



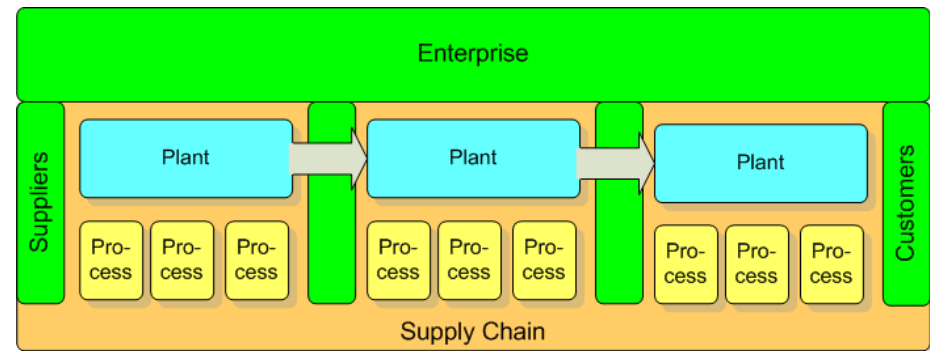
High Velocity MES Deployments

Rodney Neal
Cyberwerks

- In the **NEW NORMAL**, “Operations Management” is a respected member of the enterprise application portfolio.
- The marketplace is looking for a MOM platform that offers the following applications as plug-ins to a common platform:

1. EBR / WD or DHR
2. Quality Management System
3. Order Management System
4. Performance (Asset) Management System

- These applications “invite” manufacturing to be an integral, flexible member of the overall supply chain.



Old Normal

New Normal

There is a catch!!!!

Top Reasons for MES Deployment Delays

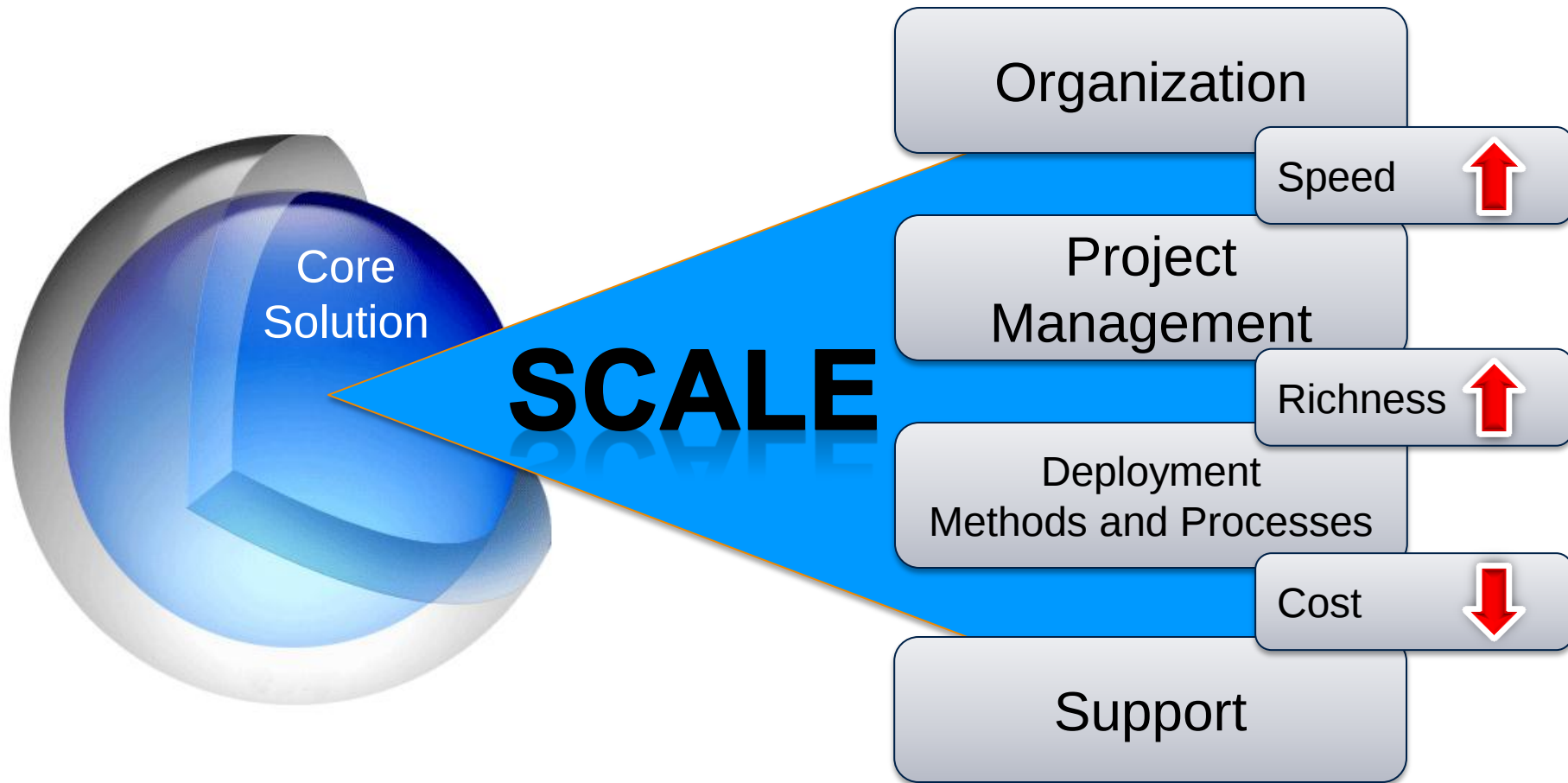


- Deployment Competence / Expertise
- Core Solution Functionality
- Qualification Procedures / Activities
- Infrastructure Design and Implementation
- Change Mgmt. (Skills / Procedures)
- Process Re-engineering



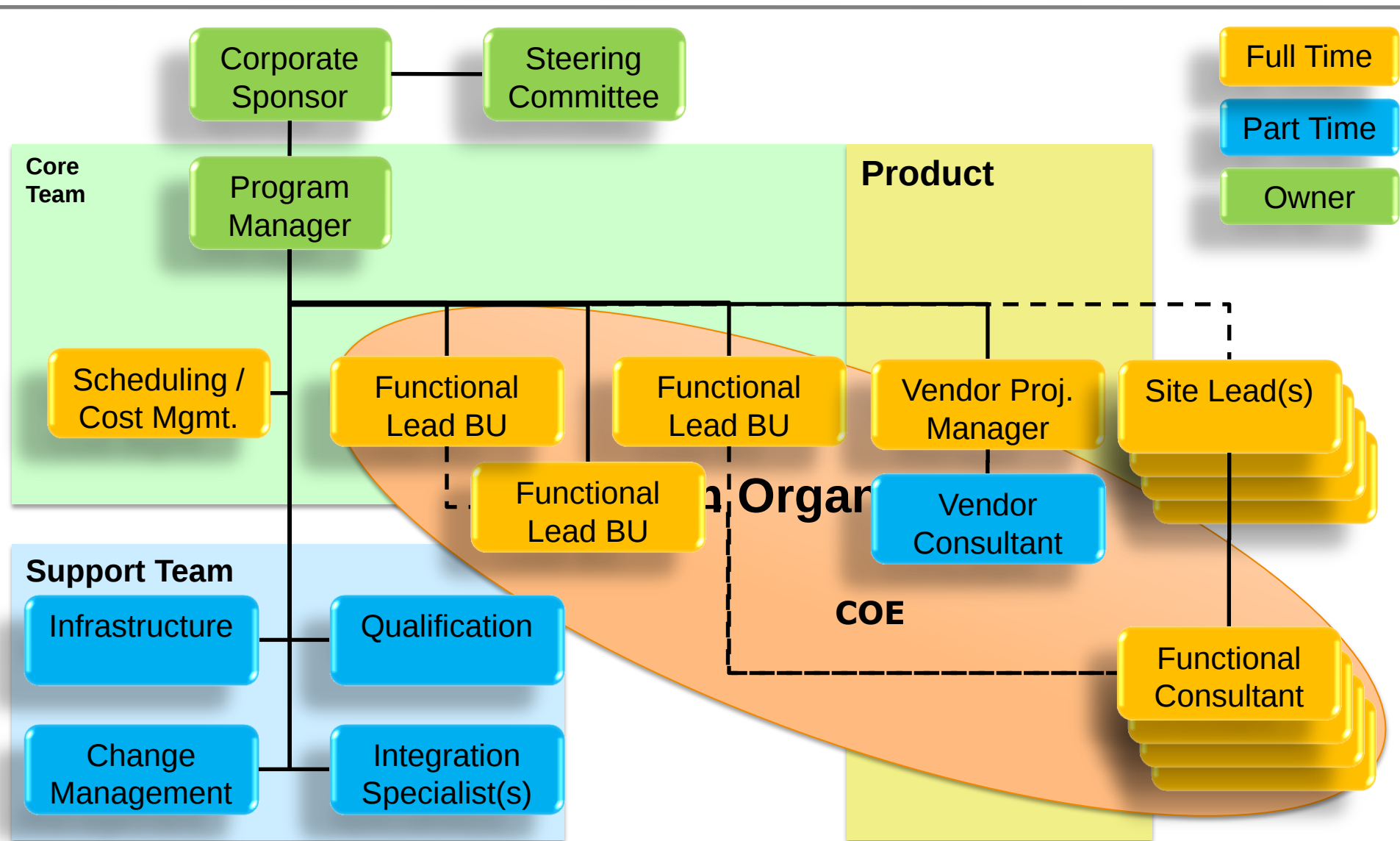
THE FOUR ELEMENTS OF SCALABLE PROGRAM MANAGEMENT

The Four Elements of Scalable Program Management



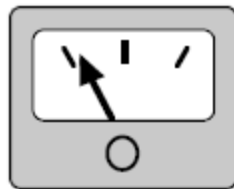
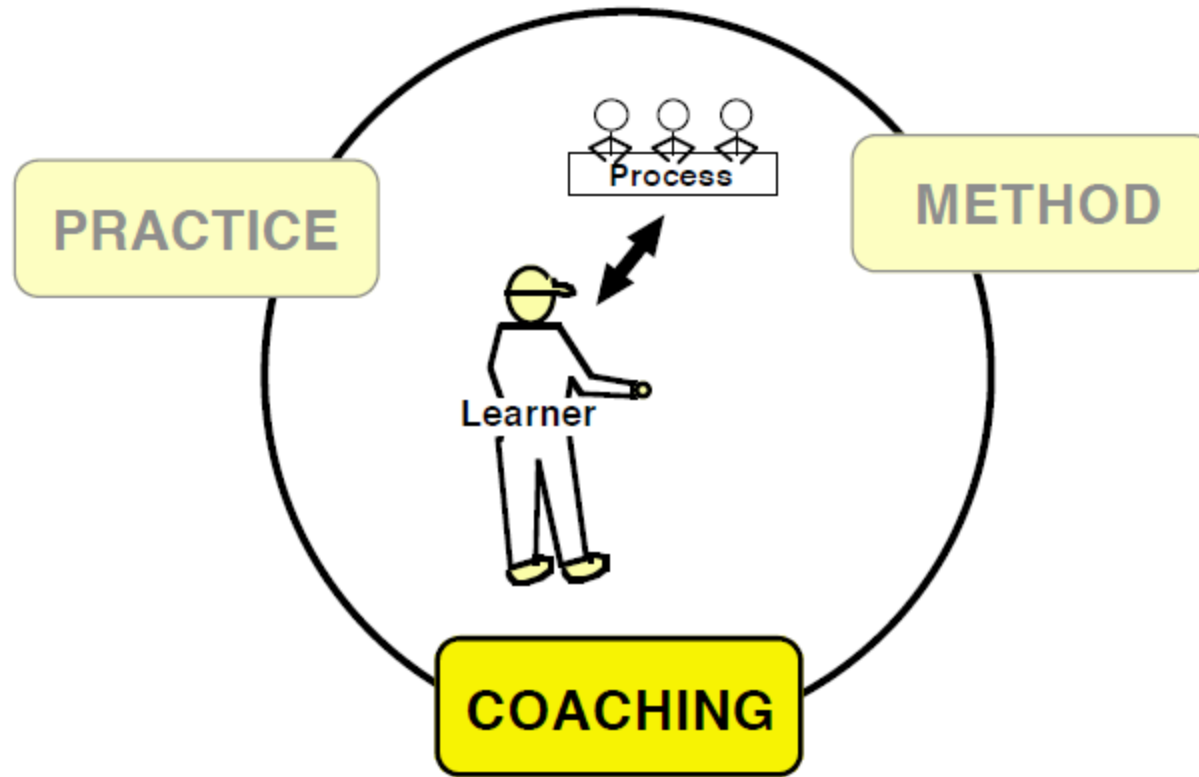


ORGANIZATION



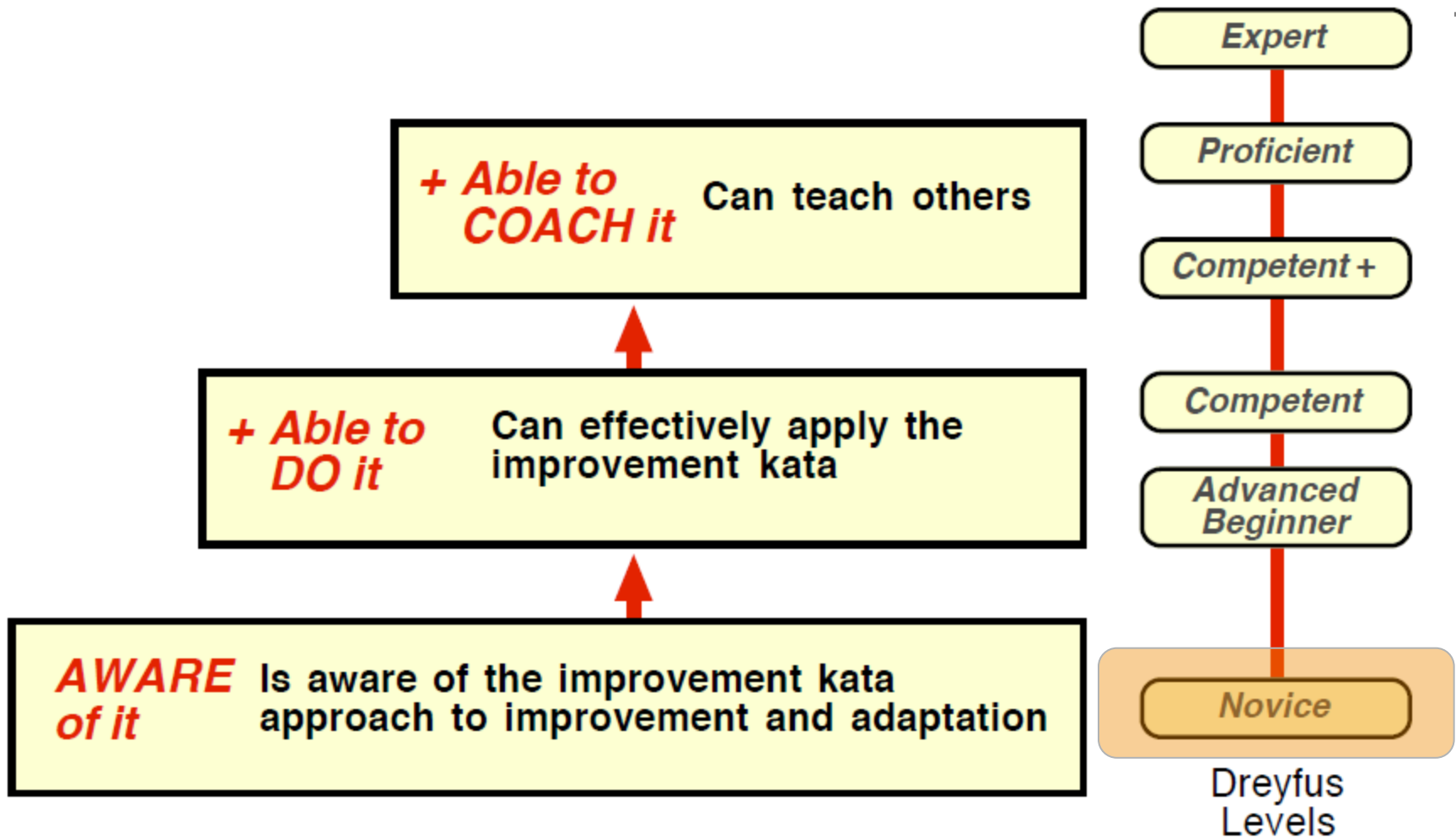
- There is a shortage of experienced deployment professionals worldwide.
- Because of the shortage every major deployment initiative will be faced with the need to develop competent resources in order to staff the organization and achieve the objectives.
- There are two key concepts in competence development:
 - Improvement kata – an approach to teaching skill development
 - Dreyfus model of skill development – a measure of the progression of skill development.
- An innovative team development process for core driven MES multi-site rollouts has evolved with experience.

Coaching is the key variable



If the learner is not learning
the improvement kata
or if the process target condition
is not being reached,
examine the content of the coaching

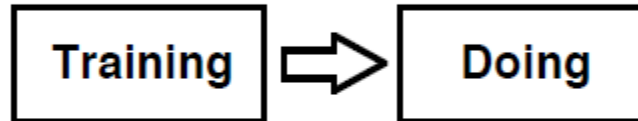
THERE IS A LEARNING PROGRESSION



PRACTICE THE IMPROVEMENT KATA BY APPLYING IT FOR REAL

Learners do two things simultaneously:
Improve a process, and practice the
routine of the improvement kata.

Not this

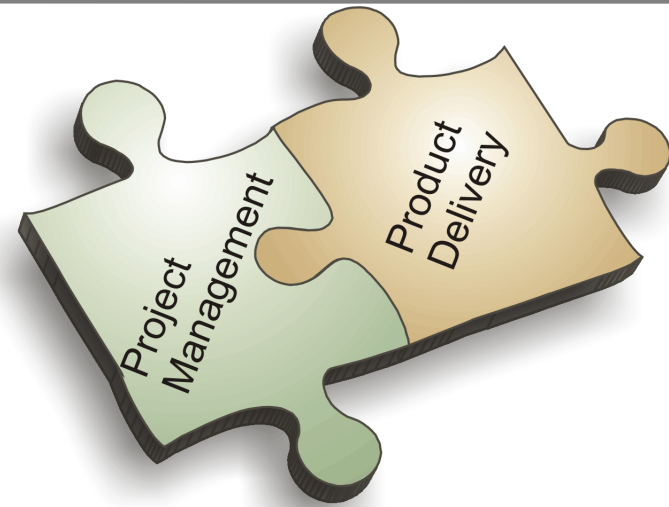


*But this
(combined)*



*The coach sees in real
time where the learner
is, and introduces
appropriate adjustments*

- Clear roles and job definitions
- Integrated team (multi-disciplines + vendor / product experts + owner)
- The Program Manager owns the schedule and budget, and tracks and reports program status.
- The Functional Leads own the deployment methodology and directs the functional consultants who are seeded into the site teams (coordinator of the Center of Excellence)
- Dedicated deployment team per site
- Effective competence development

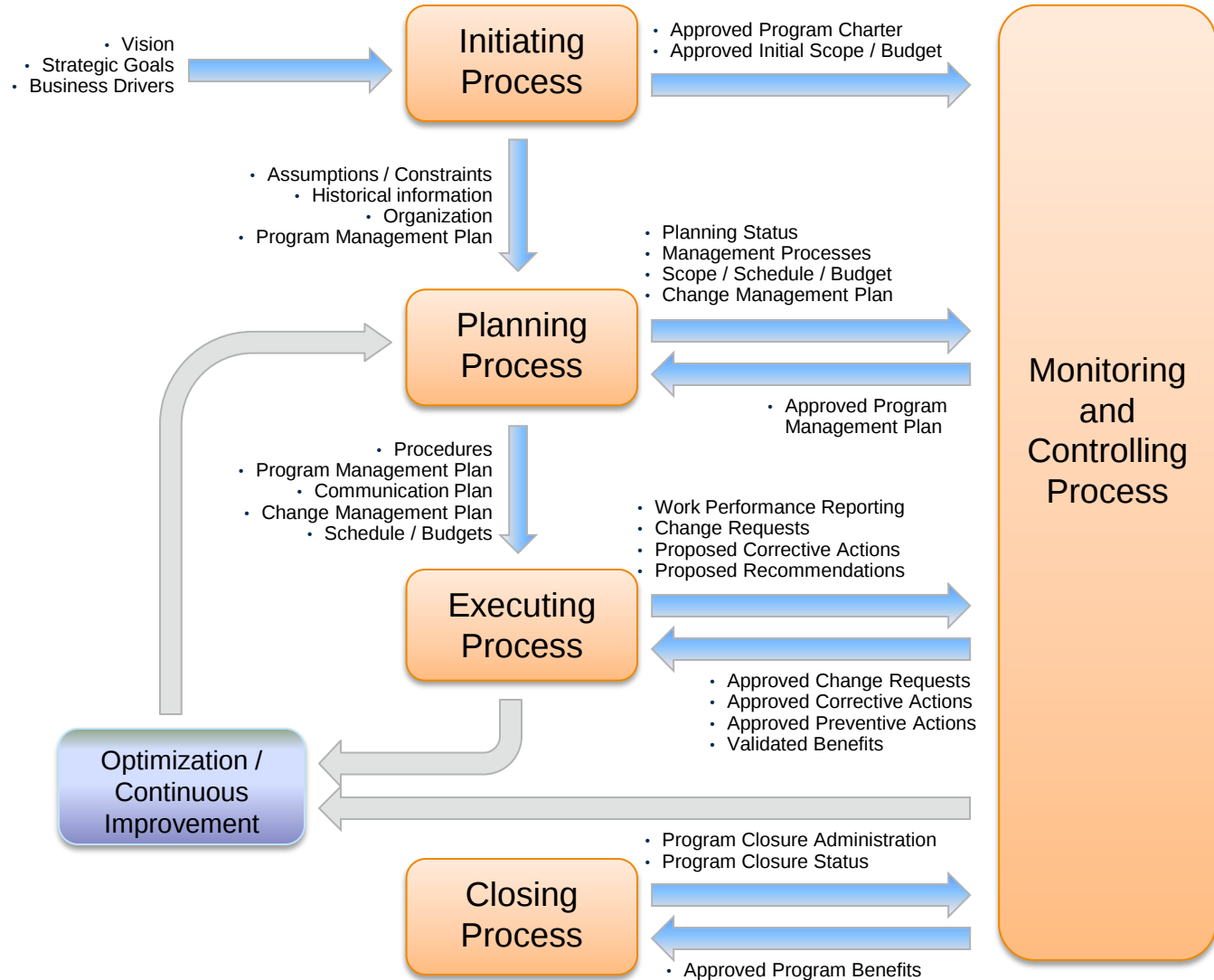


PROJECT MANAGEMENT

Program Management Overview

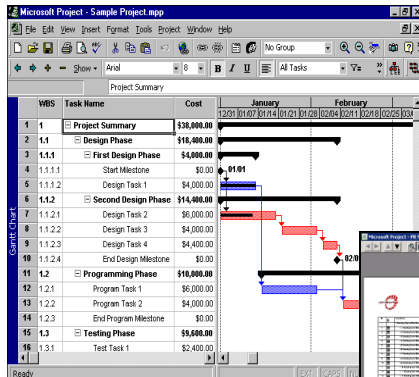
Program Governance

- Defines clear responsibilities and accountabilities
- Maximizes synergies across implementation sites
- Ensures high quality of deployment and operation
- Ensures information flow and communication
- Ensures close program and projects monitoring
- Ensures reliable solutions and processes

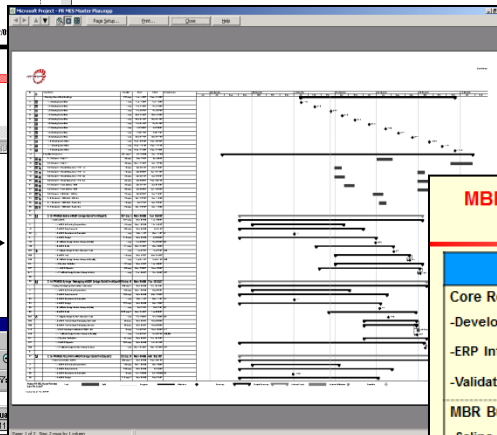


Integrated Project Mgmt.

Detailed Discipline
Plan (1 of 7 / ~2000
identified tasks total)

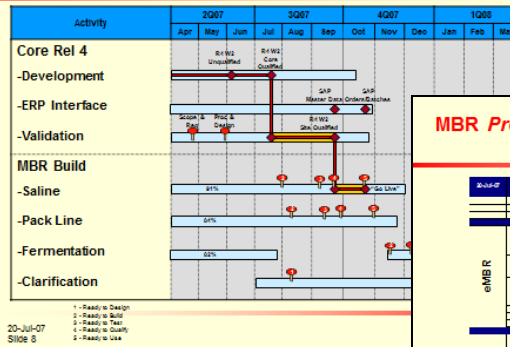


Integrated Master
Plan



Critical Path

MBR Project Plan with Critical Path



Management
Summary

MBR Project Dashboard

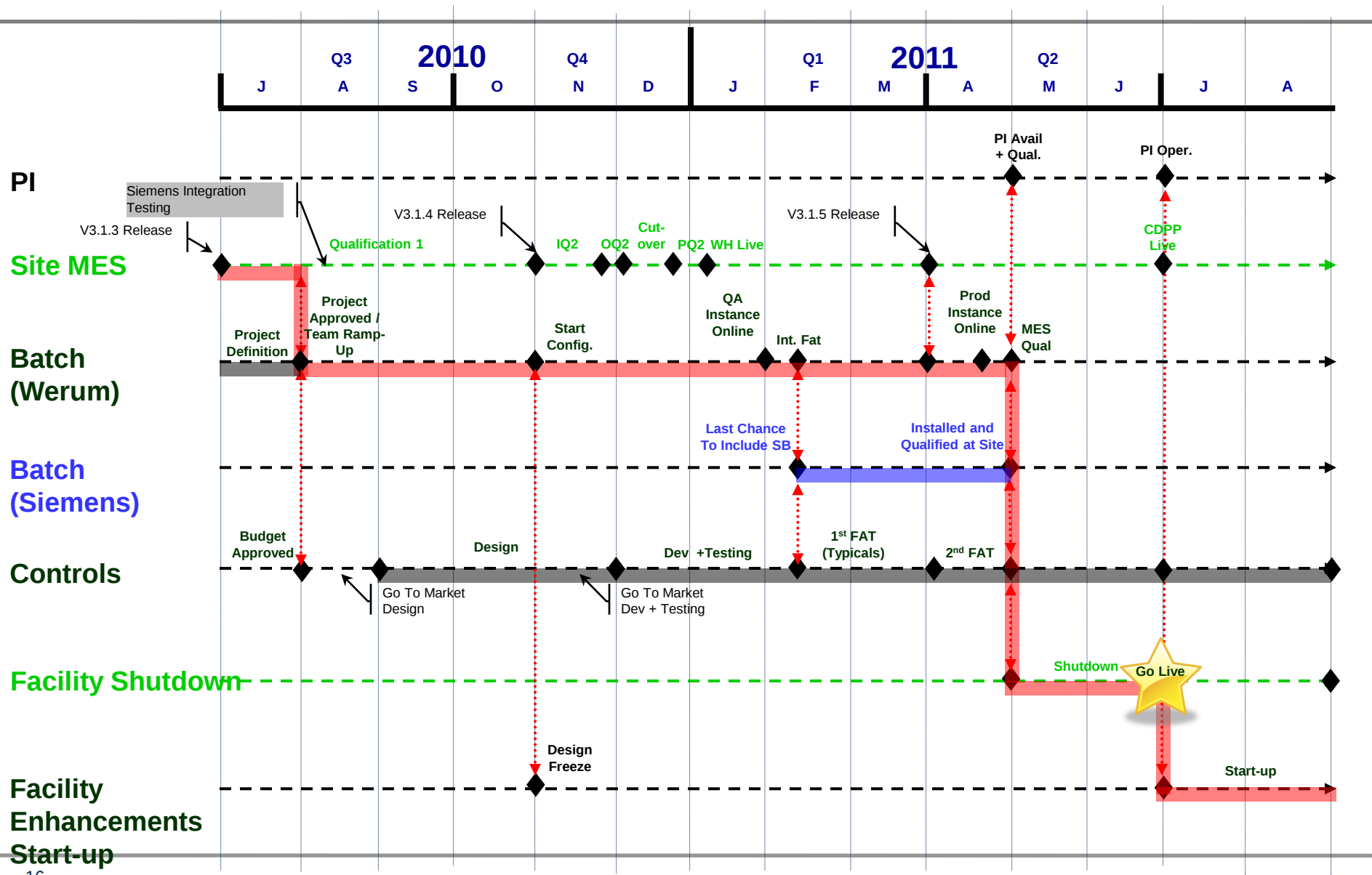
Build #	Metric	Target	Actual	Status	Comments
eMBR	Project Review	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
Automation	Project Review	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
	Design	100%	100%	OK	Design Review Complete
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	Design	100%	100%	OK	Design Review Complete

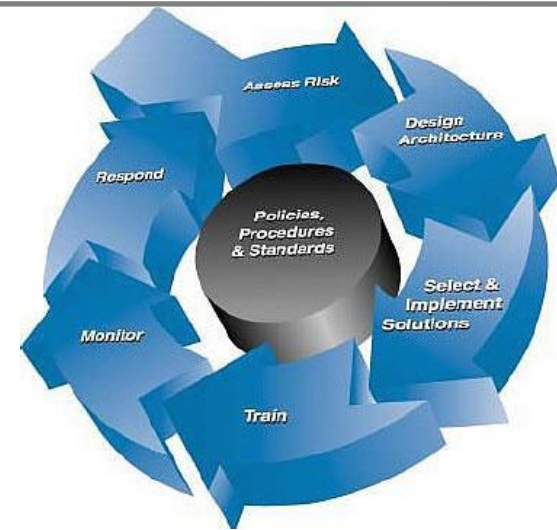
Core Milestones



137 Key Events,
Deliverables,
Milestones

MES Critical Path Analysis

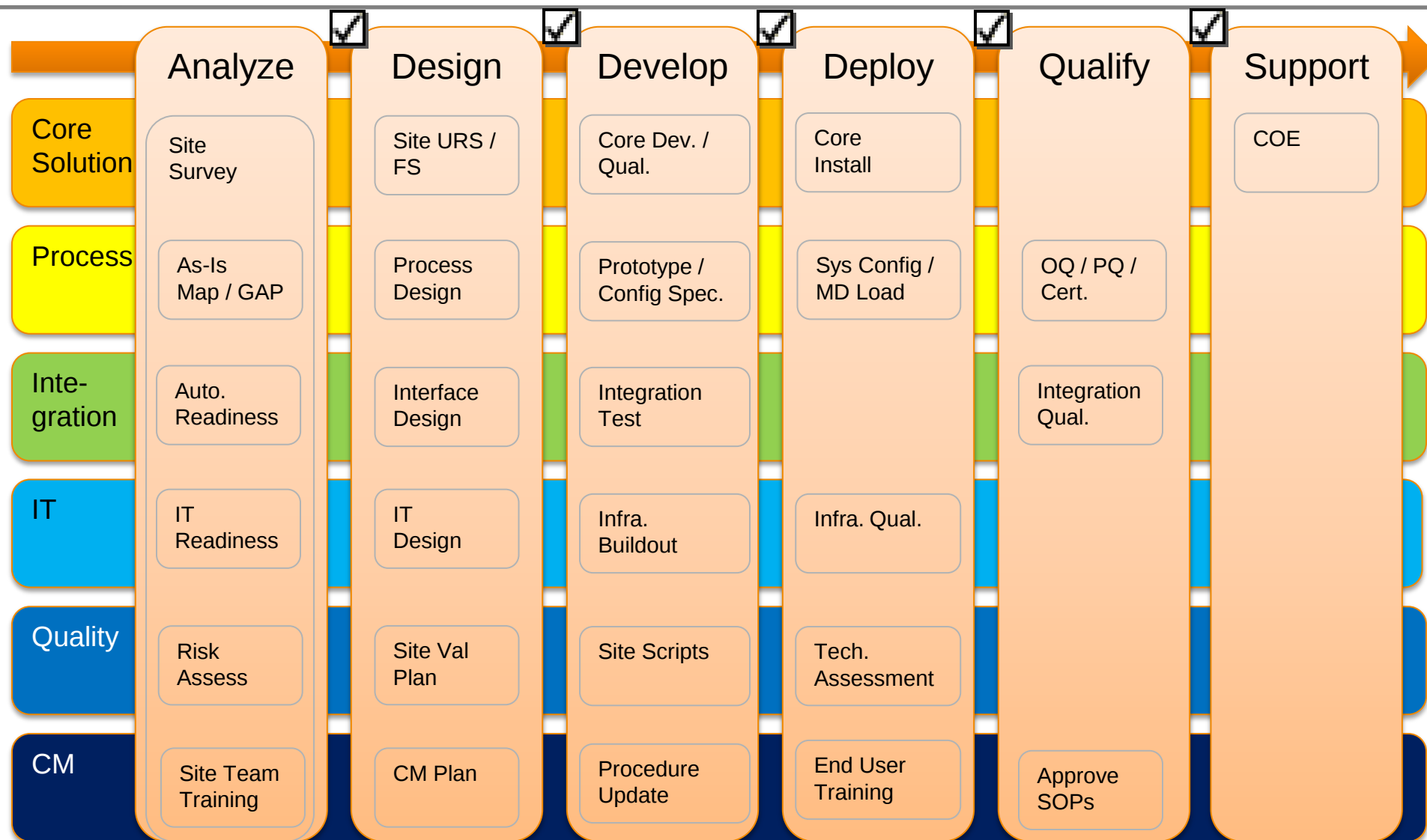




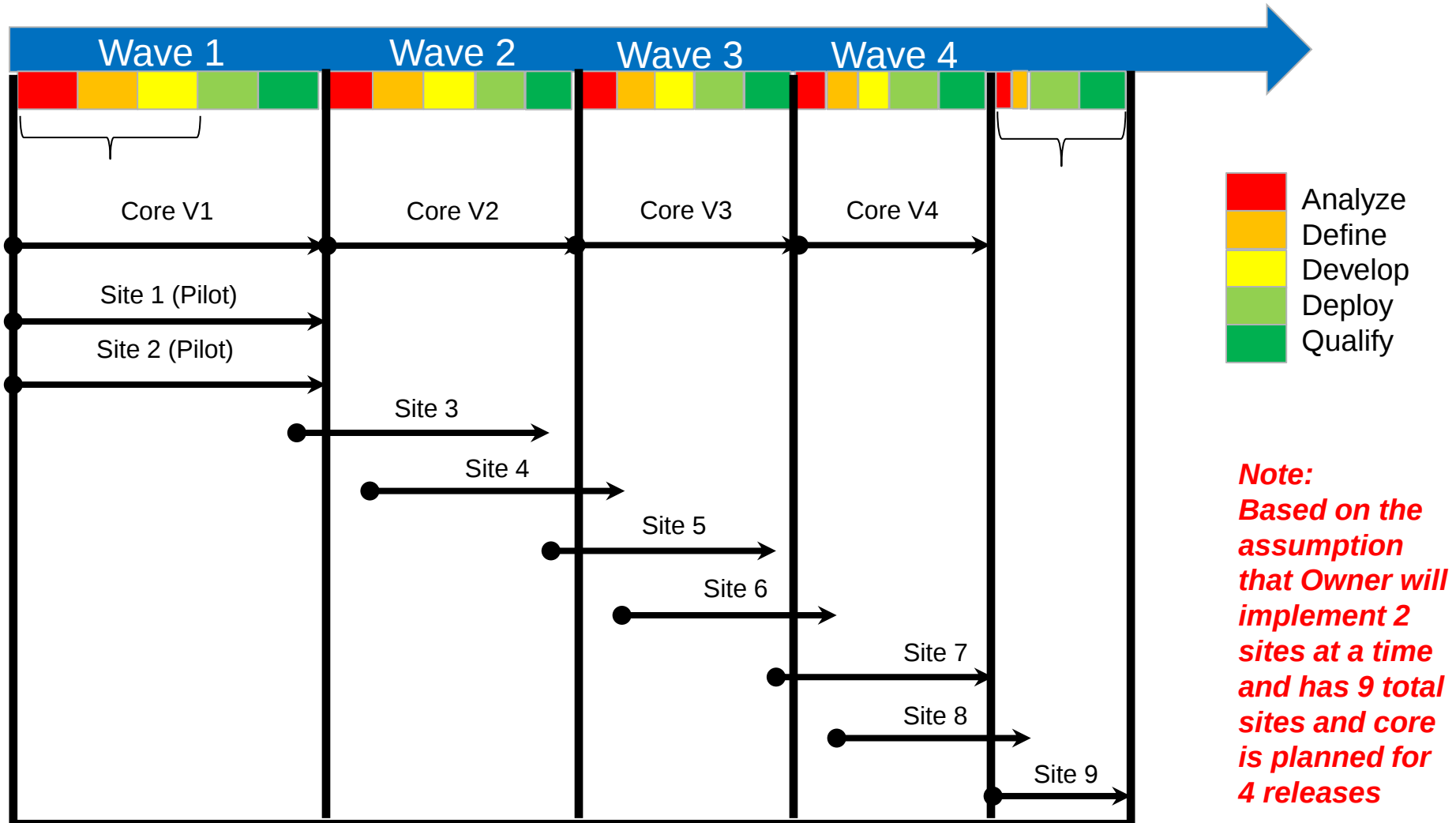
DEPLOYMENT METHODOLOGY

Key Work Packages by Work Stream

(that exhibit method / schedule sensitivity)

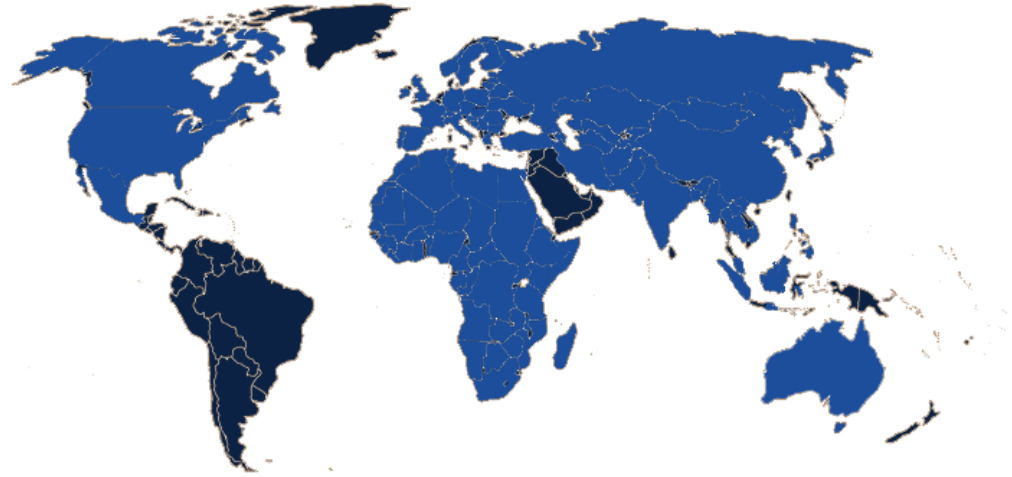


Wave Compression vs. Core Releases



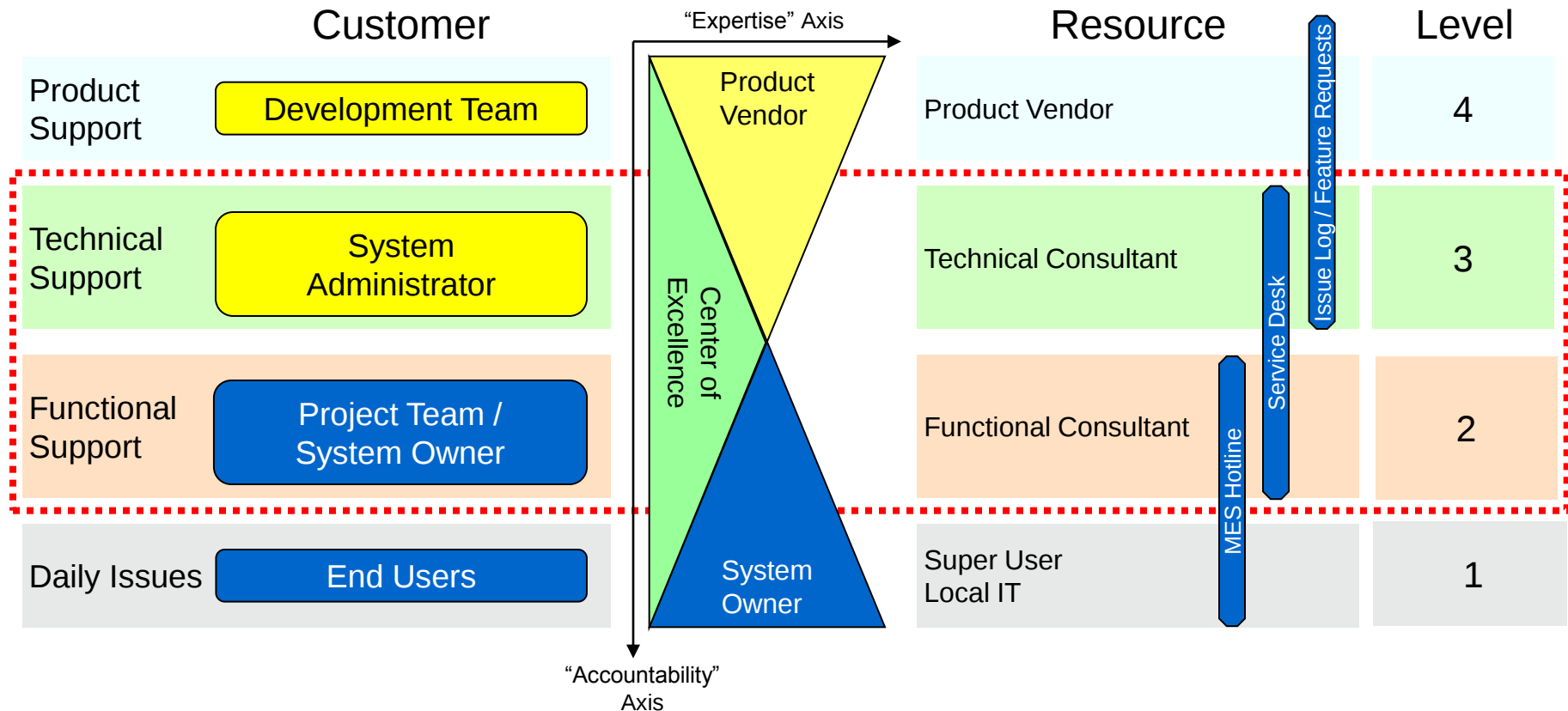
Best Practice Summary – Deployment Methodology

- Standard deployment practices
 - Site assessments
 - Process Design / Re-engineering (standard processes)
 - Qualification and Testing (GAMP4 vs. GAMP5)
 - Effectively using the concept of wave compression
- Standard tools
 - Project Plan / Budgeting templates
 - Design templates
 - Preconfigured infrastructure (think VM images &/or private cloud technology)
 - Qualification templates
 - Core procedures



GLOBAL SUPPORT

COE - Integrated Support Model



- There is a difference in Technical Support and Functional Support – Functional Support is often the missing element
- Functional and Technical Consultants operate out of a pool

Shared Service Model Providing:

- Expertise
- Tools
- Processes

Results

- Architectural oversight
- Best practice adherence
- Site team enablement
- Design / implementation support
- Level 2 application support
- Built-in knowledge transfer



- Functional consulting team supports site deployment team.
- Owner Application Support Help Desk Infrastructure will be used to facilitate end user support with backup by the functional consulting team.
- Initially the Consulting “team” prepares the Owner App Support team for Level 1 response and backstops by providing Level 2 support. Over time the Owner App Support team takes on Level 2 support as competence builds and as sites go on-line. This also ensures that early experiences are fed back to the “deployment” effort.
- Built-in Knowledge Transfer / Development of KB
- Level 3 support escalates to the Vendor Product Support Team.

- Over time the primary responsibility of the program MES COE is to support enablement of new team sites and ongoing MBR development and maintenance
- Summary of Center of Excellence (COE)
 - Defines and manages core solution and vendor interface
 - Develops and maintains deployment methodologies and templates
 - Provides mentors / coaches to facilitate site team competence
 - Integrated support
 - Consolidates KB as a support resource





Cyberwerks LLC
Greenville, SC

Contacts:

Rodney Neal, Principal
rodney.neal@cyberwerks.biz