Software Development Governance Challenges of a Middle-sized Company in Agile Transition

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Agenda

- Introduction
- Case description and methodology
- Framework for agile development and planning
- Roles and responsibilities
- Challenges
- Summary
- Discussion
Agile development in the large

- Focus of the study
  - From strategy to daily tasks (planning)
  - And back again (monitoring)

- What happens when a large or middle-sized company goes agile without too much planning?
  - The role of SDG?
    - Product Ownership?
    - Backlogs (special interest of mine)?
  - How to manage organizational and product legacy?
Case company

- A Finnish software product company
- Middle-sized ~ 700 employees, 300 in R&D
- Typically about 20 concurrent projects
  - 4 sites in 3 countries
Case study

- Focus on the case company’s largest developer pool
  - 5 teams, each averaging around 9 members

- Participative action research
  - Observations and interviews
    - Feb 2008 – Aug 2008
      - Research ongoing
  - Monthly meetings to set and monitor short-term goals
  - Feedback

- Case diary
The Agile planning and development framework

- The essentials of iterative and incremental software development
- Mapping observations on different levels
  - Roles
  - Responsibilities
  - Communication (both ways, planning and monitoring)
- Four levels of planning and monitoring
Product

Release

Iteration

Heartbeat

Business and other goals are described as

Backlog Item

Can be split into
Product

business and other goals are described as

contains

Product Backlog

Backlog Item

can be split into
Product

long-term plan is communicated by a business and other goals are described as

Roadmap

contains

Backlog Item

can be split into

Product Backlog

Release

Iteration

Heartbeat
Product

Product

Roadmap

Product Backlog

Backlog Item

Release

Release

Release Goal

Iteration

Heartbeat
Product
- long-term plan is communicated by a
- business and other goals are described as

Roadmap
- contains

Product Backlog

Backlog Item
- can be split into

Release
- is planned to be completed in a release, backlog item becomes a

Release Goal

Iteration
- is developed incrementally in

Iteration

Heartbeat
**Product**
- Long-term plan is communicated by a product.
- Business and other goals are described as product.
- Contains product backlog.
- Can be split into backlog item.
- Backlog item is planned to be completed in a release.

**Release**
- Release is developed incrementally in an iteration.
- Is planned to be completed in a release goal.
- Release goal is planned to be completed in an iteration or release goal becomes an iteration goal.

**Iteration**
- Iteration is planned to be completed in an iteration goal.

**Heartbeat**
Product
- long-term plan is communicated by a goal
- business and other goals are described as

Roadmap
- contains
- Backlog Item
- can be split into

Product Backlog
- is described in a

Release
- Release
- is planned to be completed in a
- Release Goal
- if planned to be completed in a release, backlog item becomes a

Iteration
- Iteration
- is planned to be completed in an
- Iteration Goal
- if planned to be completed in an iteration, backlog item or release goal becomes an

Heartbeat
- Task
- achieved by completing
Executive team
Solution manager
Product council
Resource owner
Product Owner
Project steering group
Project manager
Developer
Scrum master
A Business Areas and Solution Managers

Components and Product Owners

Developer "pools" and Resource Owners (I-V)

I

II

III

IV

V
Team challenges

- All five teams working on the same component
  → Communication barrier: Inadequate PO presence

- Parallel release projects caused the opposite situation
  → too many product owners disrupting teams

- Teams had abandoned task planning
  → framework: tasks are the basis for status monitoring
    ❖ Not working within an appropriate governance framework?

- No feature teams
  ❖ Each team in a functional “silo”
  ❖ Work was not done in priority order
  ❖ Handovers and extra coordination!
Backlog challenges

- Backlogs to tackle coordination challenges?
  - Solution backlog (solution manager)
    - Product backlog (product owner)
      - Platform backlog (resource owner)
      - Area backlog (team)

- Spreadsheets in backlog management
  - Every backlog was on a separate spreadsheet
  - No dynamic links between them

- Lack of highest level priorities
  - Why didn’t solution managers see priorities valuable?
  - On the other hand teams did not see value in task estimates that would have provided base for progress monitoring!
Summary

- What happens when a large or middle-sized company goes agile without too much planning?

- SDG challenges due to poor implementation of agile
  - Lack of feedback loops
    - No tasks, no dynamic links → no metrics
    - Coordination between managers
  - Lack of high-level goal prioritization

- Challenges caused by the company history?
  - No feature teams (violation against lean principles)
    - Feature teams introduced in October 2008
  - Cooperation of product owners and teams
    - Major organizational change in February 2009
Thank you!

- How should the product owner role be organized?
  - How to divide the responsibilities?
  - Tool support?
- The role of governance before and during transition?
  - We have defined the “perfect” SDG... so what?

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