



IBM Software Group

Agility@Scale: Become As Agile As You Can Be

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Rational. software

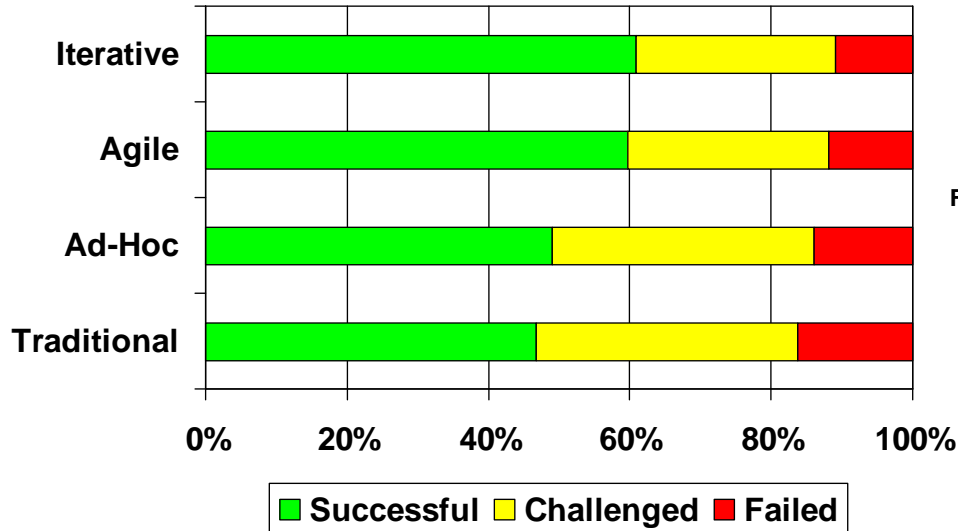
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Agenda

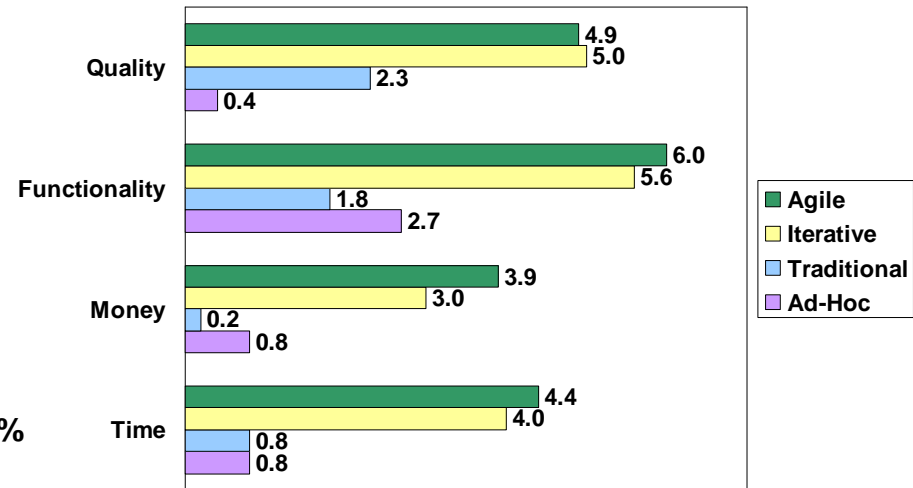
- Some industry statistics
- Agile lifecycles
- Agile Scaling Model
- Scaling factors
- Some more industry statistics
- Applying IBM agility@scale to agile practices
- Some “new” agile practices for scaling



Some Industry Statistics



DDJ 2010 Project Success Survey



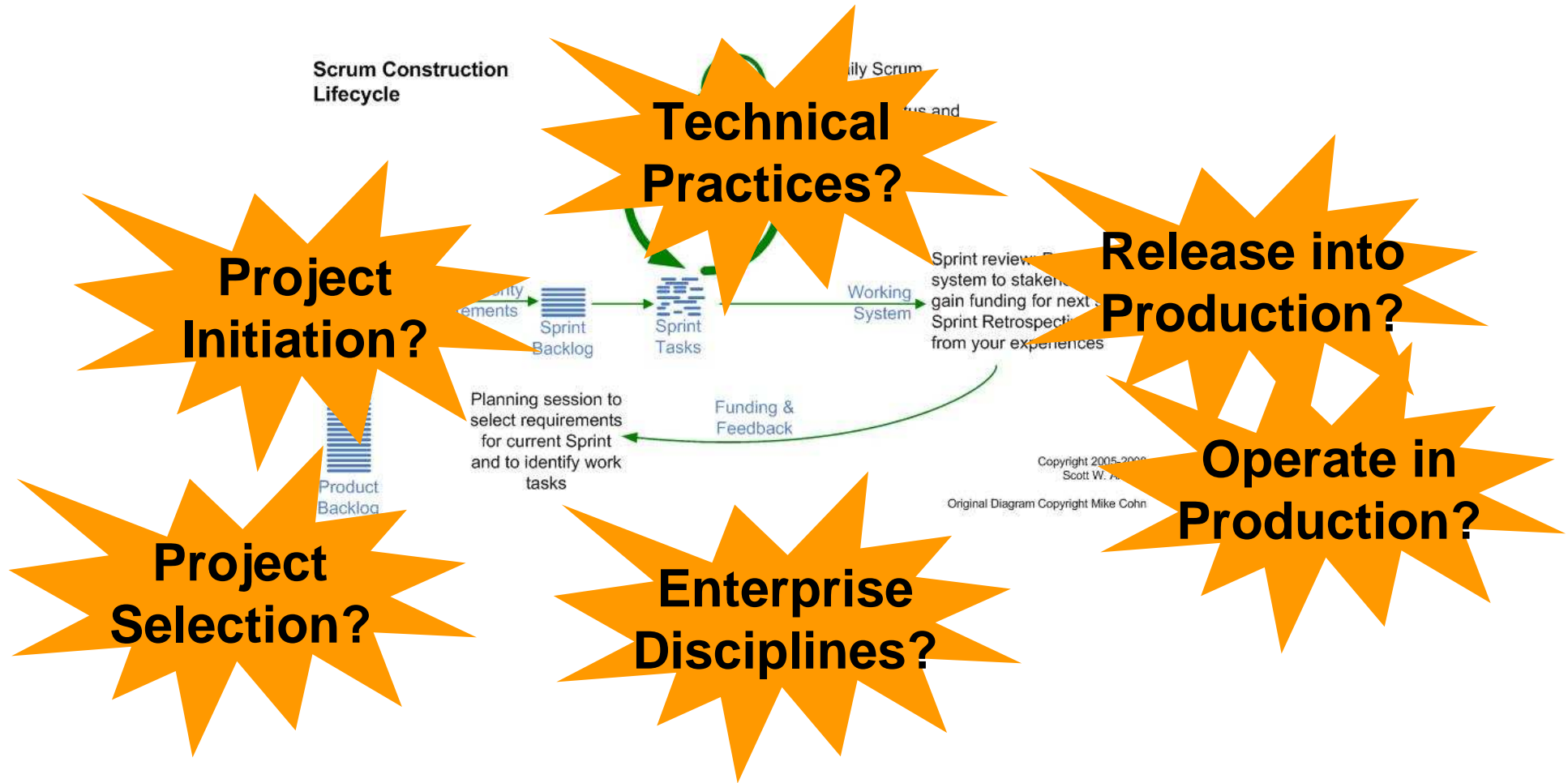
DDJ 2008 Project Success Survey

- Adoption rates:
 - ▶ 76% of organizations have adopted agile techniques
 - ▶ 44% of projects, on average, within those organizations have adopted agile
 - ▶ Source: DDJ July 2009 State of IT Union survey

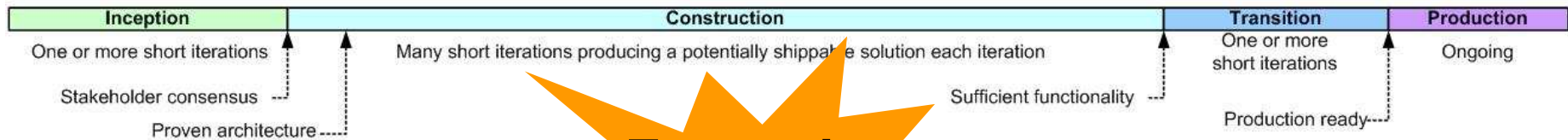
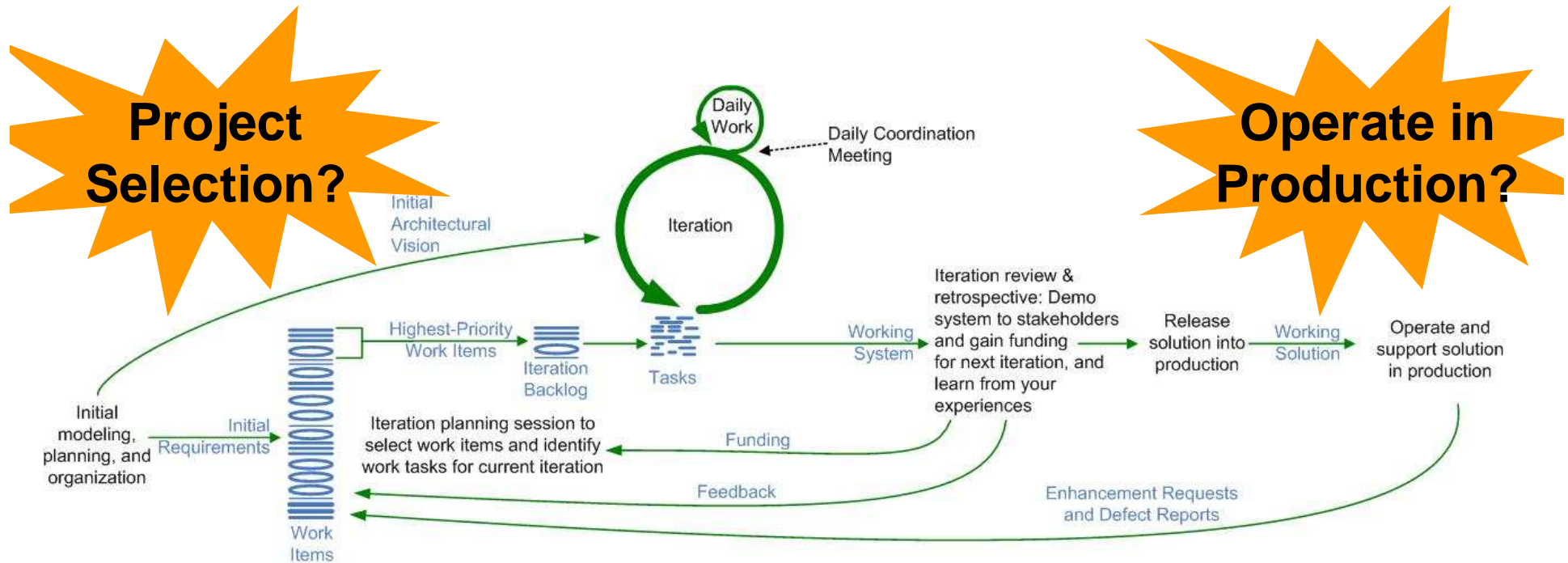
- Surveys available at www.ambysoft.com/surveys/



The Scrum construction lifecycle

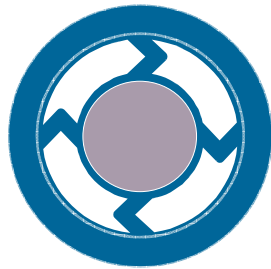


The disciplined agile delivery life cycle



Enterprise Disciplines?

Agile Scaling Model (ASM)



Core Agile Development

- Focus is on construction
- Goal is to develop a high-quality system in an evolutionary, collaborative, and self-organizing manner
- Value-driven lifecycle with regular production of working software
- Small, co-located team developing straightforward software

Disciplined Agile Delivery

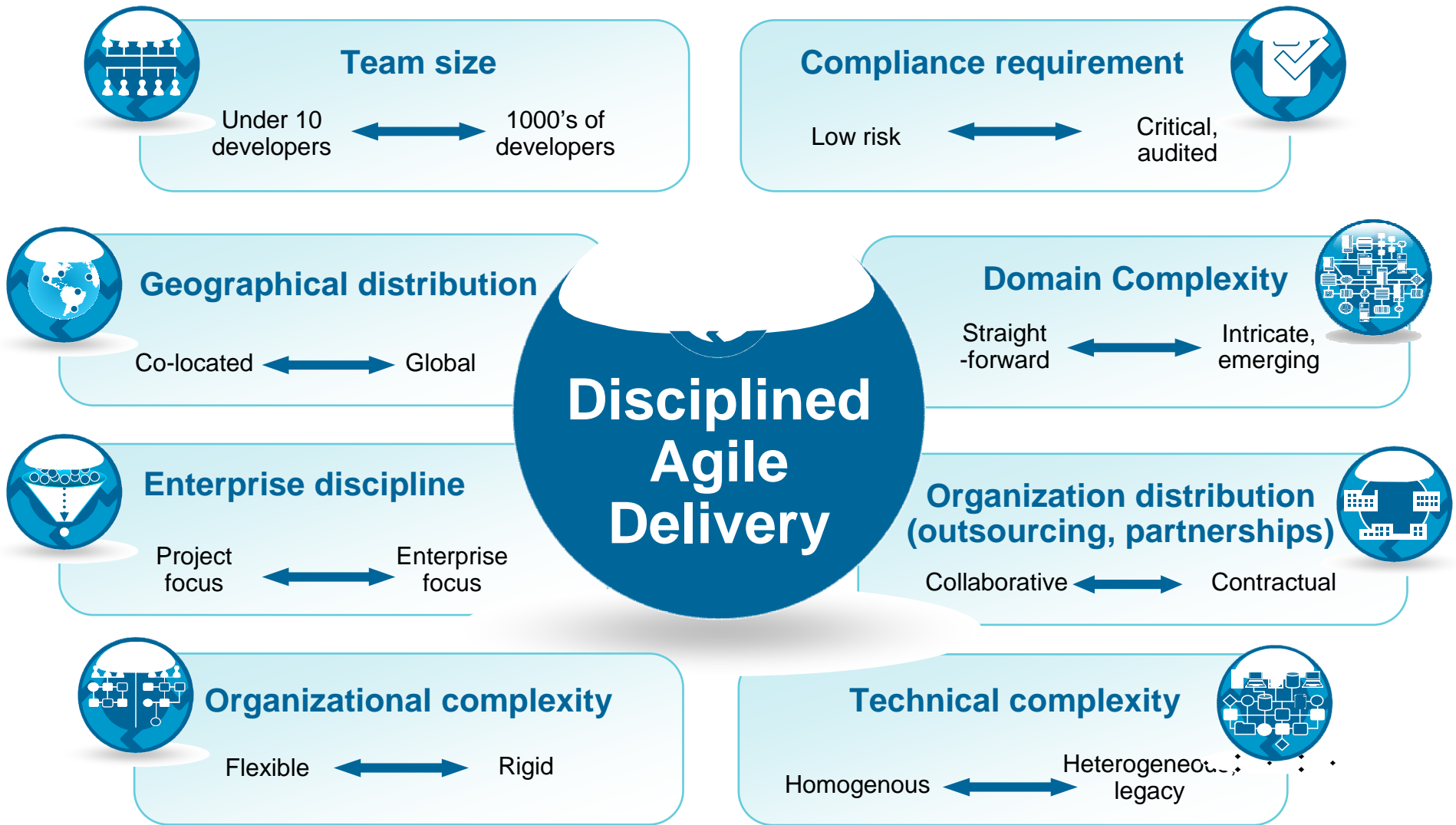
- Extends agile development to address full system lifecycle
- Risk and value-driven lifecycle
- Self organization within an appropriate governance framework
- Small, co-located team delivering a straightforward solution

Agility at Scale

- Disciplined agile delivery and one or more scaling factors applies



Agile scaling factors



Some More Industry Statistics

- Scaling:
 - ▶ The majority of agile teams are geographically distributed in some manner
 - ▶ Organizations have reported successful agile programs of 500+ people
 - ▶ One third of agile teams are in regulatory situations
 - ▶ 75% of organizations doing agile are doing so on medium complexity or greater projects
 - ▶ 17% of organizations are successfully applying agile in outsourcing situations
 - ▶ 78% percent of teams are working with legacy systems
 - ▶ 32% of organizations report successful interaction between enterprise architects and agile teams
 - ▶ 11% of organizations report that their governance strategy works well with agile teams (yikes)

- Source: DDJ November 2009 State of the IT Union Survey, www.ambysoft.com/surveys/



Scaling Daily Stand Up Meetings

- Geographic distribution
 - ▶ Meeting occurs over phone, video, electronically...
 - ▶ Rational Team Concert (RTC) to share information
 - ▶ Change meeting times to reflect team distribution – spread the pain
- Team size
 - ▶ Kanban strategy is to ask 1 question: What new issues do you foresee?
 - ▶ Subteams need to coordinate via coordinators, perhaps in a “scrum of scrums”
- Regulatory compliance
 - ▶ Take meeting attendance and record action items (if any)
- Organizational distribution
 - ▶ Additional coordination between organizations may be required
 - ▶ Project dashboard access for external organizations may be required
 - ▶ Document decisions/action items pertaining to external organizations
- Enterprise discipline
 - ▶ Enterprise



Scaling product backlogs

- Disciplined agile delivery
 - ▶ Defects treated like requirements and managed on backlog
 - ▶ Non-functionality work items, such as training, reviews, can be managed on backlog
- Geographic distribution
 - ▶ Manage the backlog electronically
- Team size
 - ▶ Subteams may have their own backlogs, but that makes rollups harder
 - ▶ Burndowns of subteams need to be rolled up into overall team burndown
- Regulatory compliance
 - ▶ May need to manage backlog electronically
- Domain complexity
 - ▶ Business analysts look ahead on the product backlog to explore upcoming complexities
- Organizational distribution
 - ▶ A given organizational unit may only be allowed to see portions of the backlog
- Technical complexity
 - ▶ Team members look a bit ahead on stack to consider upcoming complexities
- Organizational complexity
 - ▶ Your team may need to conform to existing change management processes
- Enterprise discipline
 - ▶ Electronic backlog management enables automation of burndown charts and other metrics via project dashboard (e.g. in Rational Team Concert), supporting improved governance



Some “New” Practices/Strategies for Scaling Agile

- Practices:
 - ▶ Risk-Value Life Cycle
 - ▶ Parallel Independent Testing
 - ▶ Architecture Envisioning
 - ▶ Requirements Envisioning
 - ▶ Work Item Lists
 - ▶ Lean Development Governance
 - ▶ And many more...
- Strategies:
 - ▶ Product Owners adopt Business Analyst Skills
 - ▶ Large Team Organization Strategies (Feature Teams, Component Teams, Internal Open Source)
 - ▶ Enterprise Disciplines (see www.enterpriseunifiedprocess.com)





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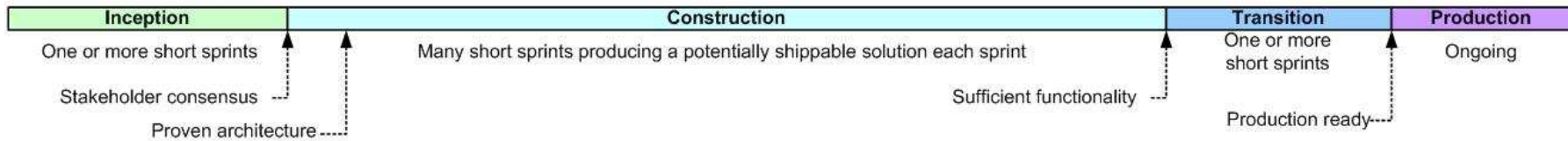
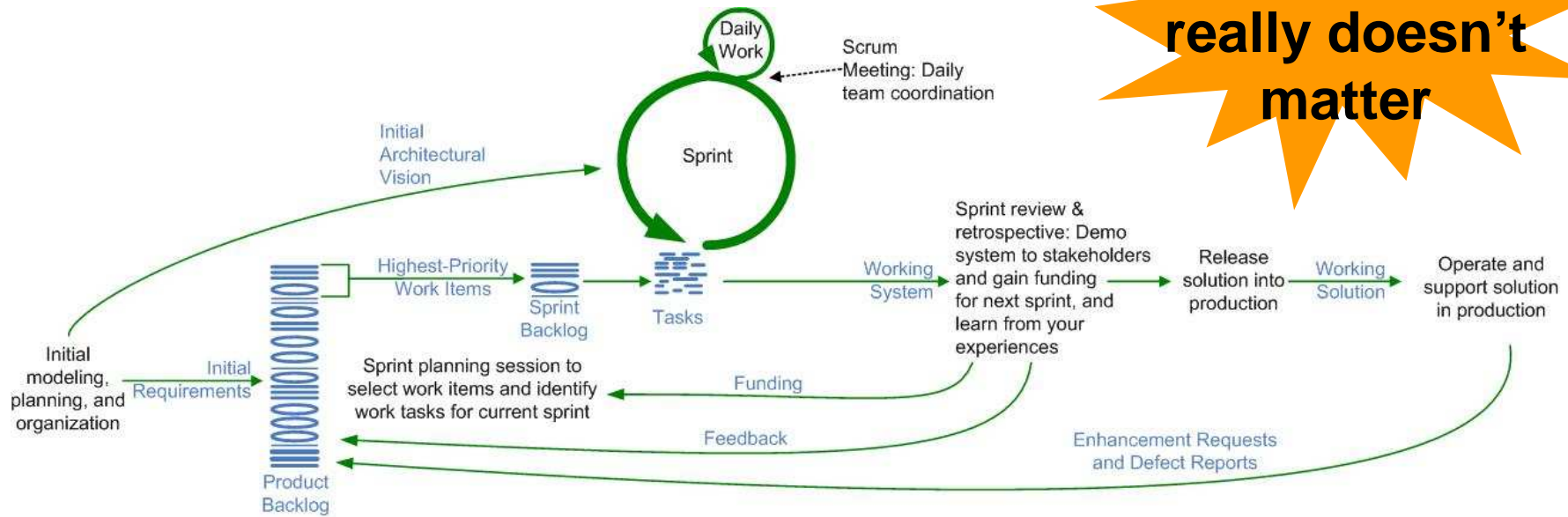
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The disciplined agile delivery life cycle (Scrum terms)

The terminology really doesn't matter



Tooling for agile IT software teams

- Flagship Agile Products
 - ▶ Rational Team Concert (RTC) – Distributed agile development, project monitoring
- Primary Agile Products
 - ▶ Rational Application Developer (RAD) – Development
 - ▶ Rational AppScan – Web site security testing
 - ▶ Rational Build Forge (RBF) – Continuous integration, deployment
 - ▶ Rational Insight – Governance
 - ▶ Rational Project Conductor – Project Management
 - ▶ Rational Quality Manager (RQM) – Test management
 - ▶ Rational Requirements Composer (RRC) – Requirements modeling
 - ▶ Rational Software Analyzer (RSAR) – Static code analysis
- Extended Agile Products
 - ▶ Other products are potential candidates for scaling purposes



Measured Capability Improvement (MCI)

Improving software and systems delivery in order to increase revenue and lower costs

