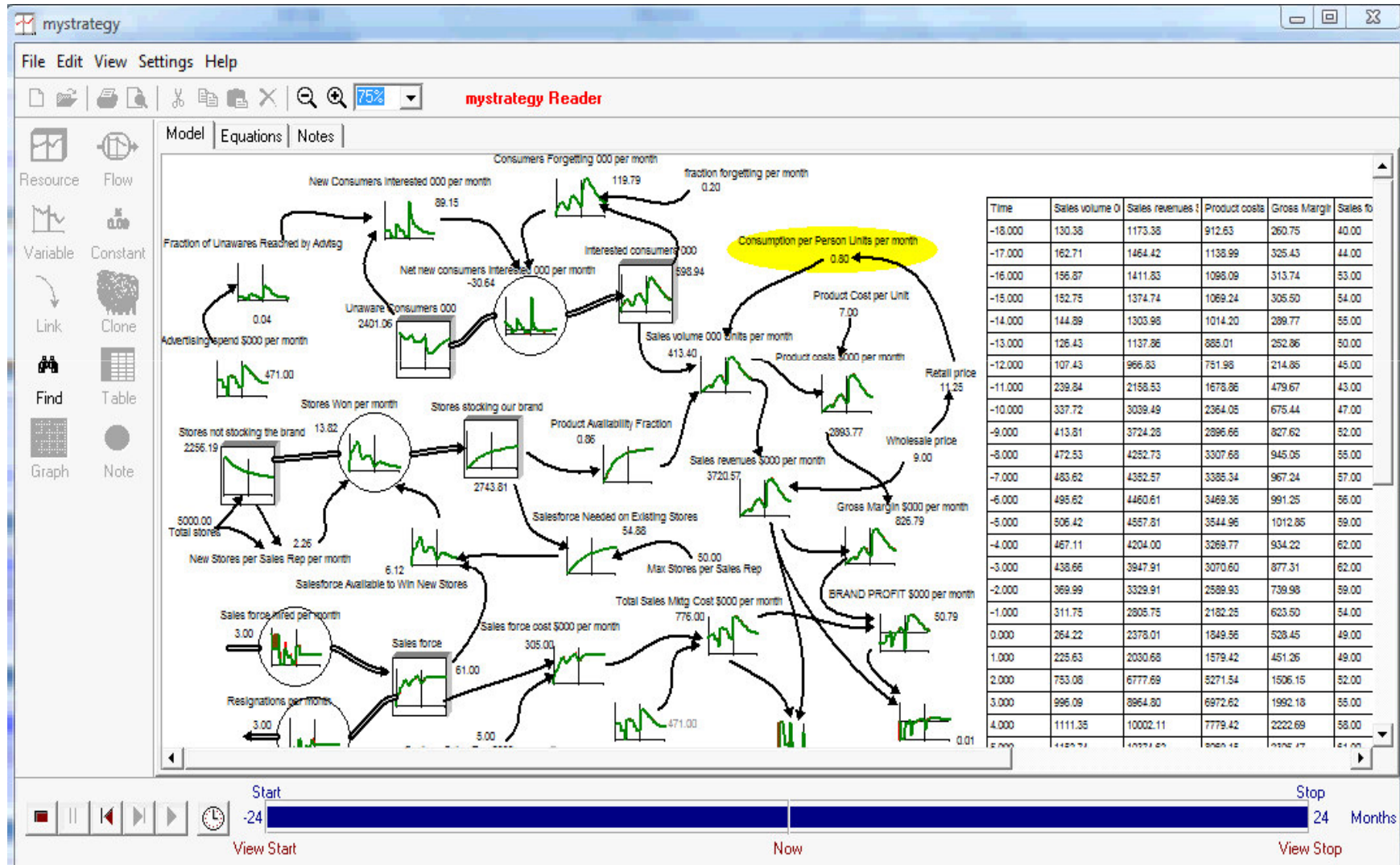
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FC's EA Tools

- Performance Dashboards help inform the EA team
 - What should be our aspirations
 - Is the strategy being adhered to?
 - Is the strategy achieving the expected outcomes?
- Scenario based modeling tools provide FC the ability to do “What-if” analysis
- Modeling tools provide support for static models for
 - Organization
 - Processes
 - Technology
- FC's EA Modeling Tools support dynamic scenario based analysis as well as static modeling

FC's EA Dynamic Modeling Tool

FC's EA Dynamic Modeling tool supports dynamic scenario based analysis



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Master planning at FC supports strategy execution.

1. Consider implementation issues during strategy development

2. The strategy must be clear and unambiguous

3. Translate long term needs in to short term objectives

4. Address communications and integration requirements of the strategy

5. Focus on the people side of execution

5. There must be a unifying integrated approach to strategy development and execution

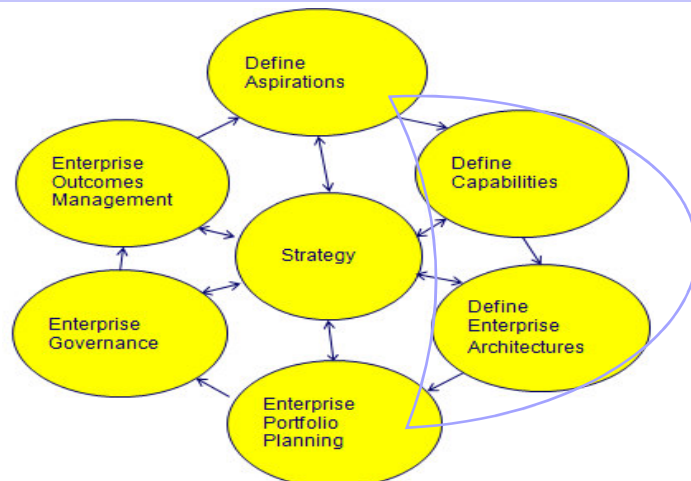
6 Pillars to Successful Strategy Execution ¹

1 "Making Strategy Work", Lawrence Hrebiniak, Wharton School Publishing, 2005
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1. Considers implementation issues

AT FC Capability Models and Enterprise Architecture is central in our Strategic Planning.

- Market models help us evaluate market forces which drives our competitive strategy.
- We use capabilities, organizational, processes, and technology architectures as input into our planning. to help ensure our strategy is attainable.
 - What does the current organization structure look like?
 - How are roles & responsibilities currently defined (RACI)?
 - What competencies exists in the current organization?
 - What capabilities exist to help communicate the strategy and support inter-organization communications in general (e.g. social networking or other collaboration technologies to help with communications)?
 - What integrating technologies, services, applications exists to support inter-organizational integration and cross-functional integration (orchestration capabilities in a service oriented environment)?
- Interoperability architectures help us define the capabilities that will be enabled via the network of partners, and the process and technology enablement necessary to achieve that.



← The capabilities and Enterprise **architectures** provide valuable input to strategy formulation.

2. Provides a strategy that is clear and unambiguous

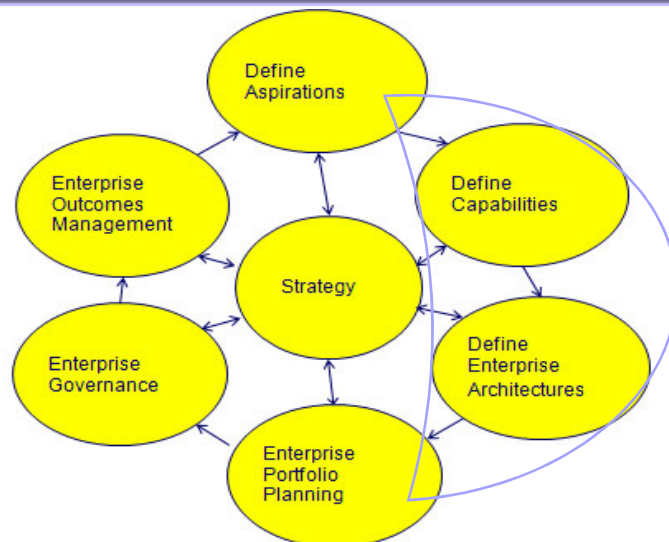
The EA organization works with senior management as strategy is being developed to ensure it can be represented as capability and enterprise architectures.

Enterprise Architecture allow us to define in concrete terms the strategy developed. The architectures ensure demands of the strategy (e.g. organizational capabilities, competences, resources) are understood and resources, roles & responsibilities are clear.

The Master plans helps ensure those tasked with implementing the strategy understand the specific actions required and performance expectations.

Our architectures distinguish transitional roles, activities, and work products from steady state roles, activities and work products.

Finally the EA communications plan ensures the strategy, is communicated and understood.



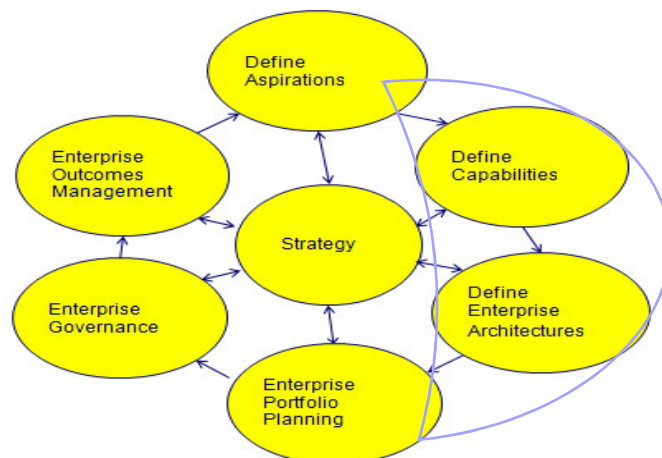
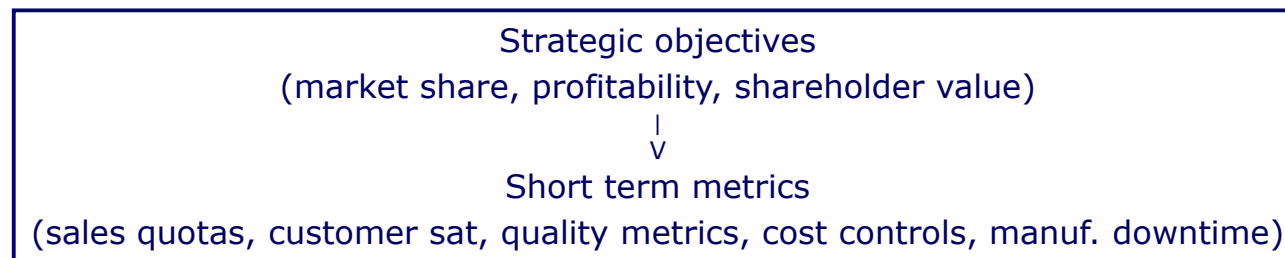
Enterprise architects need a clear, unambiguous strategy in order to develop the future **capabilities and Enterprise architectures**. Therefore, they serve as a 'leading indicator' as to whether the strategy is clear and unambiguous.

3. Translate strategic needs into short term goals

Long term needs must be translated into short term goals & performance measures.

Our Master Planning approach ensures we develop performance metrics help determine implementation progress and needed adjustments.

EA defines for us short term goals and metrics that align with the strategy so we can track how well the strategy is being followed. Longer term outcomes help us understand if the strategy is achieving the desired result.



Organization Architecture: Will help define & document short term goals and metrics & the linkage to strategic objectives as well as a future RACI matrix.

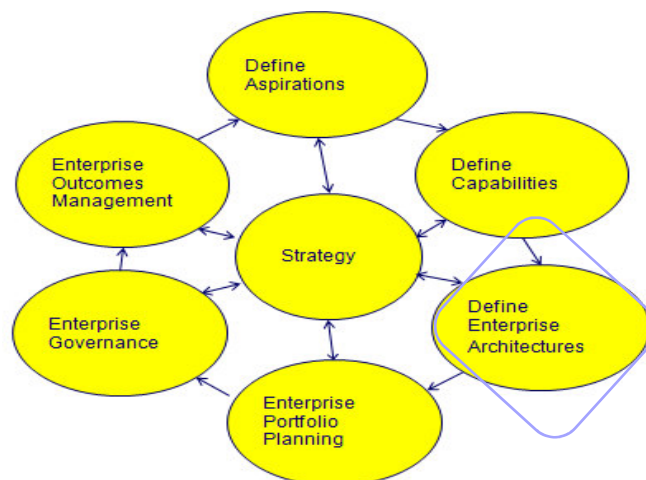
Information architecture: defines various metrics to be captured and the linkage to strategic objectives as well as operational and business intelligence capabilities necessary to capture and report on the short term performance metrics.

Technical architecture ensures the necessary technical infrastructure exists to capture and report on the short term metrics.

4. Addresses communications & integration requirements

The strategy must be communicated throughout the organization. Organizational units must be able to communicate.

- Organizational unit activities must be integrated to support process capabilities.
- Communications are an important part of strategy execution. The information, applications and technical architectures can play a vital role in supporting this communications.
- Structure leads to the separation of the organization into operational units, but to operate effectively, and achieve the desired goals, integration or coordination is needed.

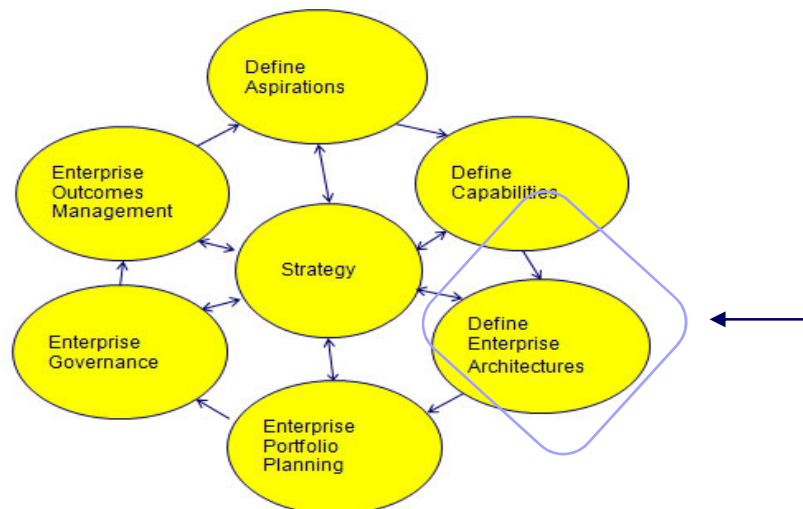


The **Enterprise Architectures** are important in achieving the coordination and integration required across business units by enabling effective coordination / information sharing.

5. Enables a focus on the people side of execution

Even with a good plan, execution may not work due to politics, inertia, and resistance to change.

- Cultural change has to begin with behavioral change.
 - EA can help support changes in roles & responsibilities, and put in place the performance metrics, and reporting required for behavioral changes.
 - EA can put in place communications capabilities to promote changes in behavior and cultural norms.
- Part of addressing the people aspect, may involve a shift in power and the alignment of resources to achieve and support such changes in power.
 - EA plays a major part in defining how resources are allocated in both the business architecture, as well as the applications and technical architecture.



The organizational and **Technical architectures** define the necessary recognition and reward programs and the information and systems necessary to support those programs. For to effect desired behavioral changes, including incentives important in changing behavior and culture.

6. Provides the needed unifying integrated approach

Managers need to understand what's required to make strategy work.

They need a roadmap to guide execution: *Tell us what to do, when & in what order.*

Execution requires a disciplined process or logical set of connected activities that enables a strategy to work.

“ An Enterprise Architecture or **Master Plan** establishes the agency-wide **roadmap** to achieve an agency's mission through optimal performance of its core business processes within an efficient Information Technology (IT) environment ¹.”

The Master Plan links business strategy to elements needed to realize the strategy:

- Business processes & procedures, including governance models.
- Organization structure / roles & responsibilities.
- Information Technology support.

¹ FEAF Definition

6. A unifying integrated approach

The Master Plan is driven by the aspirations of the enterprise (i.e. Mission / Objectives)

- What is the purpose of the Enterprise ?
- What does it want to achieve ?

Aspirations drive business strategy

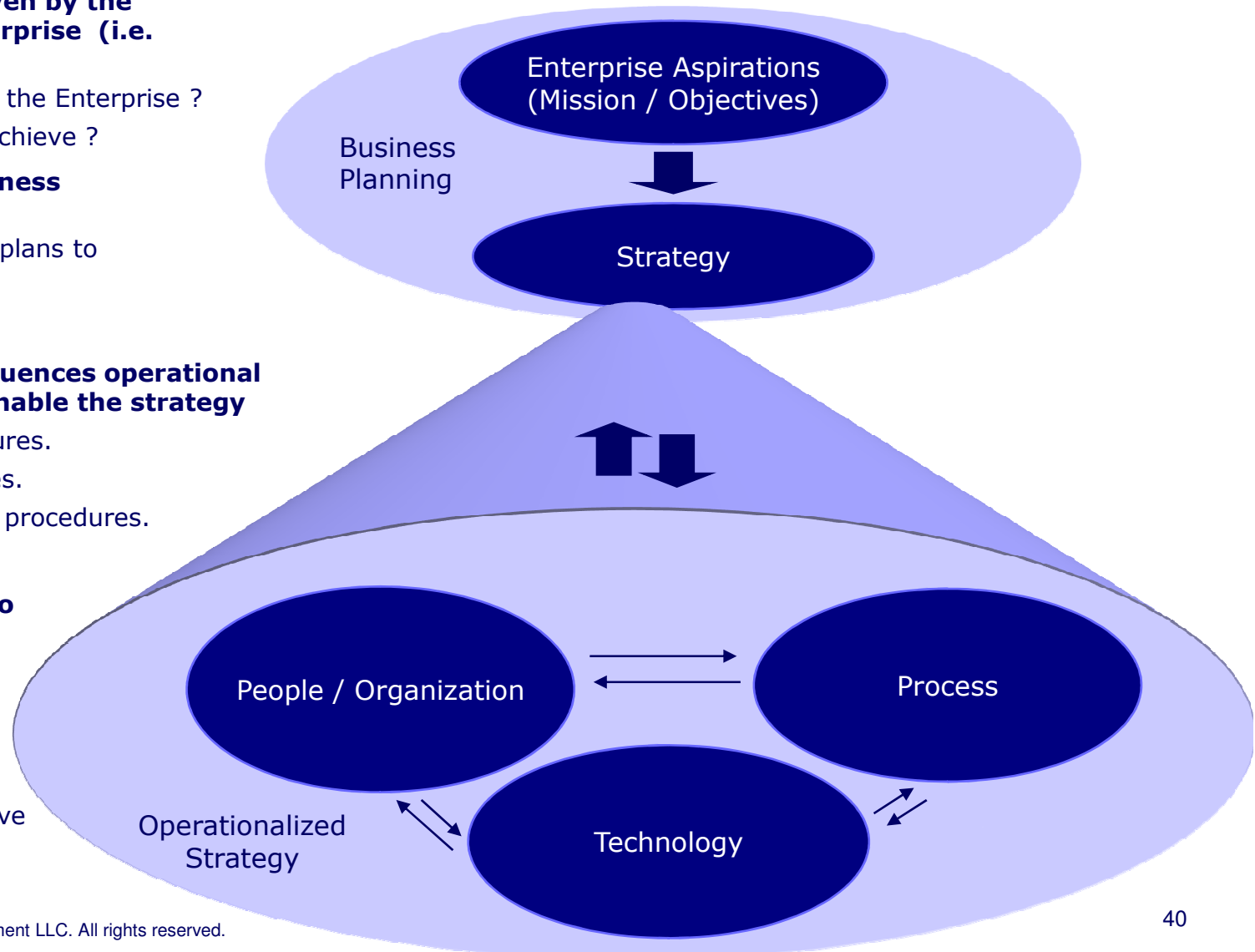
- How the organization plans to achieve its purpose.

Business strategy influences operational characteristics that enable the strategy

- Organizational structures.
- Roles & responsibilities.
- Business processes & procedures.
- IT enablement.

Master Plan is a tool to help:

- Plan
- Analyze
- Implement
- Measure performance and continually improve operational elements needed to achieve business strategy.



Benefits EA provides to Strategy Execution in 2019

Benefit	Enablement
Strategies are no longer vague	Strategies are now expressed in detailed organizational structures, roles and responsibilities, performance measures, process models, communication plans, relationships with trading partners, position in the market. Dynamic models allow simulation of the overall enterprise
Implementation issues are considered during strategy formulation	Planning and execution are interdependent. Planning affects execution and execution affects strategy over time. Execution is generally more successful when those responsible for executing are involved in the formulation process.
What is required to execute the strategy is clearly defined in terms of organization, capabilities and enabling technology.	The major element of the enterprise (process, organization, technology) are linked through the models with both static and dynamic models that allow simulation. Continuous performance monitoring informs the organization as to the extent the strategy is being achieved as well as the results of the strategy.
The architecture address the need to coordinate a large number of people over a long period	Communications planning, execution and monitoring is part of the architecture. Social networking is used to inform and learn from staff at all level of the organization. Control and command is replaced with organizational learning.

The value of EA integration to strategy development & execution

THEN (2009)

- (a) Many **organizations don't have a consistent way to even describe their strategy**, other than in a large strategic planning binder. We believe strongly that **organizations need to find a consistent, coherent way to translate their strategy into operational terms.**
- (b) **Sixty percent of typical organizations do not link their strategic priorities to their budget**, virtually ensuring that key strategic initiatives do not get funded and resources may not be supplied to deliver on the strategic plan.
- (c) **Two-thirds of HR and IT organizations develop strategic plans that are not linked to the organization's strategy.** This is extraordinary.
- (d) **Seventy percent of middle managers and more than 90 percent of front-line employees have compensation that is not linked to the strategy.**
- (e) Most devastating, **95 percent of employees in most organizations do not understand their [organization's] strategy.**

In short, there is often a chronic disconnect in organizations between strategy formulation and strategy execution.

NOW (2009)

"Master Planning" enables development of strategic plans that are informed by the organization's capabilities and aligns the future architecture to the requirements of the strategy.

- (a) Provides organizations a consistent way to describe their strategy, and a coherent way to translate their strategy into operational terms.
- (b) A cost model allows linking of strategic priorities to budget, ensuring that key strategic initiatives get funded and resources are supplied to deliver on the strategic plan.
- (d) The expanded compensation and performance management models ensures that middle managers and front-line employees have compensation that is linked to the strategy.
- (e) The communications model helps to ensure that employees understand their organization's strategy and receive feedback on how their actions influence execution of the strategy.

In short, the 2019 version of EA ("Master Planning") addresses the past chronic disconnect in organizations between strategy formulation and strategy execution.

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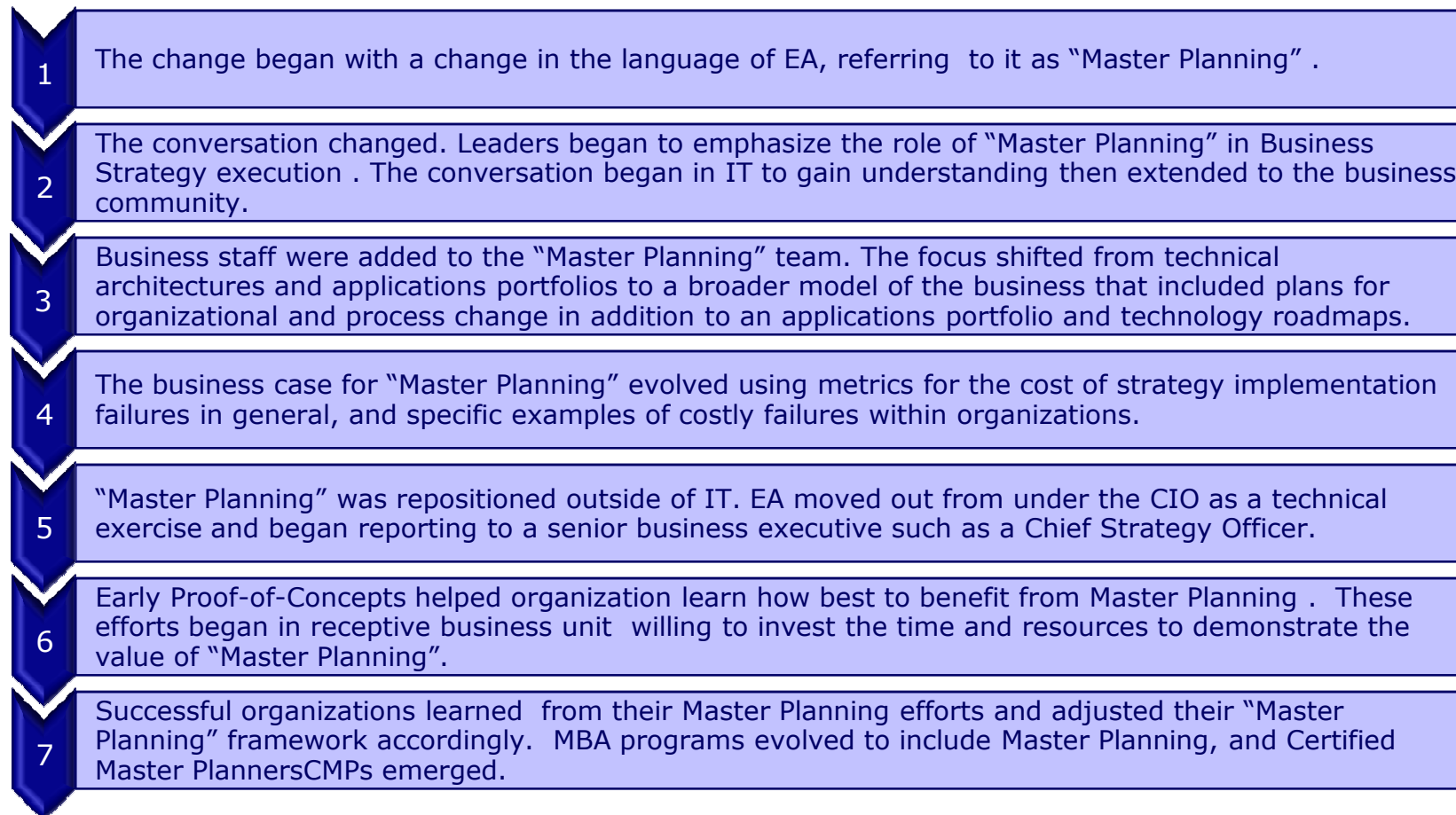
How EA evolved from 2009 to 2019

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The evolution of Enterprise Architecture as Master Planning didn't happen over night. And even in 2019, only leading organizations are using "Master Planning" for full benefit.

However, the performance Gap between Master Planners and others in industry is increasing..



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