

A different kind of partner...

Lean/Agile Solution Delivery Forum

October 21, 2010

consulting • technology • human capital



A different kind of partner...



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Agenda

- Introductions
- Background & Context
- Discussion
- The Intersect Group Lean/Agile Solution Delivery “Play Book” Vision
- Discussion
- Lean/Agile Solution Delivery Consortium
- Discussion/Next Steps

Background & Context

Background

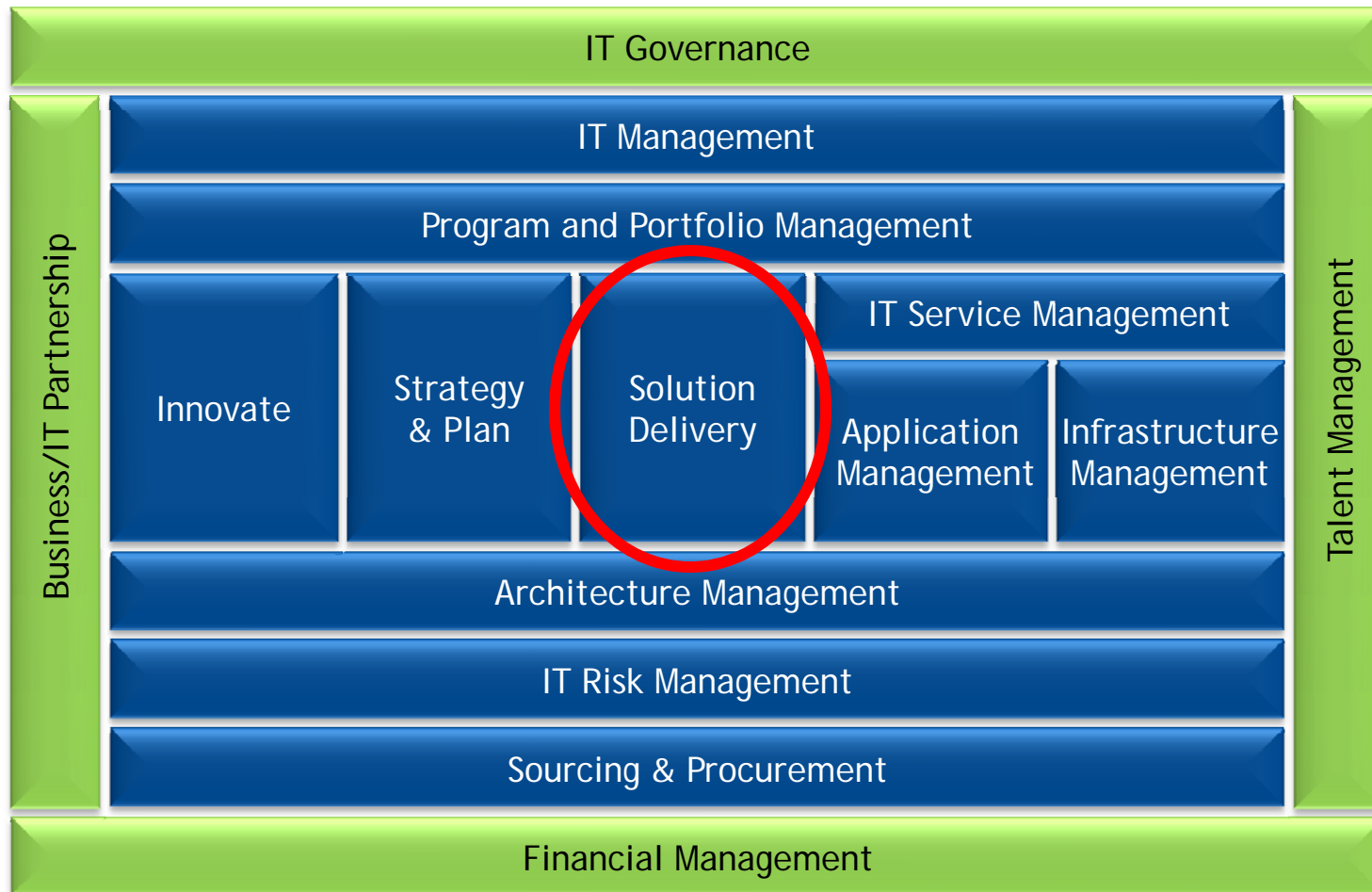
Does the world really need another Solution Delivery Methodology?

- The majority of the available methodologies are “technology based”:
 - Proprietary ERP methodologies from SAP and Oracle;
 - Several different variants of Iterative/Agile Methodologies for custom software development;
 - A few standalone Business Intelligence methodologies;
- Most companies realize that business process redesign should be part of major IT investment projects. Leading companies are starting to learn about and adopt some combination of Lean and Six Sigma.
 - None of the leading “technology based” methodologies have integrated these concepts
- Many companies are starting to experiment with, and adopt, selected aspects of “Agile”
- Some professional services firms, like Accenture, have developed their own proprietary methodologies that they use on client engagements
- Offshore outsourcing has become a major part of most organization’s Solution Delivery capabilities
 - Each of the off shore providers have their own proprietary methodologies that are, for the most part, waterfall based
- None of these methodologies specifically address what most IT organizations spend most of their time doing:
 - Extending and enhancing their legacy systems, and;
 - If, they are even investing in new applications, developing and implementing “Composite Applications” that include multiple technologies and solution types
- Because of this, many IT organizations have recognized the need to develop and support their own “Enterprise Solution Delivery” methodology to insure consistency and quality across all of their Solution Delivery activities

The Intersect Group IT Capability Framework

Context

Our discussion today will initially focus on Solution Delivery, which is one of the fifteen capabilities in The Intersect Group IT Capability Framework

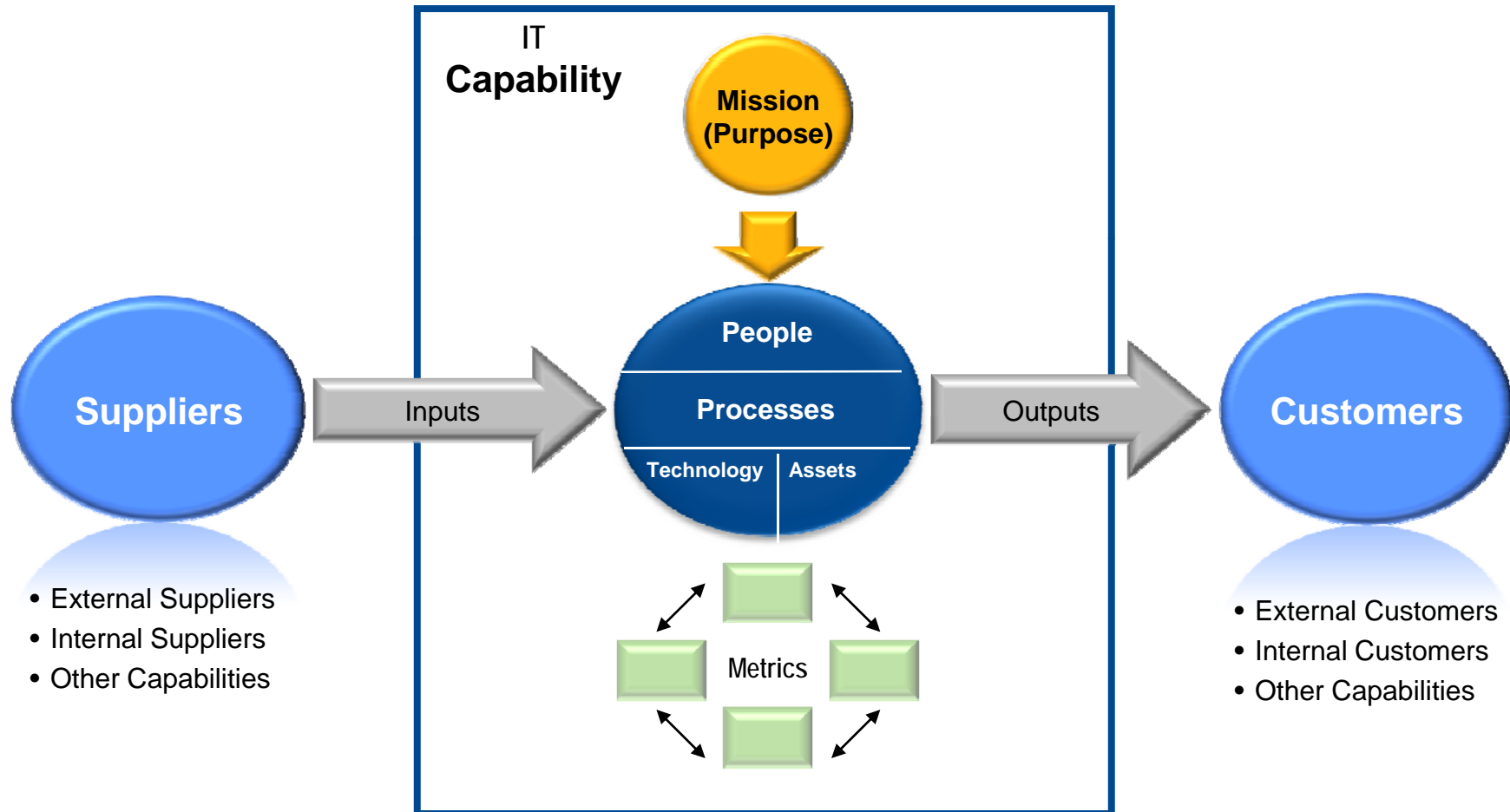


Adapted from COBIT, ITIL, CMMI, PMBOK, OPM3, ISO, People CMM and other frameworks

What is an “IT Capability”?

Context

We define an IT Capability (or any Business Capability) as the People, Processes, Technology, Assets and Suppliers (Business Partners) that provide outputs of value to customers. Customers can be external, internal or other capabilities.



What is Agile Development?

Context

*Agile Development is a lightweight approach to **Custom Software Development***

- Based on the “Agile Manifesto” and a set of Agile Principles that were agreed to by seventeen software development thought leaders in 2001

The Agile Manifesto

Individuals and interactions	Over	Processes and tools
Working software	Over	Comprehensive documentation
Customer collaboration	Over	Contract negotiations
Responding to change	Over	Following a plan

That is, while there is value in the items on the right, we value the items on the left more

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Notice it does not say “Instead of”

There are 13 Principles that support the Agile Manifesto

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, form a couple of weeks to a couple of months, with a preference to the shorter time scale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversations.
7. Working software is the primary measure of progress.
8. Agile processes support sustainable development
9. The sponsors, developers and users should be able to maintain a constant pace indefinitely
10. Continuous attention to technical excellence and good design enhances agility
11. Simplicity – the art of maximizing the amount of work not done – is essential
12. The best architectures, requirements, and designs emerge from self-organizing teams
13. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly

*Agile Development is a lightweight approach to **Custom Software Development***

- There are actually seven (at least) approaches to Agile Development in the marketplace
 - **Scrum** (Ken Schwaber and Jeff Sutherland)
 - **Extreme Programming** (Kent Beck, Ward Cunningham and Ron Jeffries)
 - Feature-Driven Development (Jeff De Luca and Peter Coad)
 - Lean Development (Bob Charette)
 - Dynamic Systems Development Method (developed in the UK in the mid-1990s)
 - Crystal Methods (Alistair Cockburn)
 - Adaptive Software Development (Jim Highsmith)
 - “KanBan” (From Lean Manufacturing) – emerging as a “post-Scrum” movement

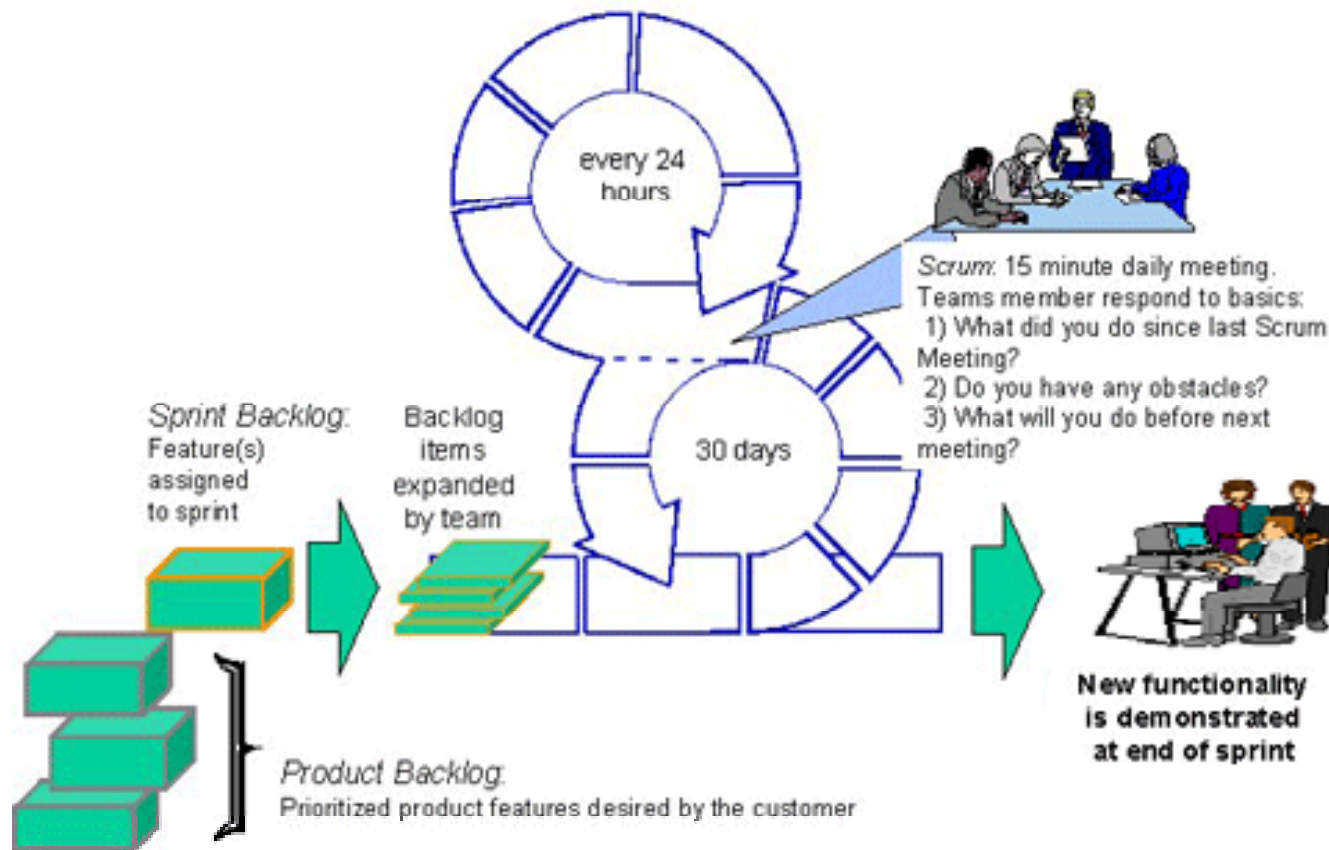
- The Intersect Group has focused it’s efforts on the integration of Scrum, XP and Lean
 - Lean for Business Process Redesign; and
 - Lean for the actual design of our Solution Delivery “Play Book”

What is Scrum?

Context

Scrum is a very popular approach to Agile that focuses primarily on Project Management, collaborating with the business and communication within the team

How To Scrum



What is Extreme Programming?

Context

Extreme Programming (XP) is another very popular approach to Agile Development. As its name implies, it primarily focuses on custom software development activities

- XP is based on four **Values...**
 1. Communication
 2. Simplicity
 3. Feedback
 4. Courage
- ... and twelve **Core Practices**
 1. The Planning Game
 2. Small Releases
 3. Metaphor
 4. Simple Design
 5. Automated Testing
 6. Refactoring
 7. Pair Programming
 8. Collective Ownership
 9. Continuous Integration
 10. 40 Hour Week (Sustainable Pace)
 11. On-site Customer (User)
 12. Coding Standards

What is Extreme Programming?

Context

Extreme Programming (XP) is another very popular approach to Agile Development. As its name implies, it primarily focuses on custom software development activities

- XP Development is **highly automated**
 - Developer Tools
 - IDE
 - Automated Test Frameworks
 - Push-button Build
 - Report Generators
 - Build log, Tests Passed
 - Code Quality, Test Coverage/Quality
 - Documentation Generators
 - Class Diagrams, Data Diagrams
 - Configuration Management!
 - Repositories
 - Source Code
 - Test Source
 - Test Data and Scripts
 - Build Scripts

What does it mean to be “Lean”

Context

“Lean” organizations (manufacturing companies , hospitals or IT organizations) are more efficient, deliver higher quality products/services, are more agile and faster to market and have higher customer satisfaction (think Toyota/Lexus vs. General Motors).

- Lean concepts were first introduced to the manufacturing world as companies began to benchmark and study the famous Toyota Production System
 - It was conceptually straightforward for other manufacturing companies to understand how to apply the Toyota Lean concepts to their operations
 - It was, and is, a significant undertaking to transform the processes, organization, culture and the leadership of a company to actually implement these Lean concepts
- The fundamental concepts behind Lean are surprisingly simple:
 - Specify value – in the eyes of the customer
 - Identify the Value Stream (and eliminate waste). Lean defines 7(or 8) areas of waste:
 - Overproduction
 - Over-processing
 - Transportation
 - Motion
 - Inventory
 - Waiting
 - Rework/Defects
 - “Intellect” (The 8th area of waste)
 - Flow – Reconfigure the remaining, value creating activities to flow continuously
 - Pull – Let the customer “pull” what they need, rather than “pushing” on them what you produce
 - Perfection – Lean is a journey, not a destination. As you improve you will always identify opportunities for continuous improvement

Solution Delivery Waste Examples

Context

For example, the table below shows some of the typical areas of waste we have found in Solution Delivery processes

Area of Waste	Examples
1. Overproduction	<ol style="list-style-type: none">1. Developing application functionality that nobody uses or needs2. Forty page Use Cases that nobody reads
2. Over-processing	<ol style="list-style-type: none">1. Running more test scripts than are necessary2. Running 2 hour batch test runs with production data that could be run in 15 seconds with engineered data
3. Transportation	Development server requests that have to go through multiple people or organizations for approval
4. Motion	Analysts having to go to multiple users and other sources to “gather” and negotiate requirements
5. Inventory	<ol style="list-style-type: none">1. Having multiple applications that perform the same functions2. Requirements or design specifications waiting to be developed
6. Waiting	Code that has been developed and unit tested waiting to be system tested
7. Rework/Defects	<ol style="list-style-type: none">1. Developing software that doesn't meet the needs of the users2. Poor quality and unreliable production applications
8. Intellect	Not using or developing all of the capabilities of the people on a team

Discussion

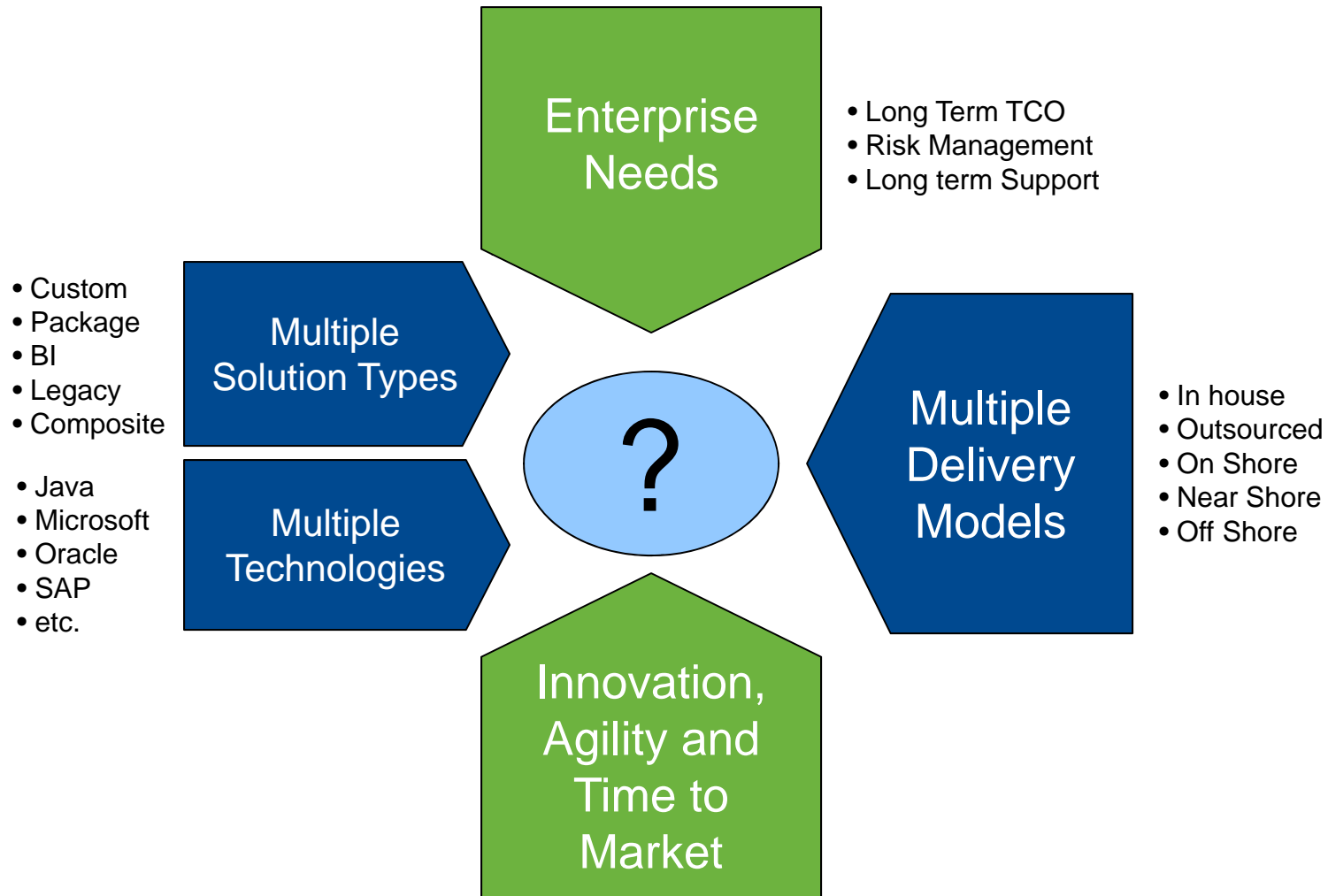
Here is a preliminary list of questions we can discuss in the next 20 minutes or so...

1. Is Agile a “Methodology”?
2. Is Agile Lean?
3. What is the difference between a Scrum Master and a Project Manager? Do I need both?
4. How are people organizing their teams?
 - a. Project Teams
 - b. Ongoing Application Maintenance, Enhancement and Support Teams?
5. How does Agile fit into an Enterprise Solution Delivery Methodology?
6. Are Toll Gates compatible with Agile? Are they Lean?
7. Have people used Value Stream Mapping? – what were the pro’s and con’s?
8. What key JIT principles have they applied and where?
9. What key QA principles do they apply to their projects?
10. Have they used Lean to assist in project selection? - How?

The Intersect Group Lean/Agile Solution Delivery Play Book

Solution Delivery Challenges

Application Development and Maintenance organizations must deal with conflicting objectives and multiple sources of variability and complexity. Unfortunately, there is no "One Size Fits All" solution.



What about Agile?

Agile principles and practices can have a tremendous impact on increasing the efficiency, effectiveness, time to market and customer satisfaction with Solution Delivery...

- However, “Agile” is not an Enterprise-scale Solution Delivery Methodology. It does not address:
 - Project Initiation Activities
 - Business Process Analysis and Design
 - Organization Change Management
 - Package implementation, Data Warehouse or Enhancement projects
 - Integration with other systems
 - Requirements Definition (Where do those Stories come from anyway?)
 - Non-functional requirements
 - Report Design and Development
 - User Interface Design and Usability Testing
 - Database Design
 - Reuse – either proactive or harvested
 - Conversion or Implementation
 - Creation of User, Maintenance and Production Documentation
 - Many Program/Project Management requirements:
 - e.g. Business Case Development

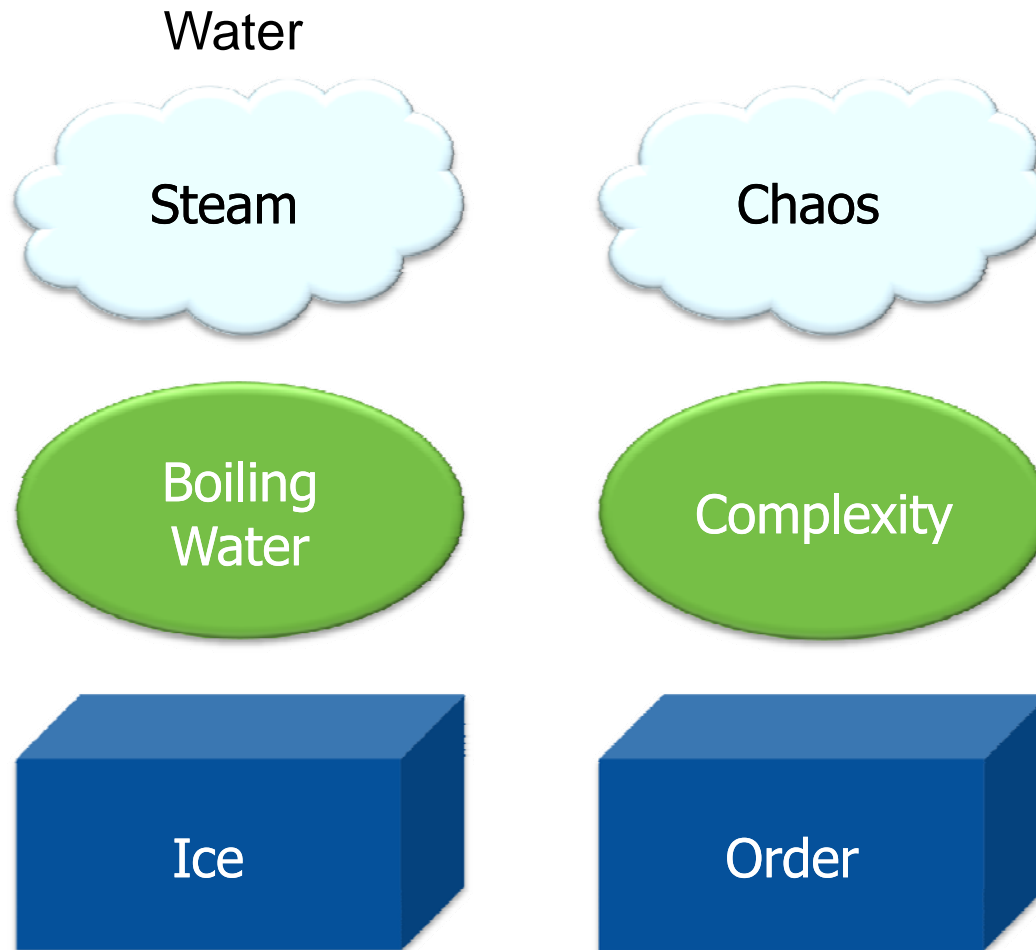
Complexity: the emerging science at the edge of Order and Chaos

Complexity Theory provides a useful starting point for a discussion of our Lean/Agile Solution Delivery Playbook



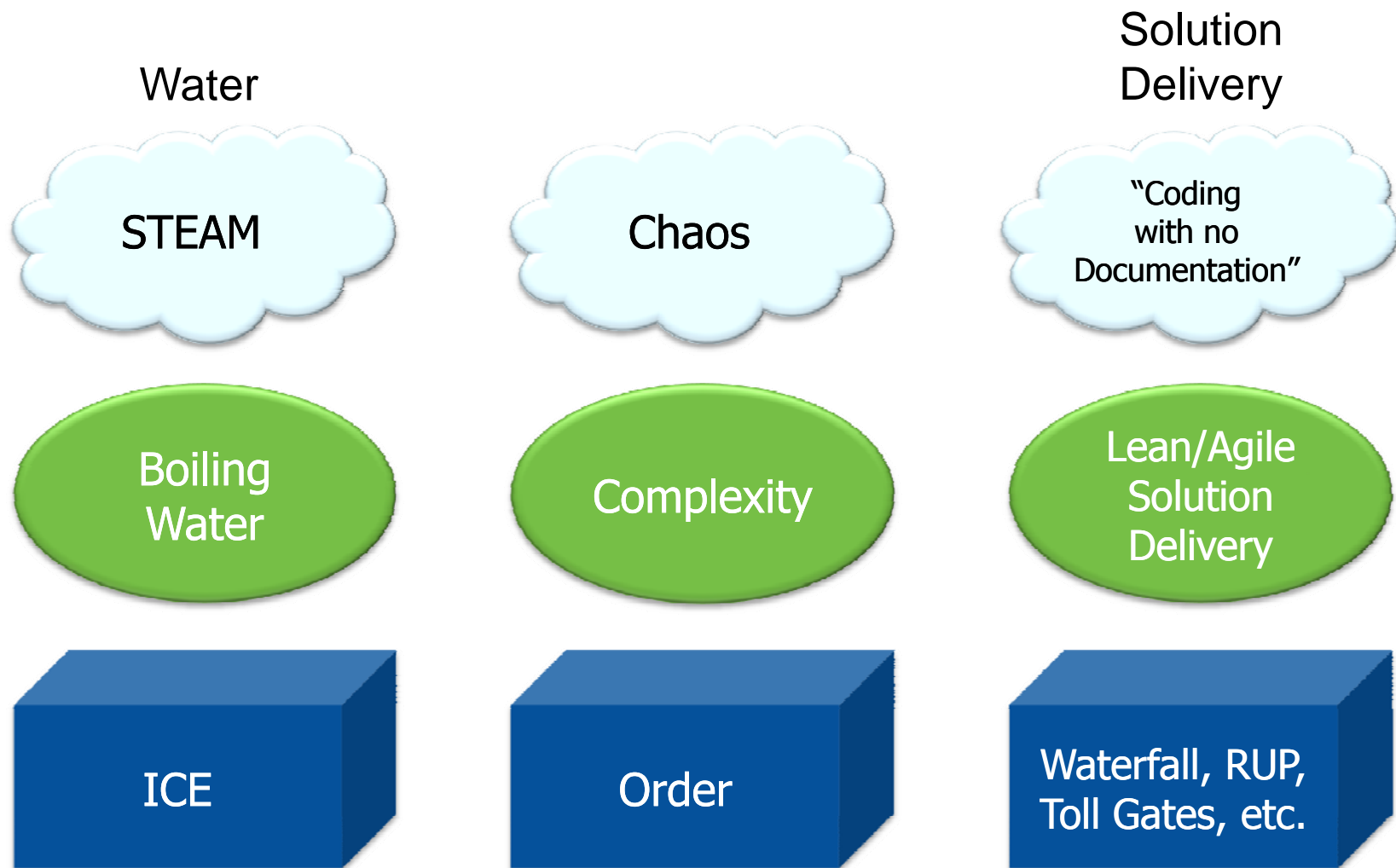
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Lean/Agile Solution Delivery - Introduction

Our Lean/Agile Solution Delivery approach is based on principles and project organizational best practices from several sources

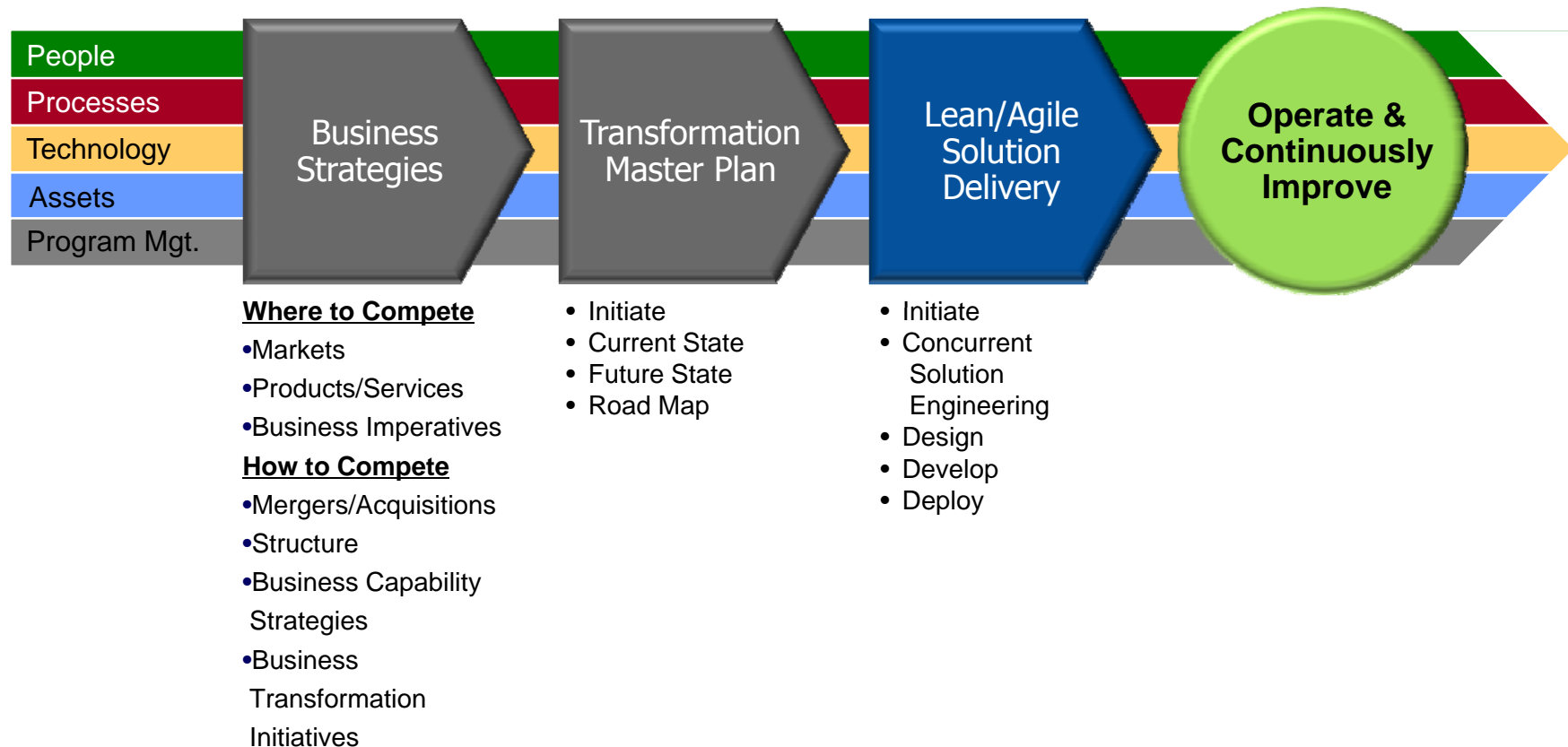
- Complexity Theory – at the edge of order and chaos
- Lean
 - Focus on the “customer” and what they value
 - Eliminate waste
 - Flow
 - Pull
- Agile – The Agile Manifesto and Agile Principles (see pg. 9), including:
 - Effective Business/IT Partnership and Collaboration
 - Long-lived, empowered teams of knowledgeable, experienced practitioners
 - Co-location (wherever possible)
 - Coaches
- Other
 - Peer Reviews
 - Objective, Independent Expert Reviews

Lean/Agile Solution Delivery - Introduction

- Our Lean/Agile Solution Delivery Methodology Framework was, and is continuing to be, developed to meet the following objectives:
 - Address the work that IT organizations really do, and the way they need to do it in 2010 and beyond.
 - Leverage and integrate best practices from leading methodologies and other sources.
 - Keep the methodology as lightweight as possible while still addressing the needs of a large complex organization
 - Regulatory
 - IT Risk Management
 - Ongoing maintenance, support and TCO
- In addition to Lean and Agile, we have included concepts, ideas and best practices from the following sources....
 - Concurrent Engineering (from the Automotive industry)
 - Product Management
 - Organization Change Management
 - Project Management Best Practices
 - Architecture Framework
- We have “perforated” the traditional phasing model slightly differently.

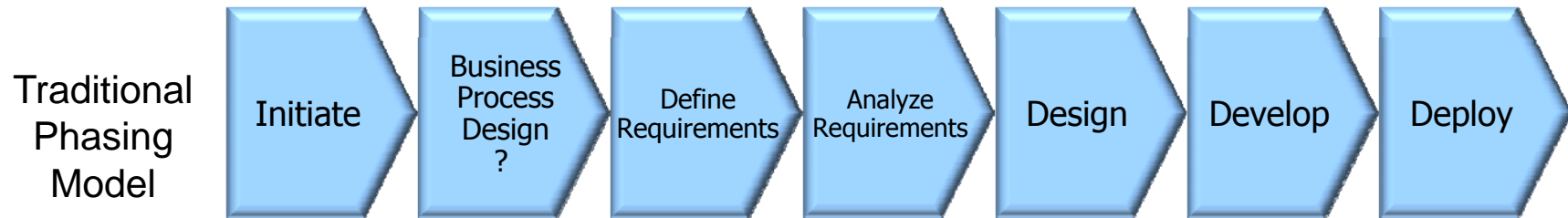
Lean Business Transformation Life Cycle

Our Lean/Agile Solution Delivery Methodology fits within this overall Business Transformation Lifecycle. The Business Transformation lifecycle includes establishing the strategic context and direction for the transformation, developing a "Master Plan" to transform the target business capabilities and designing and implementing the necessary solutions across four dimensions – people, processes, technology and assets.



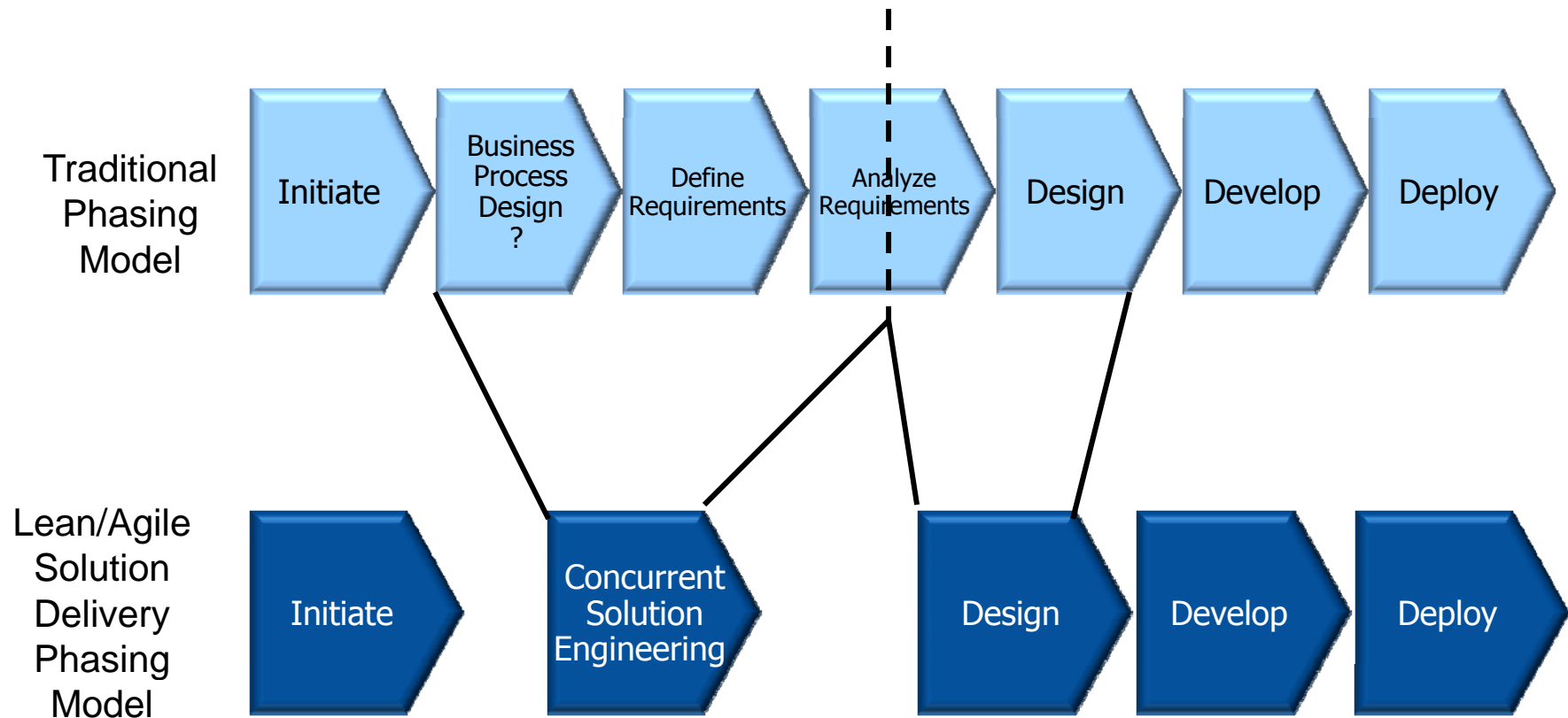
Phasing Model

We have "perforated" the traditional phasing model a little differently



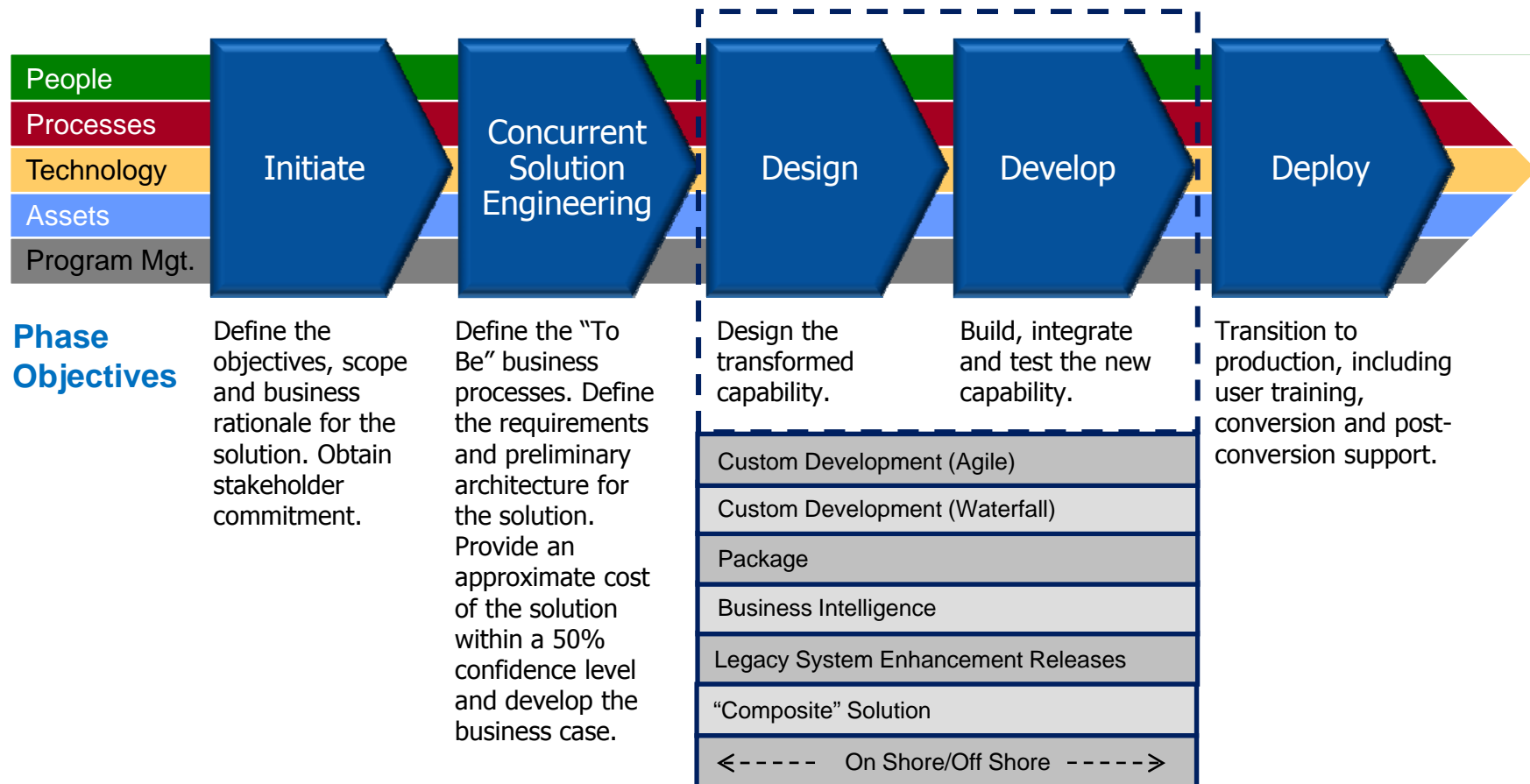
Phasing Model

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Our Lean/Agile Solution Delivery Framework

Our Lean/Agile Solution Delivery Framework has five phases and supports multiple solution types. The Initiate, Concurrent Solution Engineering and Deploy phases are essentially the same regardless of solution type, while Design and Develop will have some differences. All five phases leverage Lean Thinking and Agile Development principles.



A “Play Book”, not a “Cook Book”

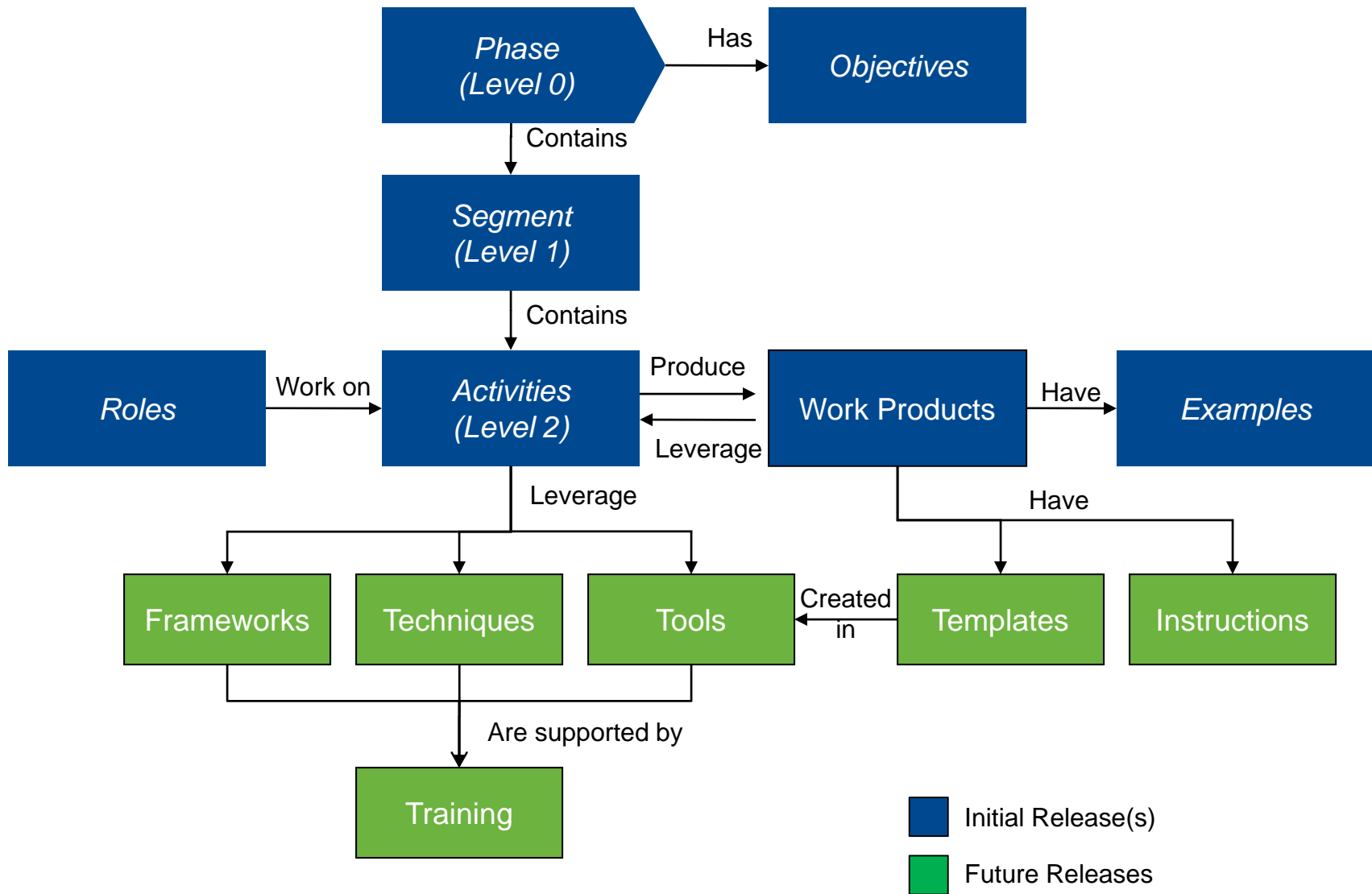
Think of our Lean/Agile Solution Delivery Framework like the “Play Book” of an NFL team that has all of the “plays” (Activities and Deliverables) that the team practices and can execute

- Football Teams have Play Books for all of the plays that they can run
 - They have Offensive and Defensive Play Books
 - They create Offensive and Defensive “Game Plans” for each game based on the projected weather conditions, their strengths, weaknesses and strategy and their assessment of the other team’s strengths and weaknesses
 - They don’t run every plan in every game
- Similarly, IT organizations create specialized subsets, or “Game Plans” of portions of the Lean/Agile Solution Delivery “Play Book” for each solution type and delivery model
- Individual Application Organizations and/or Project Teams further refine these “Game Plans” for the “plays” that they will actually execute based on their unique situation
- The Enterprise is responsible for defining what “plays” are required across all solution types
 - “Definition of Done”
- The degree of formalization and documentation that will be required is typically a function of:
 - The size and culture of the overall organization
 - The complexity and risk of the solution under development
 - The investment and resources that will be required

What is a Solution Delivery Play?

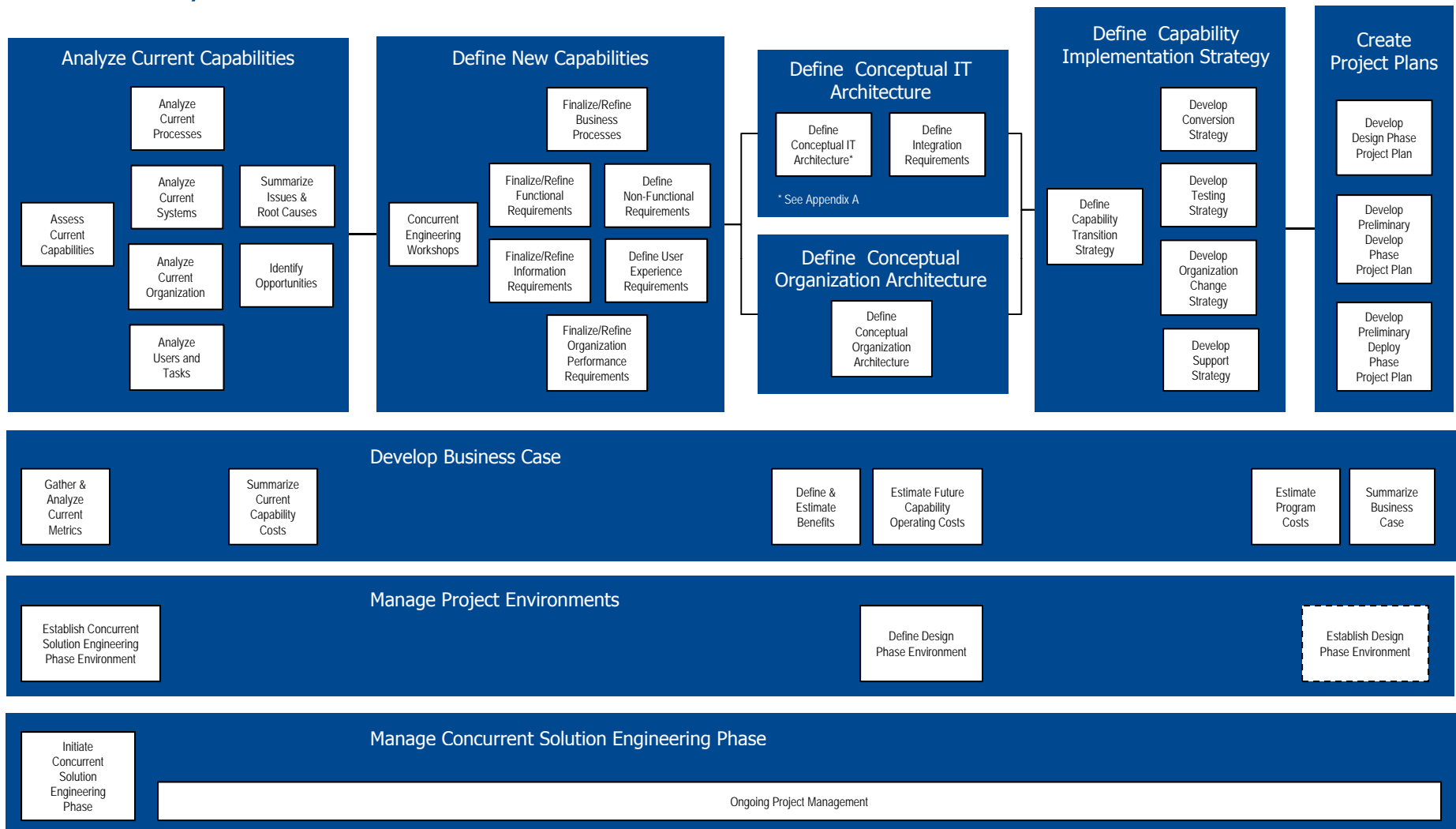


What is a Solution Delivery Play?



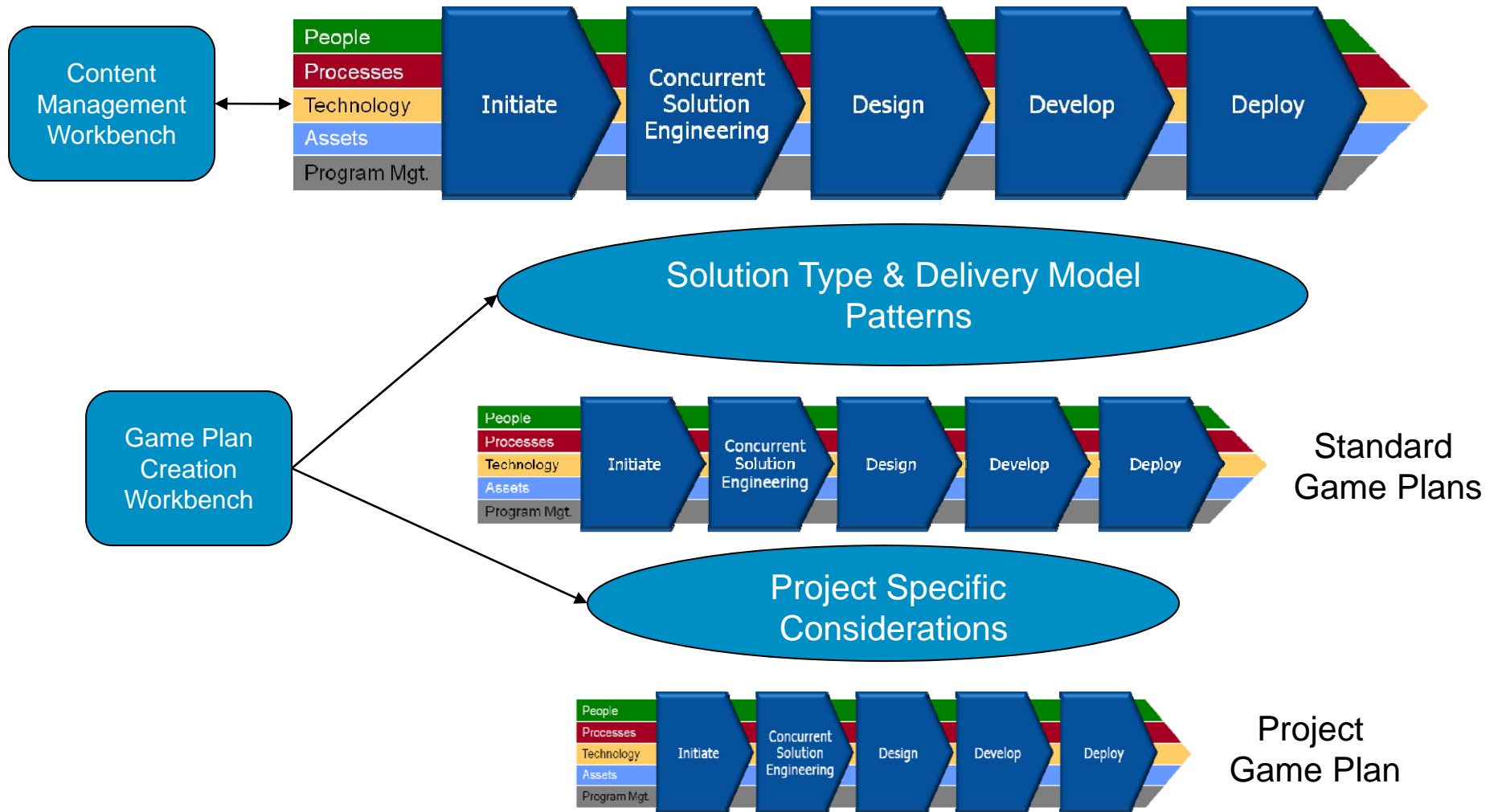
Concurrent Solution Engineering Phase - Planning Chart

Define the "To Be" business processes. Define the requirements and preliminary architecture for the solution. Provide an approximate cost of the solution within a 50% confidence level and develop the business case.



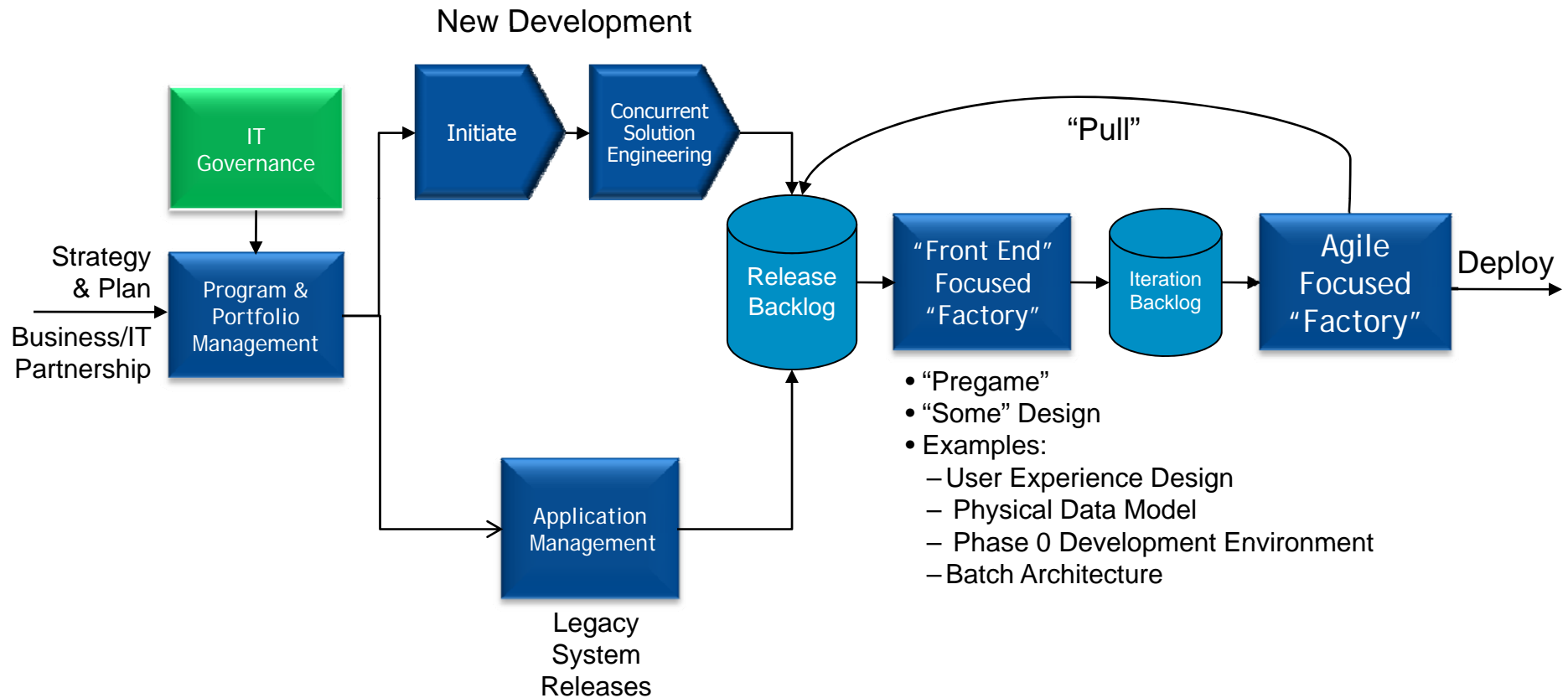
How it would work

Lean/Agile Solution Delivery Play Book



How it would work

This is a high level, conceptual overview of how Lean/Agile Solution Delivery would work in an IT organization.



Current Status

- Started with several existing methodologies
 - Most comprehensive was an Enterprise Solution Delivery Methodology developed and implemented in a major insurance company
 - Contains:
 - Planning Charts – Waterfall and Agile
 - Work Product Catalogue
 - Sample Deliverables – Initiate and “Solution Scoping” Phases
 - Training – Requirements approach, Initiate Phase and “Solution Scoping” Phase
- Made several significant revisions:
 - Integrated in Lean Business Process Re-design
 - Modified “Solution Scoping” phase to become Concurrent Solution Engineering Phase
- Current Status
 - Planning Charts complete for: Initiate, Concurrent Solution Engineering and Deploy Phases
 - Work Product Catalogue complete for; Initiate and Concurrent Solution Engineering Phases
 - Currently working on Design
 - Discussion with potential partners for completing the Agile Data Warehousing Game Plan and to build out the “People” perspective
- Continuing to build out based on available time and client opportunities

Discussion

1. What questions do you have?
2. What have we missed?
3. What suggestions do you have to make it more meaningful for your organization?

A Lean/Agile Solution Delivery Consortium

Lean/Agile Solution Delivery Play Book – Value Proposition

We believe that our Lean/Agile Solution Delivery Play Book can create significant value for our clients and, therefore, for us.

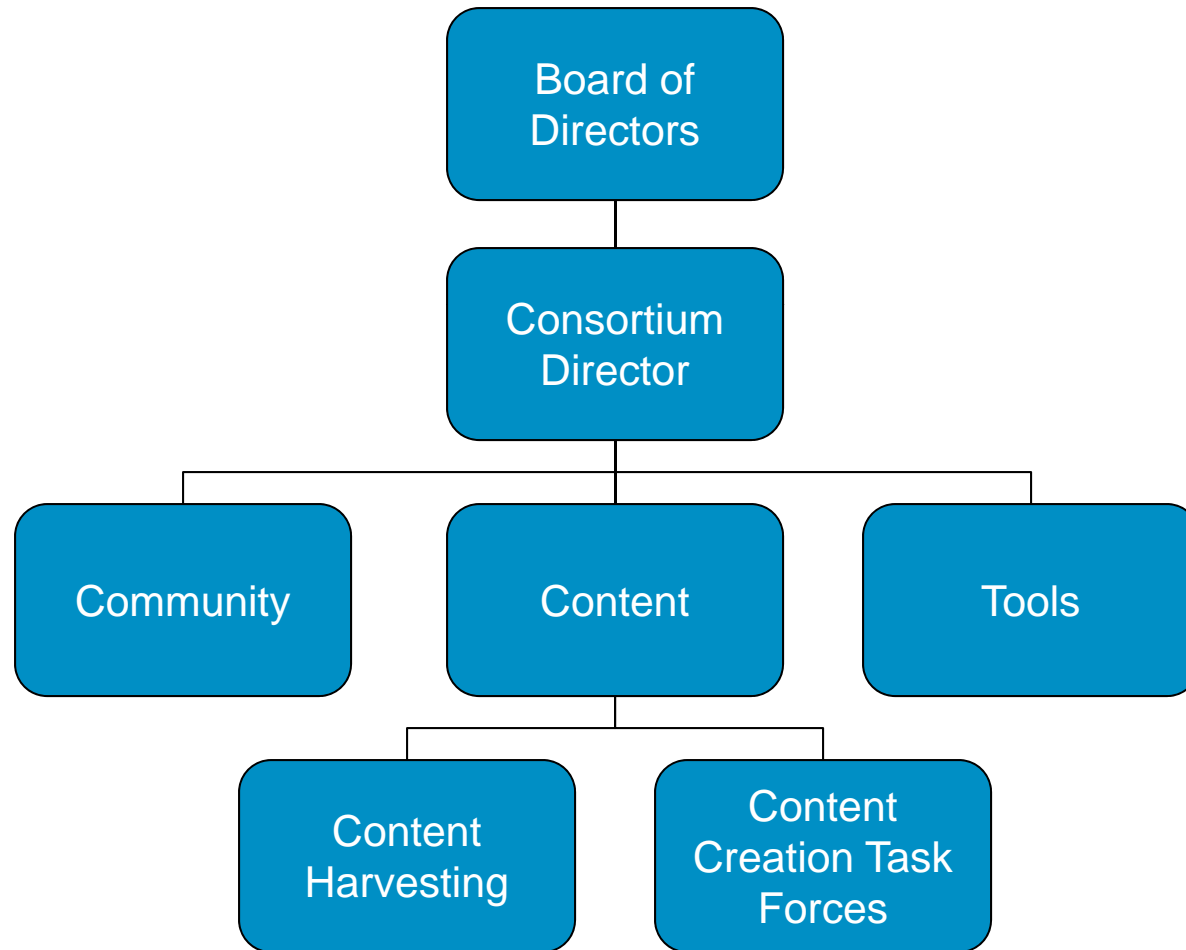
- Our plan is to complete the development of the Play Book and associated tools and give them away to our clients
 - We also plan to train our consultants and contractors in our concepts and methodology
- Value to our clients
 - Access to Intellectual Property that;
 - Is not available in the marketplace today; and
 - would be difficult for them to develop and maintain on their own
 - Access to a flexible work force that is trained in common terminology, methodology and approaches
- Value to The Intersect Group
 - Improved consulting delivery capability
 - Potential increased staffing revenue
 - Potential source of consulting revenue

Lean/Agile Consortium – Value Proposition

- A Lean/Agile Consortium will accelerate the development of our Lean/Agile Solution Delivery Play Book
- Members will share in the investment in the development and evolution of our Lean/Agile Solution Delivery Play Book and associated tools
 - Development of playbook
 - Development of game plans and plays based on specific project types
 - Iteration of plays
 - Leverage training and deliverable examples
- Founding members will also be able to:
 - Influence the initial design of the Play Book
 - Set priorities on development
- Member companies will also benefit from ongoing discussions about Lean/Agile experiences with other senior application development executives
 - Discussion as desired by members such as team dynamics, management of backlog, testing tools, etc
 - Speakers on selected topics
 - Case studies on member projects
 - Development of a Lean/Agile Community
- Participation from senior application development executives that are actually going to deploy and use the methodology will make it more practical and real

Lean/Agile Consortium – How it might work

Our initial thoughts on the structure of a Lean/Agile Consortium is provided below. Our goal is to keep the organization as lightweight and Lean as possible



Getting Started

The potential steps for launching a Lean/Agile Consortium are outlined below:

- Determine level of interest from potential members
- Conduct more in depth briefing for prospective members
- Finalize membership
- Establish Board of Directors
- Establish Consortium Charter and Governance
- Establish Ongoing Lean/Agile Solution Delivery Discussion Forum
- Establish development priorities, target timeframes and associated staffing and investment levels
- Begin Development
 - Content Management Workbench (SharePoint?)
 - Play Book content for prioritized areas
- We would use Agile (Scrum) to develop the Playbook and associated tools
 - Our initial target is 90 day releases

Discussion

1. What questions do you have?
2. What suggestions do you have?
3. Do you think your organization would be interested in participating?