



Agility in DoD Acquisition

Gordon M. Kranz
gmkranz@eipm-llc.com
gordon.kranz@agileforgovernment.com



4/14/2017

© 2017 Enlightened Integrated Program Management, LLC All Rights Reserved

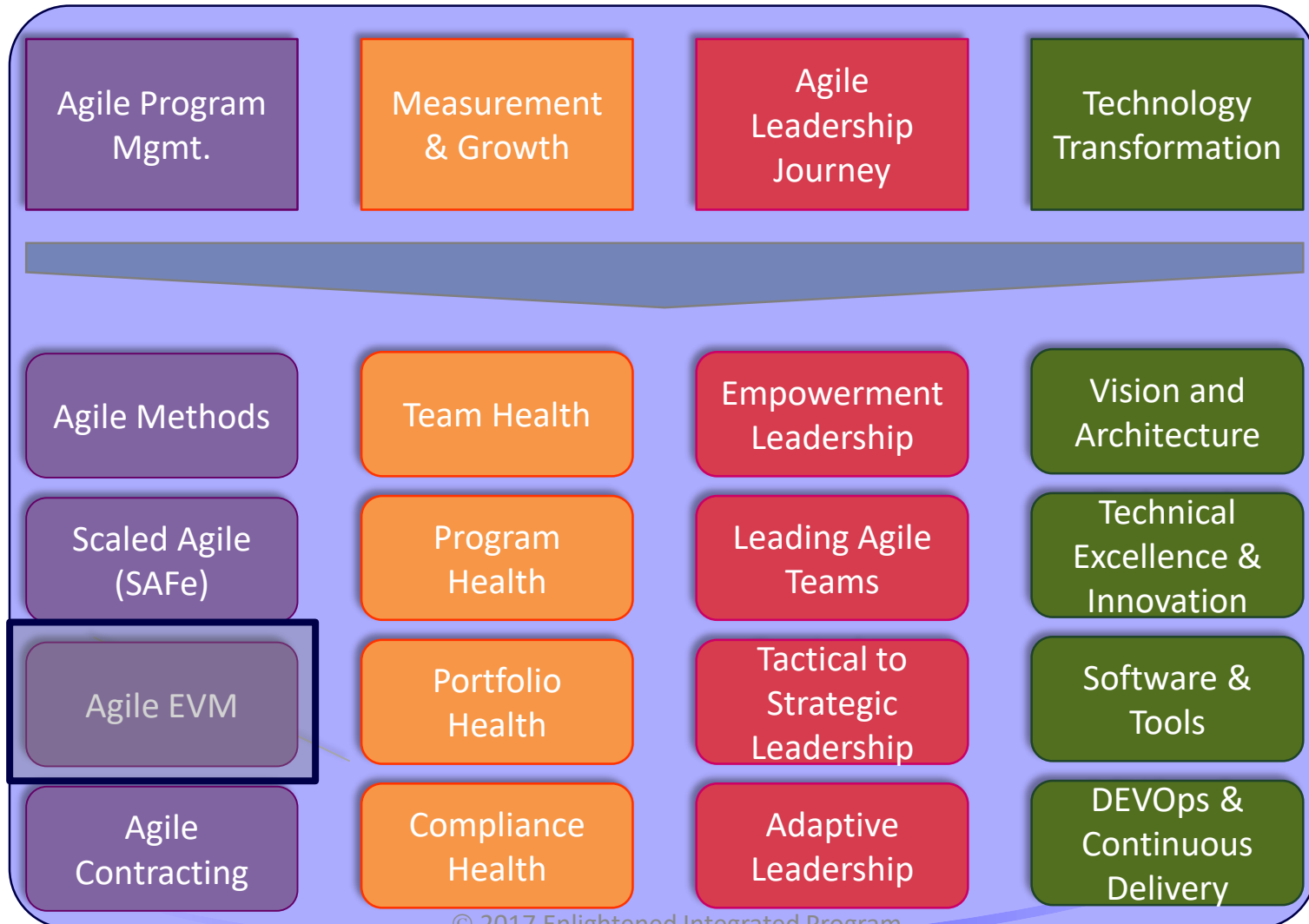


Agenda

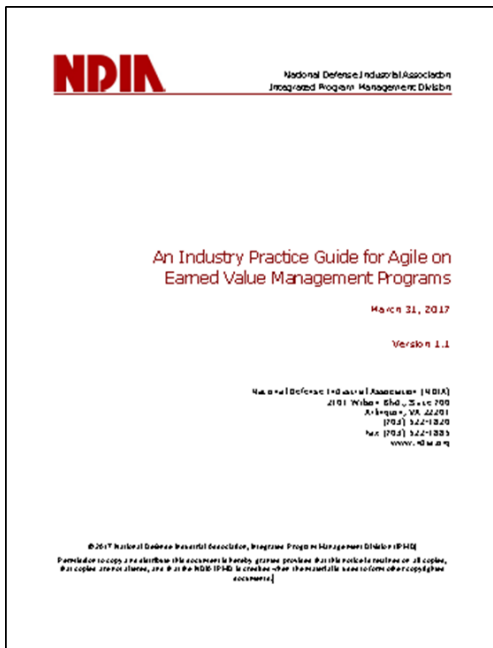


- Framework
- Agile Guidance
- Agile – EVM in the DoD
- Measuring for Sustained Success

Government Digital Agility Transformation



NDIA “An Industry Practice Guide for Agile on Earned Value Programs”



- *The NDIA IPMD Guide objective:*
 - *Provide tool-agnostic summary guidance and references for EVMS programs engaging Agile.*
 - *Maintain Guide quality by following Version update protocol that represents multiple practitioner perspectives.*

<http://www.ndia.org/-/media/sites/ndia/meetings-and-events/3142-mason/divisions/ipmd/links-and-reference/industry-practice-guide-for-agile-on-earned-value-management-property.ashx?la=en>

Collaboration Opportunities



- NDIA IPMD Working Group wants leverage best practices across the enterprise.
- Would like to share guide and interested in other organizations sharing their guides.
- Annual Cadence
 - Agile – EVM Guide V1.1 Published March 2017
 - Plan for Release 1.2 (March 2018)
 - Contracting for Agile – EVM
 - Agile IBR checklist
 - Agile Lifecycle – Mock example
 - Forecasting Using Agile Metrics



Agile – EVM Myths / Questions



- Will Agile replace EVM?
- Agile has no standards!
- How does Agile progress roll up to EVM?

Traditional Development Programs



EVM Principle	Traditional Development Program
Decomposition of work into manageable pieces.	Mil-Std-881C WBS – Appropriate Appendix
Assignment of resources against that work.	OBS, RAM
Assigning value to work to be accomplished.	Earned Value Technique (Discrete, %complete, apportioned, LOE, QBD, etc.)
Time phasing of the work	WBS->CA->WP Hierarchy; Decomposition of WBS Dictionary
Tracking performance against technical objective criteria to claim value.	EVM Metrics: CPI, SPI, TCPI, Variance Analysis
Compare claimed value, actual costs, and planned value to support daily decision making.	Rolling Wave Planning, Formal Re-planning, Risk Management
Updating forecasts and technical plan as the team learns from history.	Monthly EACs derived from bottoms up ETC estimates

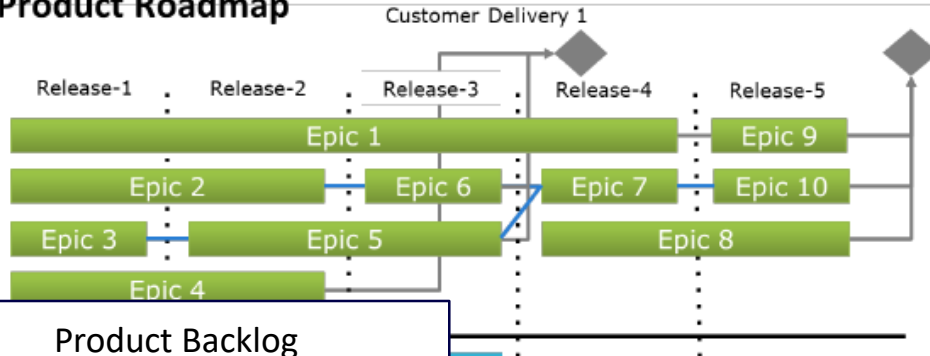
SW Development Programs (Agile)



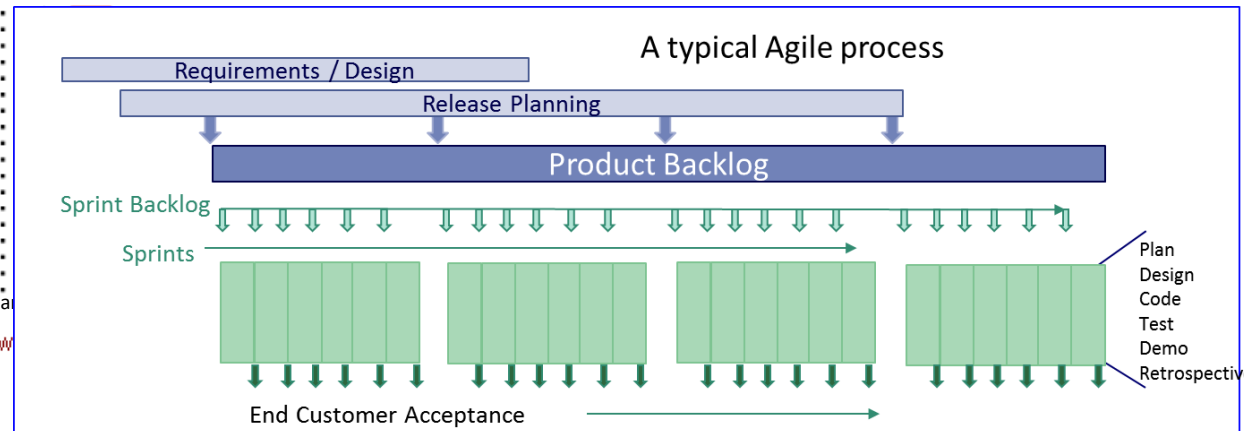
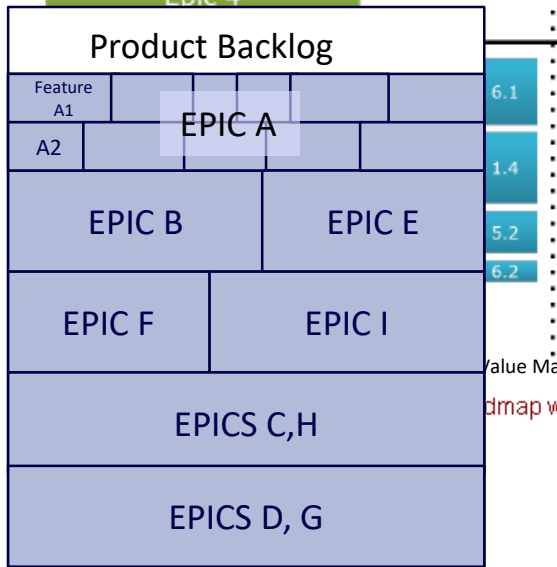
EVM Principle	SW Development Programs (Agile)
Decomposition of work into manageable pieces.	EPIC and Feature Based WBS for SW (Product Backlog)
Assignment of resources against that work.	SW Development Teams (Sprint Teams)
Assigning value to work to be accomplished.	Business Value assigned at Feature level and above; story point values used to plan and execute the detailed work
Time phasing of the work	Roadmap->Release Planning->Sprint Planning. Priority based execution to deliver incremental capability.
Tracking performance against technical objective criteria to claim value.	Agile metrics: Velocity, burndown and burn up charts, etc. EVM Metrics: CPI, SPI, TCPI, Variance Analysis, done at feature level of above.
Compare claimed value, actual costs, and planned value to support daily decision making.	Sprint Retrospective, Story point claims, EVM % complete taken at feature level of above.
Updating forecasts and technical plan as the team learns from history.	Agile is in a constant state of planning and executing, allows for creating a forecast as often as daily.

Time Phasing the Work In Practice

Product Roadmap



Roadmap Identifies Key Events
Establishes Backlog Priority



Progress within sprints informs backlog

Establishing a Clear Hierarchy is Essential



Level	Name	Story Pts Planned	Story Pts Completed
WBS	Enterprise SW Module 1	2293	1518
EPIC	Personnel View	281	178
EPIC	Agent-Facing Case Management	808	585
EPIC	SW Framework	601	369
EPIC	User Training	150	0
EPIC	Knowledge Library	117	117
EPIC	Self-Service Management	255	235
EPIC	Questionnaires	81	34

Level	Name	Story Pts Planned	Story Pts Completed
WBS	Enterprise SW Module 1	2293	1518
EPIC	Personnel View	281	178
Feature	Personnel View - Absence	10	0
Feature	Personnel - Payroll	20	0
Feature	Personnel - Quick Code	9	8
Feature	SW Module 1 to SW Module 3 Integration -	163	163
Feature	SW Module 1 to SW Module 2 Integration	79	7
EPIC	Agent-Facing Case Management	808	585
EPIC	SW Framework	601	369
Feature	CRM Interaction Hub	0	0
Feature	CRM Workflow Notifications	80	0
Feature	Data Tables - Sync	123	122
Feature	Data Integration - Person	22	21
Feature	Data Integration - Teams	9	9
Feature	HR Business Unit (HRHD)	129	129
Feature	IT Help Desk (ITHD)	118	8
Feature	Architecture Feature 1	80	80
Feature	Architecture Feature 2	10	0
Feature	Security	30	0
EPIC	User Training	150	0

Typical Product Backlog Hierarchy

Time Phasing the Work



Level	Name	Story Pts Planned	Story Pts Completed	WPID
WBS	Enterprise SW Module 1	2293	1518	
EPIC	Personnel View	281	178	
Feature	Personnel View - Absence	10	0	
Feature	Personnel - Payroll	20	0	
Feature	Personnel - Quick Code	9	8	WP0054
Feature	SW Module 1 to SW Module 3 Integration -	163	163	WP0054
Feature	SW Module 1 to SW Module 2 Integration	79	7	
EPIC	Agent-Facing Case Management	808	585	
EPIC	SW Framework	601	369	
Feature	CRM Interaction Hub	0	0	
Feature	CRM Workflow Notifications	80	0	
Feature	Data Tables - Sync	123	122	WP0054
Feature	Data Integration - Person	22	21	WP0054
Feature	Data Integration - Teams	9	9	WP0054
Feature	HR Business Unit (HRHD)	129	129	
Feature	IT Help Desk (ITHD)	118	8	
Feature	Architecture Feature 1	80	80	
Feature	Architecture Feature 2	10	0	
Feature	Security	30	0	

CA Assignments
WP Assignments

Functional Threads
Cross EPICs
Functional threads
allocated to Sprints
form the WP

Time Phasing Structure

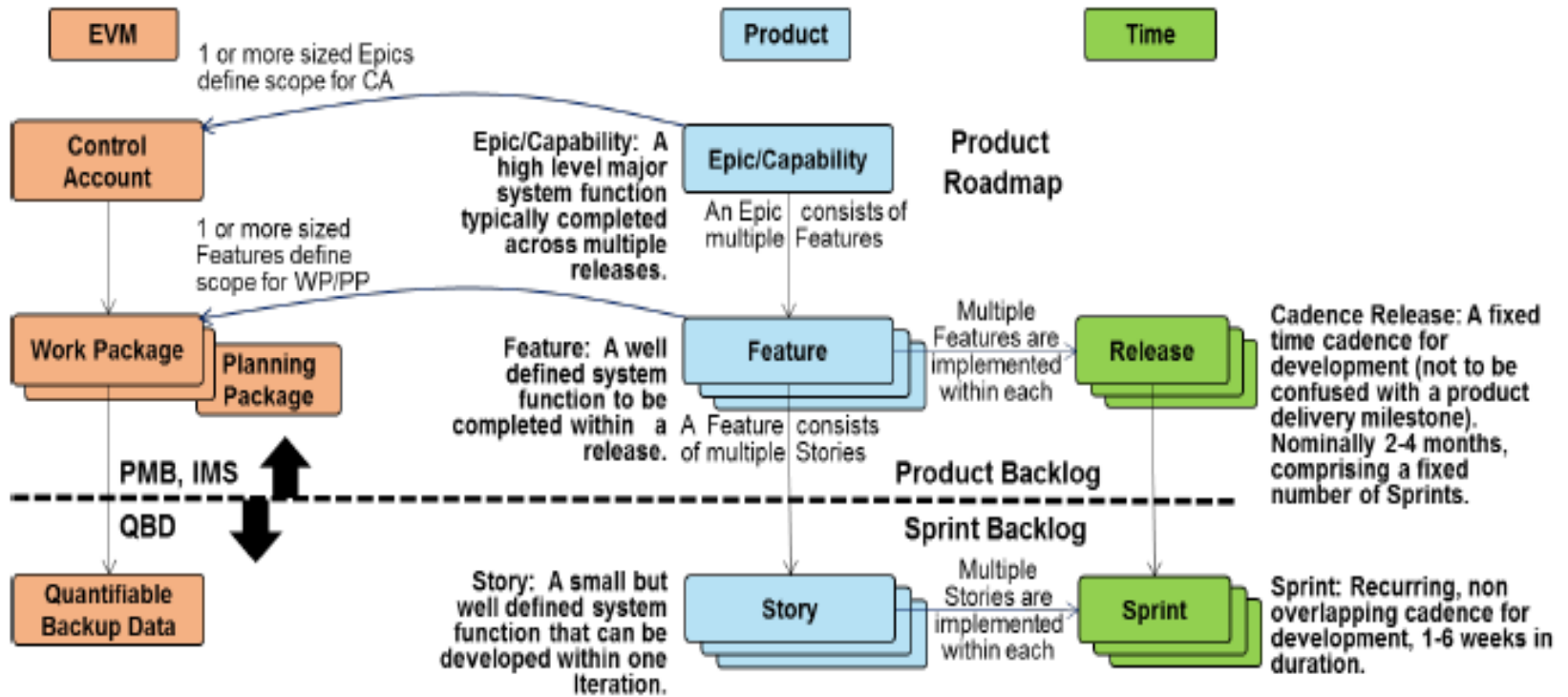


Level	Name	Story Pts Planned	Story Pts Completed	WPID
Release 1				
WBS / CA	Enterprise SW Module 1	2293	1518	
WP	WP 0054	326	323	WP0054
Feature	Personnel - Quick Code	9	8	WP0054
Feature	SW Module 1 to SW Module	163	163	WP0054
Feature	Data Tables - Sync	123	122	WP0054
Feature	Data Integration - Person	22	21	WP0054
Feature	Data Integration - Teams	9	9	WP0054
WP	WP0055	100	0	WP0055
Feature	Personnel - Payroll	20	0	WP0055
Feature	CRM Workflow Notificatio	80	0	WP0055
WP	WP0056	139	129	WP0056
Feature	Personnel View - Absence	10	0	WP0056
Feature	HR Business Unit (HRHD)	129	129	WP0056
WP	WP0057	120	80	WP0057
Feature	Architecture Feature 1	80	80	WP0057
Feature	Architecture Feature 2	10	0	WP0057
Feature	Security	30	0	WP0057
WP	WP0060	197	15	WP0060
Feature	SW Module 1 to SW Module	79	7	WP0060
Feature	CRM Interaction Hub	0	0	WP0060
Feature	IT Help Desk (ITHD)	118	8	WP0060
WBS / CA	Enterprise SW Module 2			

Pivot Backlog
to show Time
Phased View
of the Work

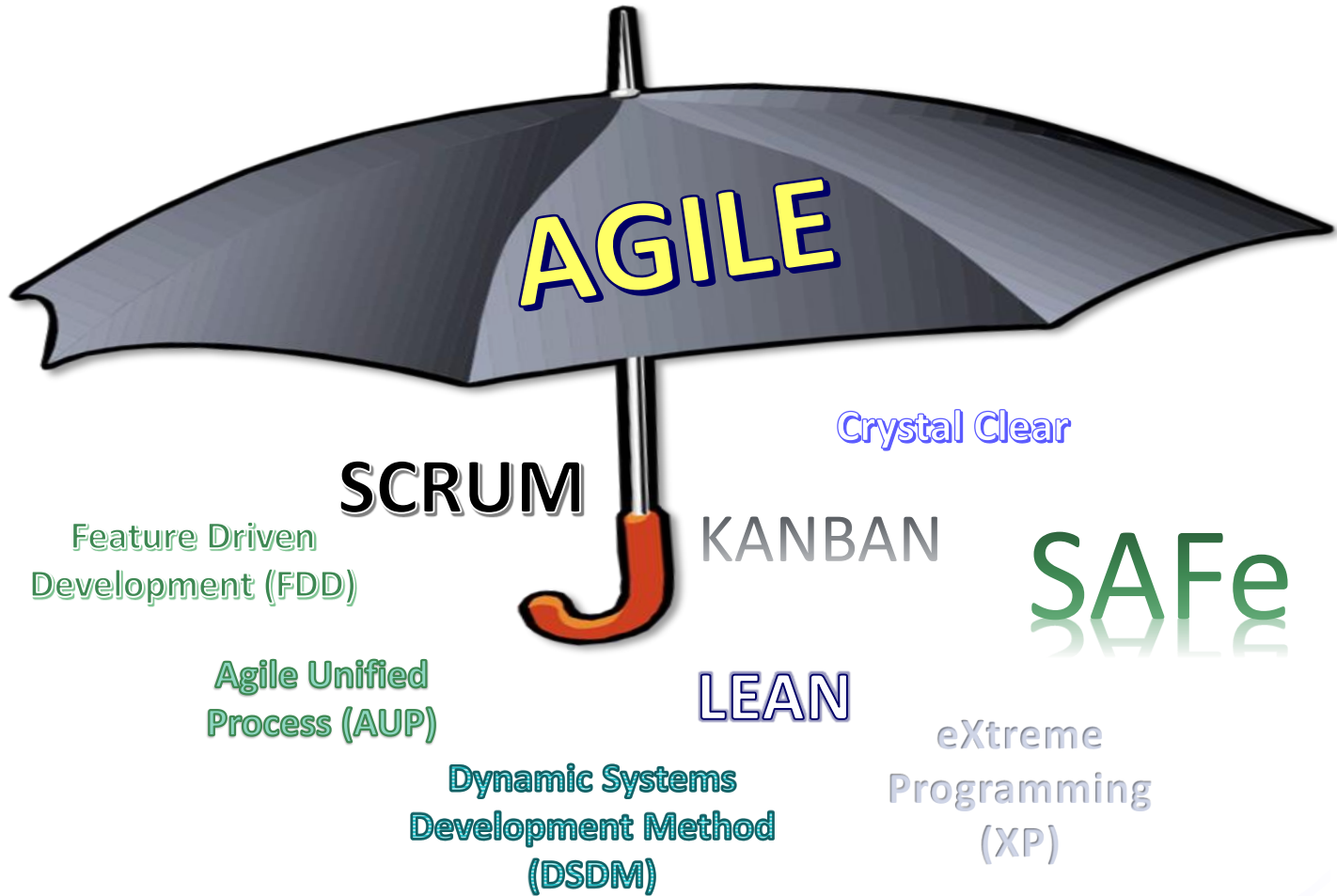
Similar to an
IMP view in
the schedule

Agile – EVM Relationships



NDIA "An Industry Practice Guide for Agile on Earned Value Management Programs" v1.1 March 31, 2017

Myth: Agile Has No Standards



Measuring for Sustained Success



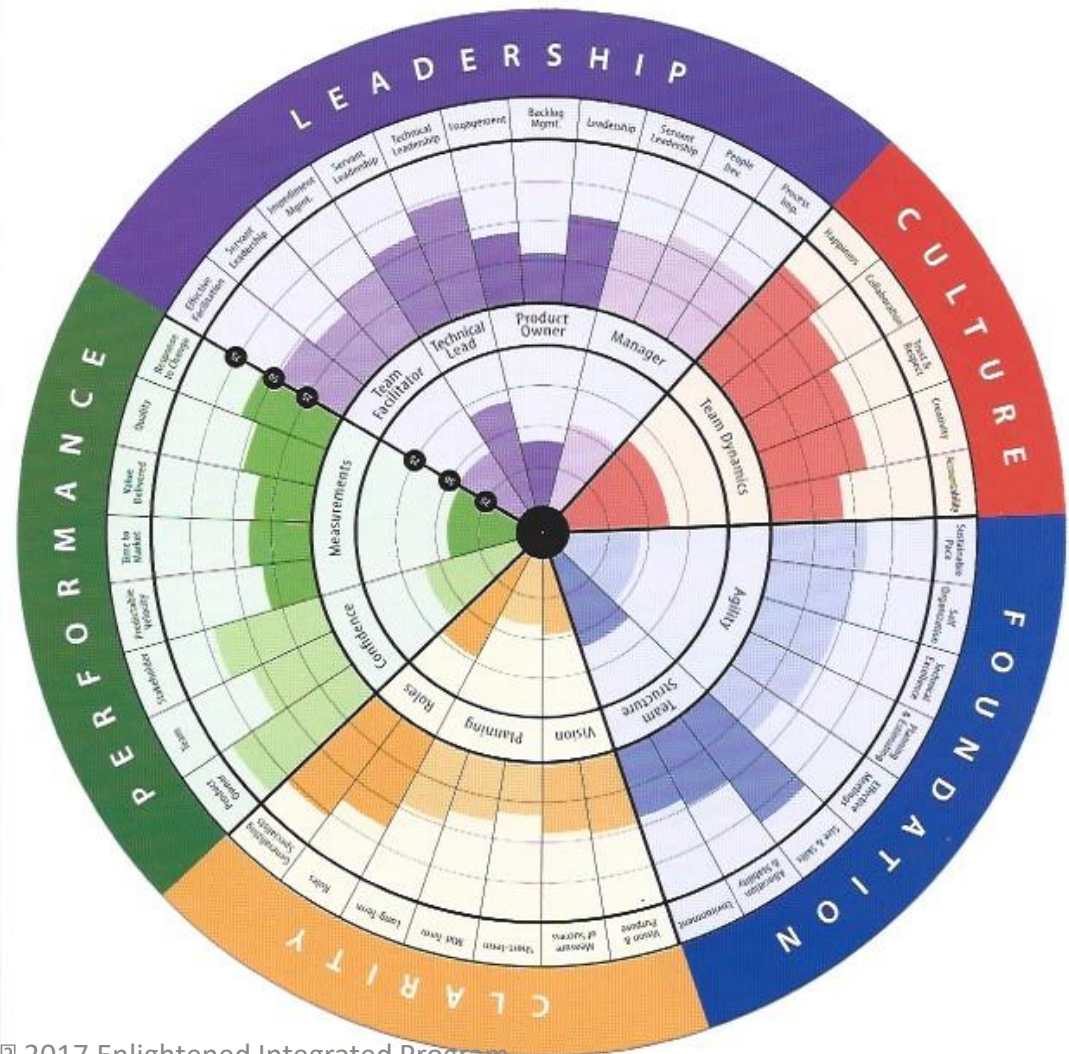
- Teams sustaining a consistent pace is not easy
 - Time boxed continuous delivery can burn people out
 - Some teams just never Gel
 - Product Owner – Stakeholders sometimes shift vision often
- Important to periodically assess team health
 - Assessing health will identify potential areas of improvement
 - Continuous process improvement can help teams mature more quickly and maintain a consistent pace
 - Variety of tools are available
 - AgilityHealth is one of the more thorough

AgilityHealth – 39 competencies

Agile Transformation Inc



- Performance
 - Confidence (3)
 - Measurements (5)
- Leadership
 - Team Facilitator (3)
 - Technical Lead (2)
 - Product Owner (3)
 - Manager (3)
- Culture
 - Team Dynamics (5)
- Foundation
 - Agility (5)
 - Team Structure (3)
- Clarity
 - Vision (2)
 - Planning (3)
 - Roles (2)



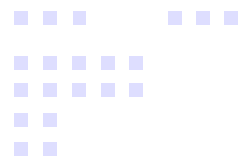
Key Lessons Learned working DoD EVM Agile Programs



- Consistent understanding of Agile across the Department is maturing.
- Establishing a product hierarchy that meets both Agile and EVM requirements is important
 - Don't confuse WBS with IMP
 - Be crystal clear with definitions

Be careful where you draw the line between EVM and Agile

- Could drive significant administrative burden.
- Where you draw the line may allow for Agility or not



QUESTIONS?