Integrated Personnel and Pay System- Army (IPPS-A)

International Cost Estimating and Analysis Association (ICEAA) Professional Development and Training Workshop

IPPS★A

INTEGRATED PERSONNEL AND PAY SYSTEM - ARMY

COL Darby McNulty

8 June 2016

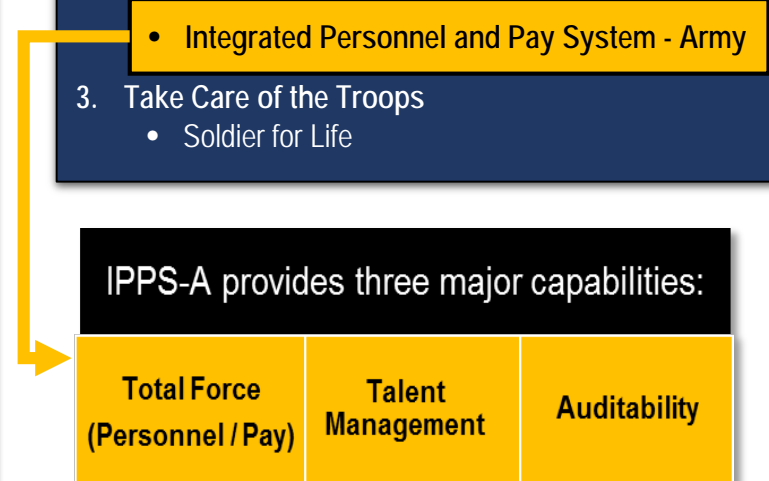**One Soldier ★ One Record ★ One Army**

Army G-1 Priorities

39th Chief of Staff of the Army Top Priorities

1. Readiness

2. Future Army

3. Take Care of the Troops

Army G-1 Leadership Priorities

1. Readiness
   - Man the Force
   - Sexual Harassment/Assault Response and Prevention
   - Ready and Resilient
   - Integrated Disability Evaluation System
   - Diversity

2. Future Army
   - Recruiting and Accessions
   - Force of the Future – Talent Management
   - Soldier 2020
   - **Integrated Personnel and Pay System - Army**

3. Take Care of the Troops
   - Soldier for Life

"To build a Total Army of Active, Reserve, and National Guard forces, as well as Civilians, who are trained and ready to take on the challenges of the future, we must leverage and manage all available talent and ensure every individual is able to get on the field and play his or her position. Our goal, is complete visibility of all of our knowledge, skills, abilities and behaviors to ensure the right person is in the right job at the right time. To accomplish this, we must move from a personnel management system to a talent management system. We are actively pursuing the Integrated Personnel and Pay System - Army (IPPS-A). IPPS-A is a Human Resources Information System (HRIS) that for the first time, will allow the Army to manage the AC, USAR, and ARNG on one HRIS, providing visibility of the knowledge, skills, abilities and behaviors of the Total Force. Next, it will allow us to manage talents and match them to Army requirements. Finally, it will provide us an audit capability to ensure personnel and pay are compliant with the law."

LTG James C. McConville
Deputy Chief of Staff, G-1, United States Army
Senate Armed Services Committee Testimony, 08 March 2016

IPPS-A provides three major capabilities:

Total Force (Personnel / Pay)	Talent Management	Auditability

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Army Personnel Priorities

Total Force (Personnel and Pay)

Army Total Force

Force of the Future

Army G-1 Priorities

Talent Management
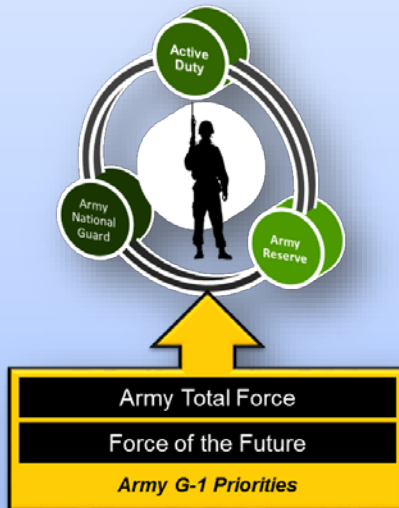
**Framework for Army Talent Management**
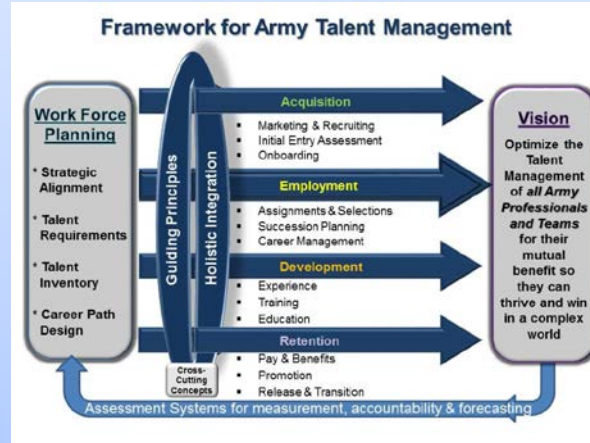
Auditability

OBJECTIVES
- Build IPPS-A to be operationally and financially audit capable and compliant with all applicable laws, regulations and policies
- Build a robust system of controls that support the IPPS-A audit and management assertions (FIAR, A-123, RMF)
- Build a body of test work and results that validates and provides evidence of the effectiveness of the IPPS-A control environment

Federal Information System Control Audit Manual (FISCAM)

IPPS-A Vision

Easy to Use

Reliable

Well Trained

Secure

Adaptive
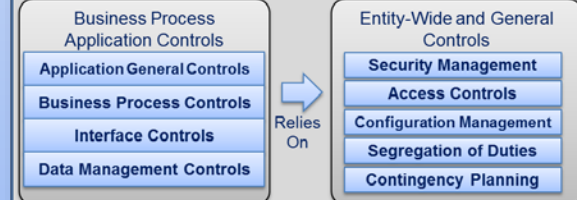
A 21st Century Human Resources Capability for the Total Army

IPPS-A Mission

1. **Enable** a Better Quality of Life for Soldiers and Families

2. **Provide** Robust Tools to Enable Mission Command for Commanders and Leaders

3. **Deliver** a Modern Suite of Capabilities (Personnel and Pay) to Human Resources Professionals

4. **Meet** Audit Readiness Requirements for MILPAY
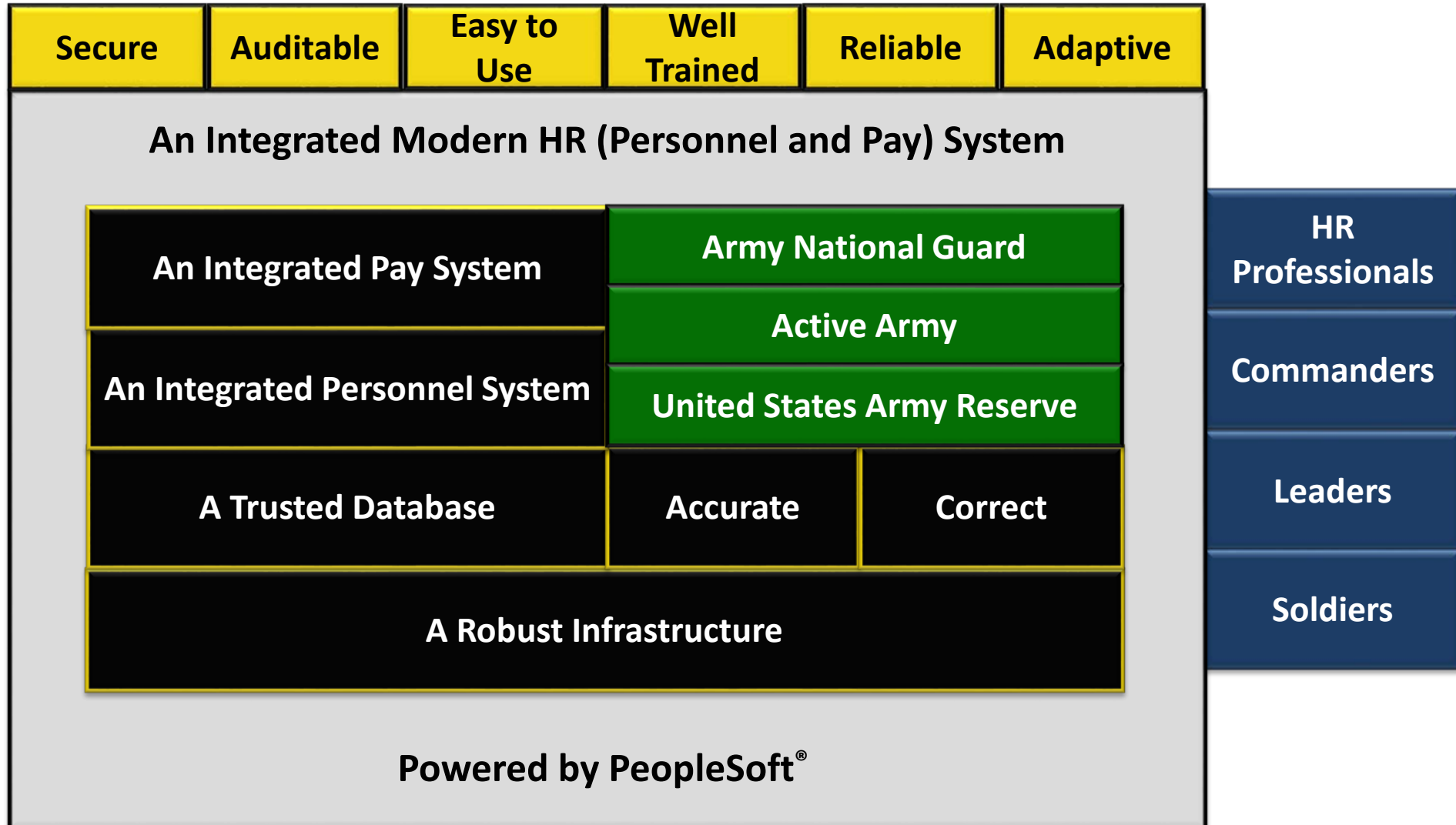
ENABLE ★ **PROVIDE** ★ **DELIVER**

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IPPS-A Framework

Secure	Auditable	Easy to Use	Well Trained	Reliable	Adaptive

An Integrated Modern HR (Personnel and Pay) System

An Integrated Pay System	Army National Guard		HR Professionals
	Active Army		
An Integrated Personnel System	United States Army Reserve		Commanders
A Trusted Database	Accurate	Correct	Leaders
A Robust Infrastructure			Soldiers

Powered by PeopleSoft®

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What is IPPS-A?

The Integrated Personnel and Pay System-Army (IPPS-A) is a web-based Human Resource system designed to provide integrated, multi-Component personnel and pay capabilities across the Army using the latest technology.

IPPS-A will:

- Create an integrated personnel and pay record for each Soldier for their entire career.
- Allow personnel actions to drive associated pay events.
- Feature self-service capabilities allowing Soldiers to access their personal information 24 hours a day.
- Ensure access to accurate and timely military personnel data to all levels of management.
- Serve as the authoritative database for personnel and pay data, subsuming many antiquated and disjointed systems.
- Be delivered to the Army in five releases.

IPPS-A will be the HR professionals' resource for timely and accurate personnel and pay data.

IPPS-A Benefits

IPPS-A is critical to transitioning the military pay mission to the HR community and provides:

- An Integrated Personnel and Pay System
- A Comprehensive Personnel and Pay Record
- Data Standardization
- Efficiencies Gained by Automated Processing of Actions
- Business Process Standardization across Components
- Self-Service Access Through a Soldier Portal
- Personnel Asset Visibility and Accountability
- Strength Management and Accounting
- Soldier Support Throughout the Army Personnel Lifecycle ("Hire to Retire")
- Information for Audit Readiness Requirements

IPPS-A will better serve Soldiers and their Families, Leaders and HR Professionals and improve the management of personnel information by streamlining personnel and pay functions and correcting current system deficiencies using the latest technology.

Incremental Capabilities by Release

Trusted Database (Accuracy/Correctness)

Release One: Trusted Database With Reporting Capabilities

- Soldier Data in Single Database
- Technical Foundation
- Authenticated Users

Wave 1: ARNG
•Personal SRB Access

Wave 2: Active & ARNG
•Personal SRB Access

Wave 3: Reserve, Active & ARNG
•Personal SRB Access
•SRB & 9 Pre-defined Queries Access for Leaders and HR Professionals

Increment 1: Fully deployed. Sustainment efforts include data correctness and accuracy.

ARNG Personnel System

Release Two: SIDPERS Functionality

Personnel
- Course/Degree Completions
- Training Requirements
- Selective Continuation
- Awards & Decorations
- Badges & Tabs
- Record Evaluations
- Unit Level Manning

Pay Impacting
- Promotions/Demotions
- Member Benefits
- Duty Status
- Licenses/Certificates

Active/USAR Personnel System

Release Three: Accountability and Essential Personnel Svcs

Personnel
- Requisitions
- Unit Level Manning
- MGIB/Kicker
- Oaths
- Career Preference
- Record Evaluations
- Deployment Availability
- Strength Management
- Mass Updates

Pay Impacting
- Assignments
- Enlistment/Re-enlistment
- Hire/Rehire
- Duty Status
- Wounded Warrior
- Position Management
- Disciplinary Actions
- Record Updates
- Arrival/Departures

One Pay System

Release Four: Pay Services

- Duty Participation
- Retirement Points
- Taxes
- Allowances
- BAH/Housing Recert/BAS
- Base Pay
- Debts/Collections
- Disability/Incapacitation Pay
- Bonuses
- Special & Incentive Pay
- Allotments
- LES
- Leave
- TSP/TSP Catch-up

Evaluation System & Retention Management

Release Five: Additional Personnel Services

- Record Evaluations
- Retirement Processing
- Separation Processing
- Retention Management (RETAIN)
- Extension
- Reclassification
- Involuntary Discharge
- Remedial Fitness
- Agreement/Incentive Documentation

Increment 2

Deployment Schedule

FY2015 | FY2018 | FY2019 | FY2020 | FY2020

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Agile 101 – How It Works

- **Agile is a set of software development methods in which solutions evolve through collaboration**
  - Integrated teams include PeopleSoft SMEs to configure the product, PeopleSoft Developers, Data Integration Developers, and Testers

- **Development is iterative**
  - The traditional software development phases are seen as continuous activities
  - Work is broken into smaller tasks
  - Multiple iterations may be required to release a product
  - Documentation is created as-built

- **For each iteration, a working product is demonstrated to stakeholders**

- **Emphasizes value-driven approach**
  - The usual project constraints still apply
  - Focusing on value allows most important functionality to be delivered first

- **Technology agnostic**

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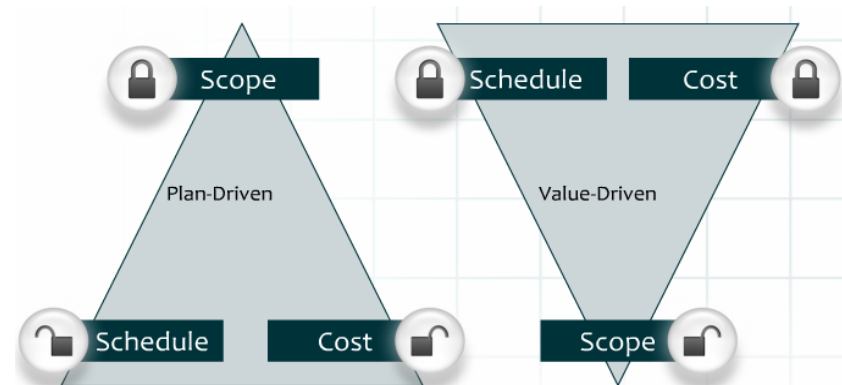
Agile 101 – Development Approach Metaphor

- **The waterfall approach is akin to painting by numbers, as it calls for a fully formed idea at the start, which is built incrementally, piece by piece without flexibility**
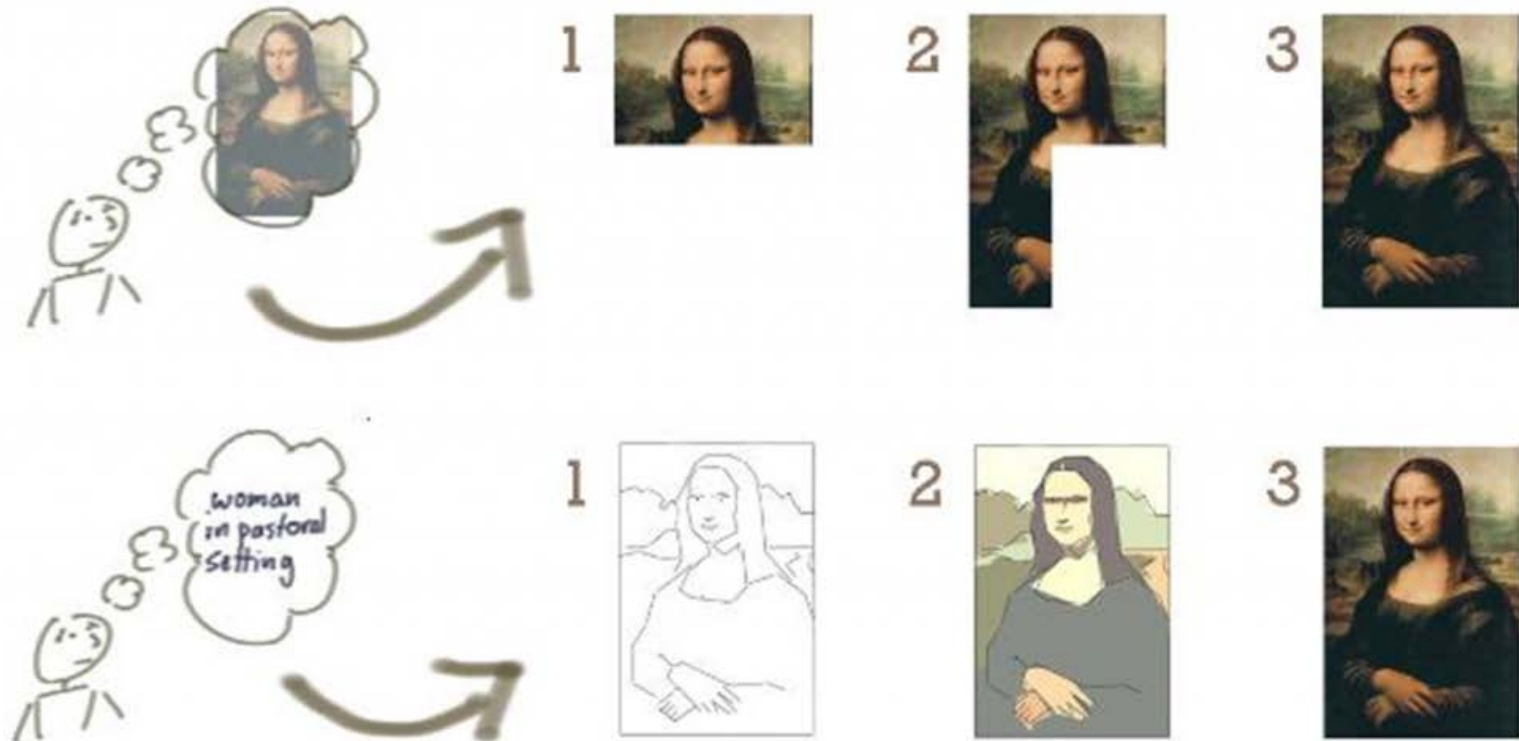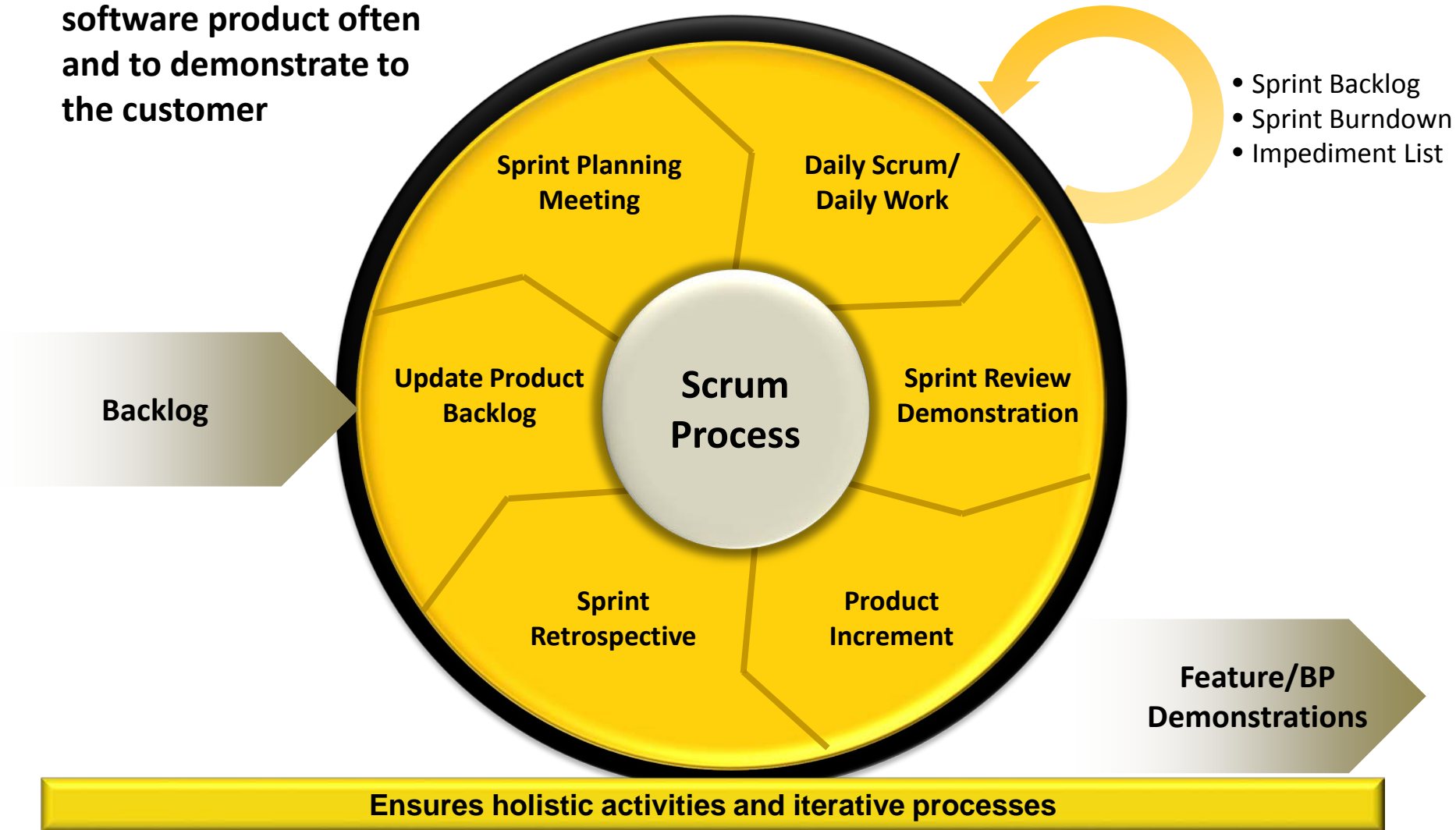

- **With Agile, we start with a concept: for IPPS-A, the COTS product is the starting point**
- **Then, we iteratively build a rough version and validate it, slowly improving the definition and quality**

Agile 101 – Key Agile Terminology

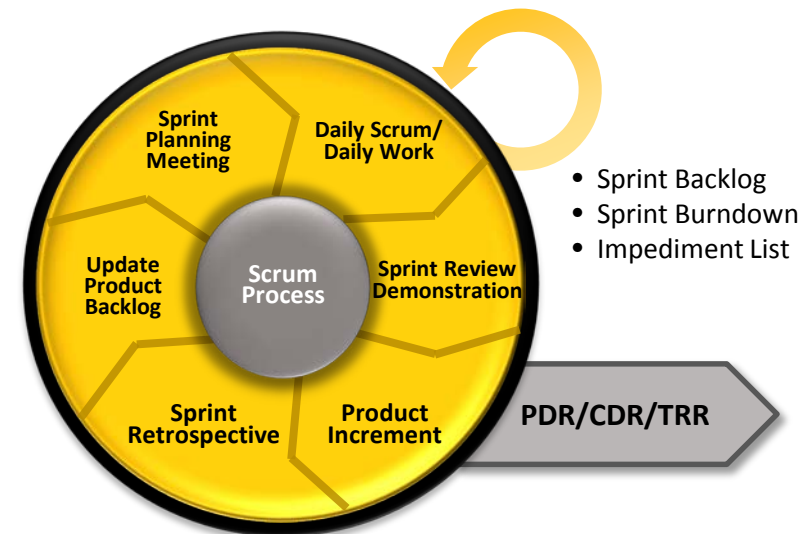| Term	Definition
Scrum	A framework for team collaboration on complex software projects.
Sprint	A short multiple-week period where a team completely builds working, tested software. All phases of the SDLC are executed iteratively during a sprint – Analysis, Design, Code, Test.
Feature	A set of specifications that can be shown in a user demonstration and oriented on system capabilities.
Epic	A description of how work gets done using the new software (To-Be business process).
Spike	A special type of story used for research and prototyping activities, which can be functional or technical.
Backlog	A single definitive repository for all upcoming work. It consists primarily of future features intended to address user needs and deliver business benefits, as well as architectural features required to build the product.

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IPPS-A Agile Implementation

- **To create working software product often and to demonstrate to the customer**

- Sprint Backlog
- Sprint Burndown
- Impediment List

Scrum Process

- Sprint Planning Meeting
- Daily Scrum/ Daily Work
- Update Product Backlog
- Sprint Review Demonstration
- Sprint Retrospective
- Product Increment

Backlog

Feature/BP Demonstrations

Ensures holistic activities and iterative processes

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Agile 101 – Sprint Breakdown

- **Sprint Planning Meeting**
  - Product owner and scrum team meet at the start of the sprint to review the sprint goal, including a review of the requirements/features to be accomplished and corresponding tasks.
- **Daily Scum/Daily Work**
  - Scrum team meets daily to review yesterday's accomplishments, plan for today, and any blockers.
  - Scrum team performs design, build, and test tasks.
- **Sprint Review Demonstration**
  - Scrum team demonstrates sprint accomplishments (requirements and/or features implemented during that sprint) to the product owner.
- **Product Increment**
  - The sum of all the product backlog items completed across all the scrum teams through the last sprint.
- **Sprint Retrospective**
  - The scrum team meets to discuss what to keep doing, stop doing, and start doing. Focus on what is actionable for the next sprint.
- **Update Product Backlog**
  - The product owner continuously updates (adds to, reprioritizes, etc.) the product backlog.

Sprint Planning Meeting

Daily Scrum/ Daily Work

Update Product Backlog

Scrum Process

Sprint Review Demonstration

Sprint Retrospective

Product Increment

- Sprint Backlog
- Sprint Burndown
- Impediment List

PDR/CDR/TRR

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Agile 101 – Recap

- **Agile is a disciplined methodology.**

- **Agile is not…**

    - …unlimited or uncontrolled scope.

    - …unplanned.

    - …undocumented.

    - …unverified.

    - …mini waterfall.

    - …trial and error.

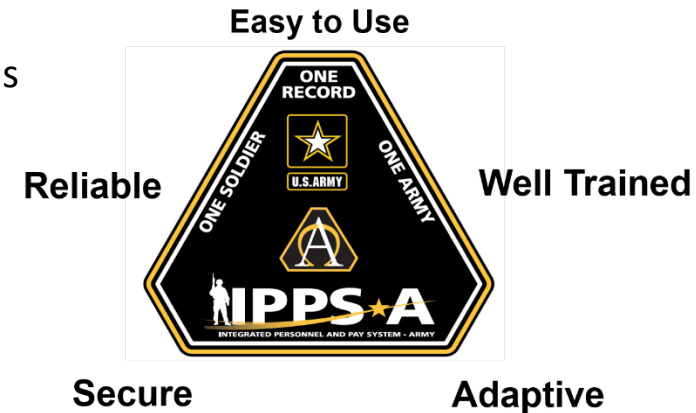   - …a synonym for flexible.

    - …a synonym for fast.

Agile 101 - Summary

- **Waterfall faces challenges in a large-scale ERP implementation.**
  - Significant effort to build and maintain momentum
  - High risk of a resulting product that does not meet needs
- **Looking for an alternative:**
  - Best candidate is Scaled Agile Framework (SAFe)
  - Lower risk implementation
  - Produces better results, meets IPPS-A Vision
  - Allows us to confirm that we are building the right thing
  - Gets early buy-in
  - Reduces the risk of rework when it is too late and more costly to change
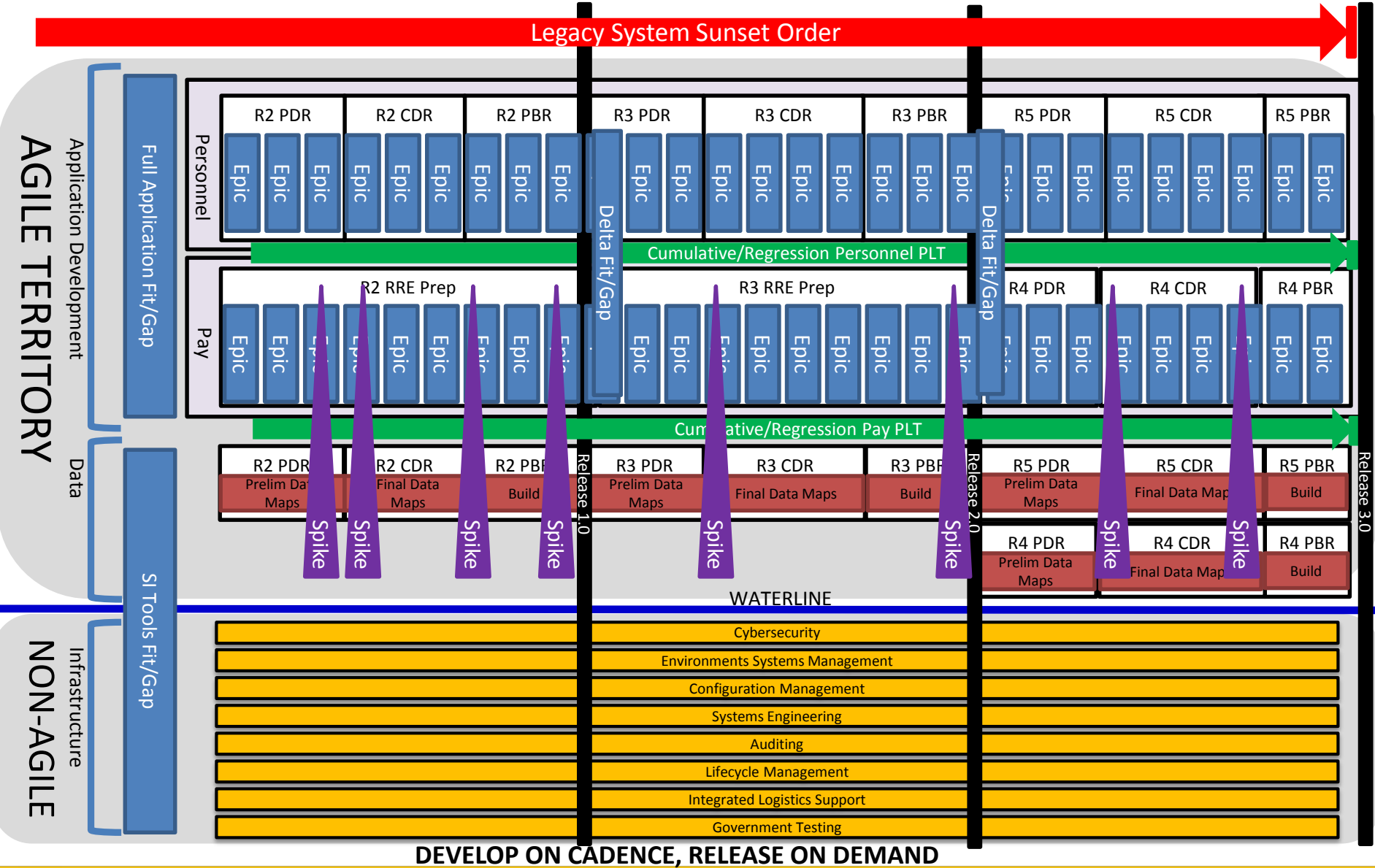 - Improved understanding of progress and cost
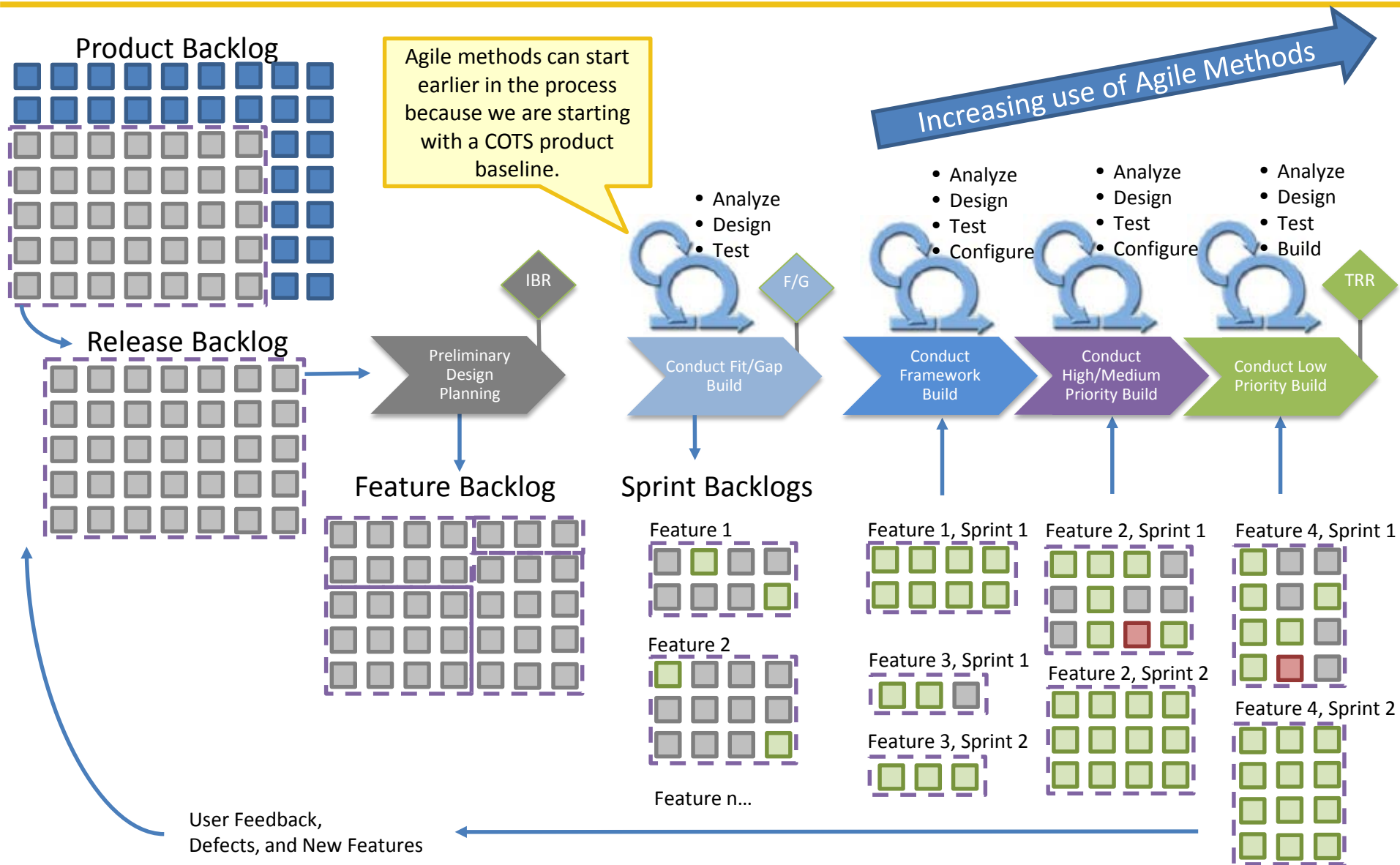- **Better software development process, better user experience:**
  - Break work into smaller, more manageable segments
  - Measure progress based on working software product
  - Drive functionality working on through to completion
  - Emphasize showing working versions of product early and often to validate
  - Use product to review whether it meets requirements – shift to As-Built documentation
  - Use government time and resources better by reviewing software, not paper
  - Use cumulative assembly testing for earlier validation of product
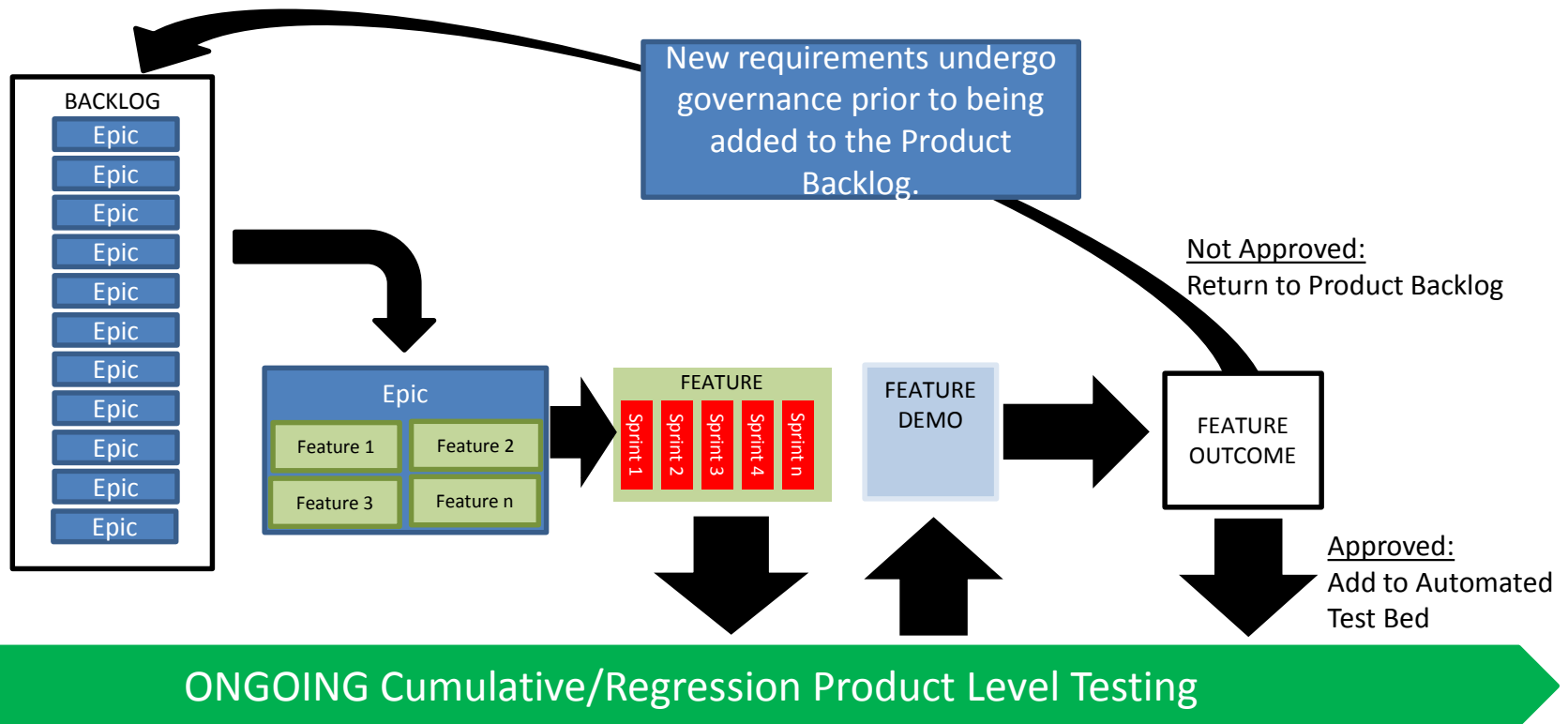 - Have automated regression test bed available on go-live

Easy to Use

Reliable   **Well Trained**

Secure   **Adaptive**

IPPS-A Vision

Agile at IPPS-A – System View

Agile at IPPS-A – Release and Sprint Backlog

Product Backlog

Agile methods can start earlier in the process because we are starting with a COTS product baseline.

Increasing use of Agile Methods

Release Backlog

- Analyze
- Design
- Test

IBR

F/G

- Analyze
- Design
- Test
- Configure

- Analyze
- Design
- Test
- Configure

- Analyze
- Design
- Test
- Build

TRR

Preliminary Design Planning

Conduct Fit/Gap Build

Conduct Framework Build

Conduct High/Medium Priority Build

Conduct Low Priority Build

Feature Backlog

Sprint Backlogs

Feature 1

Feature 2

Feature n...

Feature 1, Sprint 1

Feature 2, Sprint 1

Feature 4, Sprint 1

Feature 3, Sprint 1

Feature 2, Sprint 2

Feature 3, Sprint 2

Feature 4, Sprint 2

User Feedback, Defects, and New Features

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Agile at IPPS-A – Backlog Management

Agile at IPPS-A – Sprint Cadence

Monday	Tuesday	Wednesday	Thursday	Friday
			Feature 1 Start Sprint 1 • **Groom backlog** • **Conduct planning**	Feature 1 Sprint 1 Work
Feature 1 Sprint 1 Work	Feature 1 Sprint 1 Work	Feature 1 Sprint 1 Work	Feature 1 Sprint 1 Work	Feature 1 Sprint 1 Work
Feature 1 Sprint 1 Work	Feature 1 Sprint 1 **Demonstration to FMD/PMO**	Feature 1 Sprint 1 Retrospective	Feature 1 Sprint 2 • **Groom backlog** • **Conduct planning**	Feature 1 Sprint 2 Work
Feature 1 Sprint 2 Work	Feature 1 Sprint 2 Work	Feature 1 Sprint 2 Work	Feature 1 Sprint 2 Work	Feature 1 Sprint 2 Work
Feature 1 Sprint 2 Work	Feature 1 Sprint 2	Feature 1 Sprint 2 Retrospective	Feature 1 PLT	Feature 1 PLT
Feature 1 PLT	Feature 1 PLT	Feature 1 **Demonstration to Stakeholder**		

If there were holidays, then we would anticipate reduced capacity and would adjust the planned work to be accomplished in the sprint schedule in order to keep the same overall start/end dates of the sprint (cadence).

Once features are promoted to Product Level Testing, the sprint capacity is adjusted down to account for the team members who are supporting the PLT and feature demonstrations.

FMD/PMO Involvement
Stakeholder Involvement
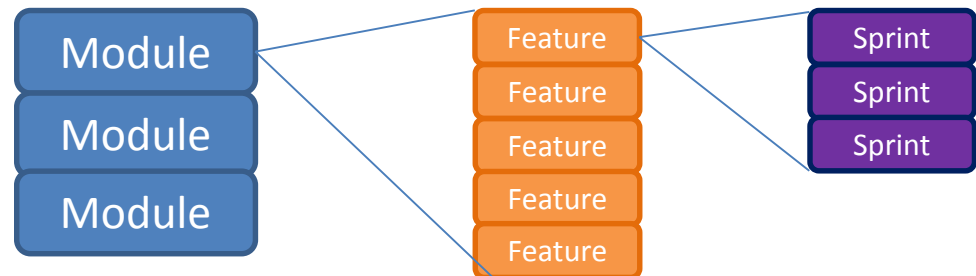
Agile at IPPS-A - Organization
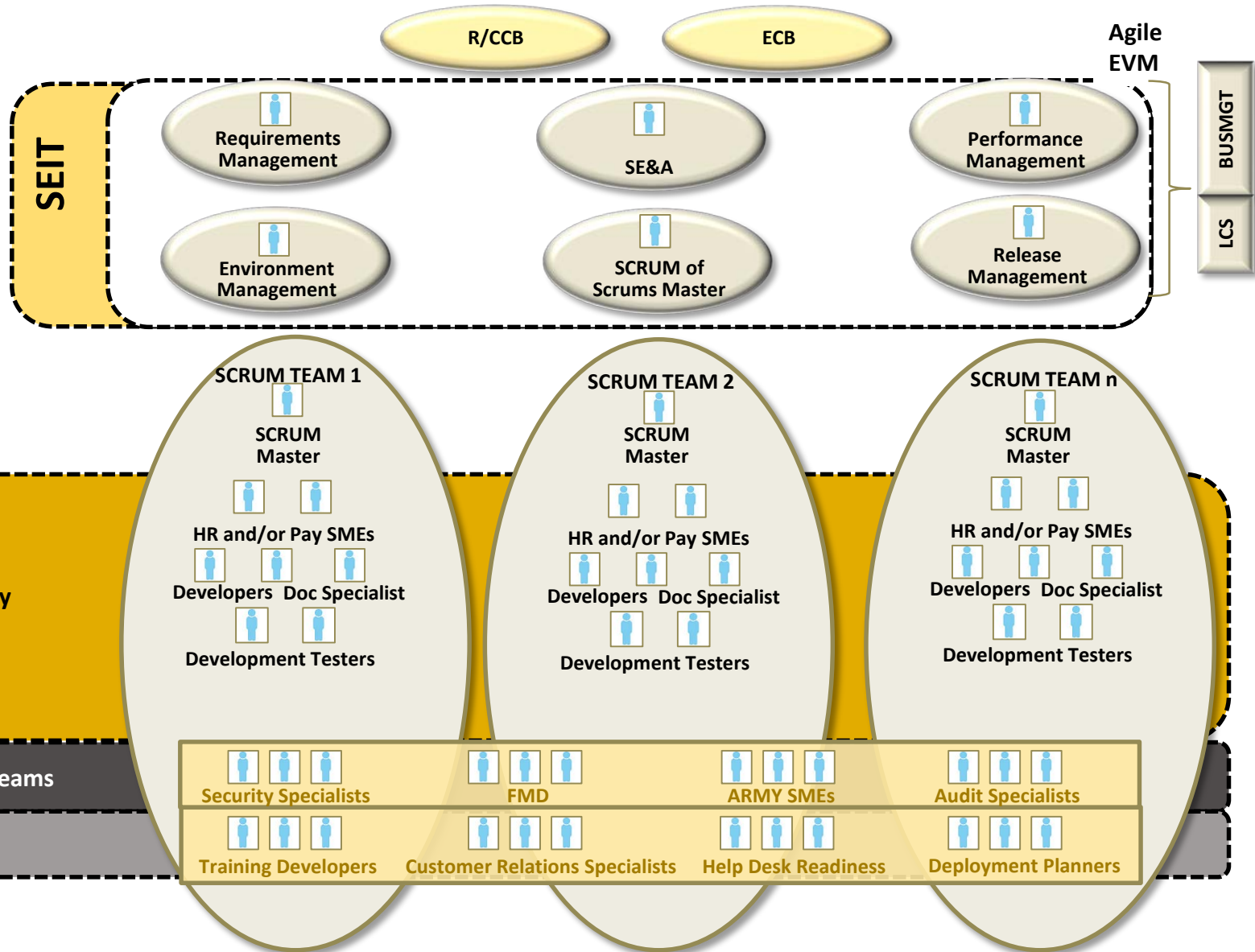
How to Scale

- Agile methods are generally used for projects of smaller scope.

- Scaled Agile Framework (SAFe) builds from Agile methods to provide a construct for large-scale implementations.

  - A playbook tailored to IPPS-A will inform the development of the IMS and form the basis to guide teams.
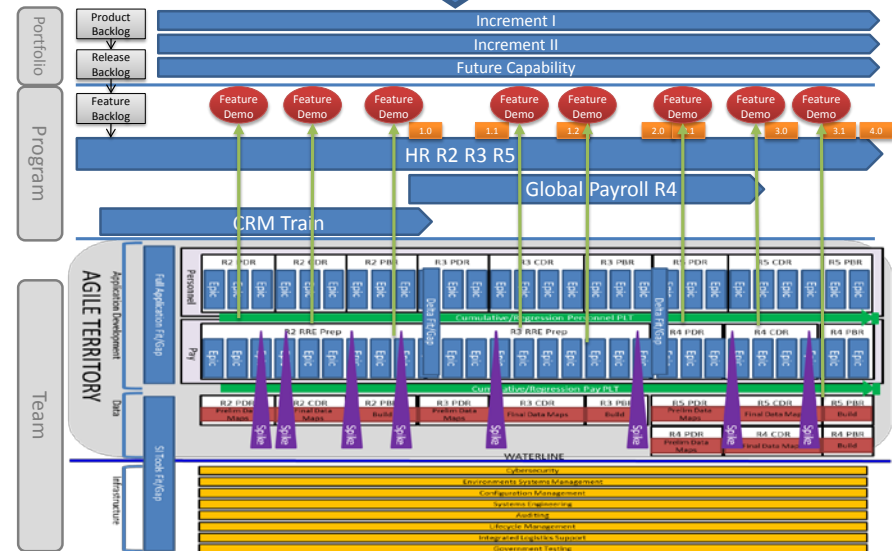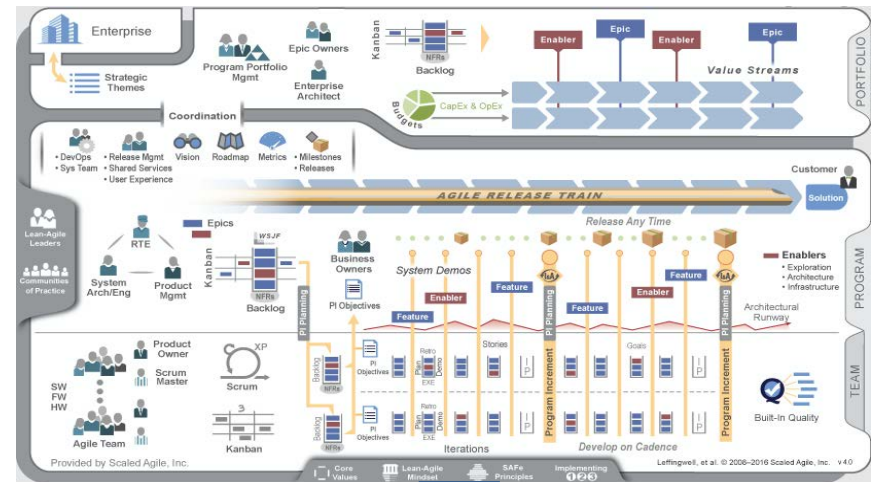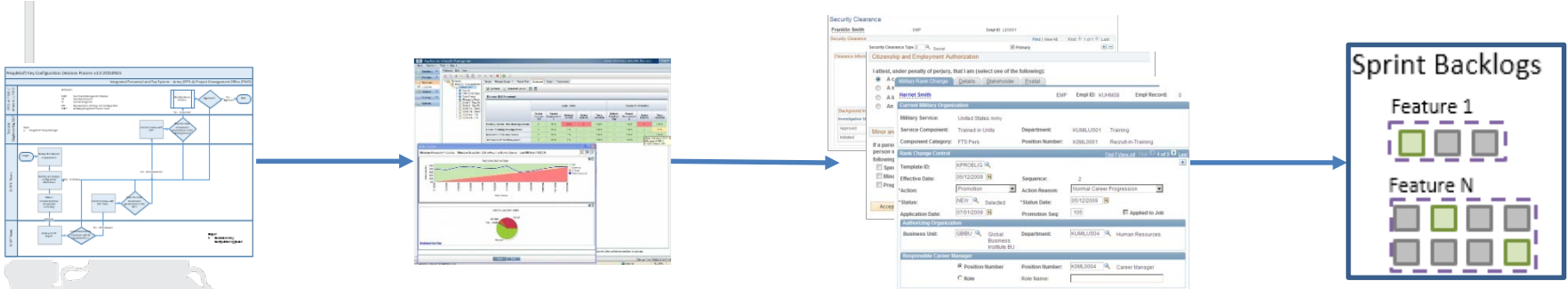
    - Introduces features to bridge the gap between epics (business processes) and sprints.

    - Introduces spikes to explore various approaches to address key foundational decisions.

How to Define Work

- ERP systems are comprehensive and integrated – large components

  Modules have many touchpoints

  Foundational elements are required as a part of implementation

- Agile defines work in achievable units that can be driven to completion – small components

- Need a way to define ERP implementations in agile terms

- Features – are used to break the work into smaller segments that can be demonstrated early and often to get feedback and buy-in using working software

  - Features are a set of specifications that can be shown in a user demonstration

  - Features will be based on existing capabilities within the COTS products where functionality meets requirements

  - They will identify the dependencies for each feature to determine the sequence of the work to be accomplished and prioritized for delivery

  - Multiple sprints may be needed to complete a feature

Module	Feature	Sprint
Module	Feature	Sprint
Module	Feature	Sprint
	Feature	
	Feature	

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How to Define Work

**1 - Requirements are defined based on the Business Process.**

2 - Requirements are grouped into features aligned with the delivered software product.

3 - Features are decomposed into tasks to be executed in sprints.

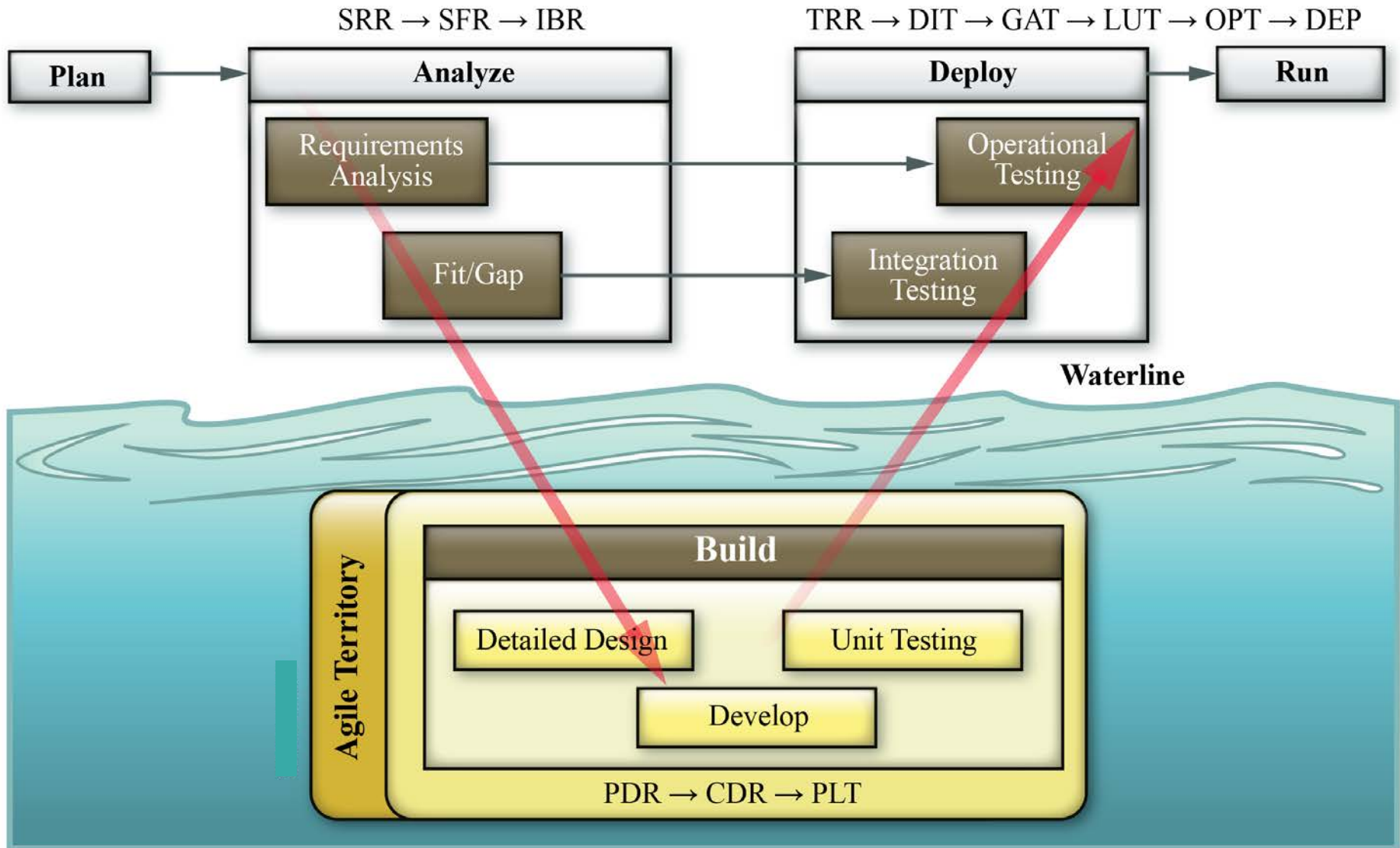▪ **Features will be classified as one of the following types:**

- Framework: Foundational capabilities that need to be completed early as they will be leveraged throughout the solution.
- Core: Capabilities support transactional processing. These include setup tables that maintain valid values and capabilities to manage employee records.
- Self-Service: Any feature that has a self-service component is identified.
- Information: Reports, queries, dashboards.
- Data: Conversions and interfaces.

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# How to Time-Box for Legacy System Replacement
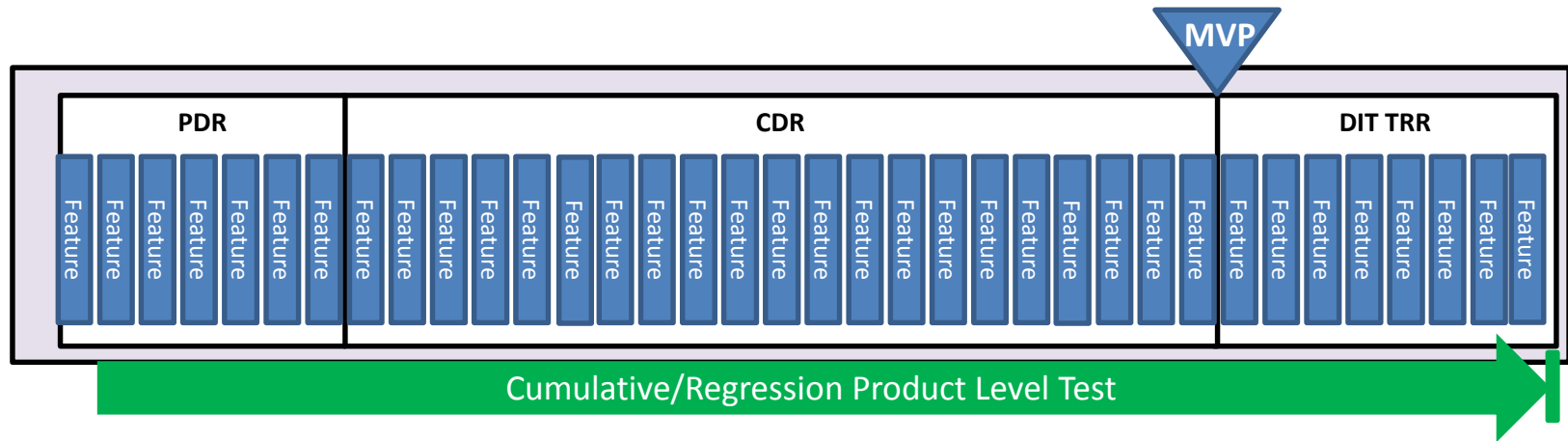
- A new application can afford to postpone features to keep to the initial go-live date
- Replacing a legacy system requires a set of features necessary to subsume the system: the Minimum Viable Product
- Beyond that, features to enhance capabilities may need to be prioritized as Low. Example: Promotions - report vs. workflow

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How to Apply Agile in a Non-Agile World

How to Apply Agile in a Non-Agile World

- Agile methods focused on the functional software application— what the users use
  - Overall, remain aligned with the DoD 5000
    - Global analysis and design
- Carve out piece where, in order to get steady user feedback, we will use Agile
  - ...meet release
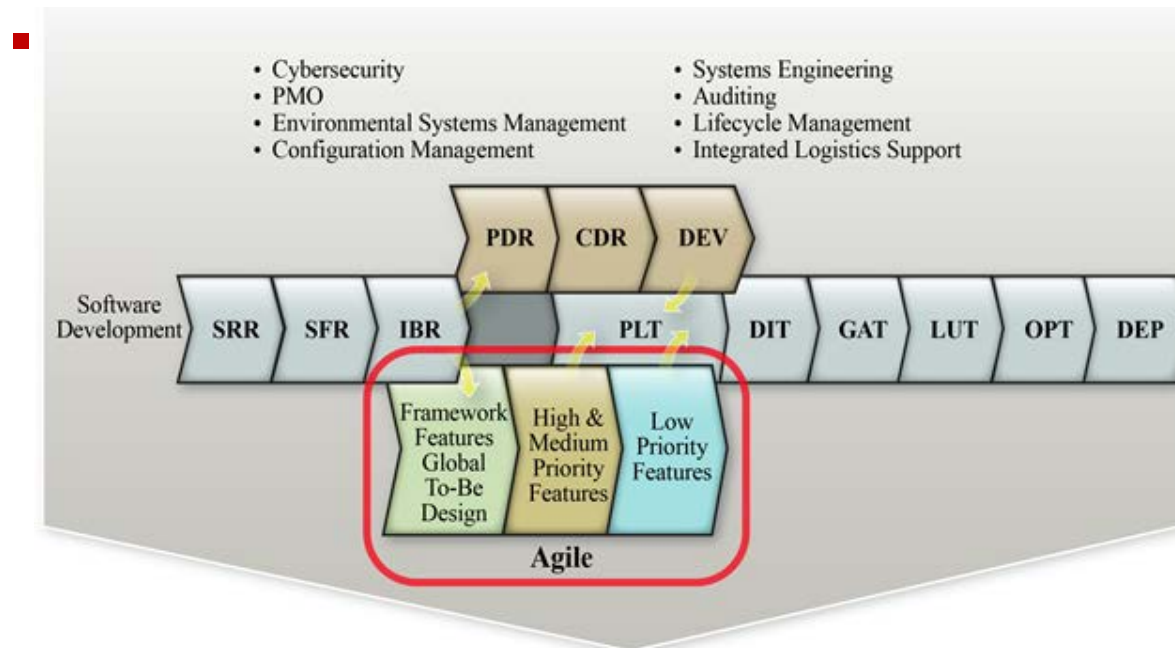
Where methods apply
(DOD 5000 example)

How to Apply Agile in a Non-Agile World

Managing the user experience

Other processes and methods operate in a traditional manner

Agile	Users see directly	PeopleSoft/OBIEE Functionality - HCM, GP, CRM, ELM, Portal
	Users see results	XML/BI Pub SQR Ab Initio PeopleSoft Integration Broker OPA Rules Engine
Traditional	Users do not see	Oracle 12c RDBMS Oracle Access Manager Oracle Identity Manager ESB GRC Manager/Controls Audit Vault Load Parsing Tool (e.g., Splunk) Gradkell Avaya ACD System Citrix Desktop VMWare View Windows TS 2012 OEM PeopleSoft Application Monitoring Foglight Integrated Management, Support, & SDLC Tools

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How to Transition from a Fixed Mindset to an Agile Mindset

Fixed Mindset

When faced with uncertainty, they have a desire to reduce risk of failure by "forcing work to a known state" and fixing it there

AGILE Mindset

When faced with uncertainty, they have a desire to learn; to discover effectively and efficiently through feedback then adapting based on what they learned

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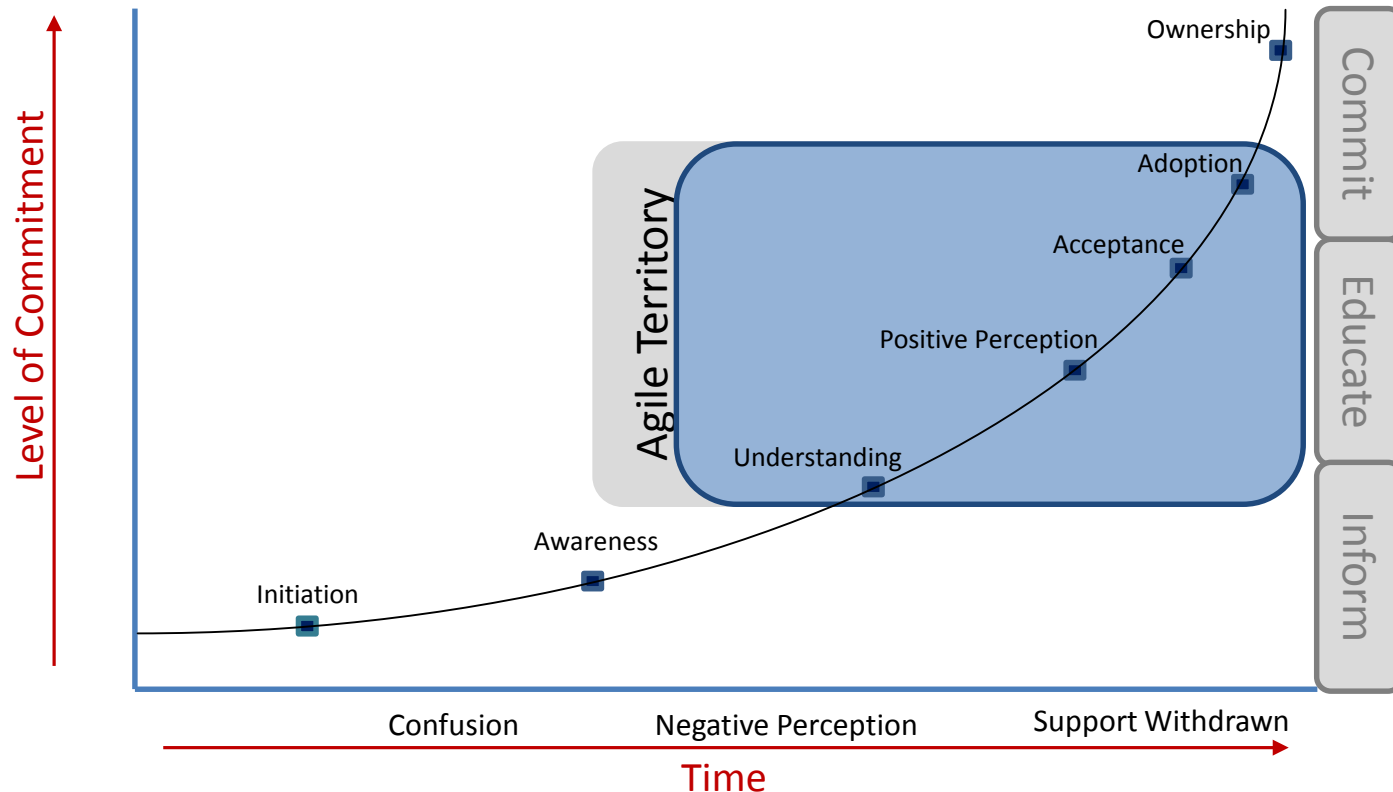
How to Reconcile Agile and with IPPS-A Milestones

The objective is to demonstrate working software early and often.

Event	Software Deliverables
Fit/ Gap	• Demonstrate key functionality in the system, highlighting the gaps, and discuss recommendations for gap resolutions

PDR	• All functional SyRS and S/SS have been allocated to the design document for each epic and the applicable features
	• ERP Fit/Gap Session Summary Documents (CDRL 05-003)
	• Final DFCDDs (CDRL 05-004)
	  ⁻ To-Be Process Design
	  ⁻ Prioritized Features
	  ⁻ Global Impact Assessment
	• Configuration Guide for Framework Features
	• Configured, Working Software for Framework Features
	• As-Built DTDDs (CDRL 05-006) for Working Software – Framework Features
	• Unit Test and Product-Level Tests for Working Software

CDR	• All Functional SyRS, S/SS have been allocated to the design document for each feature where there is a gap • Configuration Guide for High/Medium Priority Features • Configured, Working Software for High-Priority Features • As-Built DTDDs (CDRL 05-006) for Working Software – High-Priority Features • Unit Test and Product-Level Tests for Working Software

PBR
Product Baseline Report
	• Culmination of the Agile Build
	• Working Software – Medium and Low Priority Features
	  ⁻ Change Impact Summaries, Unit Tests, As-Built Documentation, UPKs, COAAs as needed
	• Completion of Conversion and Interfaces
	  ⁻ Interface Requirements Specification and Unit Tests
	• Unit Test and Product-Level Tests for Working Software
	• Completion of PLT

How to Reconcile Agile and with IPPS-A Milestones

The use of Agile for Software Delivery allows us to provide a more robust and earlier view of what the system will be

Software Development Method Usage