



Facilitating the Design Flow

A BluePrint Approach

The Design BluePrint



- The BluePrint is the set of documents that contains the key design decisions that have been made by the design team. It is the working record/documentation of the design team.
- It helps the designers to keep track of where they are in the design process and what has already been decided.
- Some of the documents chronicle the intent of the design and the design logic. Others chronicle the features that have been designed. It also includes any design frameworks and guidelines being followed.
- The BluePrint contains enough information to provide a framework of understanding as organizational members work through subsequent micro-design processes and implementation.
- The BluePrint is a critical communication tool.
- An organizational design BluePrint is a living document that can be modified as the organization learns how the design works, makes improvements, and modifies it as the context changes.

Elements of the Design BluePrint



- The business case
- The organization's strategy and mission
- The valued outcomes of the organization
- Organizational diagnosis
- Design criteria
- Key capabilities/work processes
- Structural design features—core and lateral
- Management processes—direction setting and measures, decision-making, communications
- Rewards and people practices
- Specification of the needed micro-design and implementation framework

The BluePrint as a Communication and Learning Document



- Designing is a complex conceptually driven process with many moving parts. It's easy for designers to lose track of where they are and what they have decided.
- The BluePrint is created as you go, and is a record of what "stakes have been put into the ground".
- Stakeholders should be able to read through the document and understand not only what has been decided, but also the underlying principles and logic.
- For this reason, the BluePrint document may contain some of the conceptual design framework information that was applied in making design decisions.

Samples From a Design BluePrint



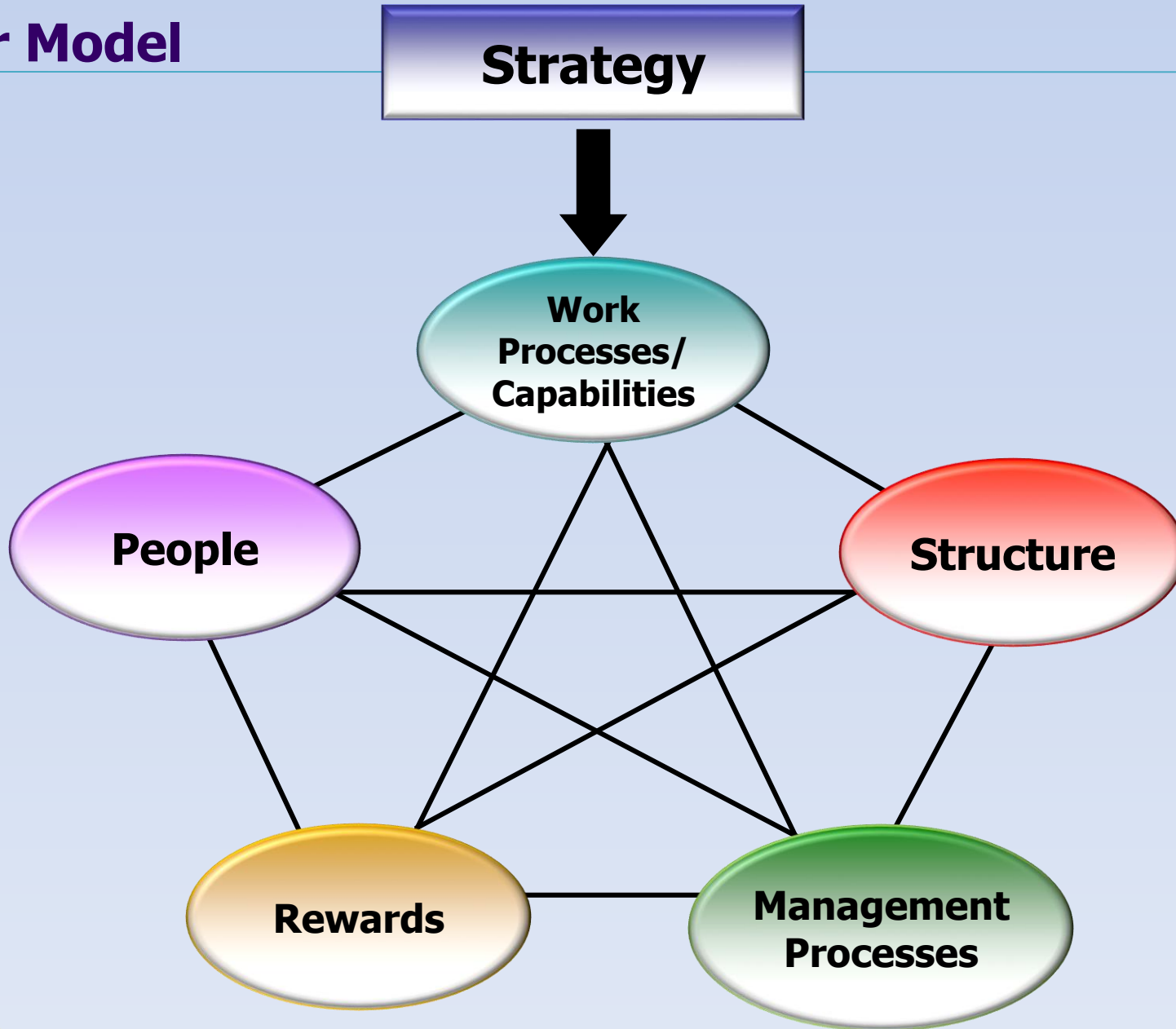
A Large System Aerospace Firm (Aerospace Anonymous - AA)



Creating Urgency

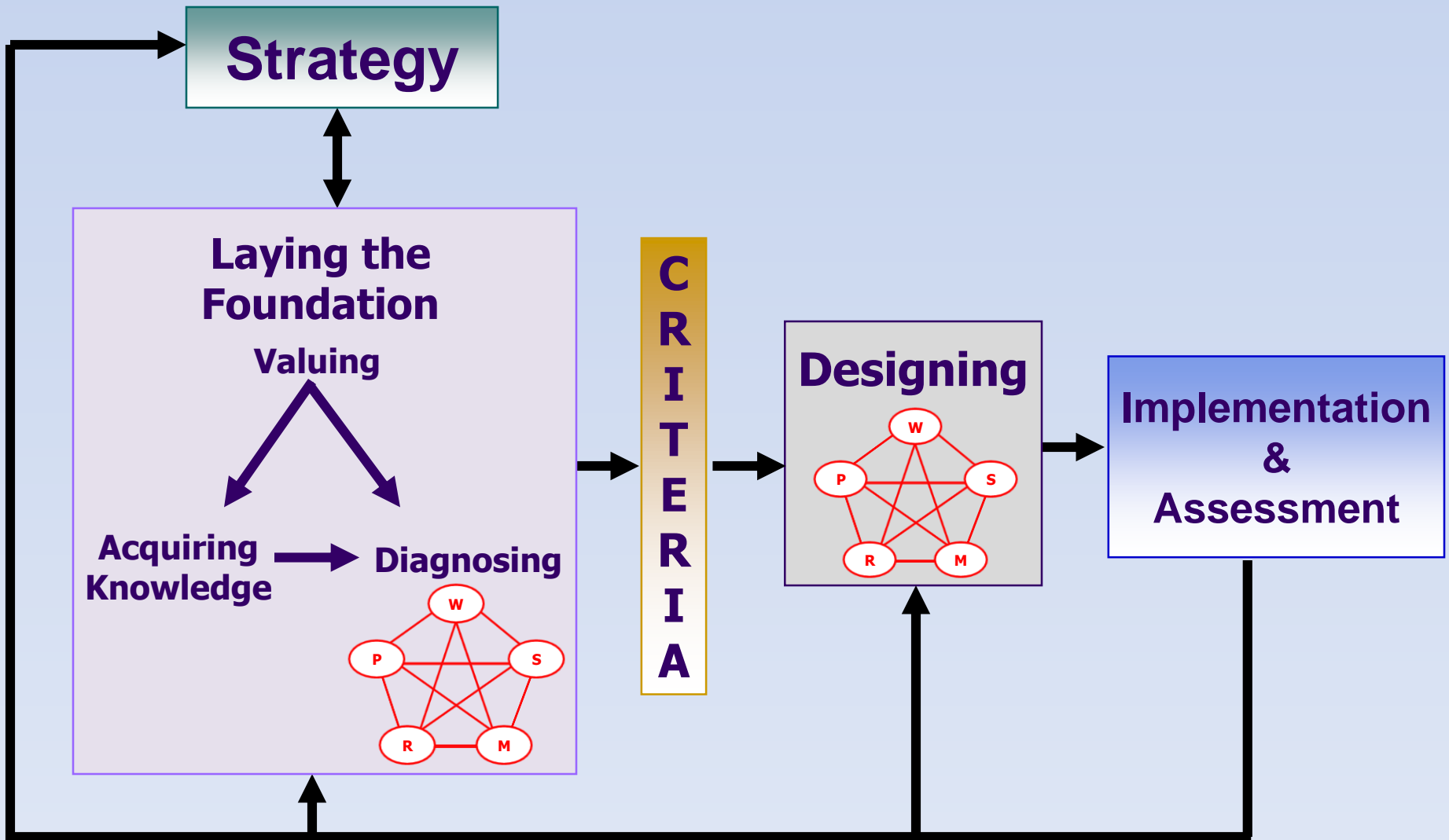
THE CASE FOR CHANGE (LAYING THE FOUNDATION)

Star Model

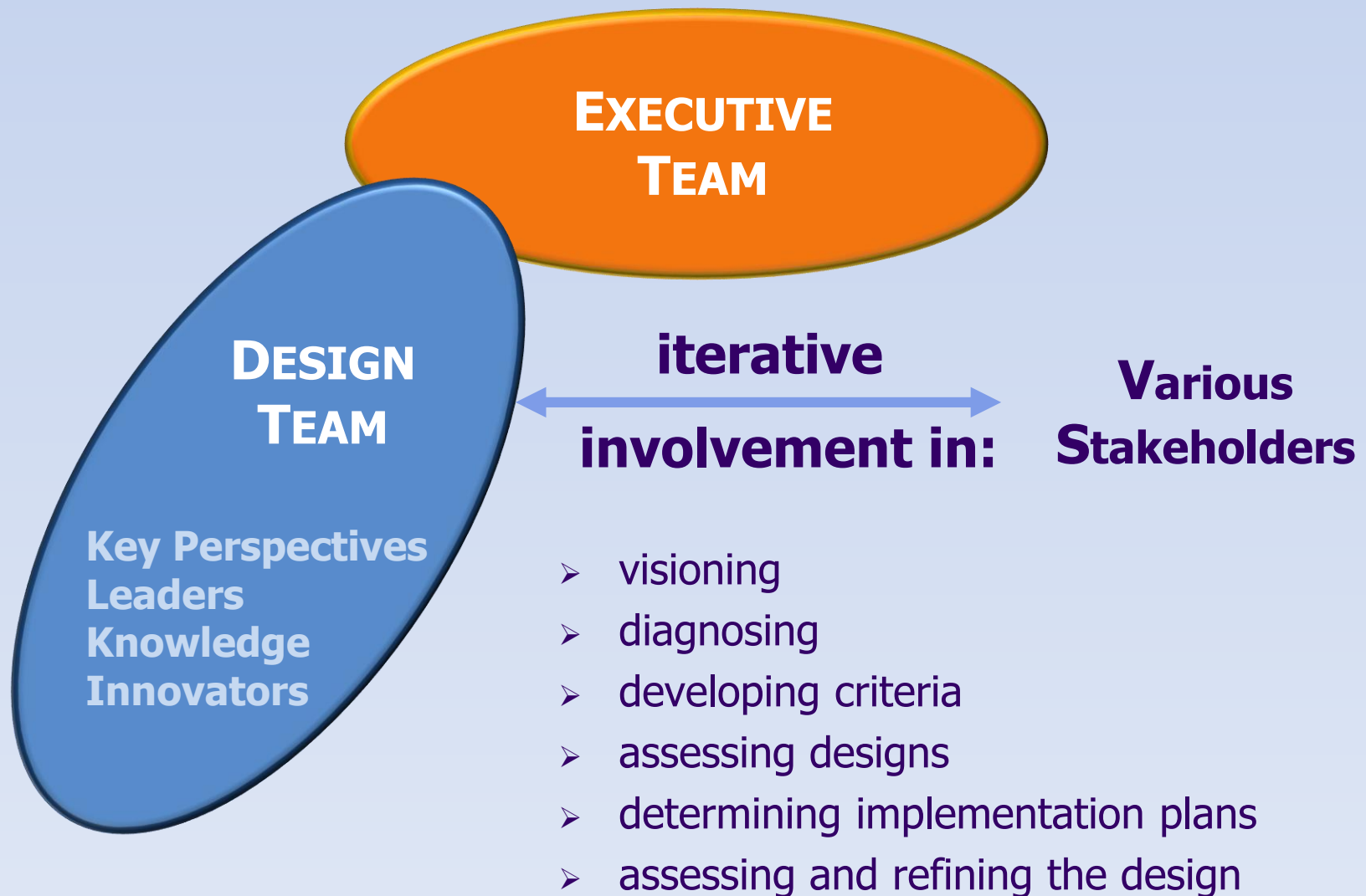




The Self-Design Strategy Framework



Design Involvement Framework





AA Organization Review

Business Case (from executive team)

- Our business environment is becoming increasingly competitive and demanding.
- We must continue our “One AA” journey to improve our effectiveness and increase the leverage of our knowledge and resources across the enterprise.
- Growth in our core business, while critical, will not enable sufficient growth for the future.
- Our redesign is aimed at building the organizational foundation to innovate and grow into new markets “white space” while not compromising our core market strengths and performance.

WHAT GOT US HERE WON'T GET US THERE

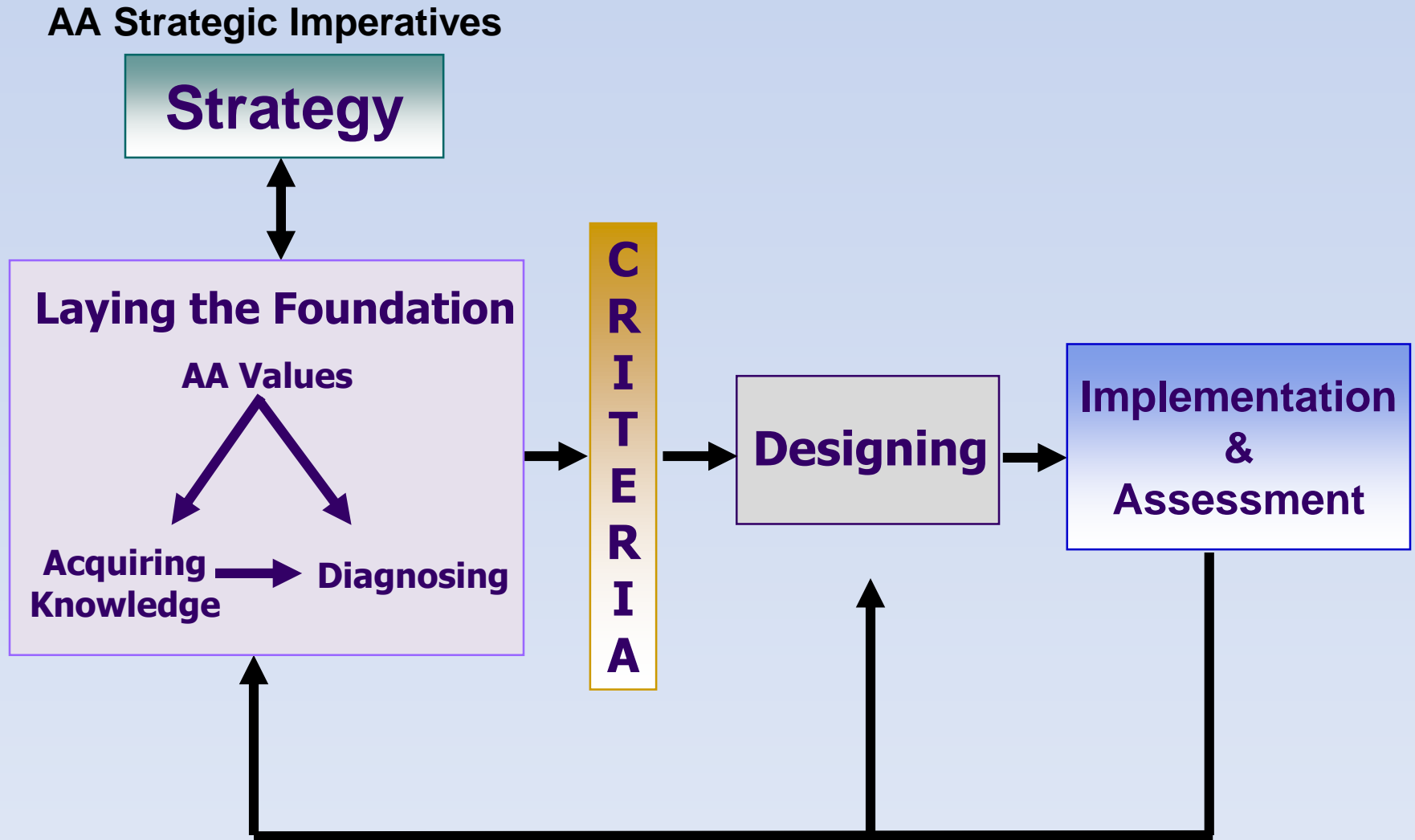
Diagnostic Assessment Strategic Challenges (from executive team)



From:	To:
Long term customer relationships	Mostly competitive bidding
Customer pays for product and technology development	Business invests strategically and recoups development through product sales
Customer driven requirements	Anticipate customer needs and develop and sell products, systems, and services
Homogeneous business model	New/multiple business models—e.g., COTTs—rapid insertion, continuous upgrades and tech insertion
Business comprised of a few very large programs/products	Business comprised of a few large programs and a large number of diverse small programs—growth largely in small programs and new products



The Self-Design Strategy





Diagnostic Interviews –

The Questions:

- **What is the strategy (and is there a common understanding)**
- **What changes in organizational performance, capabilities and competencies are required to carry out the strategy?**
- **What are the current strengths and weaknesses of the organization with respect to its strategy?**
- **How does the current design of the organization support or not support the strategy?**
- **What elements of the design may have to change to support the strategy?**

Interviewees



- **All Executive Leadership Team (ELT) members**
- **Sample of 20 high potential and innovative leaders in positions central to strategy**
 - For example:
 - Technology capability leaders
 - Advanced technology
 - White space leaders
 - Others identified through ELT interviews or by design team

Diagnostic Assessment Themes



The following are key interview themes identified by the Design Team.

***Bold** text indicates themes that specifically came from interviews below the ELT. Other themes came from ELT and others.*

“One AA” Journey has accomplished a great deal of synergy, but journey continues:

- Need to continue to find synergy of core capabilities
- Increase the alignment of functions with business goals
- Clarify Roles – Geographies, Business Lines, Technology Groups
- ***Below ELT greater focus on tensions and mixed messages about synergy versus “optimizing my piece”—see progress, but.....***

Strategy

- There is a common understanding of the key strategic challenges and of a need to find new ways to grow.
- Not a common sense of the foundation for growth—Technical competencies? Products? International? Embedded Customer base, New customer base
- Felt need for a clearer strategy to drive growth
- Need for increased market and competitive intelligence → focus growth on best opportunities (especially in white spaces where customers are relatively unknown)
- ***Awareness of/confidence in strategy declines below the ELT***

Diagnostic Assessment (continued)



Key Organizational Process Capabilities That Need to be Strengthened for Growth Strategy

- Portfolio management process
- Building new businesses
- Product life-cycle and value stream management

Core Structure

- Business Units – does the current line-up make sense and is portfolio aligned correctly to achieve synergy?
- Functions—do not share accountability for business’s objectives—are not aligned with growing existing or new businesses
- ***Below ELT greater focus on need to clarify and align accountabilities with the business activities (bids and proposals, execution, and nurturing new opportunities). Right now everyone is doing everything, and no one is accountable for anything, priorities unclear.***

Diagnostic Assessment (continued)



Lateral Structure

- Progress at working across the businesses – leveraging resources particularly for bidding, a first step at leveraging
- Need for clear cross-business execution processes
- Matrix not optimized

Decision Making

- Almost exclusively Top Down
- Decisions across units difficult
- Preparing arguments, materials and data for executives (and functions) to make decisions consumes a huge amount of time and energy—detracts from ability to manage the business
- ***Little sense of people at lower levels being empowered to make decisions***

Rewards

- Rewards (and management attention) focus on the core business, not the growth
- Risk taking is discouraged

People

- People steeped in the aerospace and defense business model and assumptions trying to grow new businesses that require a different business model and skills
- ***Need more understanding of strategy throughout the organization***
- Matrixed individuals need to be more directly linked to business performance—not just functional performance



Diagnostic Assessment (continued)

White Space and Adjacencies: Growth-Related Issues:

- Trying to do too much and diffusing resources.
- ***Below ELT people feel there are lots of avenues to suggest innovative ideas—but unclear what happens to the ideas, little feedback, and little reward for being part of something innovative***
- Need a process for managing life cycle of new businesses –milestones and governance
- Decide what deviations from current business model will be tolerated—every approval for every deviation is a struggle
- ***Shaky commitment to new business—since rewards are how well we execute on revenue in hand.***
- Talent: Need to build cross-functional teams of people who know non-traditional business models and have new domain knowledge who can manage new businesses



Learning (lecturette)

Designing for Growth-Options

- Growing the core
- Innovative products and services
- New customers and markets
- Acquisitions – for scale or capabilities
- Introducing new business models

The Challenge:

Building these growth capabilities into the way the organization operates often requires new organizational design features



Learning *(lecturette)*

Developing New Capabilities

- Growth can come from the core or from new directions, innovative approaches, and innovative business models
- Growth often requires the organization to develop new capabilities
- Capabilities are a complex combination of new processes, new skills and knowledge, new internal external interfaces and relationships and new ways of managing



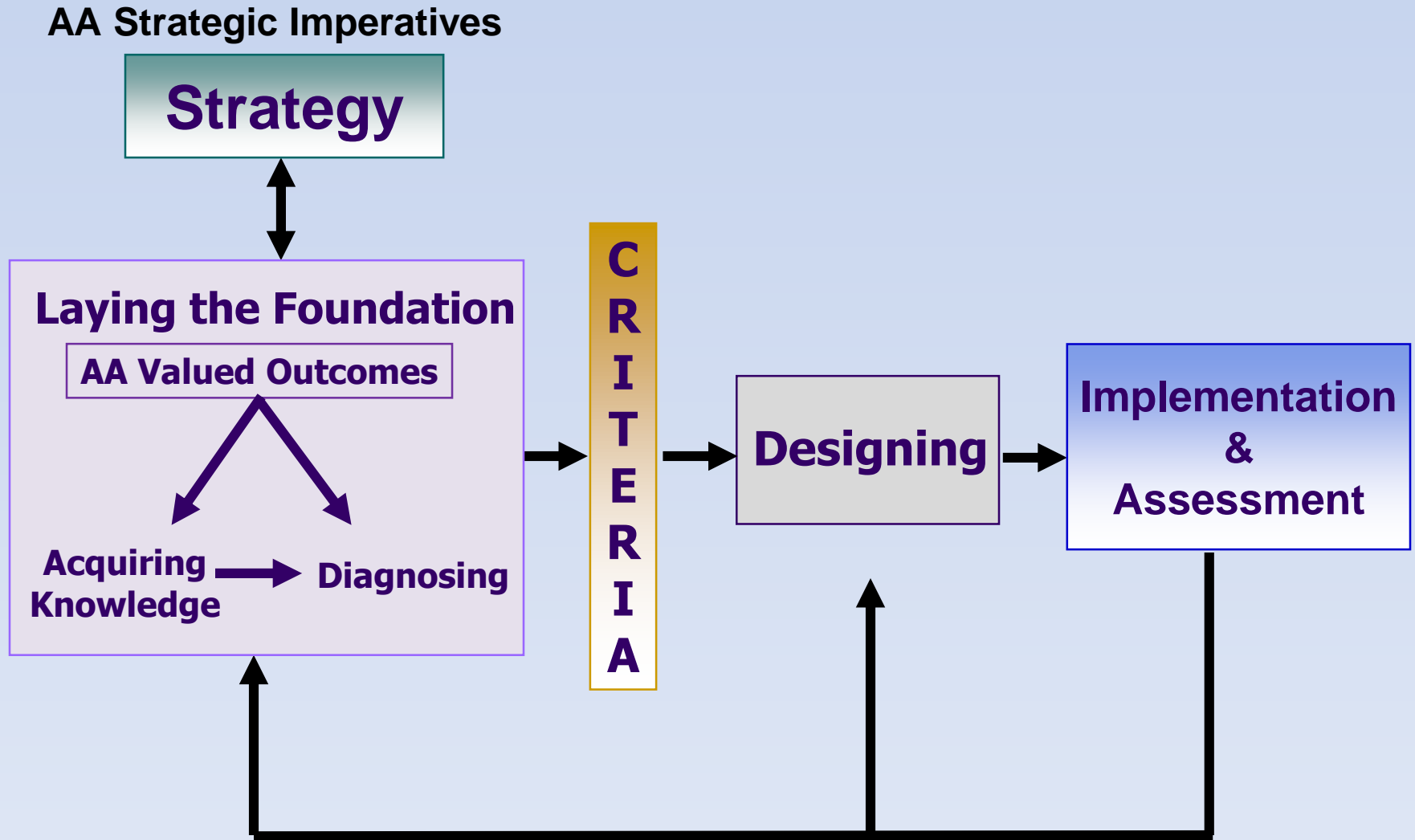
Learning (lecturette)

Principles of Innovation

- Innovative ideas often come from the periphery of the organization—people who are not steeped in one way of doing things
- Innovations often stem from the combination and juxtaposition of ideas, knowledge, experience and perspectives
- It takes a team to turn an innovative idea into an organizational reality



The Self-Design Strategy





Strategy and Valued Outcomes

Learning—Definitions (lecturette)

Strategy

...addresses how the organization plans to position itself in its chosen environments and apply its resources to accomplish its mission and goals through time.

Valued Outcomes

The design of the organization must also take into account the *outcomes* the organization cares about. These can be business outcomes, customer outcomes, societal outcomes, and employee outcomes.

AA Strategic Imperatives



- **Protect and grow the core**
- **Diversify the portfolio**
- **Establish strategic partnerships**
- **Drive technology innovation and leverage**
- **Optimize resource deployment for ambidexterity**
- **Develop our people for a more complex marketplace**

AA Valued Outcomes



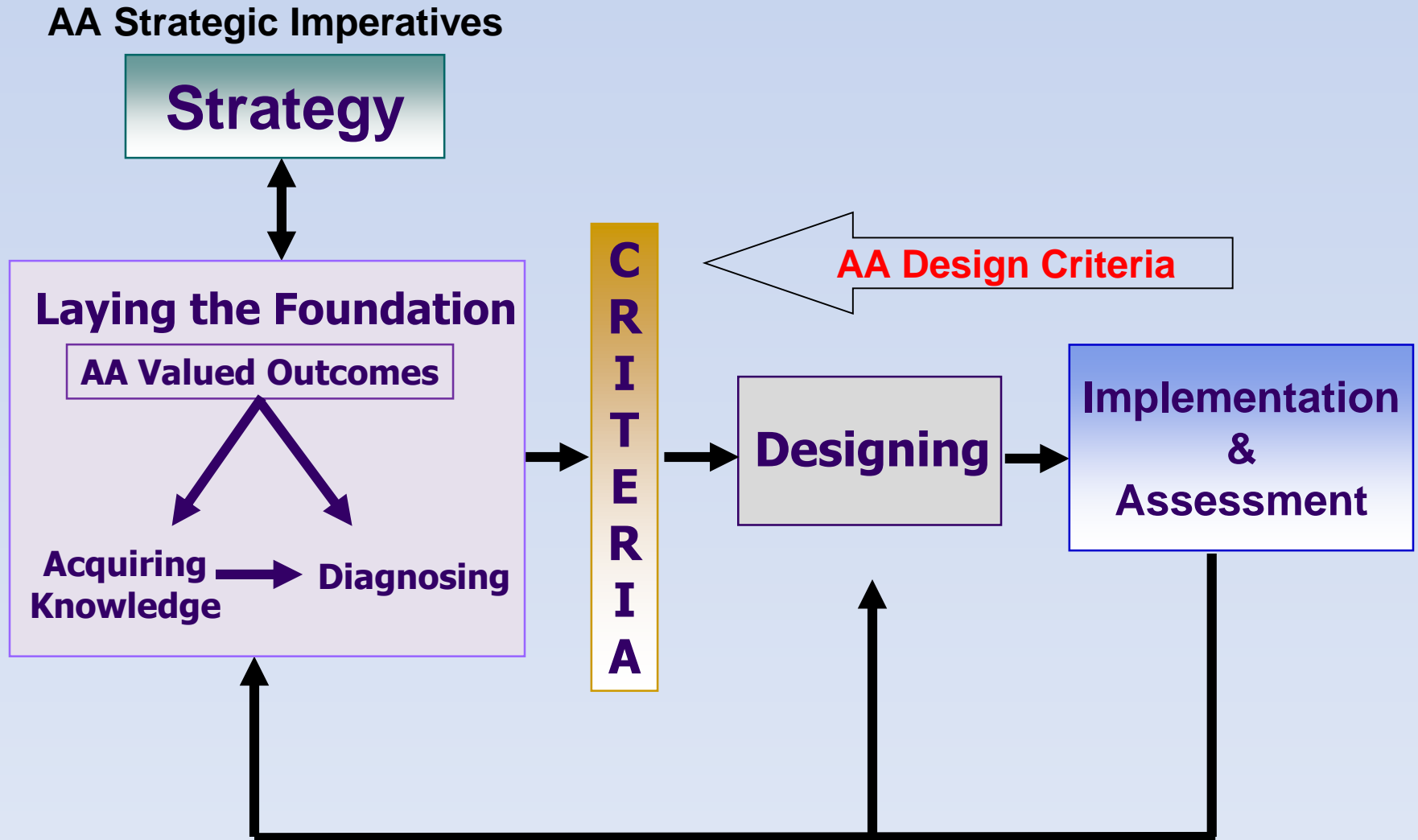
- **Excited Workforce**
 - Energized
 - Agile, nimble
- **Flawless Performance**
 - We do what we say. Reliable
 - Meet requirements at lowest cost (for government customers)
- **Innovative and Entrepreneurial**
 - Growing in new directions and markets
- **Solutions Oriented**
 - Addressing business problems for various types of customers—outpacing the competition.
 - Customers delighted with solutions that exceed expectations
- **Organizationally Adaptive**
 - Capable of reconfiguring to meet changing environments



DESIGN CRITERIA



The Self-Design Strategy



Organization Design Criteria - *learning*



Definition

- **Organization Design Criteria are:**
 - Statements of what the design should accomplish in terms of observable/measurable operating features/outcomes.
 - Derived from the foundation that has been established—the identification of valued outcomes and the diagnosis of things that will have to change to implement the new strategy and achieve the new performance requirements.

- **Organization Design Criteria are not:**
 - A description of how to organize, such as “centralize support services” or “create an architecture group”.
 - A directive goal statement, such as “implement BPO.”

AA Design Criteria-to Perform, Win and Grow

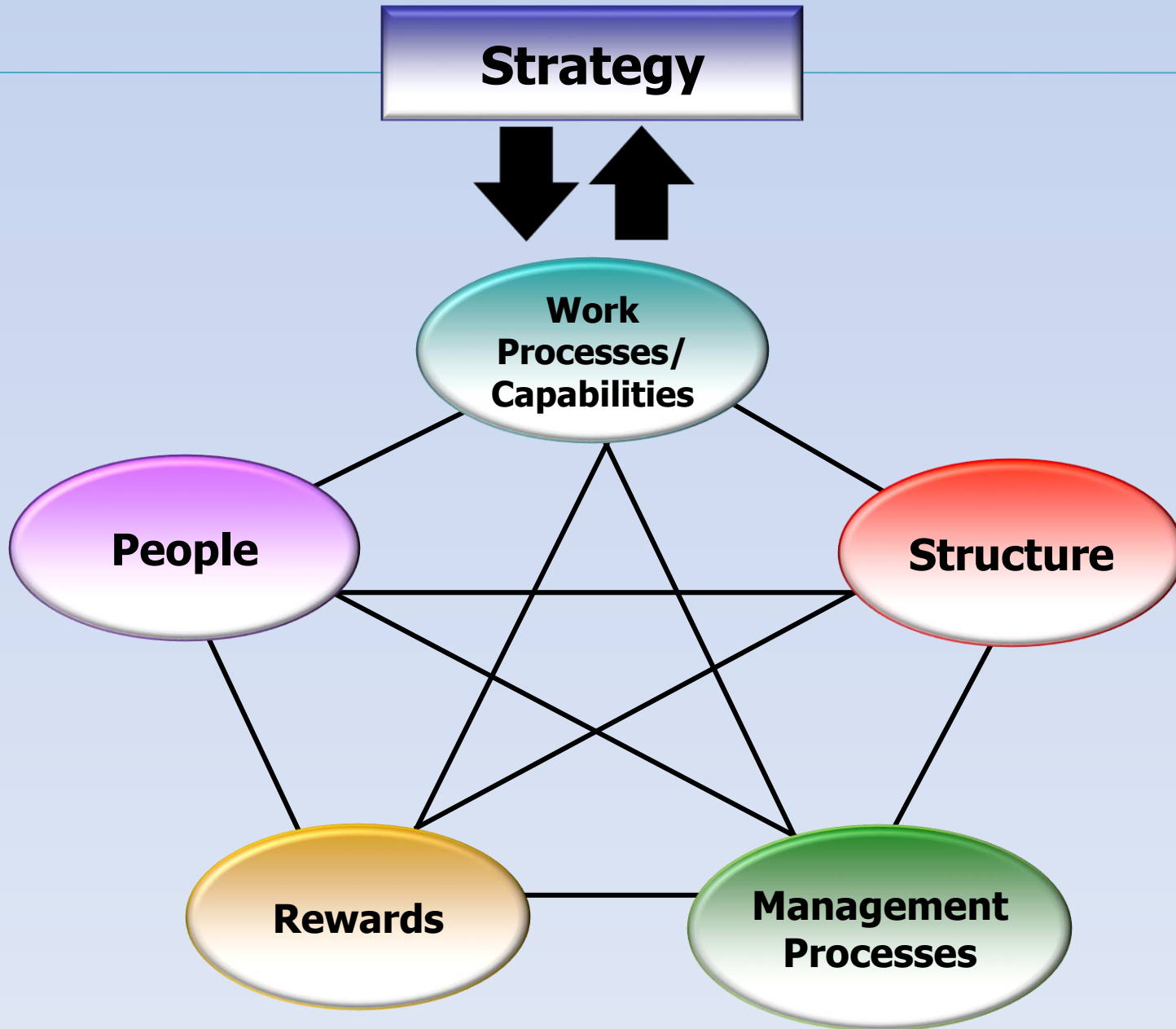


AA must be able to:

1. Improve productivity, drive out cost and deliver greater value to our core customers while promoting growth in new areas.
2. Empower leadership, ownership, innovation and accountability throughout the organization at all levels.
3. Deploy and access appropriate resources (people and investments) across the enterprise with speed and agility.
4. Build capability and competence to compete across multiple business models and markets.
5. Implement a diversification strategy.



DESIGN ELEMENTS AND RECOMMENDATIONS





Core Capabilities of AA

Technical and Product Capabilities *(Partial)*

- Sensors and processing
- Light weight components
- Navigation
- Launching systems
- Systems integration

Core Capabilities of AA



Processes and Resources

- Open architecture/computer-off-the-shelf expertise
- Operations analysis, modeling and simulation capability
- Mechanical structure design and build
- Product support & supply chain management (global)
- Flexible manufacturing capability



Capabilities Needed to Enact Strategy:

Work and Management Processes Required for the Growth Strategy

1. Manage the portfolio
2. Leverage our core capabilities across our businesses
3. Crafting and executing a technology strategy
4. Product strategy and processes to leverage into adjacencies and white spaces
5. Build new businesses

Not in priority order—all are required by the growth strategy



Defining the Core Structural Units:

- Business Units for Traditional Business Functions
- Venture (New Business) Units



Defining the Businesses – Guidelines Followed

➤ Define the recommended configuration of Business Units:

- Self-contain the interdependent processes that deliver value to the customer as much as possible
- Provide clear growth engines for each BU
- Enable clear accountability for delivery of value
- Enable leverage to occur with the least interfaces
- Enable customer relationship building/partnering

Reduced from 8 to 4 Businesses



Business 1	Business 2	Business 3	Business 4
Orders: \$1B	\$0.7B	\$0.9B	\$1.2
Product Family X	Product Family Y		
HQ - Charlotte	HQ - Boston		
<ul style="list-style-type: none"> ▪ <i>Segment 1</i> ▪ <i>Segment 2</i> 	<ul style="list-style-type: none"> ▪ <i>Segment 1</i> ▪ <i>Segment 2</i> 	etc	etc

**AA New Configuration of Businesses and Market Segment –
Partial to Protect Anonymity**

Market Segment Leader Responsibilities



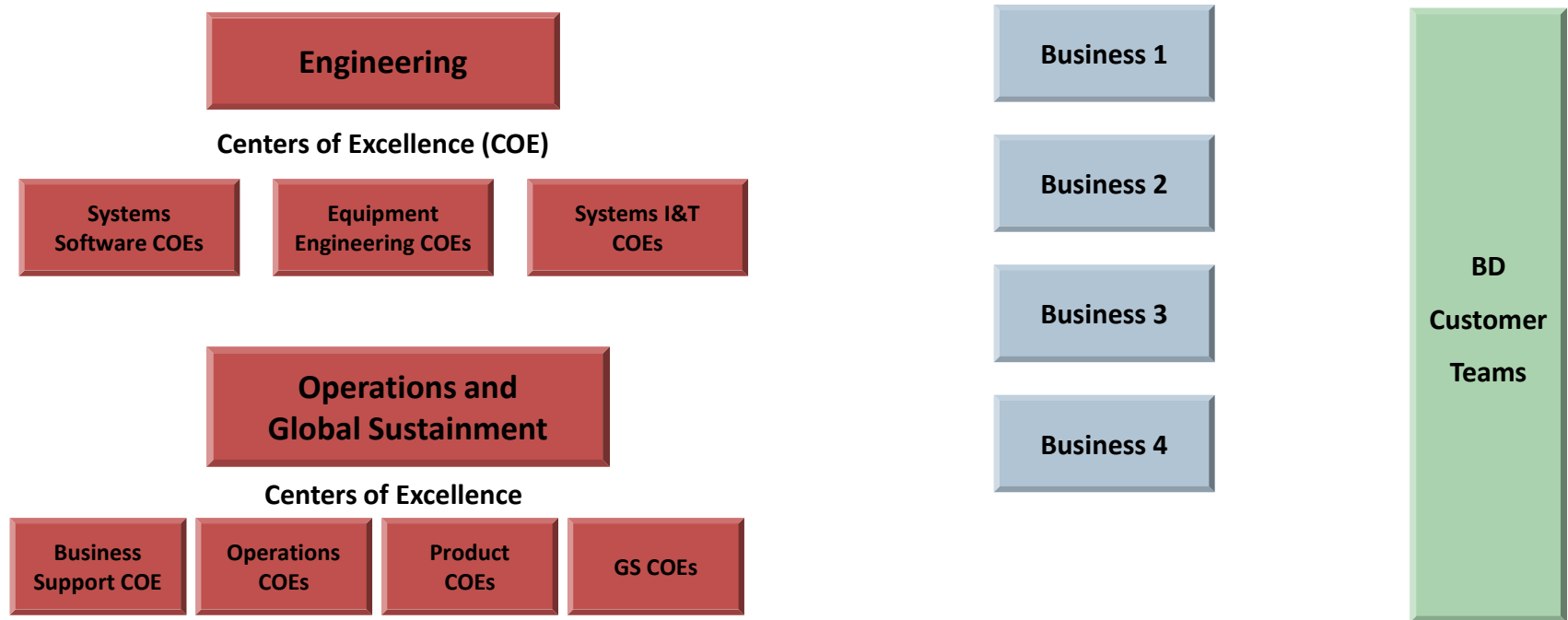
- Operations management & business plan development
- Chair global market segment product line or offering team
- Execute development of product line strategy
- Market segment investment & expense budget management
- Oversee integration of development, production for market area responsibility
- Customer relations

Across Multiple Locations, Multiple Programs, Multiple Products

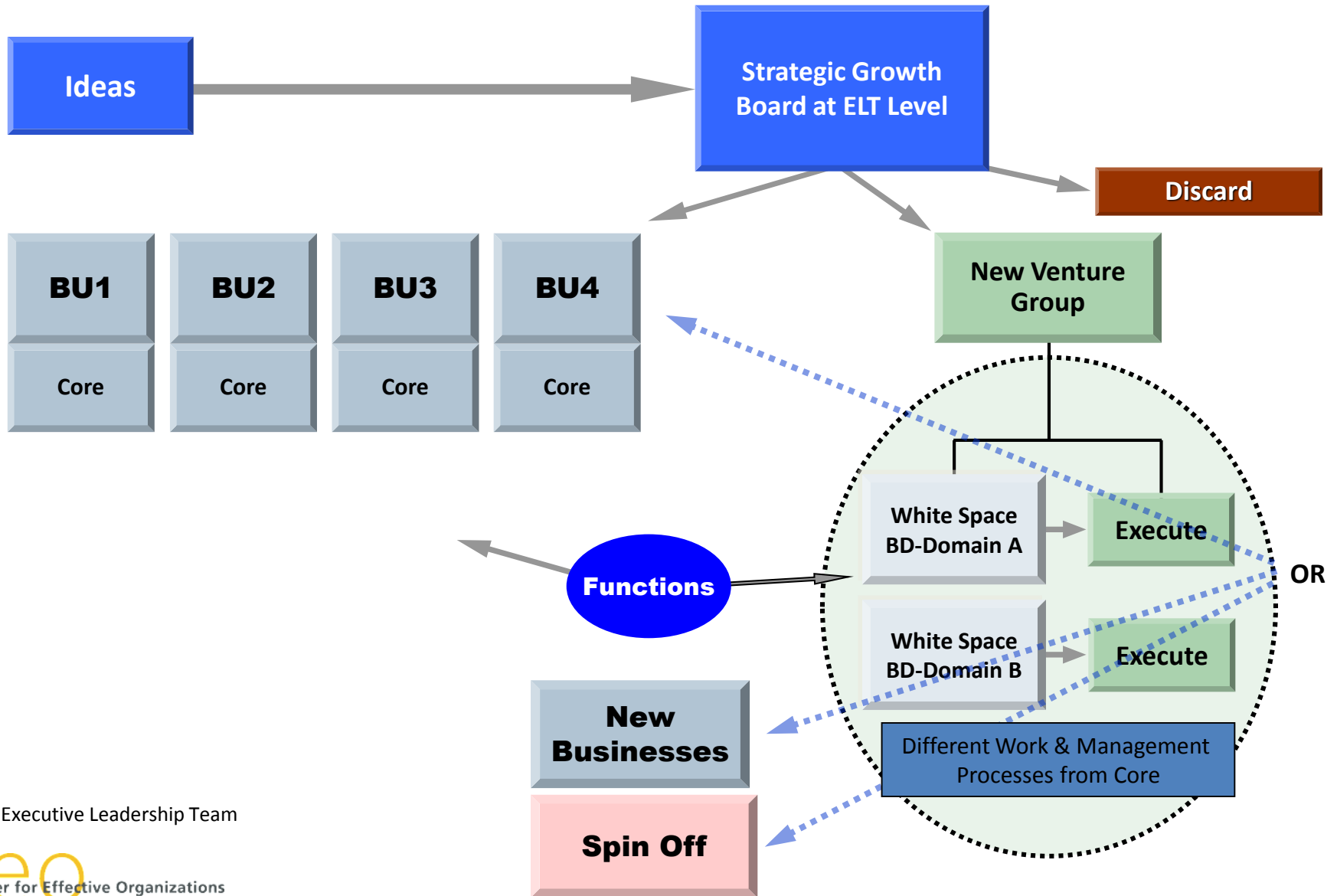


AA Front/Back to Leverage Engineering and Operations

Strategy / Business Development



Growing into Whitespace: High Level Concept of an Ambidextrous Approach



OR

ELT = Executive Leadership Team



Strategic Growth Board

Roles and Responsibilities

- Assess current white space investments. Ensure requirements for business cases, targets and milestones for all investments.
- Assess business plans and determine investments.
- For projects to pursue, decide placement in Businesses or New Venture Group.
- Strategically manage new venture milestones and life cycle.
- Make decisions on continued investment or sunset.
- Facilitate critical resources deployment including people, funding, partners, acquisitions.
- Exercise final decision authority on the need to create unique or different processes, business models, HR practices, financial practices, and risk taking parameters.



New Ventures Group

Roles and Responsibilities

- **Understand new markets and products and develop plan for penetrating and/or building a new market & product set.**
- **Initiate program start-up, incubation and capture.**
- **Develop innovative business models, contractual approaches, costing approaches, etc. that fit the new business.**
- **Establish dedicated functional support when necessary.**
- **Manage new venture teams. Milestone management.**



***Making the Macro
Design Concept Work:

Defining Management
Processes and People
Processes***



Decision-Making Responsibility Chart – Partial Examples

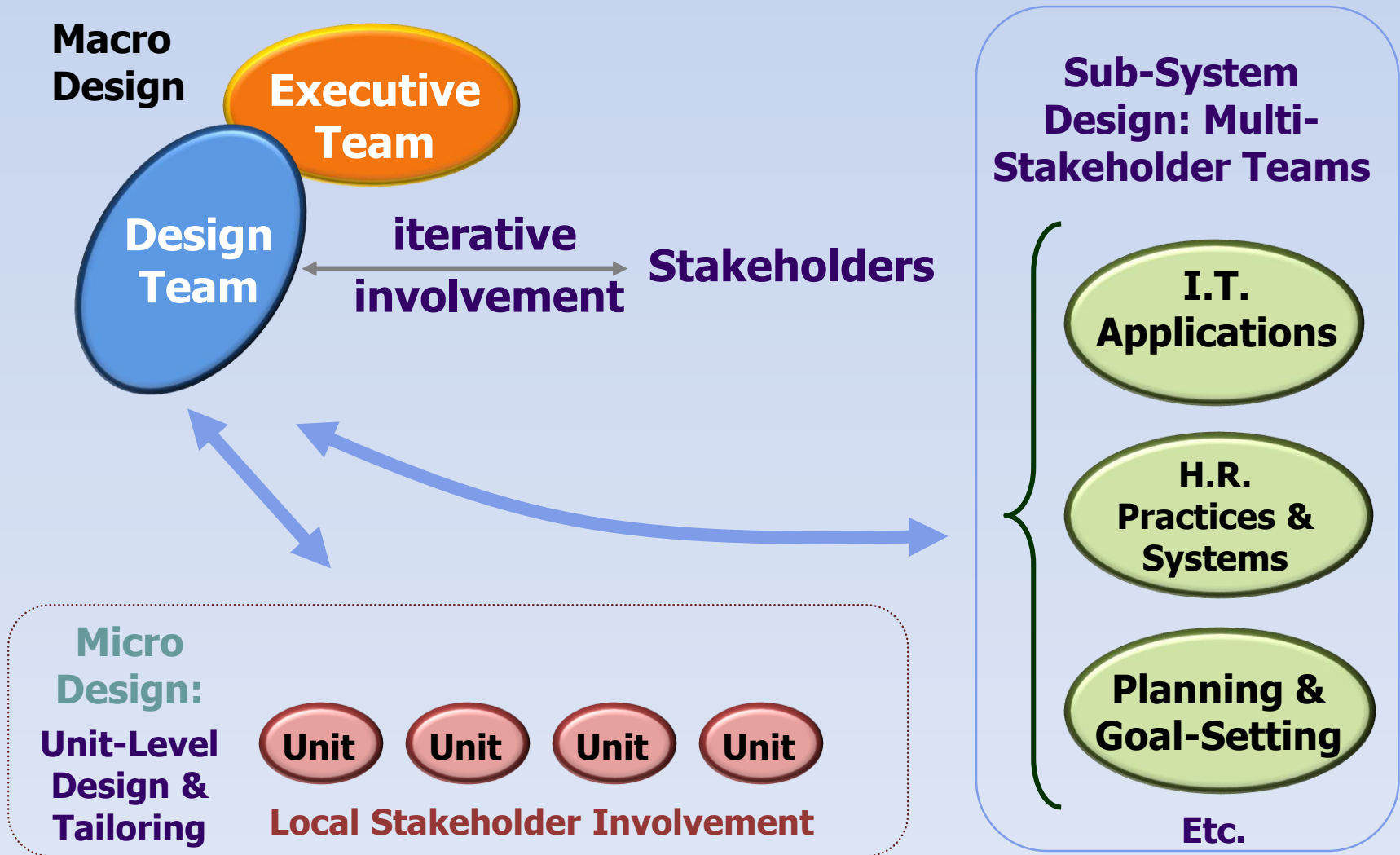
	DECISIONS			
PARTIES TO DECISION	Which Ventures to Pursue	Start-Up Team Composition	Investment Levels	Project Milestone Plan
ELT	E	U	D	N
Strategic Growth Board	D	D	R	D
New Ventures Team	R	R	I	R
Engineering	I	I	U	I
Businesses	I	I	I	U
Operations	U	N	U	I

**KEY: E=Escalation Path; D=Decision Authority; R=Recommend; I=Input;
N=Need to Know; U=Uninvolved**

ELT = Executive Leadership Team



Micro-Design Involvement Framework





Management and People Processes Selected as First Priority for Redesign

Cross functional teams chartered for micro design: Charters to redesign the following processes to incorporate the ambidextrous focus on the core business and on new ventures.

▪ Resource Mgmt. Planning

- Enterprise level → Program specific
- Geography and BU where work gets done
- Workforce planning and forecasting

▪ Performance Management

- Setting business direction
 - Setting Objectives aligned to strategy
- Mid-course corrections
- Assessments and rewards based on business objectives

▪ Strategy

- Strategic planning
- Investment planning
- Technology planning
- Functional strategic planning
- People strategy

▪ Portfolio Mgmt (derived from Strategy)

- M&A
- Core - grow, enhance, and sunset
- Core - white spaces/adjacencies
- Venture portfolio management
- Periodic organization design review

▪ Investment Strategy

- Allocate BD funds
- Allocate advanced technology funds
- Business initiatives, capital and overhead

▪ Make/Buy Strategy

- Enterprise level policy
- Tactical: program by program
- New venture processes

Adding Management and People Process Elements to the BluePrint



- After the micro-design teams finish their work, it will be approved by the design team.
- Process descriptions will be put into the BluePrint.

AA Cultural Values and Behavioral Expectations (Generated by a 3rd level Micro-Design Team)



Culture

- Think and Act as “One AA” All The Time
- Grow, Innovate and Take Balanced Risks
- Champion a Strong Sense of Urgency
- Engage in Constructive Conflict and Feedback
- Execute Shared Accountability and Take Ownership

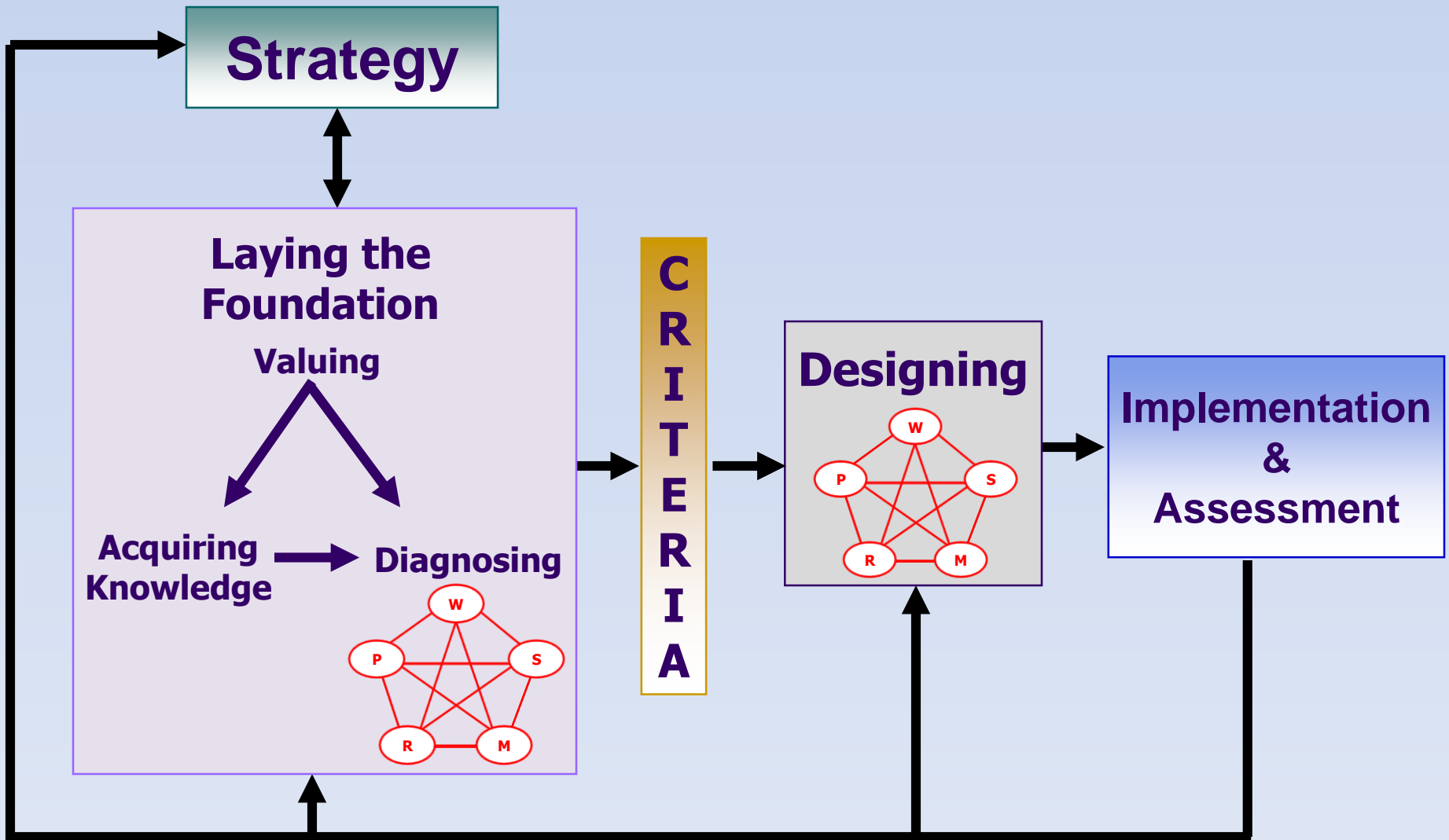
Processes are Being Developed for Incorporating These in the Operating Practices of the Organization, including:

Assessing how well a group is doing on these dimensions at every meeting and identifying changes and actions required to operate in this manner

Regular reviews of the implementation of the new design including pulse surveys to see how well employees feel the organization is doing against these cultural targets



The Self-Design Strategy



Assessment Themes and Actions Taken



To be completed after each
implementation assessment

Build out the Blueprint—ongoing



- As micro-design teams go through their design process, their decisions should be added to the BluePrint
- As business conditions change and core units and lateral structures are changed
- As the organization learns from assessment of how well the new design is operating and new design features are added

**THE BLUEPRINT IS A KEY FOUNDATION FOR
COMMUNICATION THROUGH THE
ORGANIZATION**

RECAP: KEY PRINCIPLES



- Organization design is the process of aligning the design elements of the organization with the strategy of the organization and its valued outcomes
- Criteria for the design capture at a high level what the design process is intended to achieve, in terms of the operating characteristics of the organization
- A significant redesign generally involves changes in all the elements of the design star
- The organizational design “BluePrint” captures the products of the design team as they go through the design process. *It is a living document that can get changed through time*

Group Discussion



➤ Think about the redesigns that you have been involved with:

- Has there been a systematic laying of the foundation?
- Has there been a systematic articulation of criteria?
- Has the organization addressed the elements of the design that must support the new way of operating?
- Was a clear BluePrint produced that supported the ability to create shared understanding throughout the organization?
- What are the consequences of skipping over various steps in the organization design flow?