

The background features a collage of industrial scenes. In the top left, there are blue electric motors. In the top right, a large metal gear is visible. In the bottom left, a worker in a blue hard hat and safety vest is working on a large yellow machine. In the center, a worker in a red safety jacket and blue hard hat is looking at a tablet. The entire image is overlaid with a white geometric grid pattern.

FLUKE®

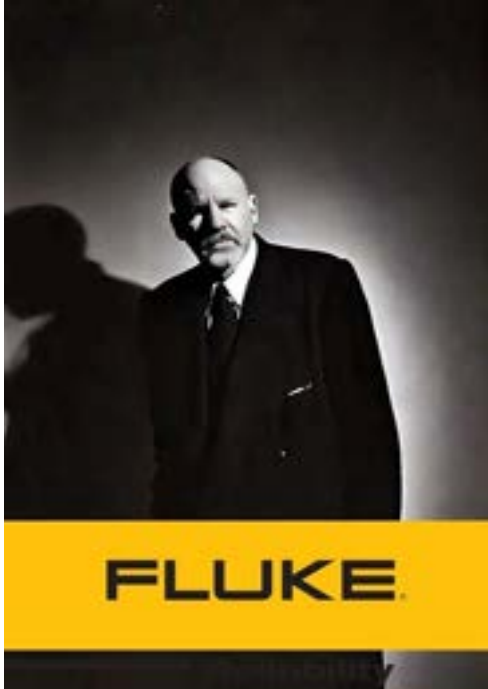
Reliability

10 Keys® Methodology Overview

Fluke Reliability
eMaint

Best Practices Webinar Series

Meet the Speaker



Gregory Perry CMRP, eCMP

Sr. Capacity Assurance Consultant – Fluke Reliability

- 25 plus years in Maintenance Best Practices
- 13 years with eMaint (eMaint Certified, eCMP)
- 5 Kiddos (two with of the 4-legged variety) and dedicated husband of over 25 years
- May not look like it here – but I play Metal style guitar (child of the 80's)

10 Key Steps[®] Methodology

The What, Why & How of things

Change Management...

Initiatives (implementations)...



Level of Expectation of Change / Desire

The
Why

Good - Average

- CMMS Implementation (Void of AIM and Deployment desires)

Better - Best in Class

- CMMS Deployment Readiness
- CMMS Implementation Readiness

Best – World Class

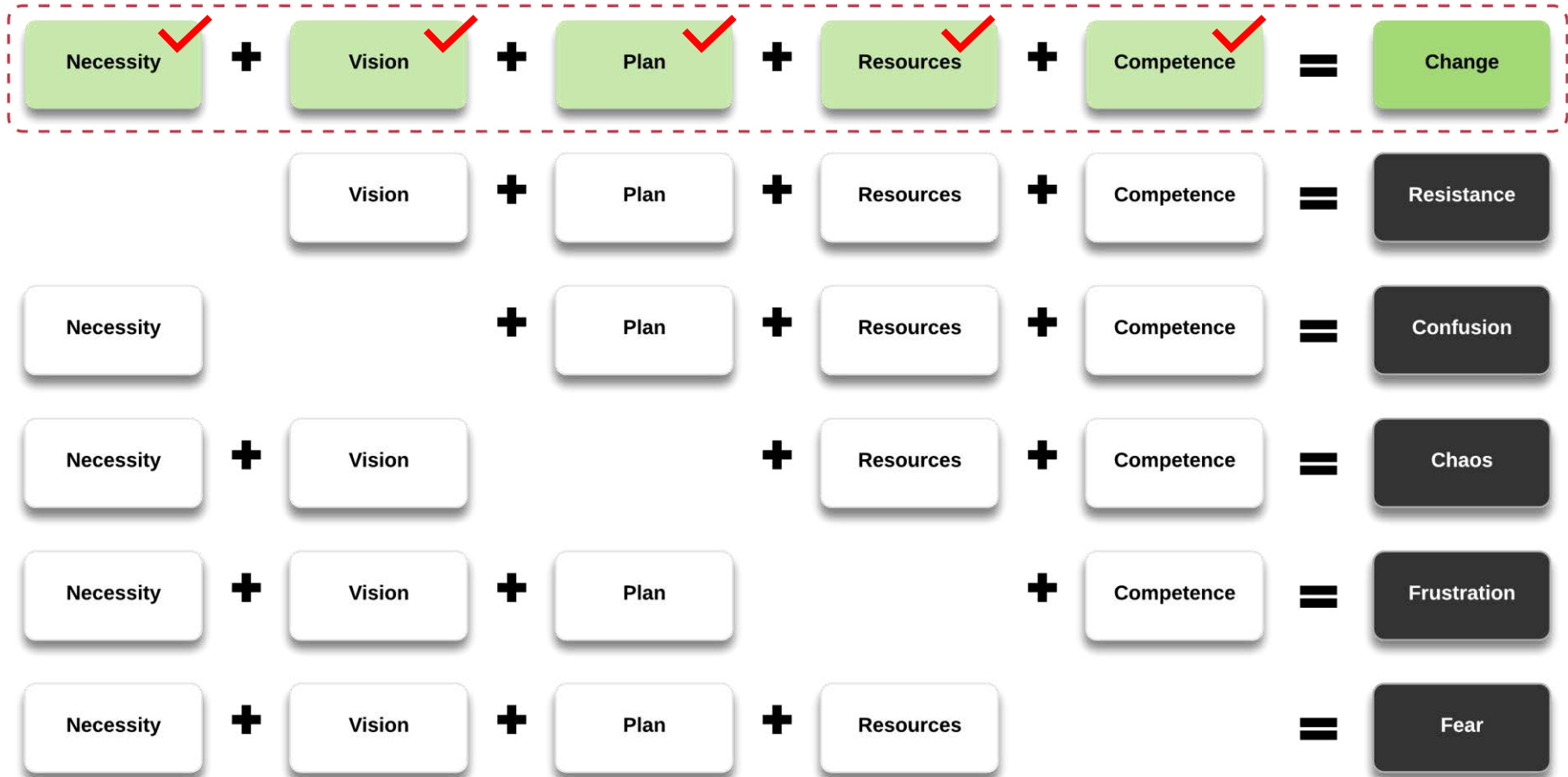
- AIM Development
- CMMS Deployment Readiness
- CMMS Implementation Readiness

Step Zero – Cultural Impact of an Initiative that drives Change

The Why

BEFORE YOU START...

CULTURE AND INCREMENTAL CHANGE



Step Zero – The AIM

The
Why

If you find that your organization has not adopted maintenance Best Practices – stop right here. Realize that deploying or even implementing a CMMS will not magically bring this about.

- Most systems by nature are **neither intuitive nor simple** to understand. Here is where an experienced CMMS subject-matter expert working with the core team can be worth their weight in gold by ensuring you understand the decisions you are making.
- This is definitely a great place to say the adage, “**you don’t know what you don’t know**”.
- This is also a great place to be sure you are **aligned** with your organizations Business Objectives and **adopted Maintenance Best Practices**.
- **CMMS supports maintenance best practices while your maintenance best practices must support your CMMS**





Deployment

To deploy (from the French deployer) is "to spread out or **arrange strategically**." Long used in the context of military strategy, it has now gained currency in information technology. In its IT context, deployment **encompasses all the processes involved** in getting new software or hardware up and running properly in its environment, including installation, configuration, running, testing, and making necessary changes.



Implementation

The start of a course of action, or put into effect the **practice of a plan**, a method, or any executed design, idea, model, specification, standard or policy for doing something. As such, **implementation is the action** that must follow any executed preliminary thinking for something to actually happen.



Execution

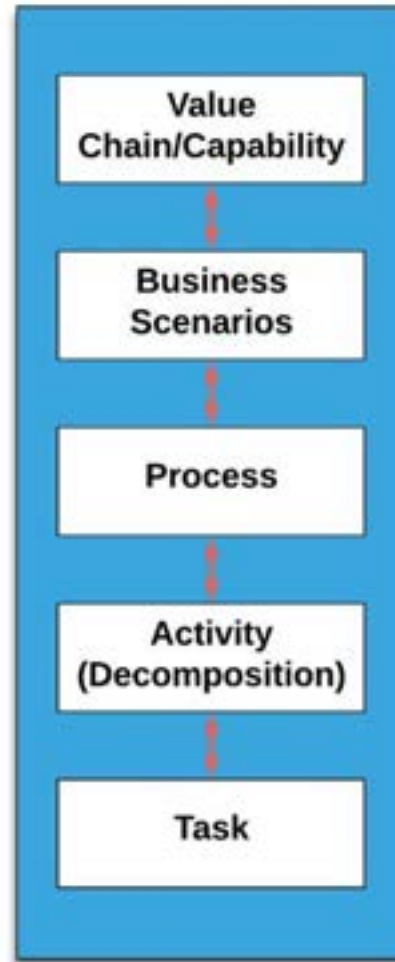
The decisions and activities you undertake in order to turn your **envisaged strategy** into commercial success. The act of performing or accomplish something, as an assigned task, to see through to completion. Activities needed to produce results within the context of a **deployed strategy**.

Step Zero - AIM

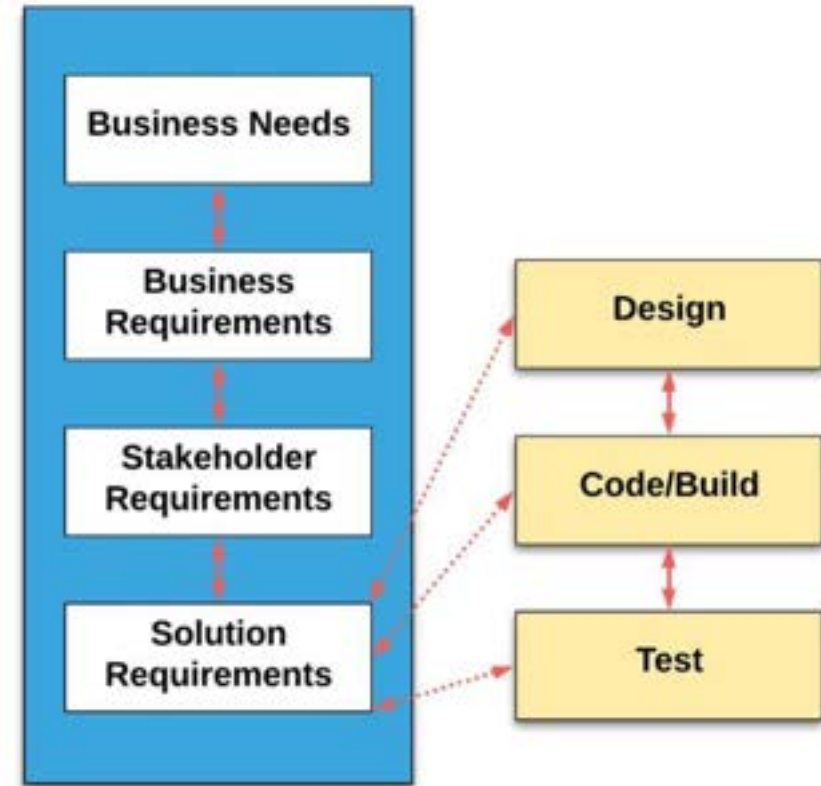
The
What



Process Alignment
(Traceability)

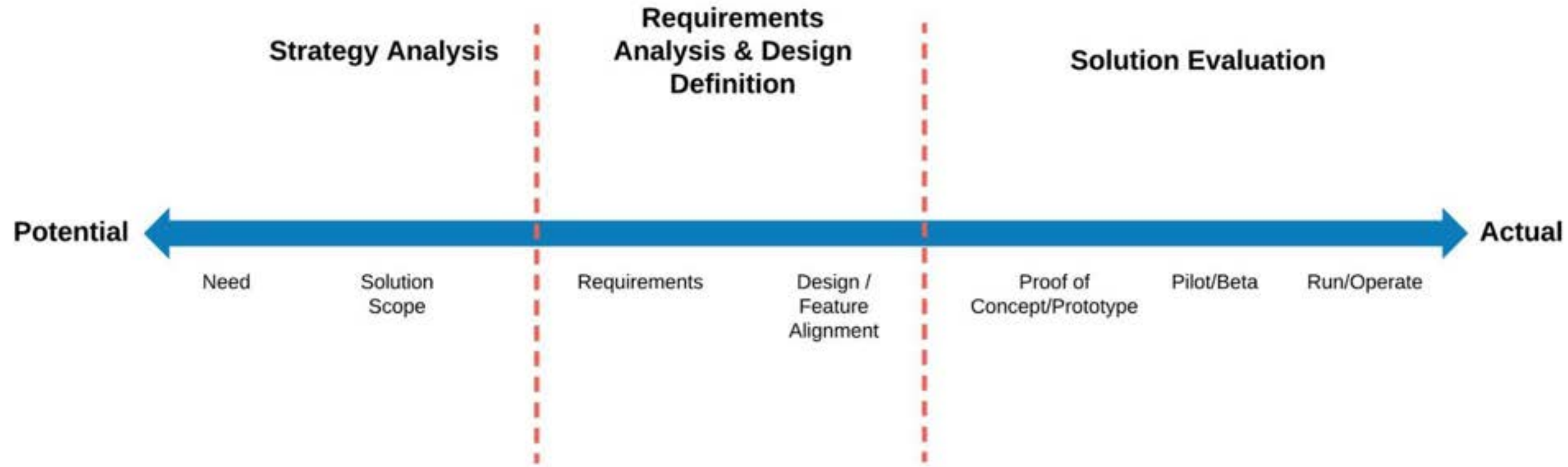


Software Requirements
Alignment (Traceability)

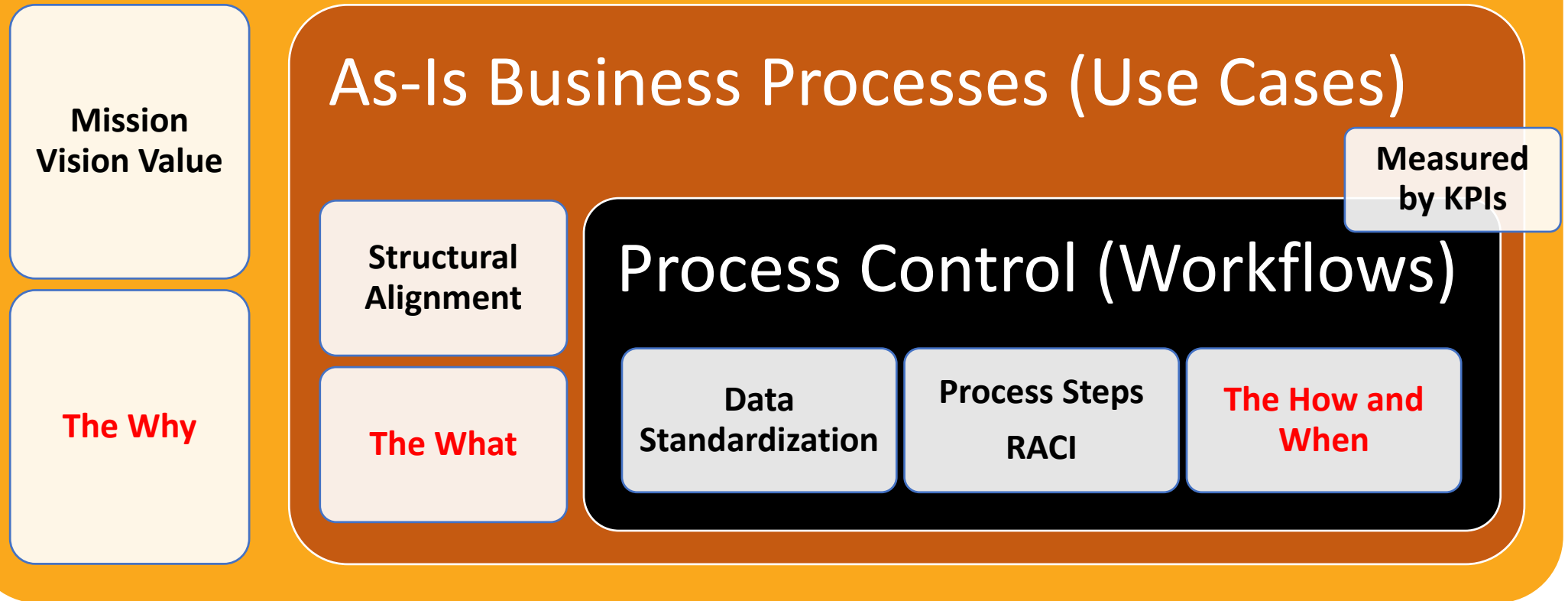


Step Zero - AIM

The
What



AIM (Corporate Strategy)

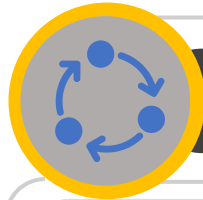


Step Zero – AIM (tools and techniques)



Think S.M.A.R.T

Or



Think SIPOC or DMAIC

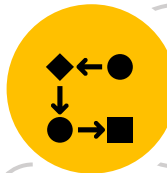
Or



Think Focus Group Led

A representation of the organization need to list objectives that tie back to overall business goals used with specific criteria that measure the organization's progress toward the accomplishment of these goals.

Often presented at the outset of process improvement efforts such as Kaizen events or during the design phase of a DMAIC process. Provides a high-level overview, reacquaints people with process familiarity, and works to help in defining of a new processes.



Think Organization Mapping

Or



Think Value Stream Mapping

A representation of the organizational structures of the business (including third party domains), depicting business units, the decomposition of those units into lower-level functions, and organizational relationships (unit-to-unit and mapping to business capabilities, locations, and other attributes).

The breakdown of activities that an organization performs to create the value being exchanged with stakeholders. Value stream maps illustrate how an organization delivers value and are in the context of a specific set of stakeholders, and leverage business capabilities in order to create stakeholder value and align to other aspects of the Target Business Architecture.

S.M.A.R.T. Goal: Standardization

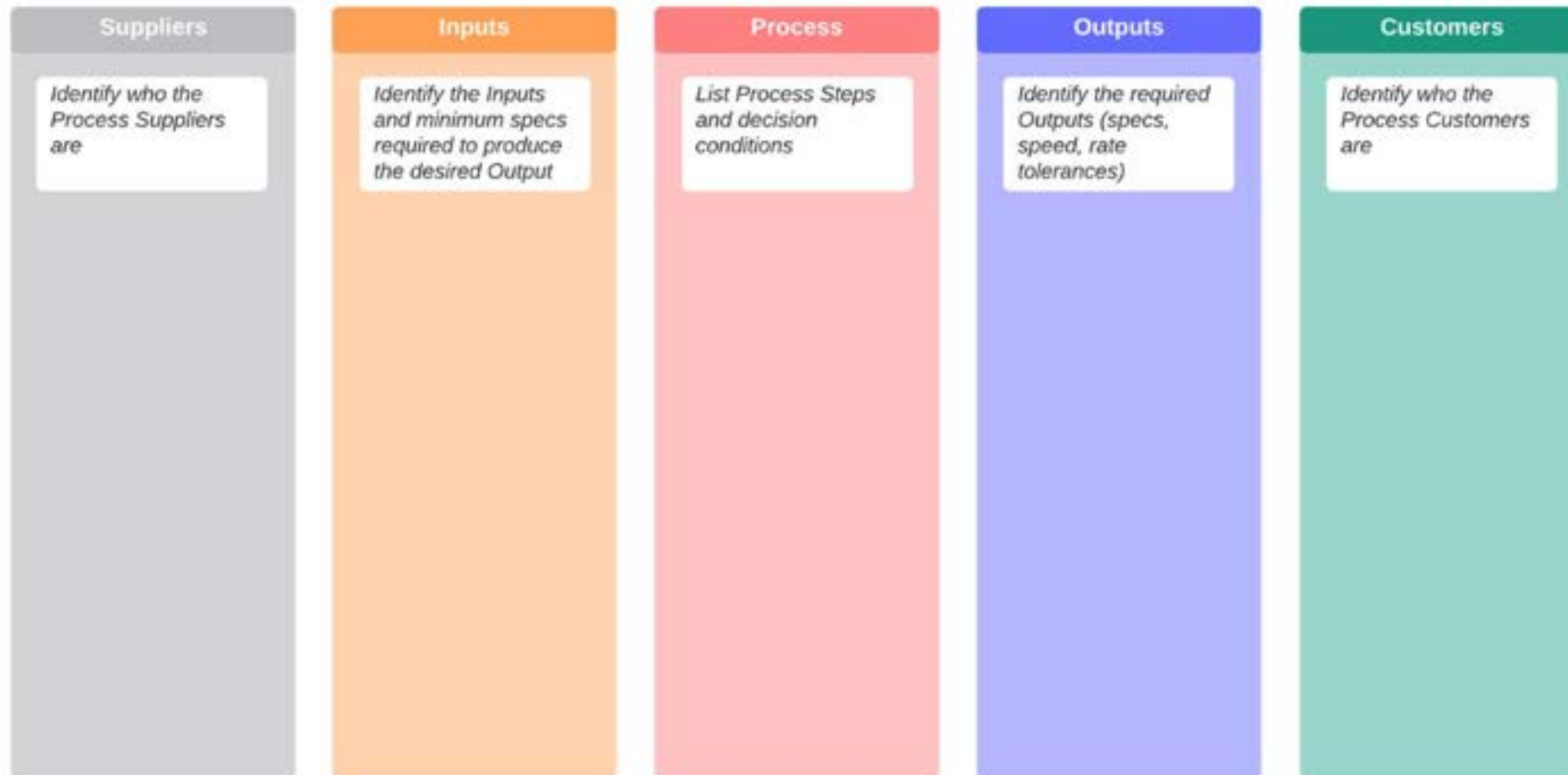
The What to How and When

Specific:	<i>Describing something that has an observable outcome.</i>	The objective of providing “a consistent user interface that will ensure all user-accessible functions and services will appear and behave in a similar, predictable fashion regardless of application or site” is specific; however, the measures listed in the second sentence could be more specific
Measurable:	<i>Tracking and measuring the outcome.</i>	As stated above, the objective is measurable, but could be more specific; the second sentence could be amended to read (for example): “this will lead to 10% greater user efficiency and 20% fewer order entry user errors, which in turn may result in 5% lower order entry costs”
Actionable:	<i>Testing the feasibility of the effort.</i>	The objective does appear to be actionable; it seems clear that consistency of the user interface must be provided, and that could be handled by whoever is responsible for providing the user interface to the user device
Relevant:	<i>Aligning with the enterprise’s vision, mission, and goals.</i>	The objective of providing “a consistent user interface that will ensure all user-accessible functions and services will appear and behave in a similar, predictable fashion regardless of application or site” might not be realistic; considering the use today of PDAs at the user end might lead us to augment this objective to ensure that the downstream developers don’t unduly create designs that hinder the use of new technologies – the objective could be re-stated as “a consistent user interface, across user interface devices that provide similar functionality that will ensure ...”
Time-bound:	<i>Defining a time frame that is consistent with the need.</i>	The objective as stated is not time-bound; to be time-bound the objective could be re-stated as “by the end of Q3, provide a consistent ...”

DMAIC refers to a data-driven improvement cycle used for improving, optimizing and stabilizing business processes and designs. The DMAIC improvement cycle is the core tool used to drive Six Sigma projects. However, DMAIC is not exclusive to Six Sigma and can be used as the framework for other improvement applications.

Steps	Define	Measure	Analyze	Improve	Control
Purpose	<ul style="list-style-type: none"> Define business metrics Identify projects for process improvement Select resources for project improvement 	<ul style="list-style-type: none"> Establish baseline performance Validate measurements for each project 	<ul style="list-style-type: none"> Set performance objectives Identify sources of variation 	<ul style="list-style-type: none"> Prioritize the vital few causes of variation Establish relationships between output and input variables 	<ul style="list-style-type: none"> Implement solutions Ensure solutions are sustained Document case studies
Primary Tools	<ul style="list-style-type: none"> Process mapping Business metrics Trend charts Root cause analysis Voice of the Customer (VOC) 	<ul style="list-style-type: none"> Trend charts Six Sigma Metrics Process Capability Analysis Process Flow Diagram Descriptive Statistics basic SPC Measurement system analysis Data collection forms 	<ul style="list-style-type: none"> Control charts Frequency plots Hypothesis testing Cause and effect diagrams Affinity Diagrams Data collection forms FMEA Root cause verification Value Stream Mapping 	<ul style="list-style-type: none"> Design of experiments FMEA Planning tools Process capability analysis SPC level 2 Measurement capability analysis Principles of lean manufacturing 	<ul style="list-style-type: none"> Mistake proofing SPC implementation Control plans Process standards Evaluate process improvement results
Key Outputs	<ul style="list-style-type: none"> Project team Project Program plan Management commitment 	<ul style="list-style-type: none"> Product performance baseline Measures for evaluating performance of the product or process 	<ul style="list-style-type: none"> Defined list of potential sources of variation Cost Benefit Analysis 	<ul style="list-style-type: none"> Proposed process settings Impact of proposed solutions 	<ul style="list-style-type: none"> Process in control Project documentation Opportunities for transfer of learning

In process improvement, a SIPOC is a tool that summarizes the inputs and outputs of one or more processes in table form. It is used to define a business process from beginning to end before work begins. The acronym SIPOC stands for suppliers, inputs, process, outputs, and customers which form the columns of the table.



Focus Group Led

The What to How and When

Maintenance Business Scenario

M01. Work Identification	M02. Planning	M03. MRO Storeroom Management	M04. MRO Inventory Management	M05. MRO Procurement	M06. MRO Purchasing	M07. Scheduling	M08. Work Execution	M09. Work Review	M10. Analysis & Reporting	M11. Continuous Improvement
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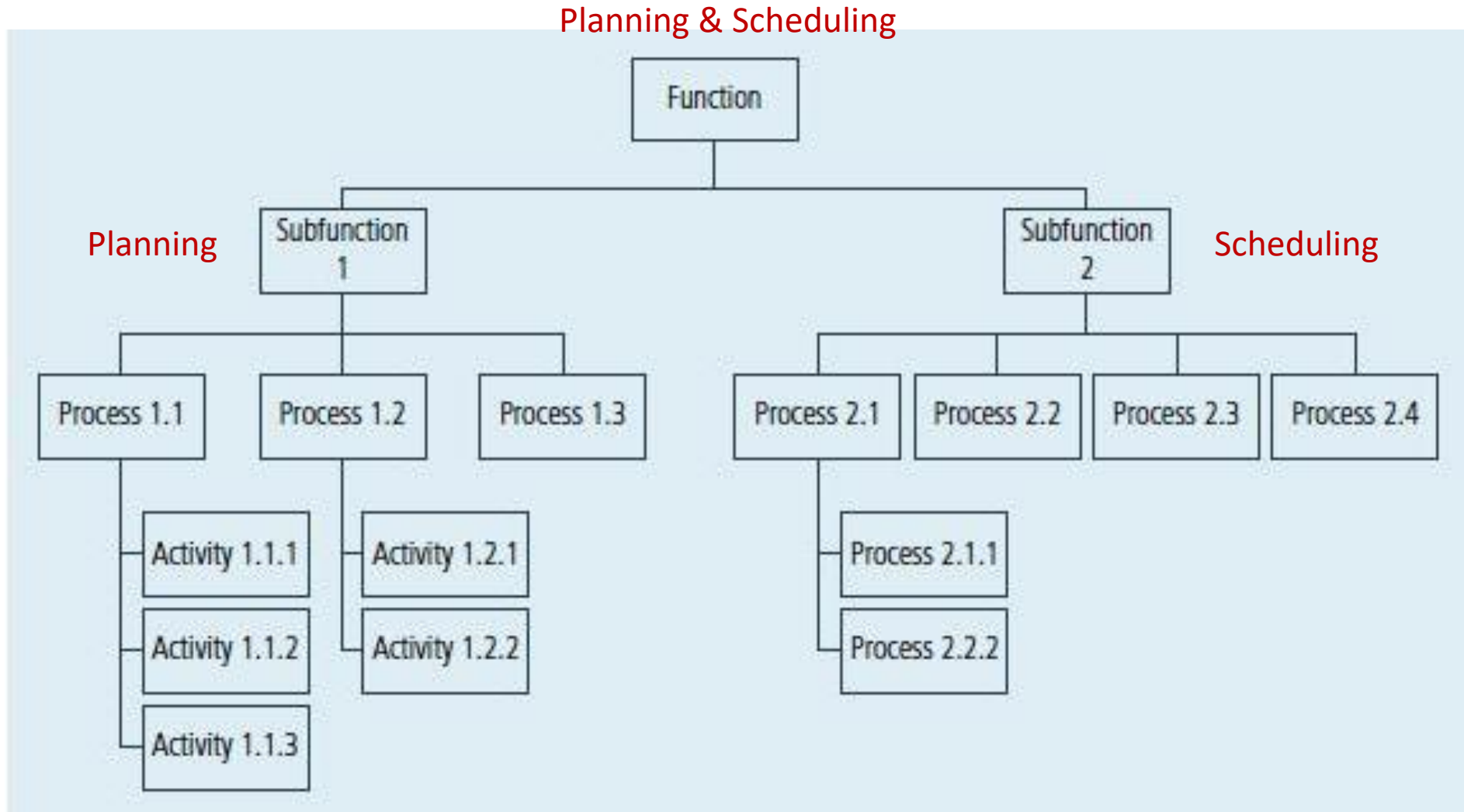
Processes

M01.01 Emergency Request	M02.01 Task Management	M03.01 5S	M04.01 Receiving	M05.01 RFQ	M06.01 Supplier Selection	M07.01 Preventive Scheduling	M08.01 Work in Progress	M09.01 Plan Accuracy Check	M10.01 Response Time	M11.01 Asset Criticality Analysis
M01.02 Non-Emergency Request	M02.02 Request Prioritization		M04.02 Returns	M05.02 Non-stock Requisition	M06.02 Stock PO Creation	M07.02 Production Coordination	M08.02 Record Charges	M09.02 Work Quality	M10.02 Work Effectiveness	M11.02 RCA
M01.03 Special Requests	M02.03 Job Kitting		M04.03 Transfers	M05.03 Service Requisition	M06.03 Non-Stock PO Creation	M07.03 Resource Allocation	M08.03 Failure Reporting	M09.03 Charges Review	M10.03 Purchase Order Tracking	M11.03 FMECA
	M02.04 Request Prioritization		M04.04 Counts		M06.04 Service PO Creation	M07.04 Vehicle Maintenance Scheduling	M08.04 Work Completion	M09.04 Documentation Completeness	M10.04 MTTR Tracking	M11.04 Maintenance Strategy Optimization
			M04.05 Reconciliation		M06.05 PO Close-out	M07.05 Deferrals	M08.05 Turn-backs	M09.05 Close-out	M10.05 Bad Actors Tracking	
									M10.06 KPI Scorecard Tracking	

Reliability

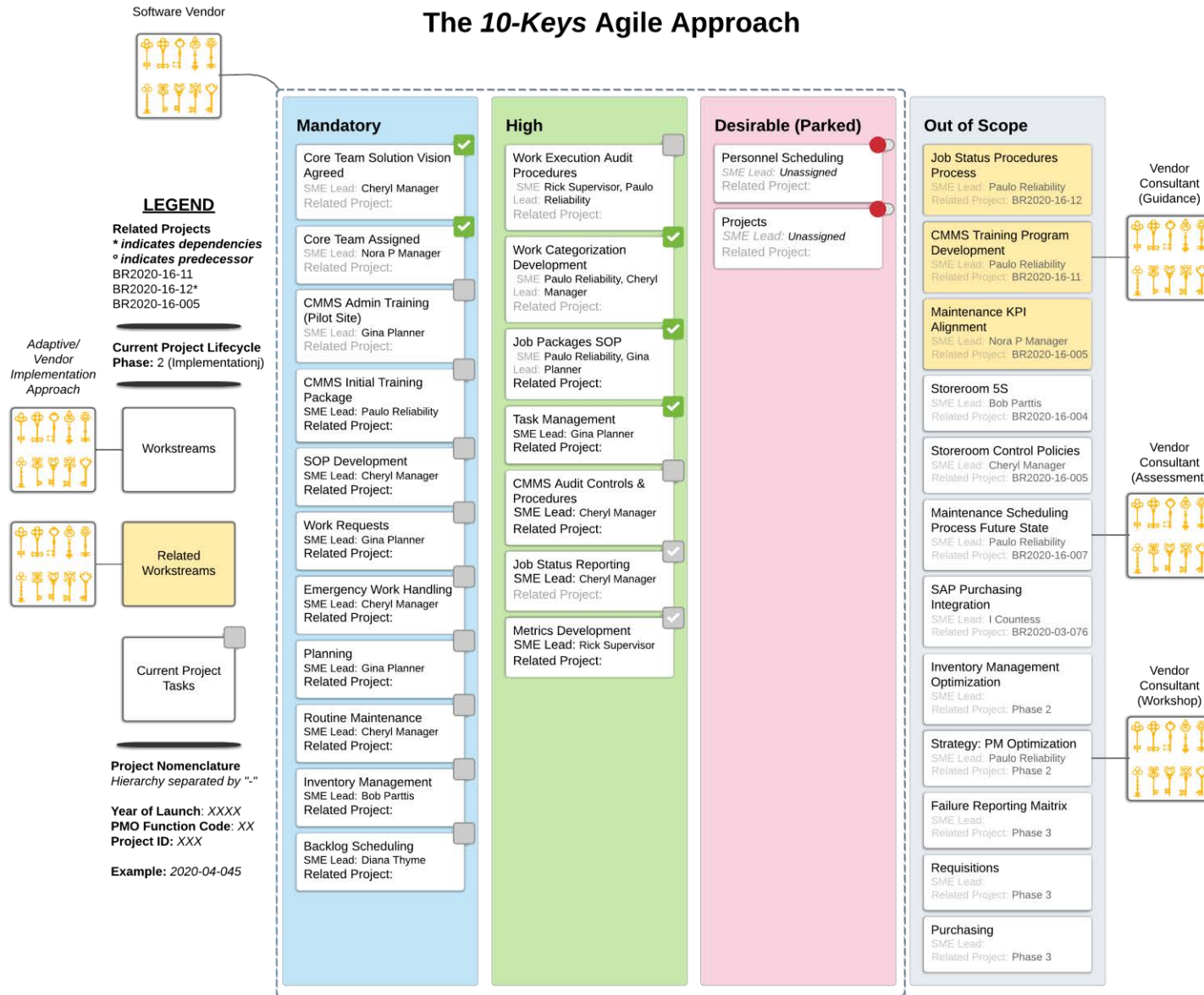
Focus Group Led: Decomposition (Planning Scheduling example)

The How
and When

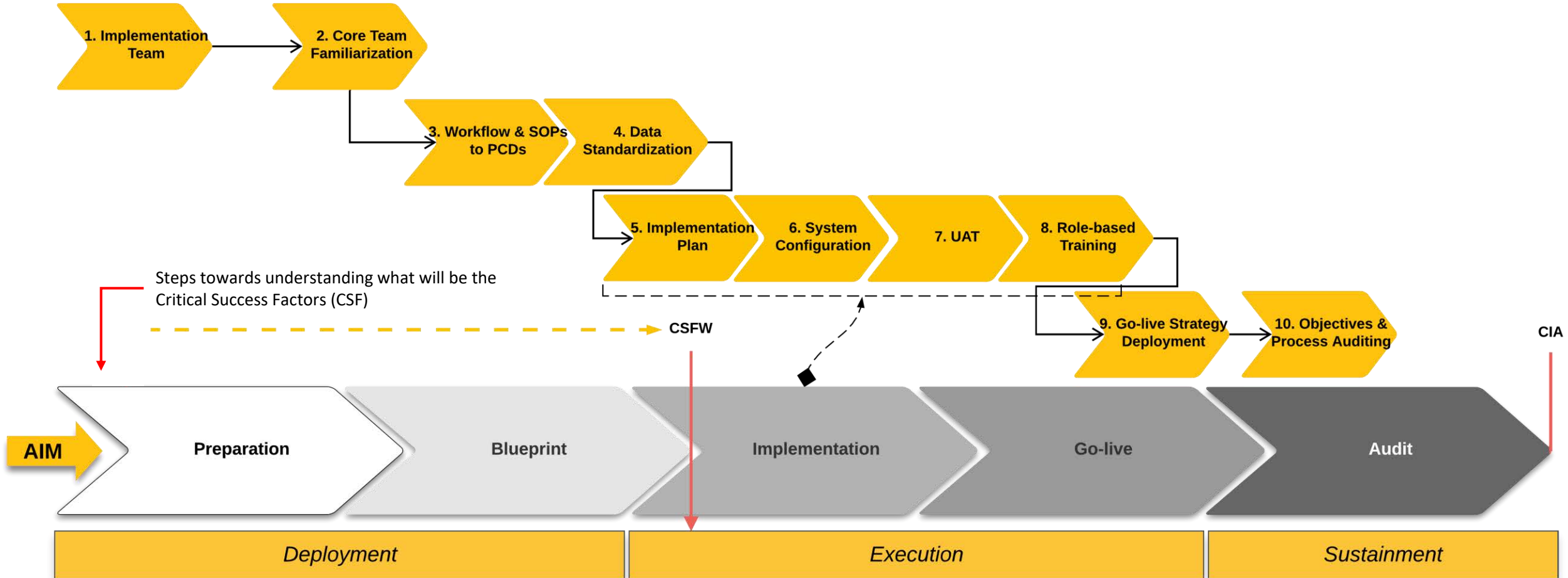


Value Stream Mapping:

The What to How and When



Step Zero – Where are we (you)?





10 Key Steps[®] to Deploy-mentation Success

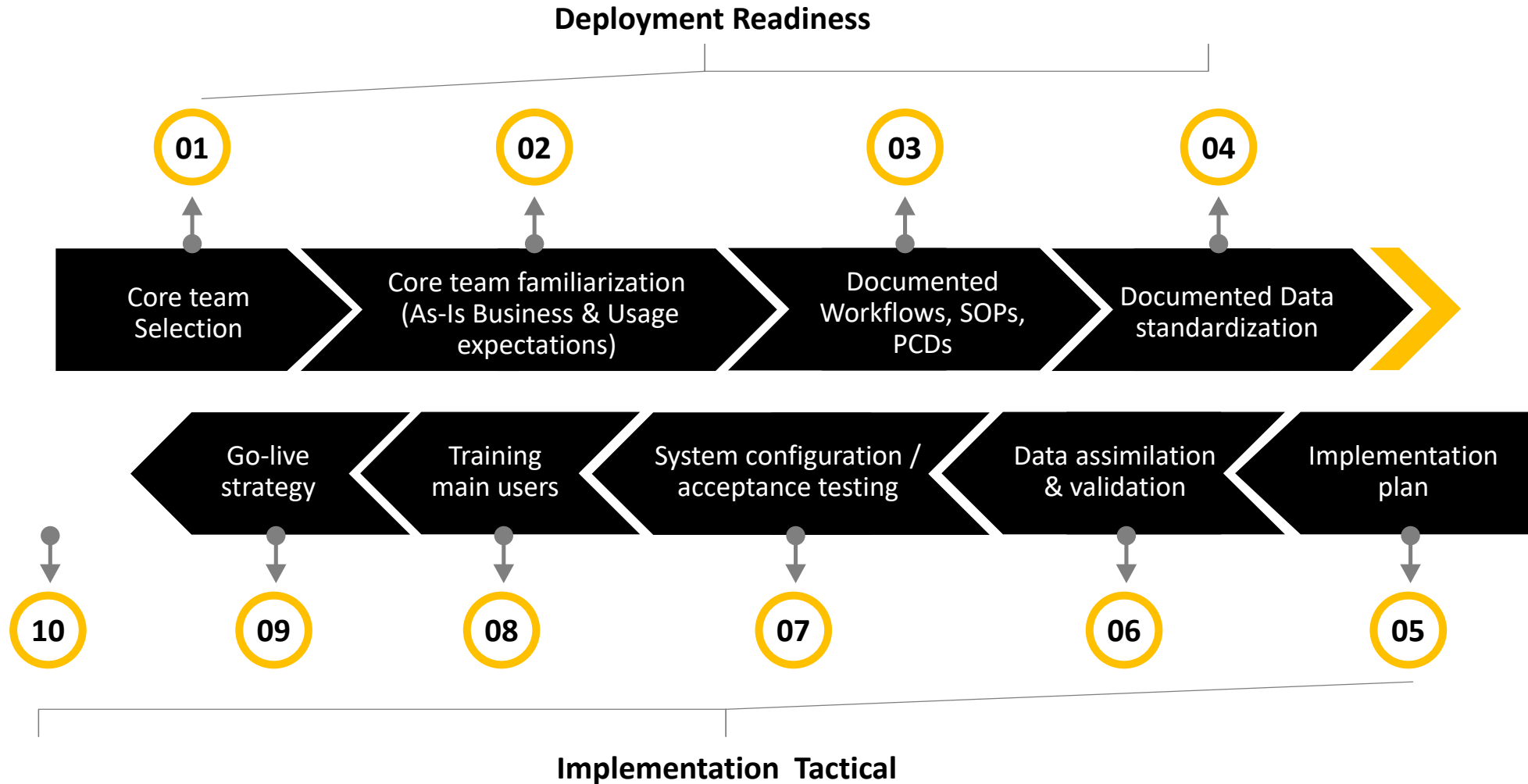
10 Key Steps® - A Deploy-mentation Methodology Guide

- Core team Selection
- Core team familiarization (As-Is Business & CMMS expectations)
- Documented Workflows, SOPs, PCDs
- Documented Data standardization
- Implementation plan
- Data assimilation & validation
- System configuration / acceptance testing
- Training main users
- Go-live strategy
- Process auditing



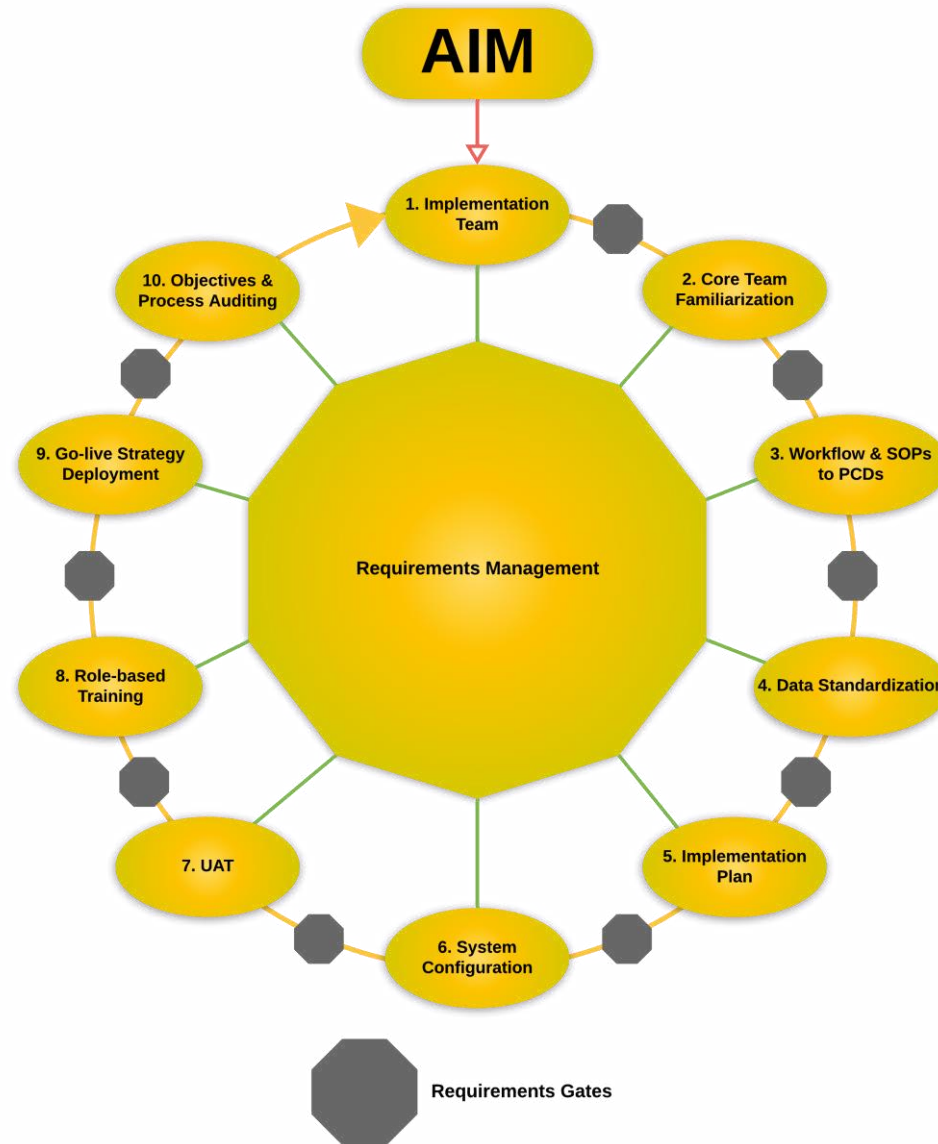
10 Keys[®] Methodology - A Proven Fundamental Method of Change (MOC) Strategy

The Why to
What to How
and When



10 Keys[®] Deployment Methodology (Gated Steps)

The Why to
What to How
and When



Apply the 10 Keys[©] over & over again on your CMMS journey

The How that
Ties back to the
What & Why

Initial CMMS Implementation:

- Core Team
- Familiarization
- Workflows, SOPs, PCDs
- Data Standardization
- Implementation Plan
- Data Assimilation & Validation
- System Configuration and Acceptance Testing
- User Training
- Go-Live Plan Execution
- Audit

Milestone 1

Integration Implementation:

- Core Team
- Familiarization
- Workflows, SOPs, PCDs
- Data Standardization
- Implementation Plan
- Data Assimilation & Validation
- System Configuration and Acceptance Testing
- User Training
- Go-Live Plan Execution
- Audit

Milestone 2

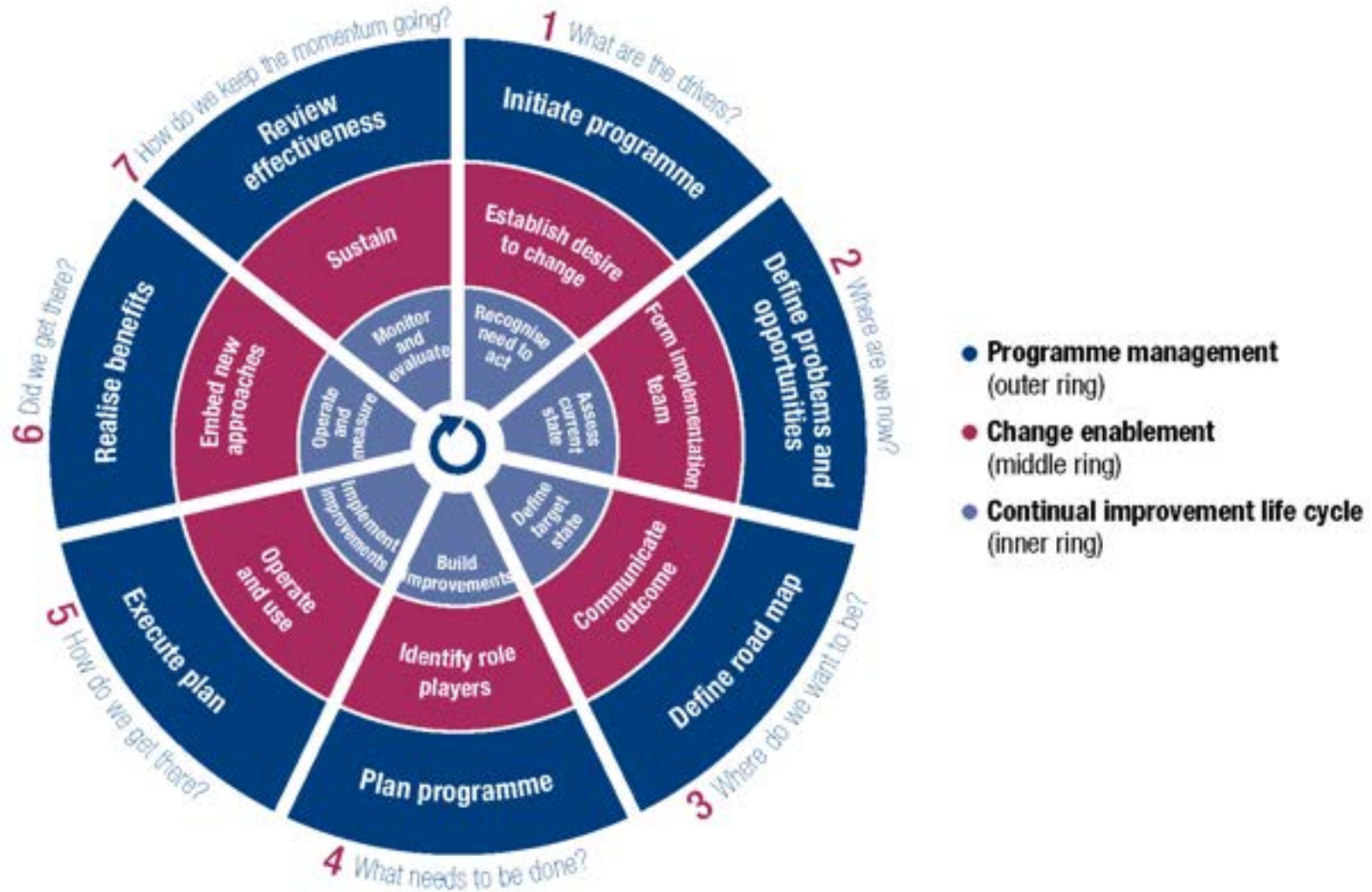
MRO (Spares) Implementation:

- Core Team
- Familiarization
- Workflows, SOPs, PCDs
- Data Standardization
- Implementation Plan
- Data Assimilation & Validation
- System Configuration and Acceptance Testing
- User Training
- Go-Live Plan Execution
- Audit

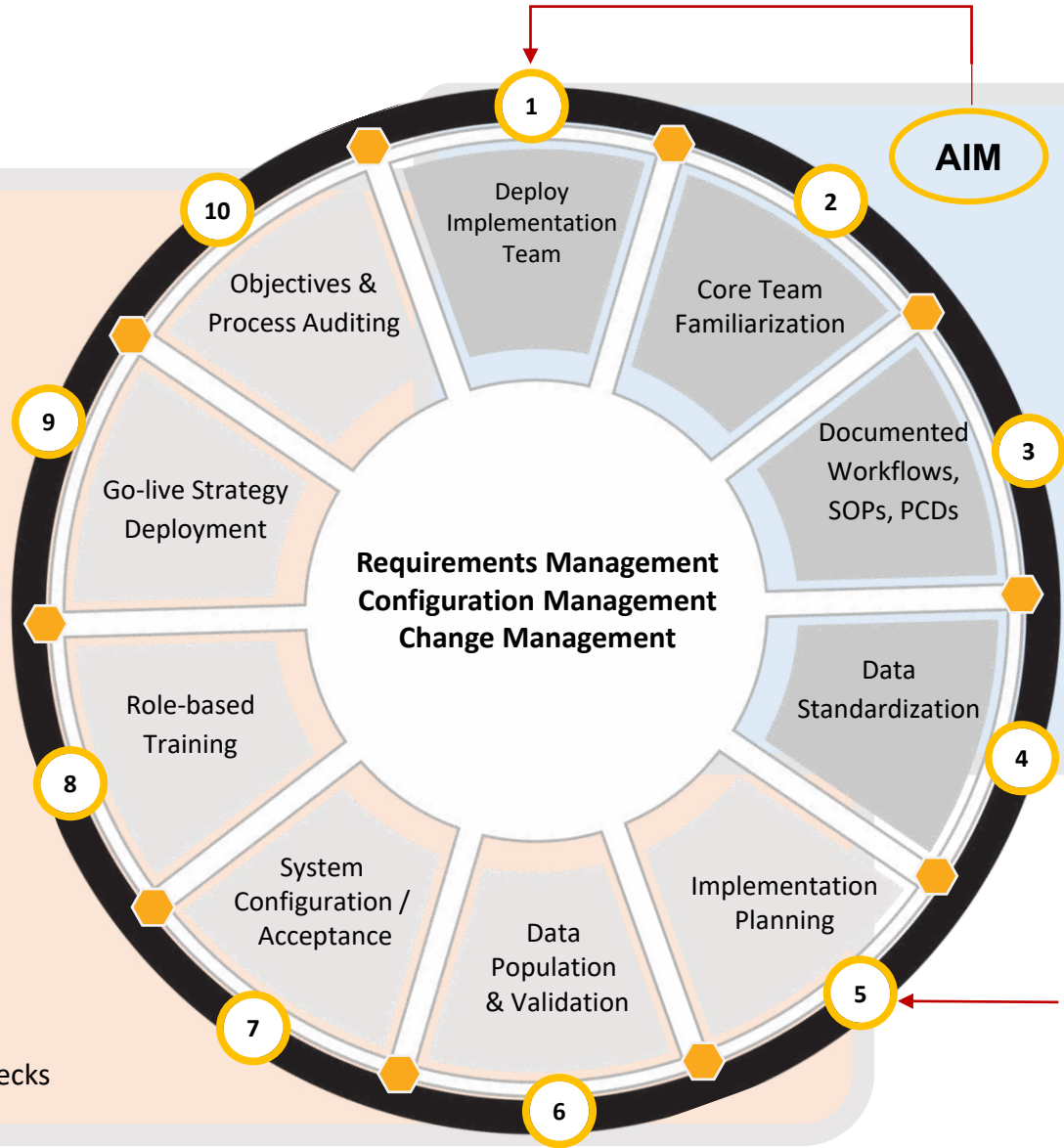
Milestone 3

Tying Key Step #10 back to Step Zero

The How, When, & Who that ties back to the What & Why



FRS - Customer Success Roadmap



Implementation Services

- CMMS CSFW
- CMMS Kick-Start
- Connected Reliability Kick-Start
- PdM Implementation Services
- Training Services
- Go-Live Assistance

Deployment Readiness Services

- Connected Reliability Assessment Services
- Continuous Improvement Assessment
- Remote 10 Keys[®] Consulting Services (first 5 Keys)
- Process Control Documentation
- Integration Workshop Services
- Data Build-Out Services (Data Collection, Data Cleansing, PM Build, etc.)

Can be universally applied to any technology being implemented within the FRS portfolio of products and services.

Gates & project Value Health Checks

Implementation Services

QUESTIONS?



Thank you!

Gregory Perry CMRP, eCMP

gregory.perry@fluke.com

<https://reliability.fluke.com/>

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DEMO

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Reliability

THANK YOU!