Grounding agile

Background

Agile product development has emerged the last thirty years and has become the industry norm for how to develop software. It was mainly developed by practitioners, for practitioners and primarily in small companies or work groups. During the last decade large industrial companies (Including the major players in the Gothenburg region) has shown increasing interest in using agile approaches also within mechatronics and hardware development. They are finding new ways of developing products guided by agile values and principles.

Problem description

As practitioners are experimenting their way forward trying to understand how to implement practitioners the academy is falling behind. There is a need, both from an industry- and a scholarly perspective to better understand the new roles, practices, values and principles that comes with agile product development, and to connect them to the knowledge that the scholarly community already holds in related areas such as R&D management, organization theory, leadership theory and operations management.

Purpose

The purpose is to make selected elements of agile product development better understood both from a practitioner’s and a scholarly perspective, thereby facilitating both research on the subject and and the practical implementation of it in the industry.

Approach and method

The work will require literature studies, and empirical data collection and analysis. Guided by the supervisor the group will by selecting one or a few elements within agile product development that catches their interest.
Examples of such are:

- Daily standup meetings
- Demos
- Retrospective meetings
- The developer team
- Sprint work flow
- Stories
- Kanban
- Scrum master
- Product owner
- Planning poker
- Selected parts of the "Manifesto for Agile Software Development"1
- Scrum-of-scrums

Based on their selection the group will carry out literature studies both within the existing body of literature on agile product development, but also within one other related academic field – the choice of which will be guided by the supervisor. The next step, that preferably starts in parallel with ongoing literature studies is to gather empirical data through interviews or surveys from the industry which will be analyzed with respect to merging findings from the literature studies.

**Expected results**

The primary aim of this work is to have one or a few of the key elements of agile product development demystified and made more reliable and accessible both to practitioners and scholars.

The students will gain valuable understanding of a hot topic within the industry that will strengthen them in their future career path regardless if they chose to go into the industry or pursue an academic career.

**Supervisor**

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1 [http://agilemanifesto.org](http://agilemanifesto.org)