



LAS Zürich 2009

Agile Methods for Project Leaders –*Scrum Masters*–

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CTO

Content

- Med-Tec project presentation
- What are agile methods and Scrum?
- What are the tasks of the project leader – *Scrum Master* -?
- Lessons learned

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Med-Tec Project (2/2)

- Iteration duration: 2 weeks
- Number of iterations: 40
- Requirements: instable or not complete
- User Interface: prototype approach
- Challenge: Use new application framework
- Technology: .NET 3.0, C#, DevExpress Components, Windows XP, Oracle 11

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In Agile Methods We Favour

- **Individuals and Interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

Agile Projects Have

- A clear product case, but requirements are not completed
- An empowered team, management means **coaching**
- A product owner part of the team
- Iteration are completed in 1 to 4 weeks
- Automatic unit test, build, release, and issue tracking

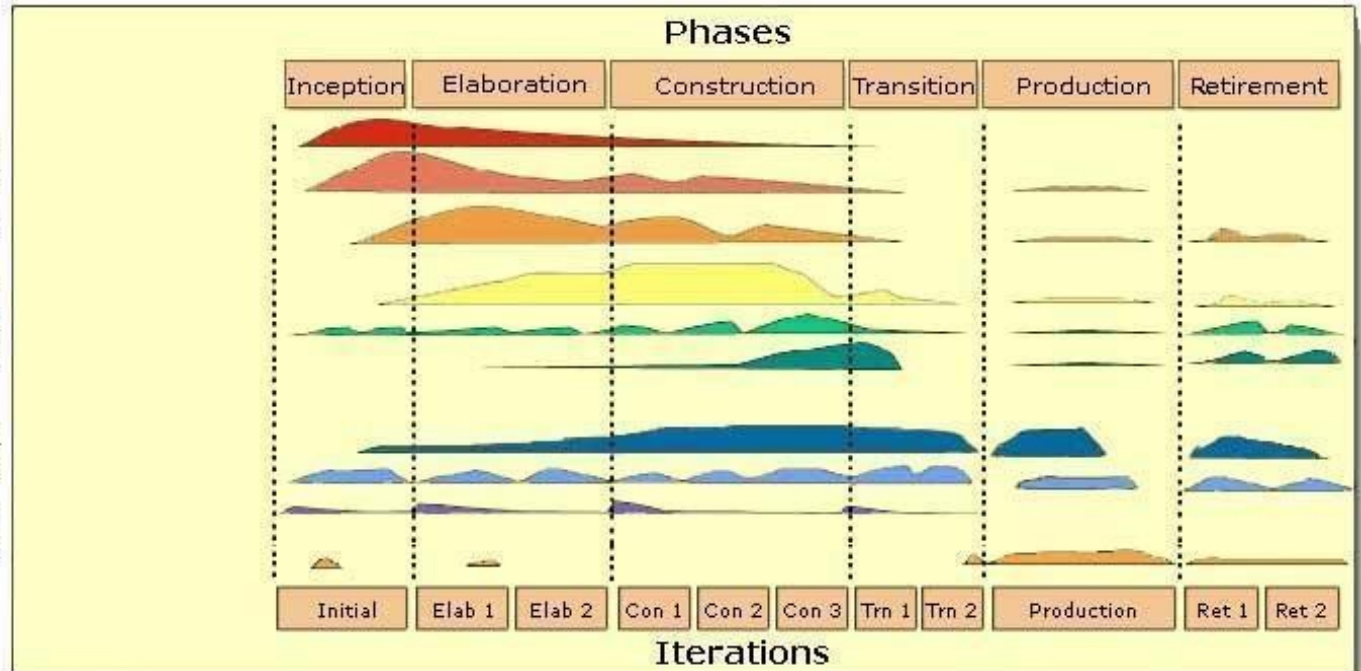
Agile RUP Process *still complex*

Development Disciplines

- Business Modeling
- Requirements
- Analysis & Design
- Implementation
- Test
- Deployment

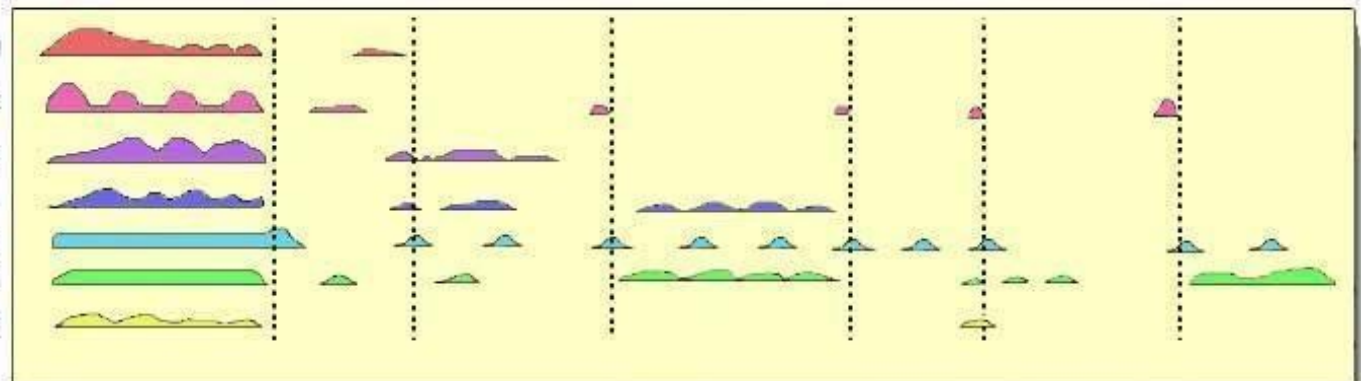
Support Disciplines

- Configuration and Change Mgmt.
- Project Management
- Environment
- Operations & Support

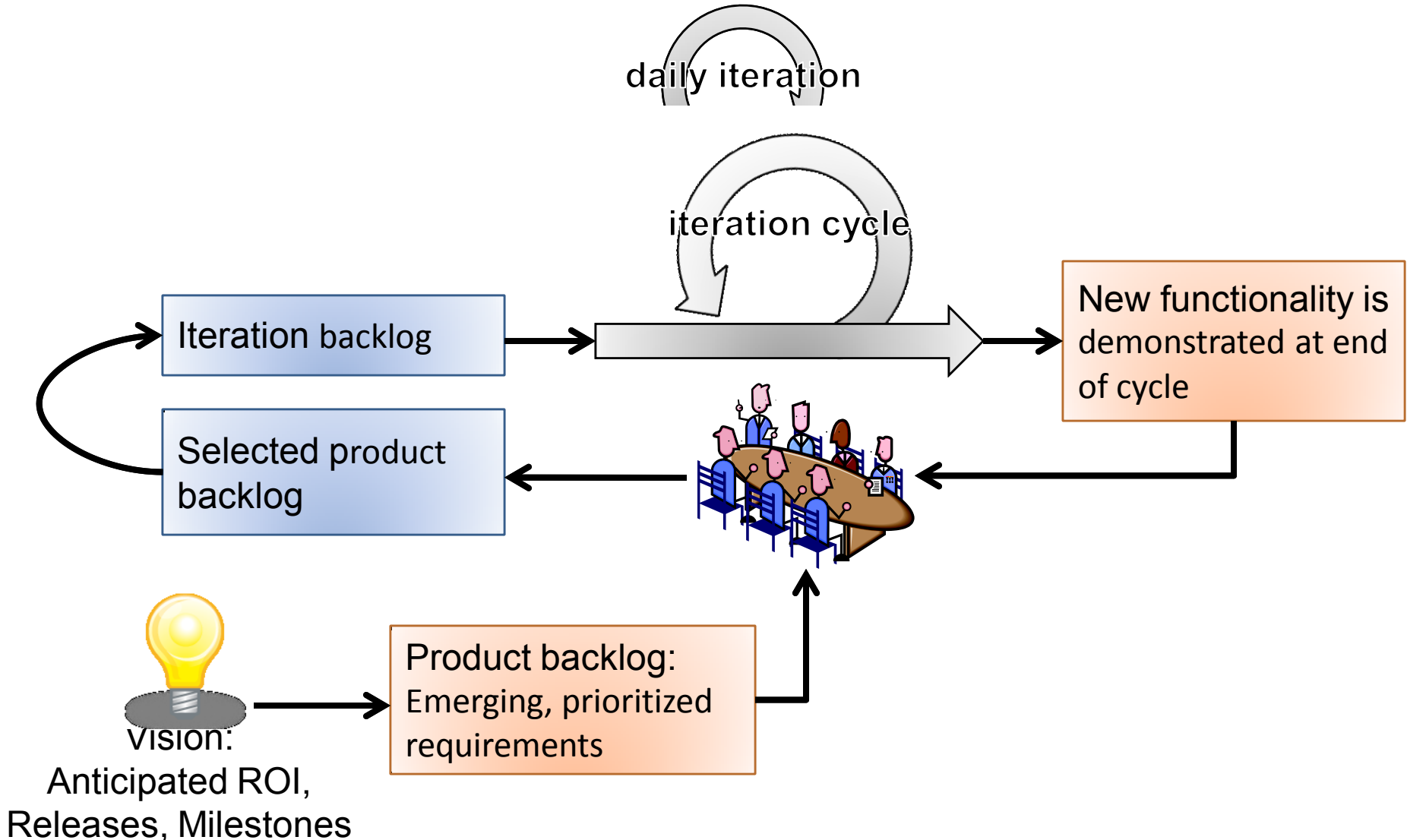


Enterprise Disciplines

- Enterprise Business Modeling
- Portfolio Management
- Enterprise Architecture
- Strategic Reuse
- People Management
- Enterprise Administration
- Software Process Improvement



Agile Process pragmatic and clear



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- What are agile methods and Scrum?
- **What are the tasks of the project leader – *Scrum Master* -?**
 - Communicate, motivate and coach
 - Manage risks and track progress
 - Plan and control?
- Lessons learned

Your Daily Tasks

- Empower team, daily stand-up meeting, coordinate with product owner
- Mentor team as *Scrum Master* to support *Test Driven Development* TDD, walkthrough, pair programming
- Protect the team from external stress
- Document progress
- Motivate, motivate, motivate

Your Iteration Tasks

- Scrum board: plan, estimate and publish iteration content, release executable
- Retrospective: learn from the last iteration(s)
- Keep track with overall plan using release planning and product backlog
- Coach architect to insure TDD/DDD results are inline with expected product

TDD: Test Driven Development, DDD: Defect Driven Development

Your Project Tasks

- Backlog: features for the product defined
- Stories for the iterations with estimation and priority
- Risk management
- Control at the end of each iteration
 - Completed stories
 - Risks & Measures
 - Velocity of the team is computed

Always Manage Risk

- Define and update risk list after each iteration
- Discuss with product owner and team „grey eminences“ how to mitigate risk
- Spike: decide if SWAT team could help
- Build your findings into next iterations planing

Teamwork Assumptions

- All developers are located in the same office
- Compilation, unit test, check-in cycle is done in seconds or minutes
- Full regression tests are done in a few minutes
- You find all information online in a few seconds – *wiki, Sharepoint, SVN* -

Team Tools

- Version management – *Subversion* -
- Automatic build – *Nant, Cruise Control* -
- Automatic test – *Nunit, Nmock 2* -
- Automatic release generation – *Nant, NSIS* –
- Issue Tracking – *ClearQuest, Bugzilla* –
- Good IDE – *Visual Studio, Resharper, FxCop, StyleCop, PartCover* -

Limitations

- Alignment with company processes can be cumbersome
- Product owner role is very difficult and customers are often not ready for coaching in this area
- Works only with engineers, not with coders
- The project leader is involved daily

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Lessons Learnt

- Management commitment for Scrum
 - Scrum master is a kind of project leader
 - Product owner is a kind of product manager
- Understand the process of change
 - Start with a regular team
 - Start with a regular project
 - Mentor, coach, motivate your people
 - Choose a sustainable change pace

Lessons Learnt

- Good engineers are the asset, agile methods make engineers better
- Only co-located teams are effective
- Only three new technologies/processes per year
- Business users are extremely reluctant to embrace this approach
- Iteration rhythm is often too fast for organization

Summary

- Agile methods are motivating and fun for the developers, project leader and customer
- You need a few really good engineers – with experience in agile technologies - to coach and teach the others
- Start slowly but without compromises

Literature

- Lean Software Development
Mary & Tom Poppendieck
Addison-Wesley 2003
- Test-Driven Development by Example
Kent Beck
Addison-Wesley 2003
- Agile Estimating and Planning
Mike Cohn
Prentice Hall, 2006

Questions & Answers
