

Waterfall to Agile

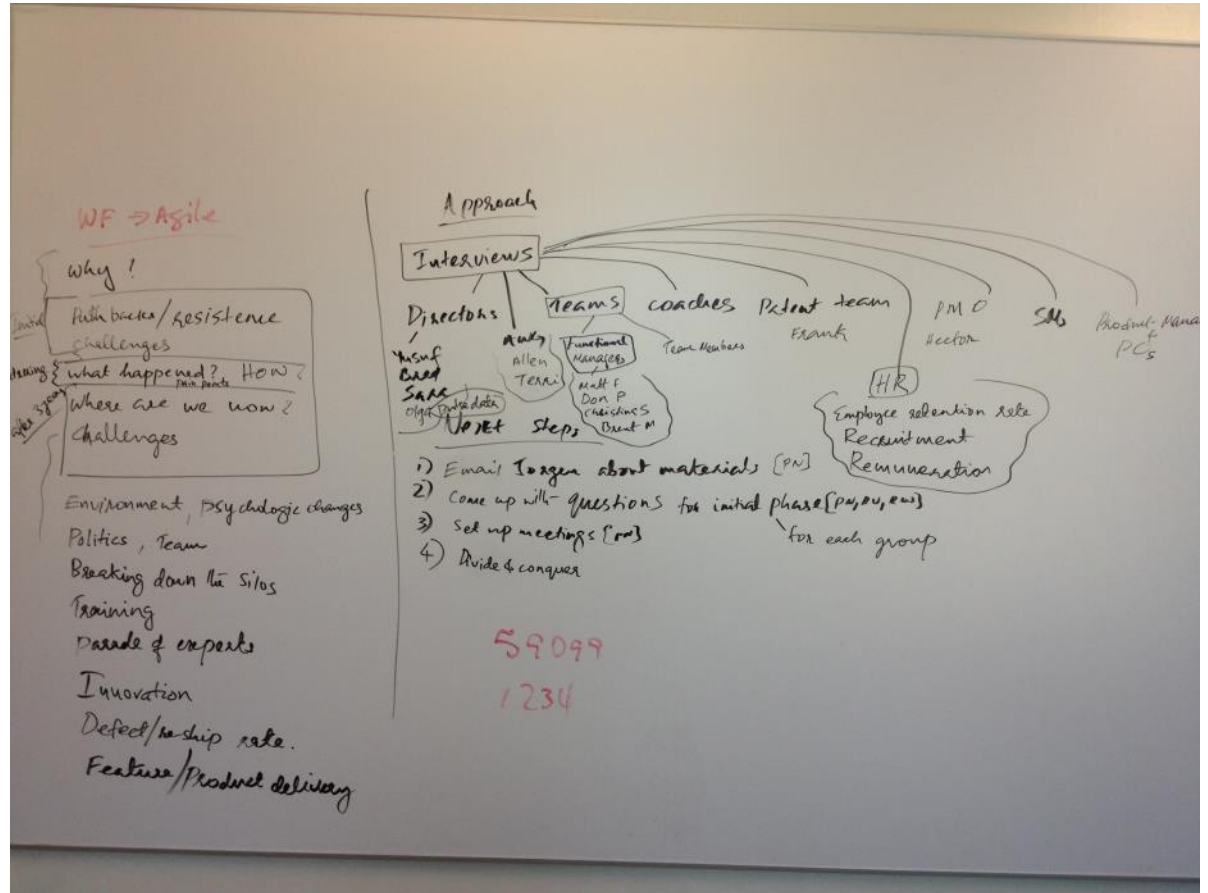
A case study

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Overview

- Past
- Pilot
- Rollout
- Present
- Future



Past

Changing Market

- Fierce competitors
- Market, businesses were changing
- Long lead time for new product release



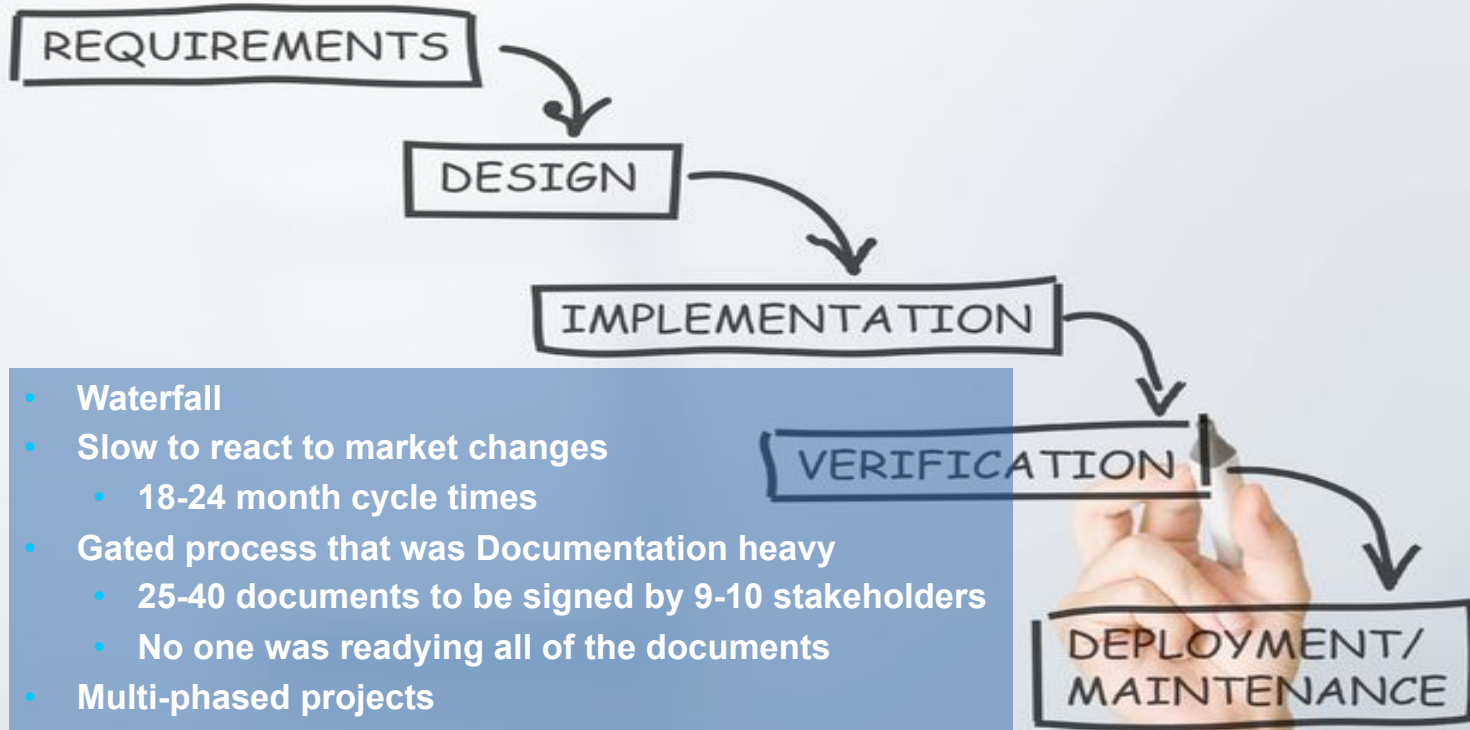
Past

Environment

- R&D development organizations in multiple global locations
- Matrix organization: Team of analysts, team of developers, team of testers, team of software project managers
- Political boundaries between departments
- People working on multiple projects



Past Process



- Waterfall
- Slow to react to market changes
 - 18-24 month cycle times
- Gated process that was Documentation heavy
 - 25-40 documents to be signed by 9-10 stakeholders
 - No one was reading all of the documents
- Multi-phased projects
- Developers and testers were not fans of waterfall
 - Hard to get requirements right
- Product Managers had limited visibility into development
- Unable to fit all ideas into development

Past

Goals

- Reduce cycle times by 50%
- Improve quality of software
- Speed to Market initiative
- Early management support
- CEO, CTO and Senior managers were part of the decision



THINK BIG

Pilots

Initially

- A few “under-the-table” Agile projects were tried. Small and independent. Good results.
- Dec 2009 - Brought in consultants from several organizations and heard on a broader scale Agile and specifically Scrum.
- Still we were cautious
 - There weren't a large number of major corporations using Agile for big projects. Scaling hadn't taken hold.
- Yet we liked what we heard, but we weren't ready to go all in.



Pilots

Initial Reactions

- 
- Agile would cause more issues
 - There's no structure to Agile
 - Agile is for smaller companies, smaller groups
 - Agile doesn't have the tools to manage hundreds of people in multiple locations
 - Companies are still learning Agile – do we want to be on the bleeding edge?

Pilots

Kickoff

- Kicked off three Agile Pilot teams at first
- After two months seven pilots were running concurrently
- Incremental process - similar Agile
 - Do a small thing – then verify
 - Do a little bigger thing - then verify
 - Do a little bigger thing - then verify
 - It was checks and balances



Rollout

Evangelizing

- Proposed a full-scaled rollout
- Created dedicated AWG (Agile Working Group)
 - Contracted with expert Agile coaches
- Created our own in-house training
- Brought in more experts
 - Dean Leffingwell, Esther Derby, Mike Cohn,
 - Johanna Rothman, Mary Poppendieck
- Met offsite with VPs in November 2010
 - Dean Leffingwell prepared video
- Surveyed Teams (Comparative Agility Assessment)
- Talked to people who resisted – it's as much of a culture as it is a process
- Kept senior management informed and involved.



Rollout

Kicking-off teams

- Trained all teams
- Co-located teams
- Constructed Agile Pods
 - Initial resistance
- Made a big difference on the culture and how people interact
- Process → Culture → Environment



Present

What changed

- Formed verticals with Product Owners, Product Management and development around business units
- Evolved PMO to become an Agile Program Office
- Created Agile pods in place of cubicles
- Scaled planning to the program level using Release Trains (i.e., ART, as currently defined in SAFe)
- Agile Maturity has continually grown
 - Proved out by improving Comparative Agility scores
 - Agile community got together to organize an one-day internal Agile conference



Present

Benefits we see

- Transformed from waterfall to Agile in just under 22 months. 66 teams - 520 staff
- Customer and our people are happy - both extremely important
- The company is more open and transparent
- We have a more effective software development organization
- We are nimble - can make changes.
- We have many high performing teams
- Bug fixes went from months to hours
- Speed to Market was reduced by 27 weeks



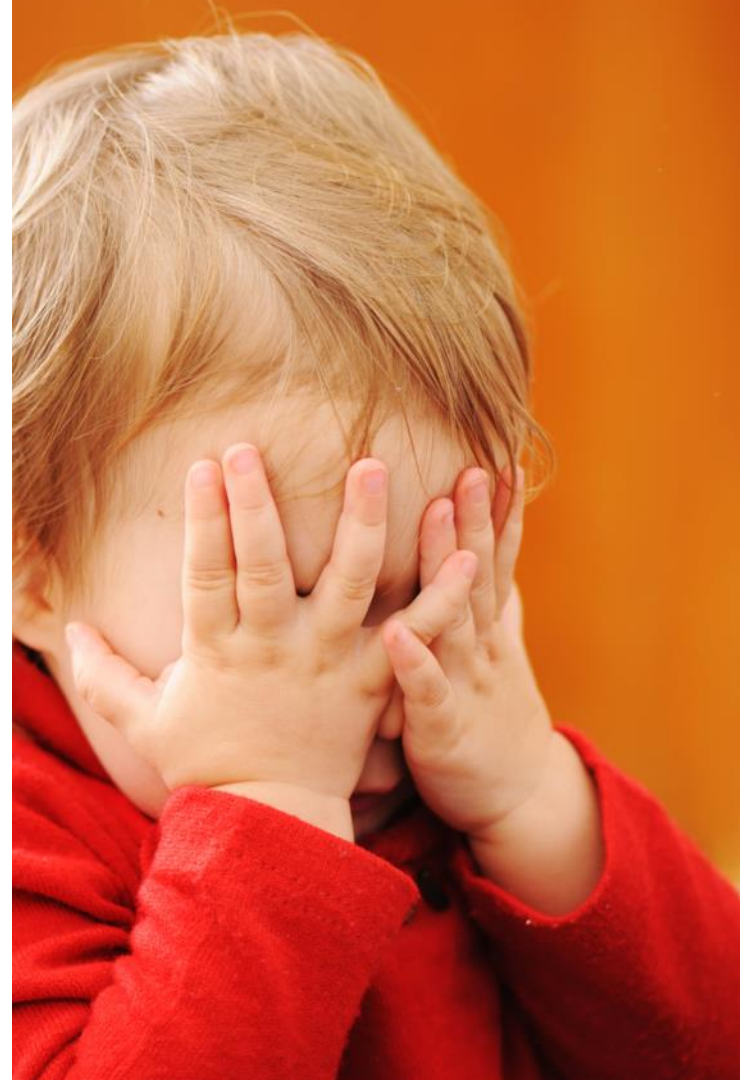
Present

Sustaining Agile

- Sustaining is or is not as big a challenge as you might think???
- We continue to seek outside coaches and experts to help us
- The focus switched to nurturing teams and increasing maturity
- And what about engineering practices?

Future

- This is a journey, not destination.
- Process wise we are very close, but we can still improve
- Too easy to revert back to sloppy practices and prior bad habits
- We have achieved a lot, but we continually look for more
- Engineering Practices Maturity



Future

How will we get there

- Learning environment
- Sharing ideas – e.g., our own internal Agile Conference
- Continue training
- Search for better models; better processes
- Everyday should be a learning experience

