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www.gotober.com
why scaling agile doesn’t work (and what to do about it)

@jehumble

gotober | december 4 2015
“Please select the statement that most closely aligns with how your company decides which products are built.”

- Committee decides from potential options (47%)
- Financial modeling (e.g. Economic value optimization) (24%)
- Opinion of person with highest salary wins out (13%)
- Product portfolio approach (9%)
- No systematic approach (7%)

Base: 161 business decision makers

Source: A commissioned study conducted by Forrester Consulting on behalf of ThoughtWorks, September 2012
“Even in projects with very uncertain development costs, we haven't found that those costs have a significant information value for the investment decision... The single most important unknown is whether the project will be canceled. The next most important variable is utilization of the system, including how quickly the system rolls out and whether some people will use it at all.”

Douglas Hubbard | http://www.cio.com/article/119059/The_IT_Measurement_Inversion
batching up work

what should we do

don’t optimize for the case where we are right

focus on value, not cost

create feedback loops to validate assumptions

make it economic to work in small batches

enable an experimental approach to product dev
impact mapping

Gojko Adzic, *Impact Mapping*
hypothesis-driven delivery

We believe that

[building this feature]
[for these people]
will achieve [this outcome].

We will know we are successful when we see [this signal from the market].

Jeff Gothelf “Better product definition with Lean UX and Design” http://bit.ly/TylT6A
Different types of user research, courtesy of Janice Fraser
Amazon May Deployment Stats

(production hosts & environments only)

11.6 seconds
Mean time between deployments (weekday)

1,079
Max # of deployments in a single hour

10,000
Mean # of hosts simultaneously receiving a deployment

30,000
Max # of hosts simultaneously receiving a deployment
“Evaluating well–designed and executed experiments that were designed to improve a key metric, only about $1/3$ were successful at improving the key metric!”

“Online Experimentation at Microsoft”, Kohavi et al http://stanford.io/130uW6X
## hp laserjet firmware division

### 2008

<table>
<thead>
<tr>
<th>Costs</th>
<th>Cycle times</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% - code integration</td>
<td>Commit to trunk: 1 week</td>
</tr>
<tr>
<td>20% - detailed planning</td>
<td>Builds / day: 1-2</td>
</tr>
<tr>
<td>25% - porting code</td>
<td>Full manual regression: 6 wks</td>
</tr>
<tr>
<td>25% - product support</td>
<td></td>
</tr>
<tr>
<td>15% - manual testing</td>
<td></td>
</tr>
<tr>
<td>~5% - innovation capacity</td>
<td></td>
</tr>
</tbody>
</table>
deployment pipeline
The remaining 23% on RHS is spent on managing automated tests.
the economics

2008 to 2011

• overall development costs reduced by ~40%
• programs under development increased by ~140%
• development costs per program down 78%
• resources now driving innovation increased by 8X
THE FOUR STEPS OF THE IMPROVEMENT KATA MODEL
A systematic, scientific pattern of working

1. Understand the Direction or Challenge
2. Grasp the Current Condition
3. Establish the Next Target Condition
4. Iterate Toward the Target Condition

Planning  Executing
What is the target condition? (*The challenge*)

What is the actual condition now?

What obstacles are preventing you from reaching it? which one are you addressing now now?

What is your next step? (*Start of PDCA cycle*)

When can we go and see what we learned from taking that step?
### Table 5.1. Sample Mini-Milestone Objectives (MM30 Objectives)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Theme</th>
<th>Exit Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Quality threshold</td>
<td>P1 issues open &lt; 1 week L2 test failure 24-hour response</td>
</tr>
<tr>
<td>1</td>
<td>Quarterly bit release</td>
<td>A) Final P1 change requests fixed B) Reliability error rate at release criteria</td>
</tr>
<tr>
<td>2</td>
<td>New platform stability and test coverage</td>
<td>A) Customer Acceptance Test 100% passing B) All L2 test pillars 98% passing C) L4 test pillars in place D) L4 test coverage for all Product Turn On requirements E) 100% execution of L4 tests on new products</td>
</tr>
<tr>
<td>3</td>
<td>Product Turn On dependencies and key features</td>
<td>A) Print for an hour at speed to finisher with stapling B) Copy for an hour at speed C) Enable powersave mode D) Manufacturing nightly test suite execution E) Common Test Library support for four-line control panel display</td>
</tr>
<tr>
<td>4</td>
<td>Build for next-gen products</td>
<td>A) End-to-end system build on new processor B) High-level performance analysis on new processor</td>
</tr>
<tr>
<td>5</td>
<td>Fleet integration plan</td>
<td>Align on content and schedule for “slivers” of end-to-end agile test with system test lab</td>
</tr>
</tbody>
</table>
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- A 100 page excerpt from *Lean Enterprise*
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To: jezhumble@sendyourslides.com
Subject: devops

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