



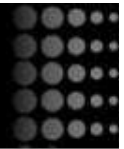
# Disclaimer



This presentation is **NOT** a **recommendation** to switch from Waterfall to Agile. It is an analysis of team dynamics if you are considering to switch or have already switched. The author would like to share his experiences which you may find helpful in making the change decision.



# Agenda



- Comparison between Waterfall and Agile
- Personality - Types vs. Traits
- Role changes for team players
- Making the transition
- Conclusions
- Q&A



## Waterfall

- Big Bang Approach
- Well planned checkpoints and Milestones
- Planned but limited customer interactions
- Throw code over the wall to QA
- Break the code
- Gold plating – adding bells and whistles

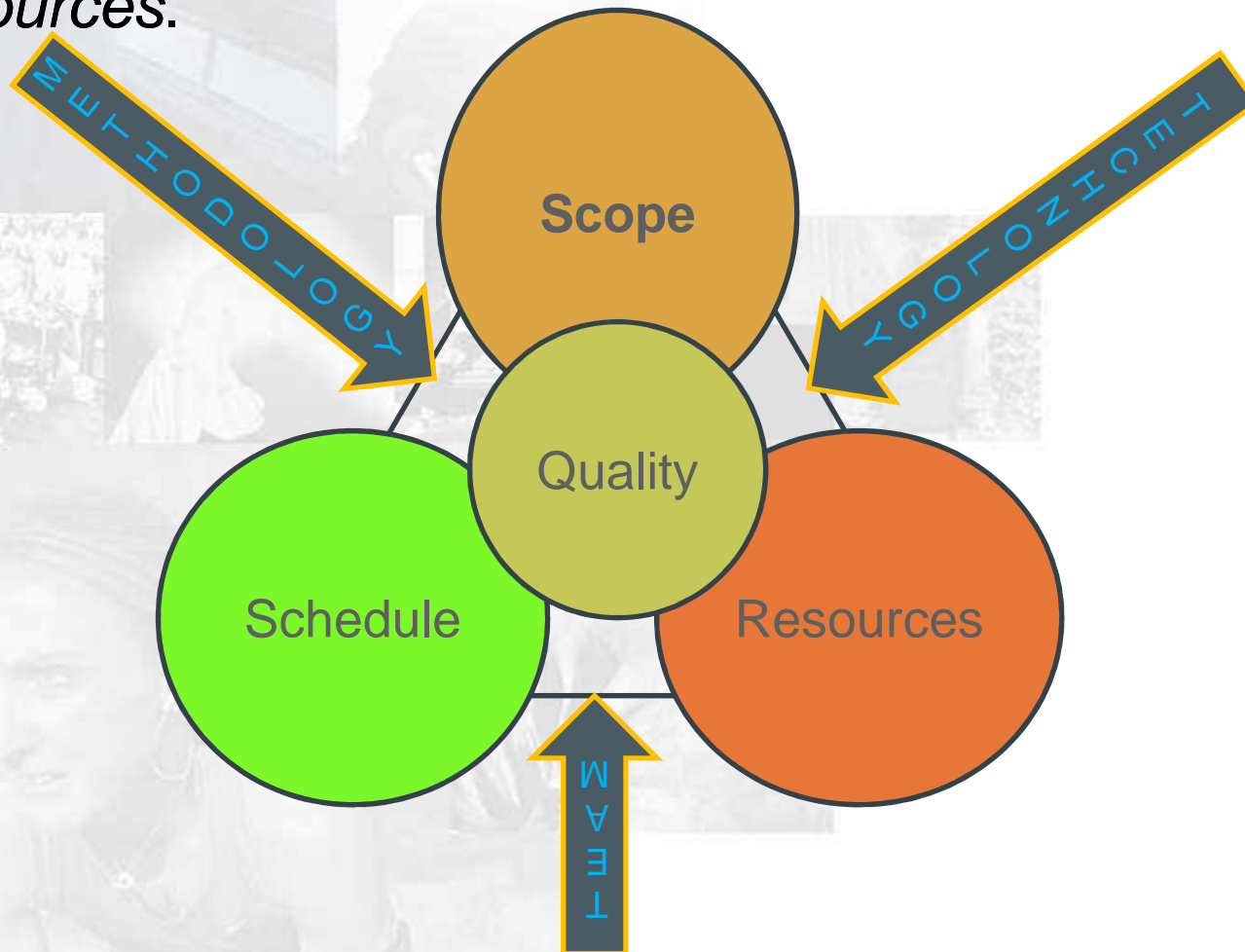
## Agile

- Incremental Approach
- Planned iterations
- On-going customer interactions
- Lets work together with QA engineers
- Help them fix it
- Get more story points

# Goal of a Software Delivery Team



Deliver a software product with intended *quality* on a planned *schedule* that meets a predefined *scope* using allocated *resources*.



# The Change Process



Adaptation – team has decided to change

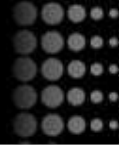
- Changing overtime
- Changing overnight

Mandate – management has forced the change

- Changing Overnight

External Entities

Vendors, Service Providers



## Training

- normally fast pace, a few days
- How to build epics, stories, backlog prioritization, tools
- Some high level processes

What gets overlooked?

**The team dynamics.**

# Personality Types – Type A and Type B



- Achievement oriented
- Impatient



- Easy going
- Relaxed



FrekingNews.com





## Grouping by tendencies:

- Neuroticism – experience unpleasant emotions easily
- Extraversion – seek stimulation and enjoy company
- Conscientiousness – self-discipline, competence, organized
- Agreeableness – compassionate towards others
- Openness to Experience – enjoy new experience and Ideas
- Cognitive – analytical, abstract level thinking

# Key Players in Software Development



- Customer
- Product Owner (*equivalent to Marketing Manager*)
- Scrum Master (*equivalent of Project/Program Manager*)
- Development Team
- Quality Assurance Team
- Build and Deployment Team

# Team Transition – Customer/Customer Surrogate



## Waterfall

- Provide and align on requirements
- Accept product
- Undergo training

## Agile

Provide prioritized stories

For each iteration:

- Provide acceptance criteria
- Validate test approach/test scenarios
- Accept release
- Undergo training



Surrogate



Driver  
+  
Analytical





## Waterfall

- Facilitate requirements gathering
- Assure requirements understanding
- Finalize product requirements
- Assure delivery

## Agile

Deliver value in each iteration:

- Align/Adjust backlog
- Be cognizant of customer perspective

Type A

Extraversion  
Conscientiousness  
Agreeableness

# Team Transition – Scrum Master (the BACKBONE)



## Waterfall

- Manage schedule
  - Achieve checkpoints and milestones
  - Assure delivery
- (Project / Program Manager)

## Agile

Orchestrate high value delivery  
Understand business and technical issue  
Be able to remove road blocks  
Maintain trusting relationship

Extraversion  
Conscientiousness  
Agreeableness  
Openness  
Humble and trusting



# Team Transition – Development Team



## Waterfall

- Architect / design to requirements
- Code to requirements
- Add bells and whistles

Neuroticism: Low  
Extraversion: Medium  
Conscientiousness: Medium  
Openness To Experience: High  
Cognitive Capability: High  
Agreeableness : High

## Agile

- Develop product one story at a time
- Design / refactor as often as necessary
- Collaborate with others to produce a quality story
- Strive for story point and not for bells and whistles
- Integrate often

Extraversion: High  
Openness : High  
Conscientiousness: Very High  
Cognition: High

# Team Transition – Quality Assurance Team



## Waterfall

- Write test plan
- Develop test Case
- Test and submit defects
- Assess quality

## Agile

- Understand each story – one story at a time
- Develop test cases from acceptance criteria
- Test story and submit defects
- Support defect resolution
- Collaborate with development team

Neuroticism: Low  
Extraversion: Medium  
Conscientiousness: Medium  
Openness To Experience: High  
Cognitive Capability: High  
Agreeableness : High

Extraversion: Very High  
Openness : Very High  
Agreeableness: High



## Waterfall

- Bing-Bang Approach
- Get it right in a short time

Neuroticism: Low  
Extraversion: Medium  
Conscientiousness: Medium  
Openness To Experience: High  
Cognitive Capability: High  
Agreeableness : High

## Agile

Build and Deploy in each sprint  
Shorter time to get it right  
Consistency and repeatability Highly Automated

Extraversion: Medium  
Cognitive capability: Very high  
Conscientiousness: Medium  
Agreeableness: Very High



# Making Transition – Evaluate Need and Potential



## ■ Return on Investment

- Reduced cost
- Shorter Schedule
- Better Quality
- Magnitude of Delta

## ■ Speed of Transition

- Adaptation vs. Total Immersion

# Evaluate Team Characteristics



Peer Evaluation

Commitment to Change – Pushback, Passive Resistance



# Making Transition



- Management Understands Change Impact
- Mentoring and Coaching available until change has taken a hold
- External entities are committed to support the change
- Measuring Success –
  - Reduced resistance
  - Active participation in Scrum
  - Genuine effort level

# Conclusion



- Waterfall and Agile development methodologies are vastly different
- Switch only if there is an ROI
- Consider adaptation as opposed to immersion if possible
- Team needs to possess certain characteristics to make agile successful
- Team should evaluate itself and make an effort to have right individuals in the key roles
- Personal changes will be required
- Measure success

