3. Swiss Agile Study
Agile und hybride Software-Entwicklung in der Schweiz

M. Kropp, FHNW
A. Meier, ZHAW

www.swissagileresearchnetwork.ch

Lean Agile Scrum Conference, Zurich, 14.9.2017
Swiss Agile Study

Conducted by

In cooperation with

Funded by

HASLER STIFTUNG
Survey Setup Facts

• 2 Surveys:
  – IT-Companies directly contacted
    • 1399 contacted
    • 254 started (18.2%)
    • 142 finished (10.2%)
  – IT-Professionals anonymous
    • 529 on site
    • 328 started (62.0%)
    • 165 finished (31.2%)

• Each survey divided into two main categories:
  – Agile/Non-Agile

• Focus also on hybrid development
Agile vs. Non-Agile

Item 1.1: Is your company currently practicing agile software development?

- 85% doing some agile
- 13% pure
- 37% hybrid

n=203
Agile Methodologies

Item 1.4: Which methodology does your company follow most closely?

Companies

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Agile Companies</th>
<th>Hybrid Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrum</td>
<td>52%</td>
<td>50%</td>
</tr>
<tr>
<td>Scrum/XP</td>
<td>17%</td>
<td></td>
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<tr>
<td>Kanban</td>
<td>9%</td>
<td></td>
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<tr>
<td>Other</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>eXtreme Programming</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Lean</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>HERMES</td>
<td>0%</td>
<td></td>
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<tr>
<td>RUP</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>V-Modell</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Open Unified Process</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Bimodal IT</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

n (agile)=90          n (hybrid)=68

69% of Agile doing Scrum or Scrum/XP
Satisfaction

Item 1.5: How satisfied are you with your current methodology?

- Agile Comp.: 28% Very satisfied, 61% Satisfied, 11% Somewhat satisfied, 0% Unsatisfied
- Agile Prof.: 25% Very satisfied, 60% Satisfied, 15% Somewhat satisfied, 1% Unsatisfied
- Hybrid Comp.: 9% Very satisfied, 59% Satisfied, 28% Somewhat satisfied, 3% Unsatisfied
- Hybrid Prof.: 8% Very satisfied, 38% Satisfied, 49% Somewhat satisfied, 5% Unsatisfied
- PD Comp.: 13% Very satisfied, 58% Satisfied, 21% Somewhat satisfied, 8% Unsatisfied
- PD Prof.: 6% Very satisfied, 10% Satisfied, 44% Somewhat satisfied, 40% Unsatisfied

n (comp)=178
n (prof)=255
Satisfaction

Item 1.5: How satisfied are you with your current methodology?

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Somewhat satisfied</th>
<th>Unsatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile Comp.</td>
<td>28%</td>
<td>61%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>Agile Prof.</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
<td>1%</td>
</tr>
<tr>
<td>Hybrid Comp.</td>
<td>9%</td>
<td>59%</td>
<td>28%</td>
<td>3%</td>
</tr>
<tr>
<td>Hybrid Prof.</td>
<td>8%</td>
<td>38%</td>
<td>49%</td>
<td>5%</td>
</tr>
<tr>
<td>PD Comp.</td>
<td>13%</td>
<td>58%</td>
<td>21%</td>
<td>8%</td>
</tr>
<tr>
<td>PD Prof.</td>
<td>6%</td>
<td>44%</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>

n (comp)=178 n (prof)=255
Satisfaction

Item 1.5: How satisfied are you with your current methodology?

- **Agile Comp.**
  - Very satisfied: 28%
  - Satisfied: 61%
  - Somewhat satisfied: 11%
  - Unsatisfied: 0%

- **Agile Prof.**
  - Very satisfied: 25%
  - Satisfied: 60%
  - Somewhat satisfied: 15%
  - Unsatisfied: 1%

- **Hybrid Comp.**
  - Very satisfied: 9%
  - Satisfied: 59%
  - Somewhat satisfied: 28%
  - Unsatisfied: 3%

- **Hybrid Prof.**
  - Very satisfied: 8%
  - Satisfied: 38%
  - Somewhat satisfied: 49%
  - Unsatisfied: 5%

- **PD Comp.**
  - Very satisfied: 13%
  - Satisfied: 58%
  - Somewhat satisfied: 21%
  - Unsatisfied: 8%

- **PD Prof.**
  - Very satisfied: 6%
  - Satisfied: 44%
  - Somewhat satisfied: 40%

Counts:
- n (comp)=178
- n (prof)=255
Technical Practices

Item 3.1: How often do you apply the following technical practices in your current projects?

1=Never
2=Rarely
3=Sometimes
4=Often
5=Always
Collaboration Practices

Item 3.2 How often do you apply the following collaboration practices in your current projects?

1=Never
2=Rarely
3=Sometimes
4=Often
5=Always
Collaboration Practices

Item 3.2 How often do you apply the following planning practices in your current projects?

1=Never
2=Rarely
3=Sometimes
4=Often
5=Always
**Agile Influence – Company View**

**Item 5.7 How has agile software development influenced the following aspects?**

<table>
<thead>
<tr>
<th>Business Aspects</th>
<th>Agile Companies</th>
<th></th>
<th>Business Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Much worse</td>
<td>Worse</td>
<td>Improved</td>
</tr>
<tr>
<td>Delivery predictability</td>
<td>5%</td>
<td>24%</td>
<td>49%</td>
</tr>
<tr>
<td>Requirements management</td>
<td>11%</td>
<td>23%</td>
<td>51%</td>
</tr>
<tr>
<td>Management of distr. teams</td>
<td>7%</td>
<td>21%</td>
<td>32%</td>
</tr>
<tr>
<td>Development process</td>
<td>3%</td>
<td>8%</td>
<td>54%</td>
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<tr>
<td>Handling of project risk</td>
<td>7%</td>
<td>17%</td>
<td>52%</td>
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<tr>
<td>Project visibility</td>
<td>1%</td>
<td>26%</td>
<td>34%</td>
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<tr>
<td>Alignment of IT &amp; business</td>
<td>1%</td>
<td>23%</td>
<td>45%</td>
</tr>
<tr>
<td>Managing changing priorities</td>
<td>1%</td>
<td>52%</td>
<td></td>
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<tr>
<td>Time to market</td>
<td>3%</td>
<td>16%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Legend:
- Much worse
- Worse
- Improved
- Significantly improved
- Don't know
Agile Influence – Company View

Item 5.7 How has agile software development influenced the following aspects?

Team Aspects

### Agile Companies

- **Team morale/motivation**
  - Much worse: 1%
  - Worse: 11%
  - Unchanged: 68%
  - Improved: 16%
  - Significantly improved: 3%

- **Engagement of customer**
  - Much worse: 1%
  - Worse: 23%
  - Unchanged: 55%
  - Improved: 15%
  - Significantly improved: 5%

- **Impediment management**
  - Much worse: 1%
  - Worse: 19%
  - Unchanged: 47%
  - Improved: 11%
  - Significantly improved: 22%

- **Effectiveness of meetings**
  - Much worse: 5%
  - Worse: 29%
  - Unchanged: 37%
  - Improved: 22%
  - Significantly improved: 5%

- **People development**
  - Much worse: 3%
  - Worse: 11%
  - Unchanged: 67%
  - Improved: 14%
  - Significantly improved: 5%

- **Team productivity**
  - Much worse: 3%
  - Worse: 11%
  - Unchanged: 69%
  - Improved: 12%
  - Significantly improved: 5%


M. Kropp / A. Meier
Agile Influence – Company View

Item 5.7 How has agile software development influenced the following aspects?

**Stress Aspects**

![Chart showing the influence of agile software development on working overtime and stress at work for Agile Companies and Hybrid Companies.](chart)

Lean Agile Scrum Conference, Zurich, 14.09.2016  M. Kropp / A. Meier
The Complete Survey

The complete study also covers

• Concerns
  – when introducing agile methodologies
  – about agile methodologies in non-agile companies

• Experience with agile development

• Detailed figures about individual agile practices

• Reasons for adopting agile

• Barriers / difficulties when adopting agile

and more ...
Summary

• Agile companies are much more satisfied with their methodology than non-agile companies.

• Hybrid development is an issue, but shows mixed results

• Agile companies show more improvements

• Only slight improvements with stress and overtime

The complete study report
http://www.swissagileresearchnetwork.ch/?page_id=73#studyReports
# Impact of Agile Practices

What is your **perception** of the (pos./neg.) impact of agile practices on different software process characteristics?

## Agile Practices

<table>
<thead>
<tr>
<th>Characteristics / Improvement goals</th>
<th>Transparency (of status)</th>
<th>Knowledge Transfer</th>
<th>Customer Collaboration</th>
<th>Internal Documentation</th>
<th>Flexibility and Changeability</th>
<th>Team Synergy</th>
<th>Product Quality</th>
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</thead>
<tbody>
<tr>
<td>Daily Scrum / Stand-Ups</td>
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<td>(Sprint) Retrospective</td>
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<td>Co-located teams</td>
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</tbody>
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Please participate
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