

# Innovate2011

The Premier Software and Product Delivery Event



## Agile in an Enterprise Environment

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# Agenda

1

Scaling agile strategies

2

Agile and enterprise awareness

3

Agile adoption

4

Parting thoughts

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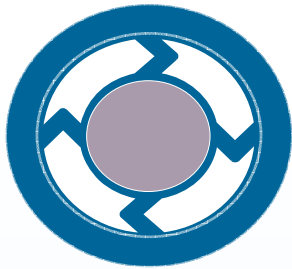


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# Agile Scaling Model (ASM)



## 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

## 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

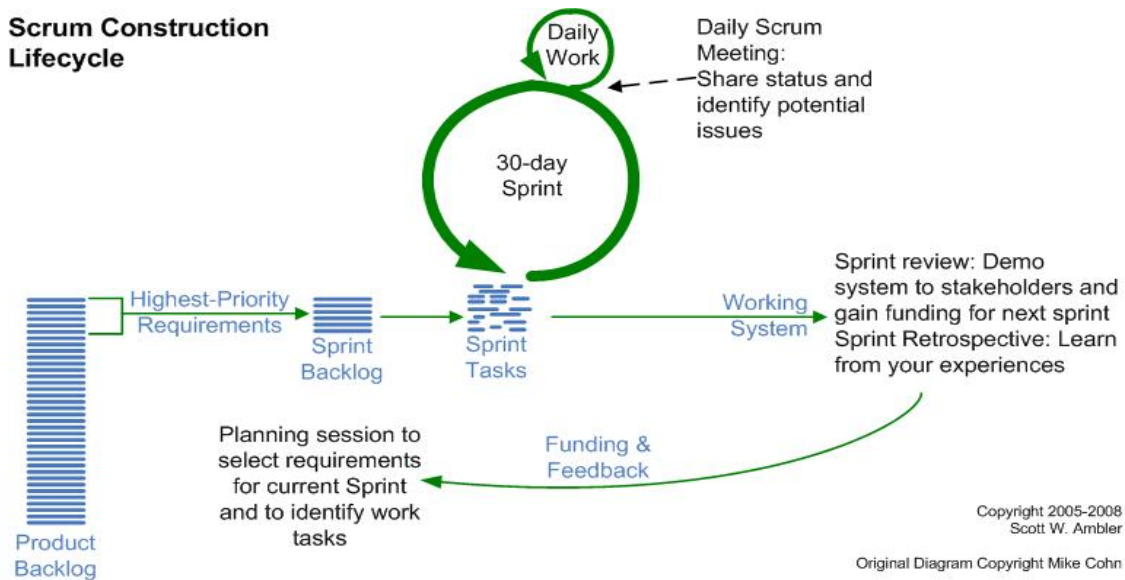
## Agility at Scale

- Disciplined agile delivery and one or more scaling factors applies

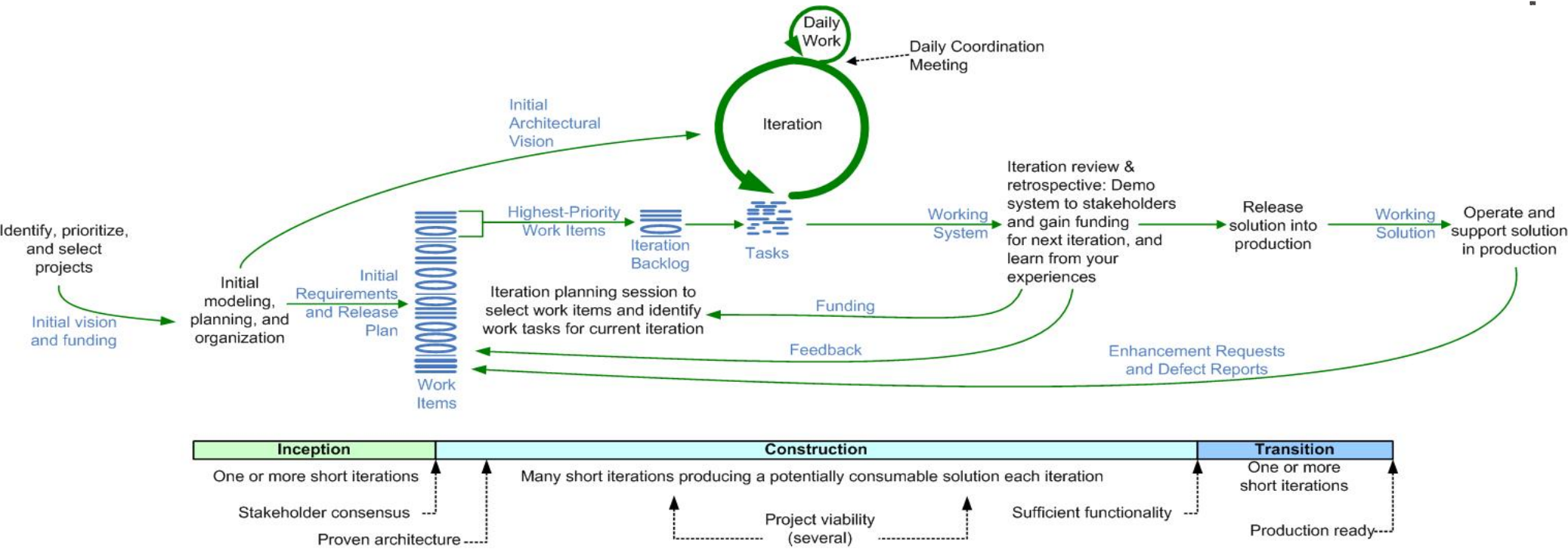
# The Scrum construction lifecycle



## Scrum Construction Lifecycle



# The DAD life cycle: Risk and value driven



The Disciplined Agile Delivery (DAD) process framework is a people-first, learning-oriented hybrid agile approach to IT solution delivery. It has a risk-value lifecycle, is scalable, is goal-driven, and is enterprise aware.

# Disciplined Agile Delivery (DAD): The Foundation for Agility@Scale



## Team size

Under 10 developers ↔ 1000's of developers

## Compliance requirement

Low risk ↔ Critical, audited



## Geographical distribution

Co-located ↔ Global

## Domain Complexity

Straight-forward ↔ Intricate, emerging



## Enterprise discipline

Project focus ↔ Enterprise focus

## Organization distribution (outsourcing, partnerships)

Collaborative ↔ Contractual



## Organizational complexity

Flexible ↔ Rigid

## Technical complexity

Homogenous ↔ Heterogeneous, legacy



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# Enterprise awareness: Optimizing the whole



- Follow corporate conventions:
  - Standards and guidance for the architecture
  - Coding standards
  - Data guidelines
  - User interface (UI) guidelines
  - And many more
- Enhance the organizational ecosystem:
  - Reusing and leveraging the existing infrastructure is great
  - Enhancing and building out the infrastructure is better
  - Work closely with the enterprise architecture (EA) team
- Share learnings:
  - Personal and team improvement is great
  - Organization-level improvement is better
  - Your agile center of competency should harvest and share improvements
- Interact with other (potentially non-agile) teams:
  - Enterprise architecture
  - Data management
  - Governance
  - Quality assurance
  - Project management office (PMO)



# Enterprise awareness: Governing agile teams

- Agile teams provide:
  - Significantly greater visibility to stakeholders regarding their actual status
  - Many more opportunities for stakeholders to steer the project
  - BUT... require stakeholders to be actively involved and accountable
- Practices:
  - Active stakeholder participation
  - Potentially consumable solutions every iteration
  - Risk-value lifecycle
  - Explicit, light-weight milestone reviews
  - Daily coordination meetings
  - Iteration demos
  - All-hands demos
  - Follow enterprise development guidance
  - Work closely with enterprise architects
  - Automated metrics gathering





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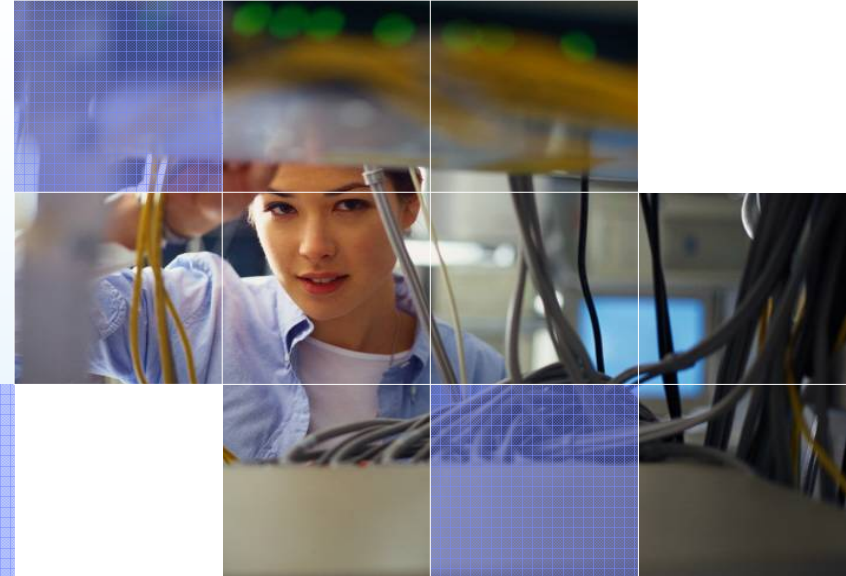
# Challenges With Adopting Agile

- Significant changes in project roles
  - Traditional roles have mostly disappeared
  - Agilists are generalizing specialists with a wider range of skills
- Significant culture change
  - Focus on delivering visible value to stakeholders regularly
  - Focus on high-value activities
  - Agile teams are self organizing
  - Disciplined agile teams are governed appropriately
  - Quality focused
  - Collaborative and evolutionary
- Agile adoption is a paradigm shift
  - Multi-year, ongoing effort
  - People and cultural issues are critical
- Insufficient support for the effort
  - You must invest in training, mentoring, and coaching
  - You must consider investing in new tooling



# Organizational Adoption: Address the “5Ps” of IT

1. People
2. Principles/Philosophies
3. Practices/Patterns
4. Products
5. Process

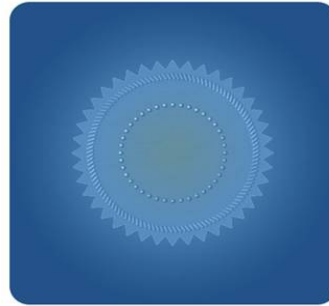


# Principles of Lean Software Development



## Eliminate Waste

- Value Stream Maps
- Complete Solution



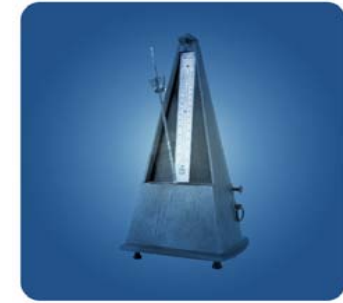
## Build Quality In

- Foundation Disciplines
- Continuous Validation



## Defer Commitment

Keep options open



## Deliver Fast

Queuing theory



## Focus on Learning

Product & process



## Respect People

- Teams
- Partners



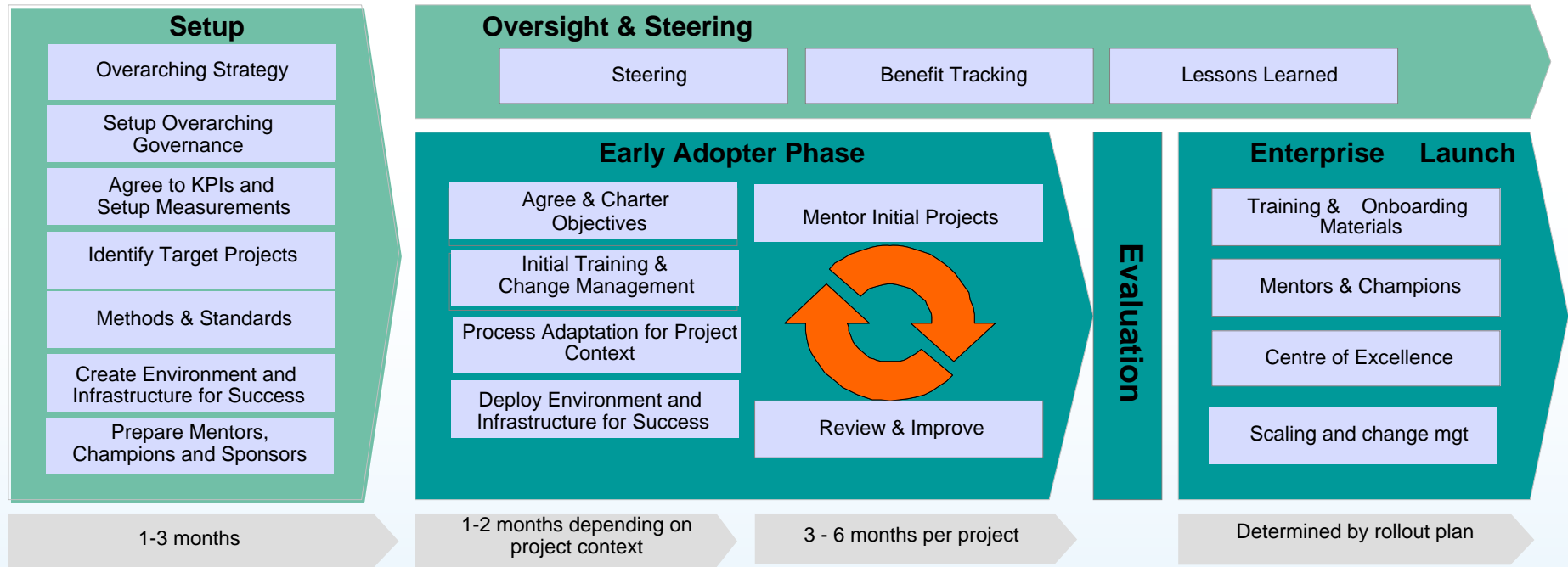
## Optimize the Whole

- Systems thinking
- Set-based design

Lean explains why agile works  
and provides a philosophical foundation to scale agile strategies

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# A typical program for a large-scale transition



# Lessons Learned From Within IBM

- Train people on a just in time (JIT) basis
- Support your team members and coaches
- You need to be flexible
- Have manageable growth
- Treat agile adoption like an agile project
- Get outside help





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# Yes you can!



- It is possible, and highly desirable, to adopt agile strategies in scaling situations
- The techniques exist and they work in practice
- Other organizations are in fact doing this and have been doing so for years
- Cultural and organizational challenges will be the most difficult ones that you will need to overcome
- The transition to agility@scale requires investment and will likely take several years
- There are many resources on the web if you choose to look

# Some agile whitepapers on IBM.com



- The Agile Scaling Model (ASM): Adapting Agile Methods for Complex Environments
  - <ftp://ftp.software.ibm.com/common/ssi/sa/wh/n/raw14204usen/RAW14204USE.N.PDF>
- Scaling Agile: An Executive Guide
  - <ftp://public.dhe.ibm.com/common/ssi/sa/wh/n/raw14211usen/RAW14211USE.N.PDF>
- Improving Software Economics: Top 10 Principles of Achieving Agility at Scale
  - <ftp://public.dhe.ibm.com/common/ssi/ecm/en/raw14148usen/RAW14148USE.N.PDF>
- Enable the Agile Enterprise Through Incremental Adoption of Practices
  - <http://public.dhe.ibm.com/common/ssi/ecm/en/raw14077usen/RAW14077USE.N.PDF>
- Disciplined Agile Delivery: An Introduction
  - <http://public.dhe.ibm.com/common/ssi/ecm/en/raw14261usen/RAW14261USE.N.PDF>



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# Disciplined Agile Delivery (DAD) offerings



## **DAD training (PMI approved, registered under provider number 1107)**

- Introduction to disciplined agile delivery: Self-paced virtual class (16 PDUs)
- Advanced disciplined agile delivery: 3 days (21 PDUs)

## **Related Training**

- Applying DAD with User Stories (RV037)
- Applying DAD with Use Cases (RV036)
- For more info, visit the Rational Agile Training Page at [www.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=Z340950B41583X73](http://www.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=Z340950B41583X73)

## **DAD Services**

- DAD with RTC quick start
- IBM Rational Rapid Deployment for Agile Delivery
- Collaborative Lifecycle Management (CLM) for IT

## **DAD Products**

- The DAD process template for Rational Team Concert (RTC)



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