Introduction to Agile

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advanced product delivery

Simon Reindl

Professional Scrum Trainer with Scrum.Org

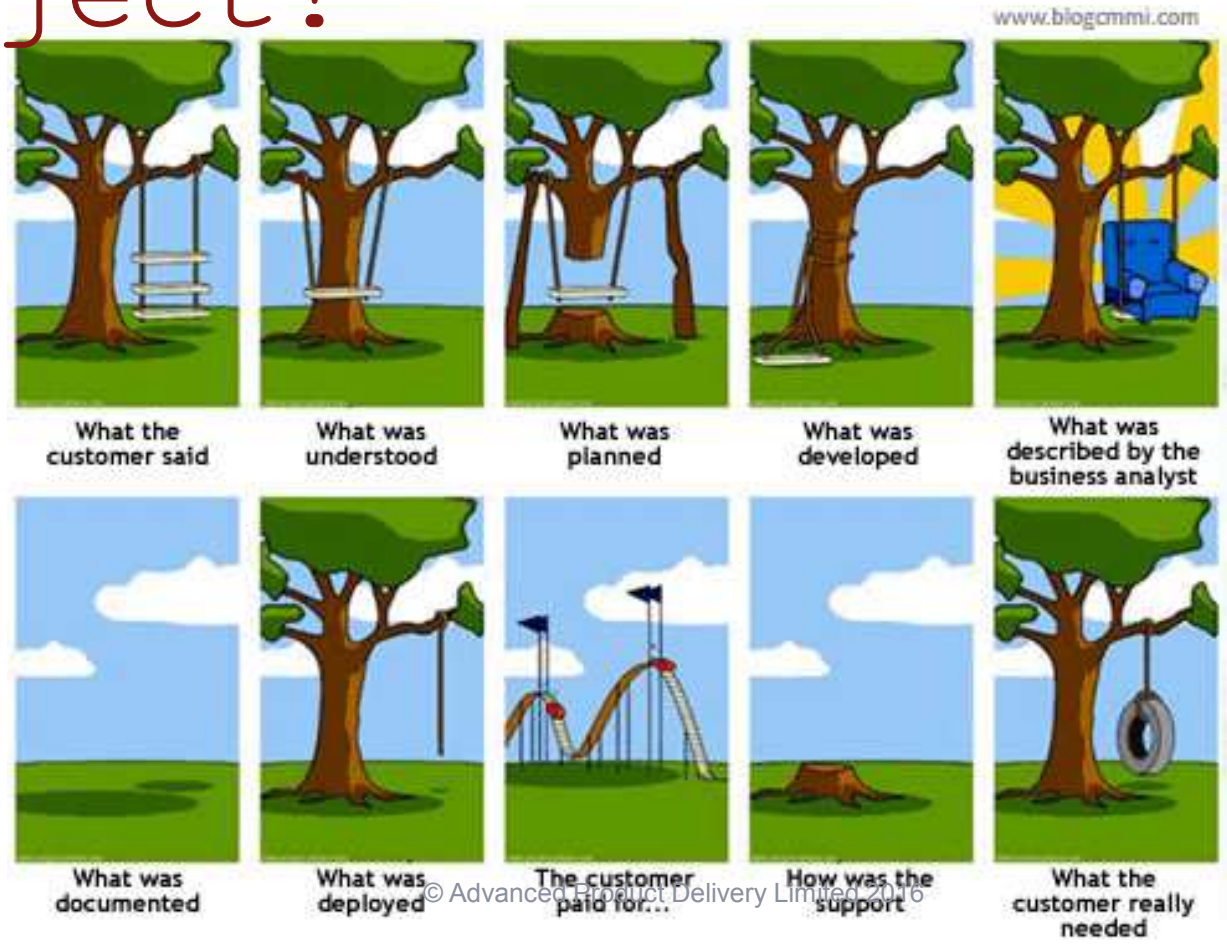
EBMgt Engagement Manger, Coach, Trainer, Consultant, Speaker

@s_reindl

uk.linkedin.com/in/simonreindl

Simon.Reindl@advancedproductdelivery.com

Has this happened to your project?



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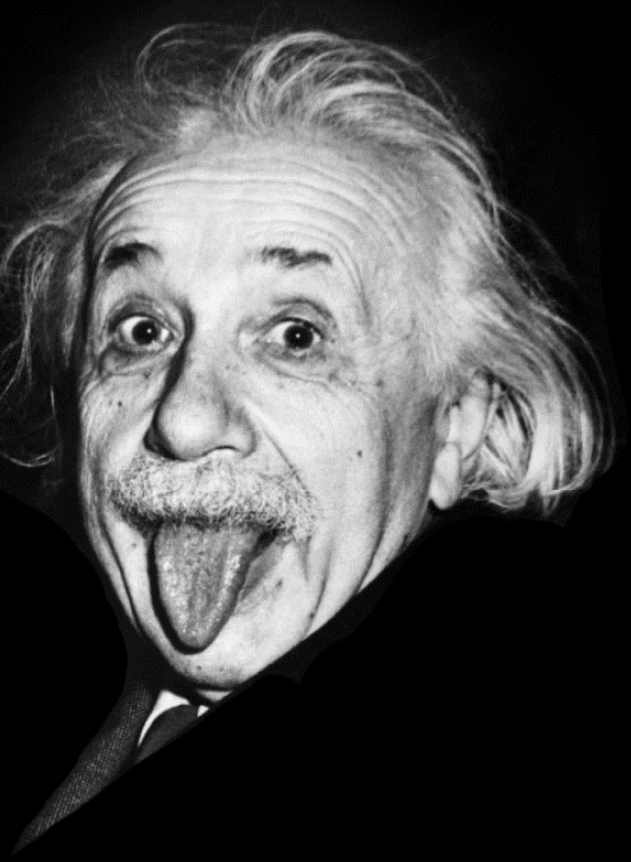
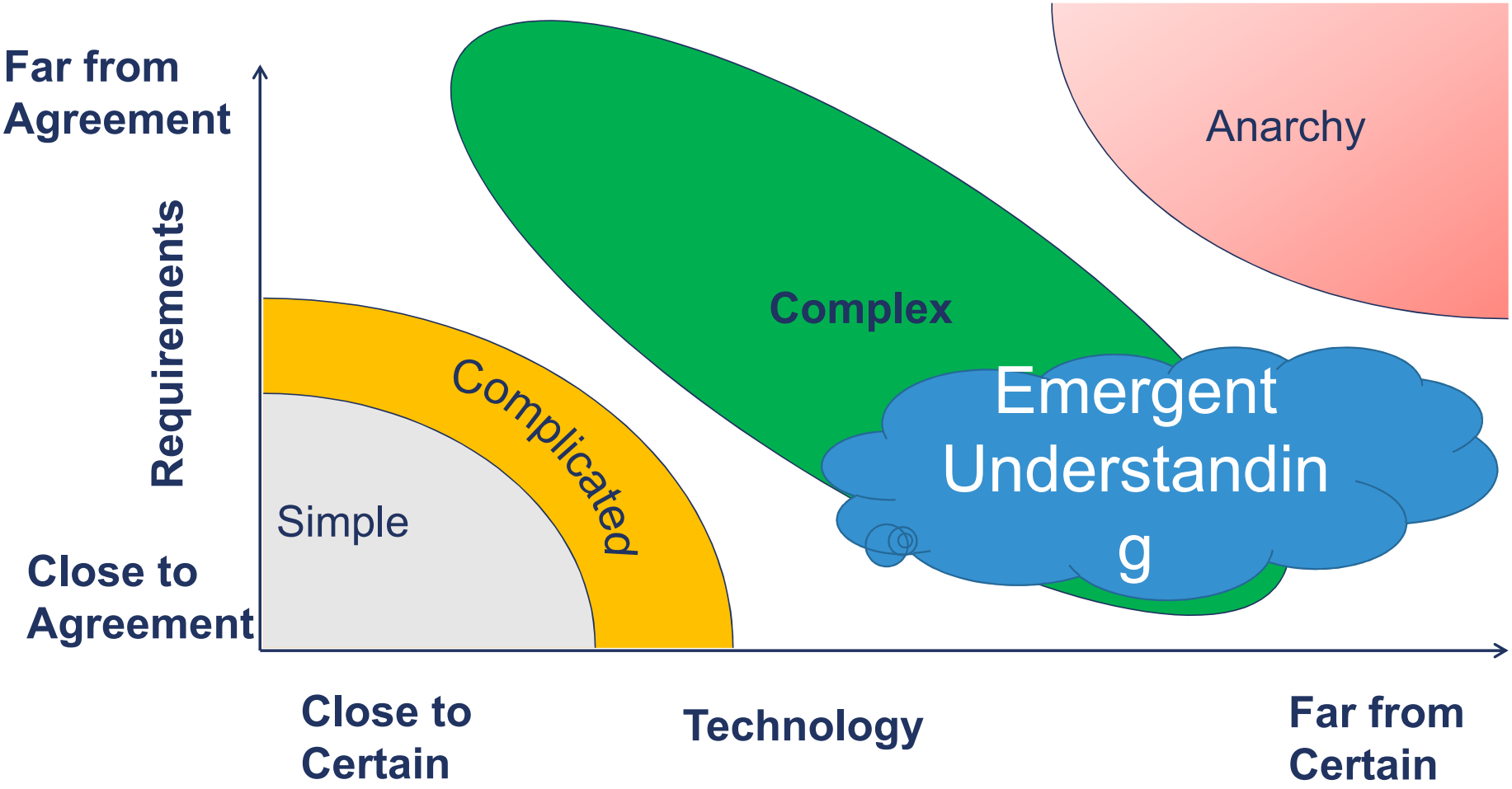
Insanity: doing the same thing over and over again and expecting different results.
Albert Einstein



Process Complexity



A different (scientific) approach

- Iterative
- Incremental
- Fast Feedback
- Frequent checks with the consumer (user)
- Focus on solving the problem, not documenting it

Agility

Definition of **agile**

adjective

- able to move quickly and easily

adverb

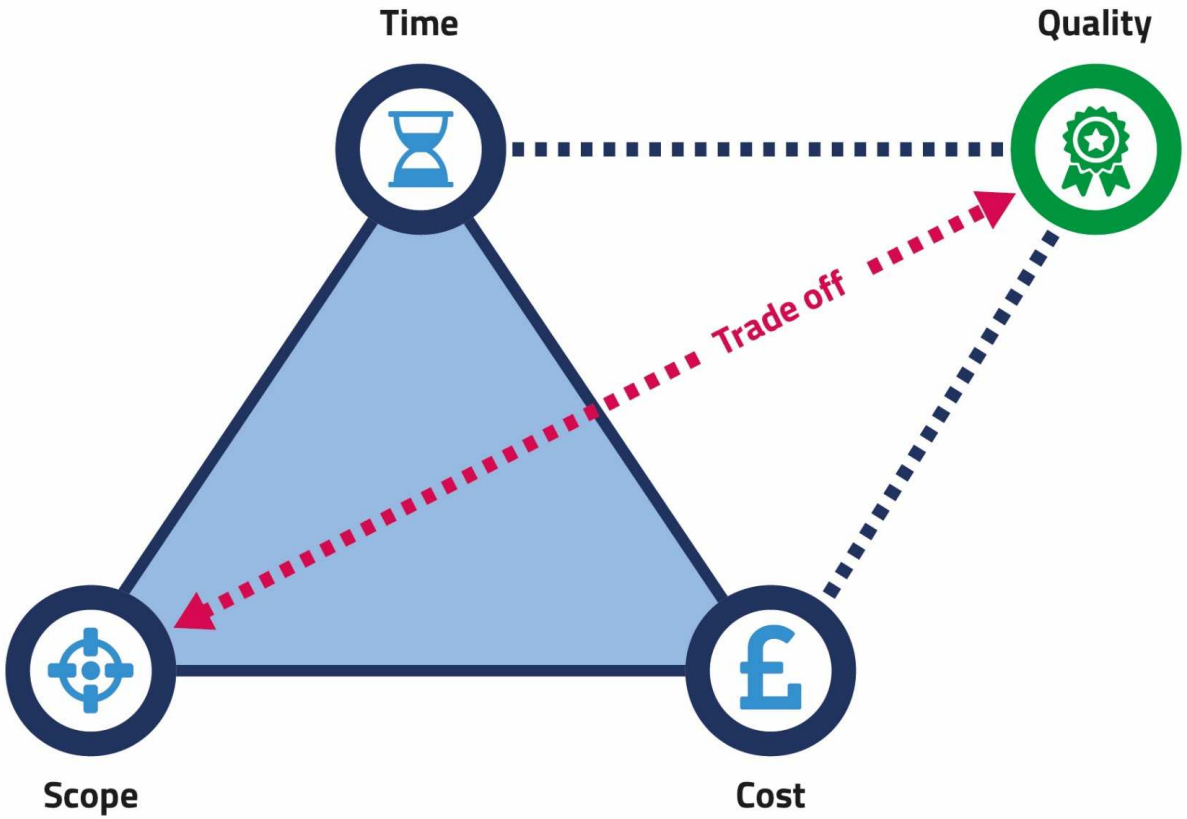
- agility

from Latin *agilis* - 'do'

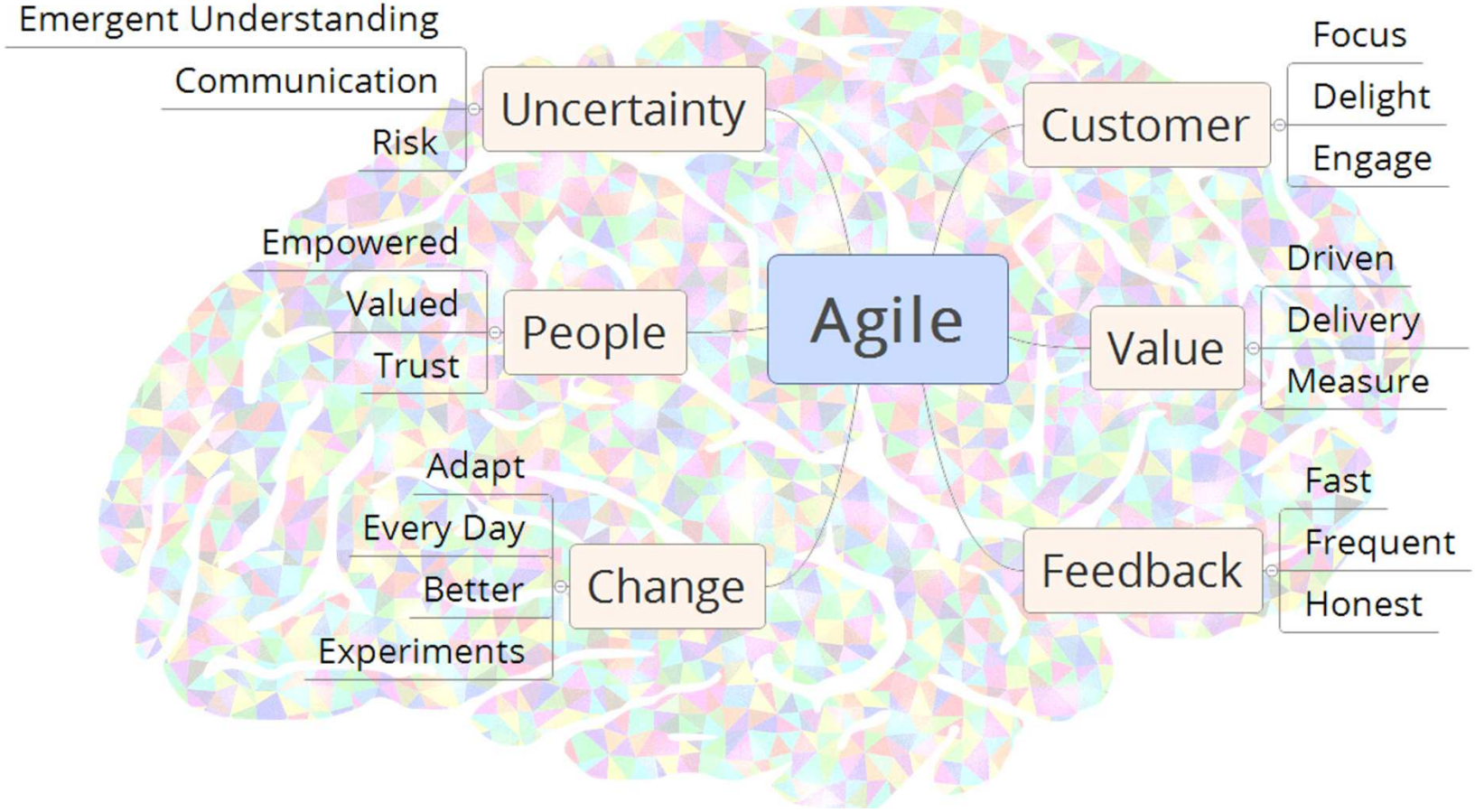
Quickly and deliberately respond to change while managing risk

"Do, or do not … there is no try"
Yoda

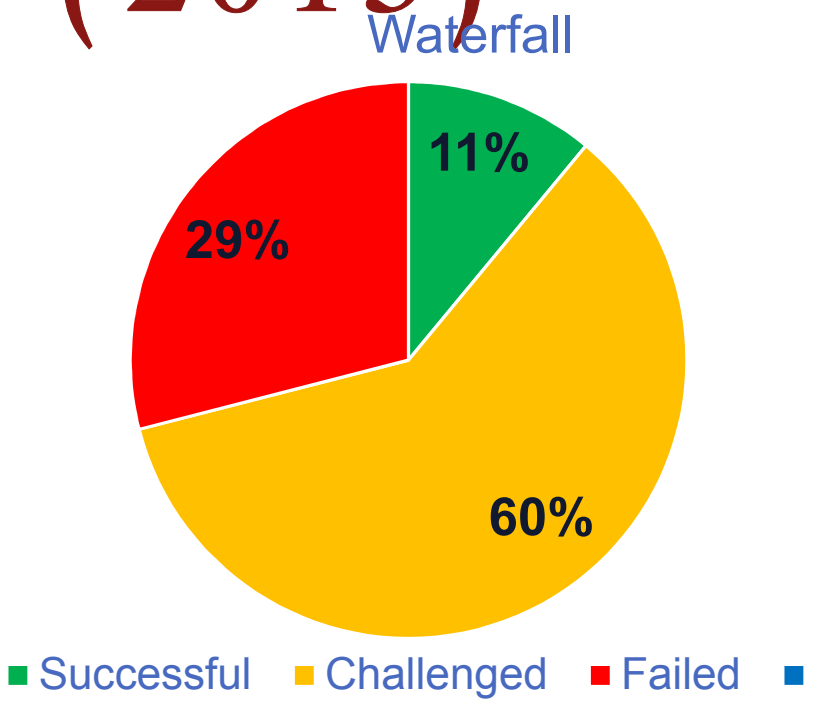
What is important?

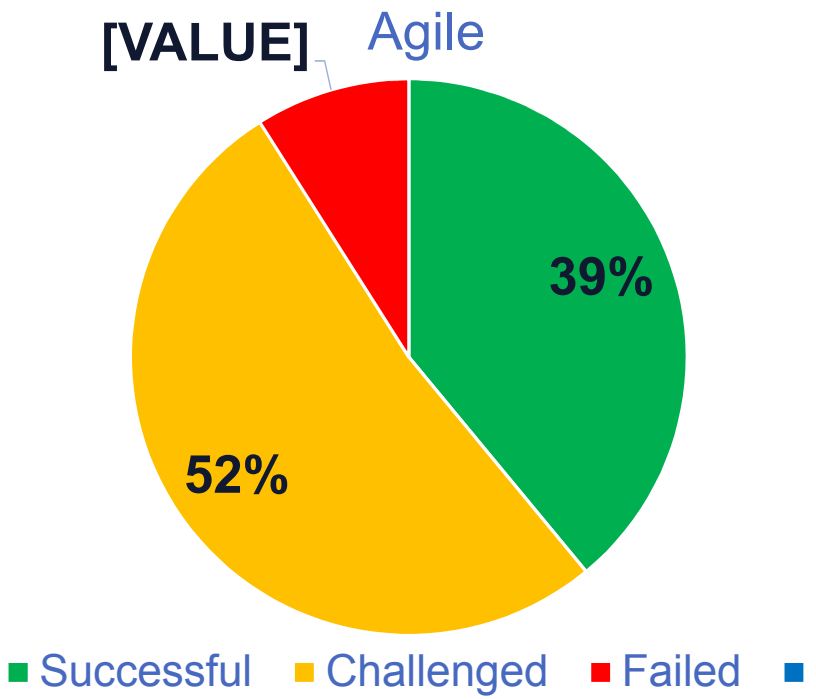


Agile is a mindset



The CHAOS Manifesto (2015)





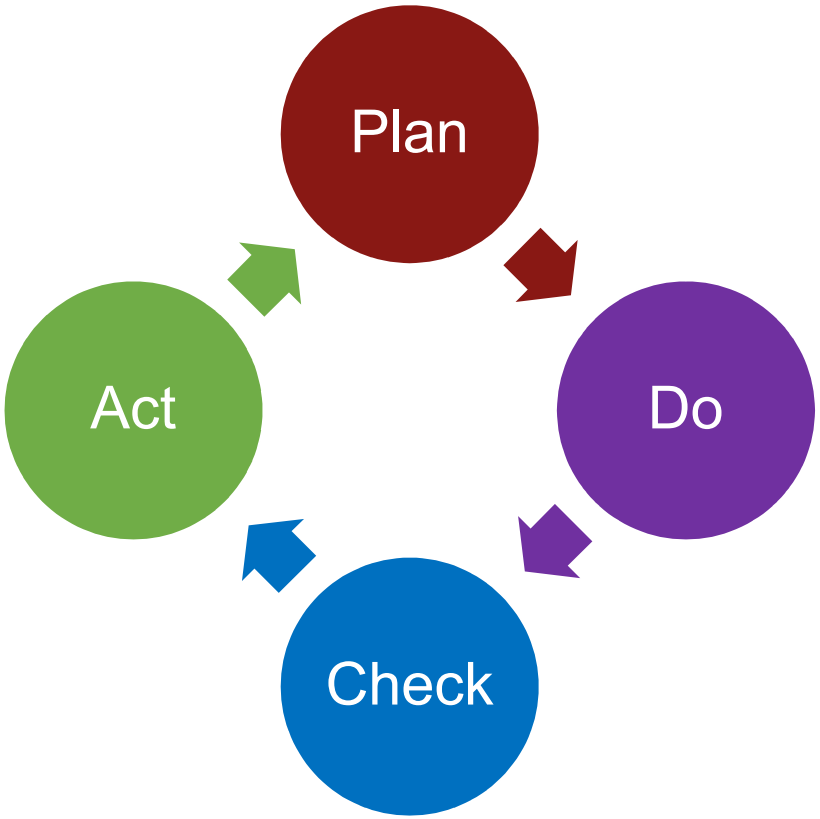
https://www.infoq.com/articles/standish-chaos-2015

Agile Frameworks share 3 pillars

Act on the Feedback

- Measure
- Understand
- Act

Continuous Improvement



Lean Principles

- Customer Value
- Respect and engage the people
- Improve Flow
- Eliminate waste
- Pull not Push
- Continuous Improvement
- See the whole

Agile Manifesto…

… we have come to value:

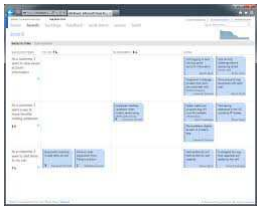
Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

Frameworks Overview

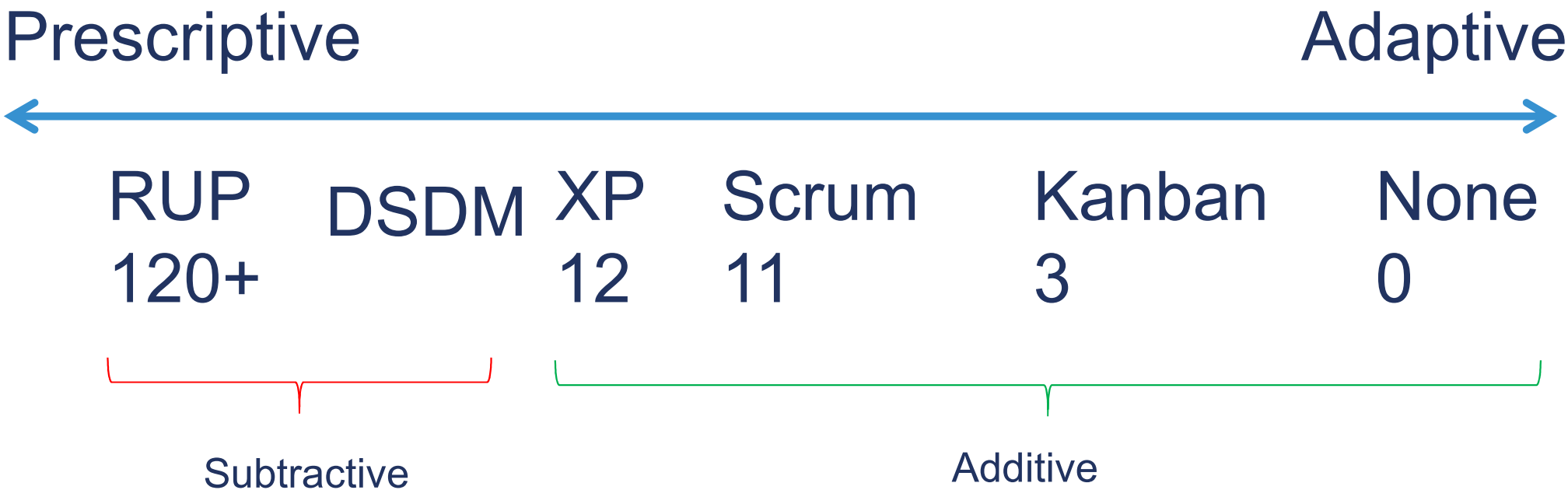


Plan Driven
Predictive
Prince 2
PMBOK
CMMI

Iterative

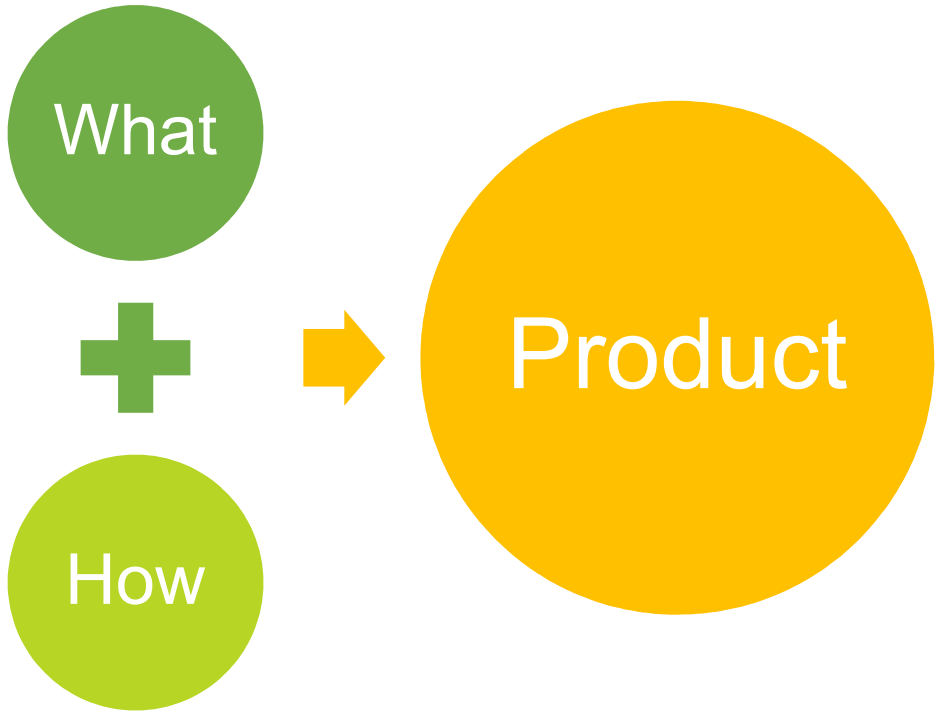
Value Driven
Empirical
Scrum
XP
Kanban

Range of Agile Frameworks



Focus is on Delivering Business Value

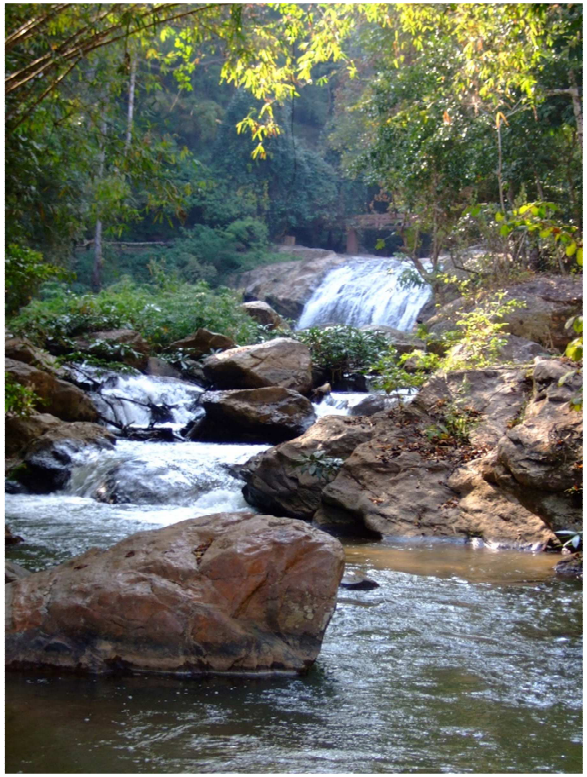
- Adaptive to demands of the Business
- Put the business in the Driving Seat
  - Business own the “What”
  - IT own the “How”
- Focus on delivering a working product



However beautiful the strategy, you should occasionally look at the results.

Winston Churchill

Focus on flow



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Kanban (Signal Flow)

- Visualise the work
- Limit **W**ork **I**n **P**rogress
- Measure and Manage flow
- Make process and policies explicit
- Implement Feedback loops
- Improve collaboratively, evolve experimentally

Flow – 2 main metrics

Lead Time

- The time from concept to customer
- Can be measured across lanes

Cycle Time

- How frequently your product is finished

Do you know this for your products?

Would it help ?

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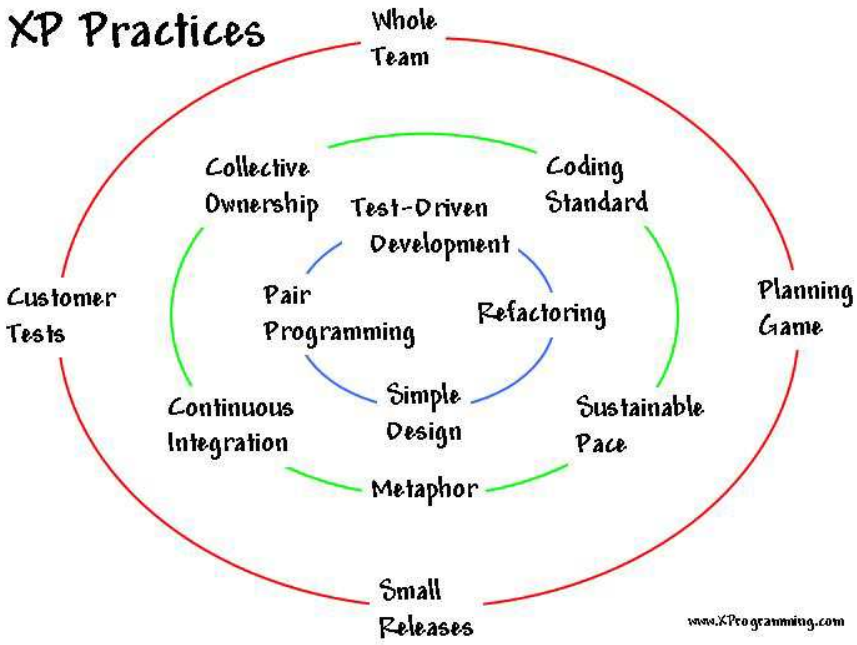
XP (eXtreme Programming

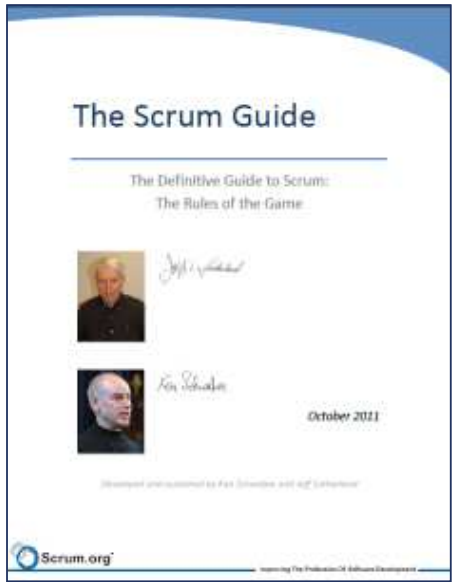
Comes from an engineering perspective

- Simplicity
- Communication
- Feedback
- Respect
- Courage



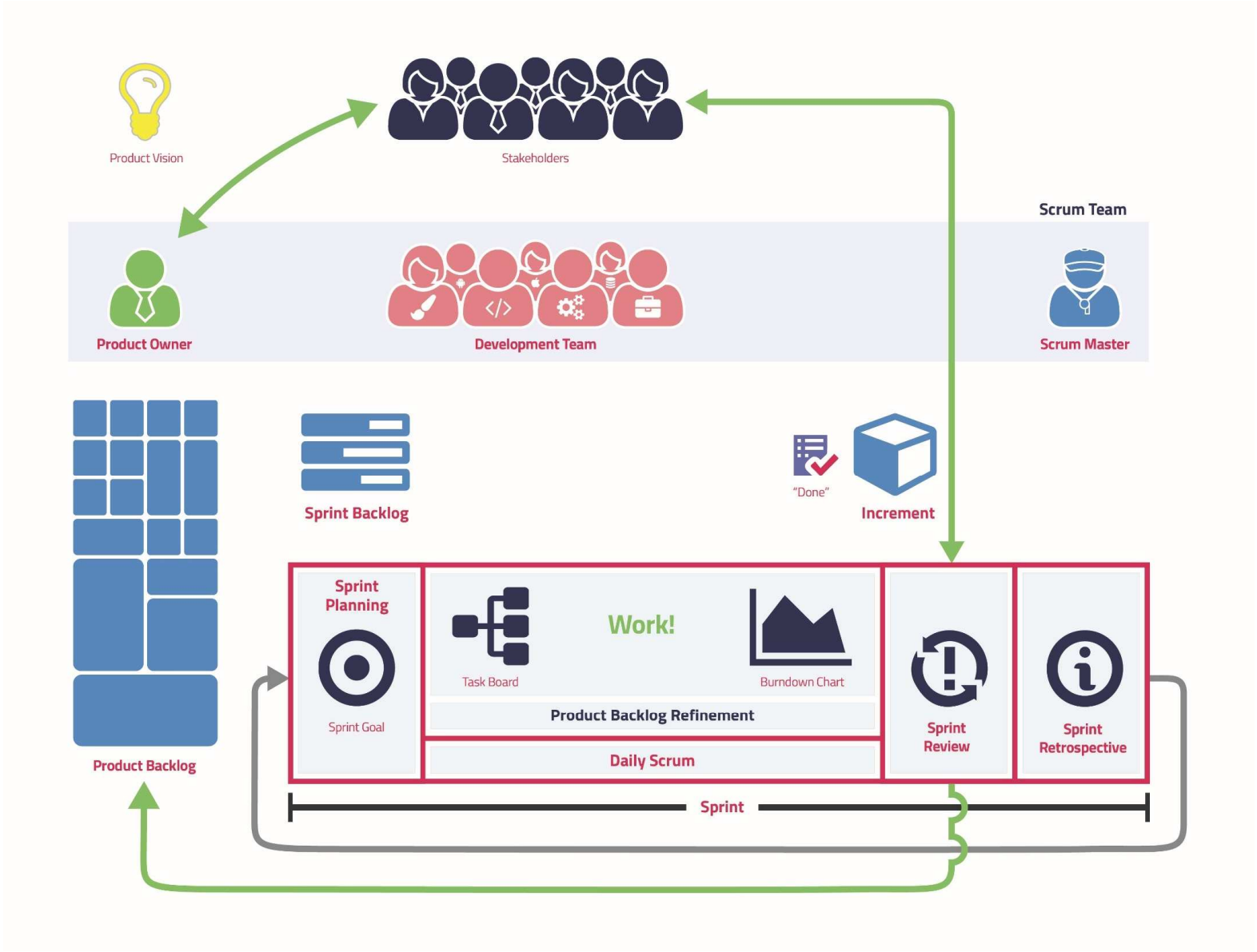
Scrum is …

- An framework for Agile software development
- A set of rules defined in the Scrum Guide
- Easy to learn but difficult to master

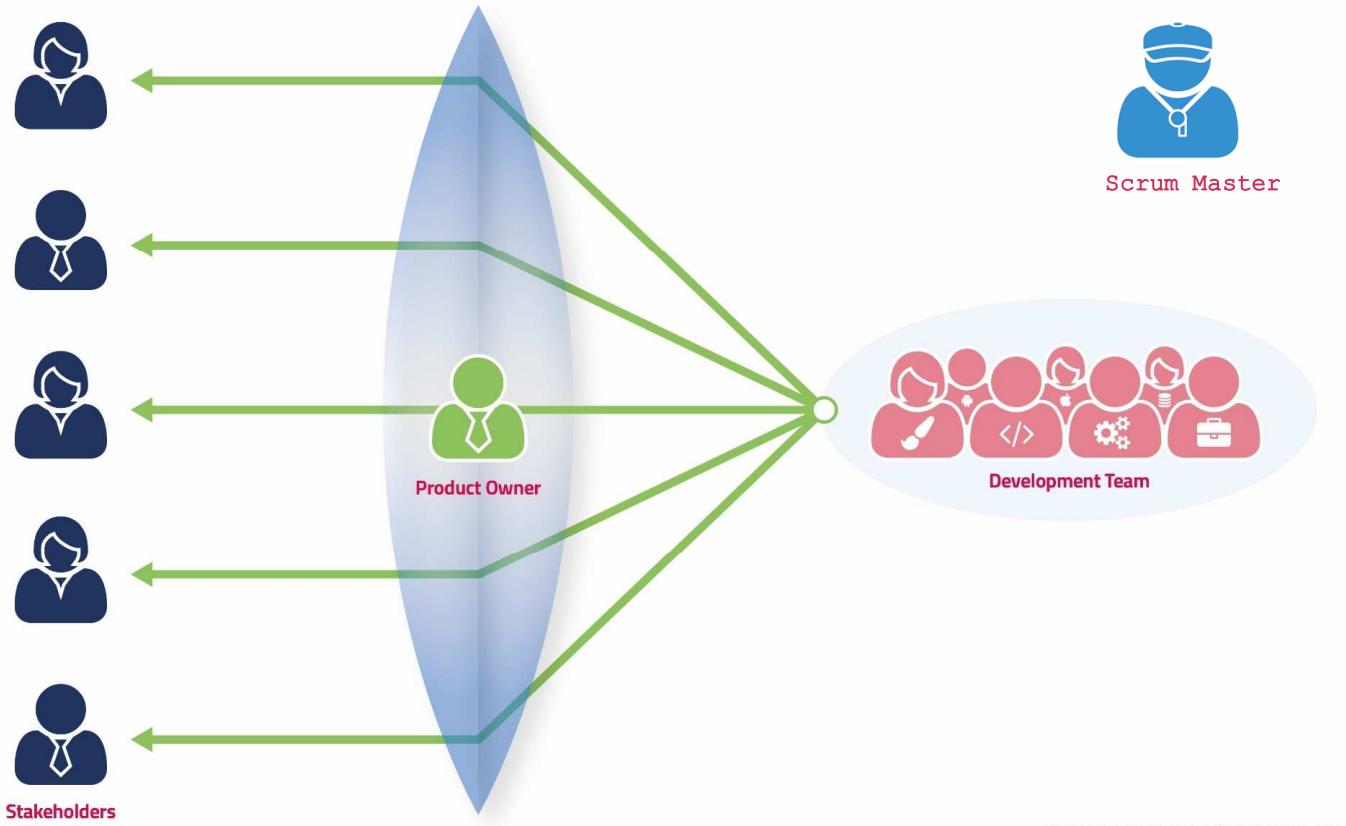


http://scrumguides.org/

Scrum


Product Vision
Stakeholders
Scrum Team
Product Owner
Development Team
Scrum Master
Sprint Backlog
"Done"
Increment
Sprint Planning
Sprint Goal
Task Board
Work!
Burndown Chart
Product Backlog Refinement
Daily Scrum
Sprint Review
Sprint Retrospective
Product Backlog
Sprint

Roles



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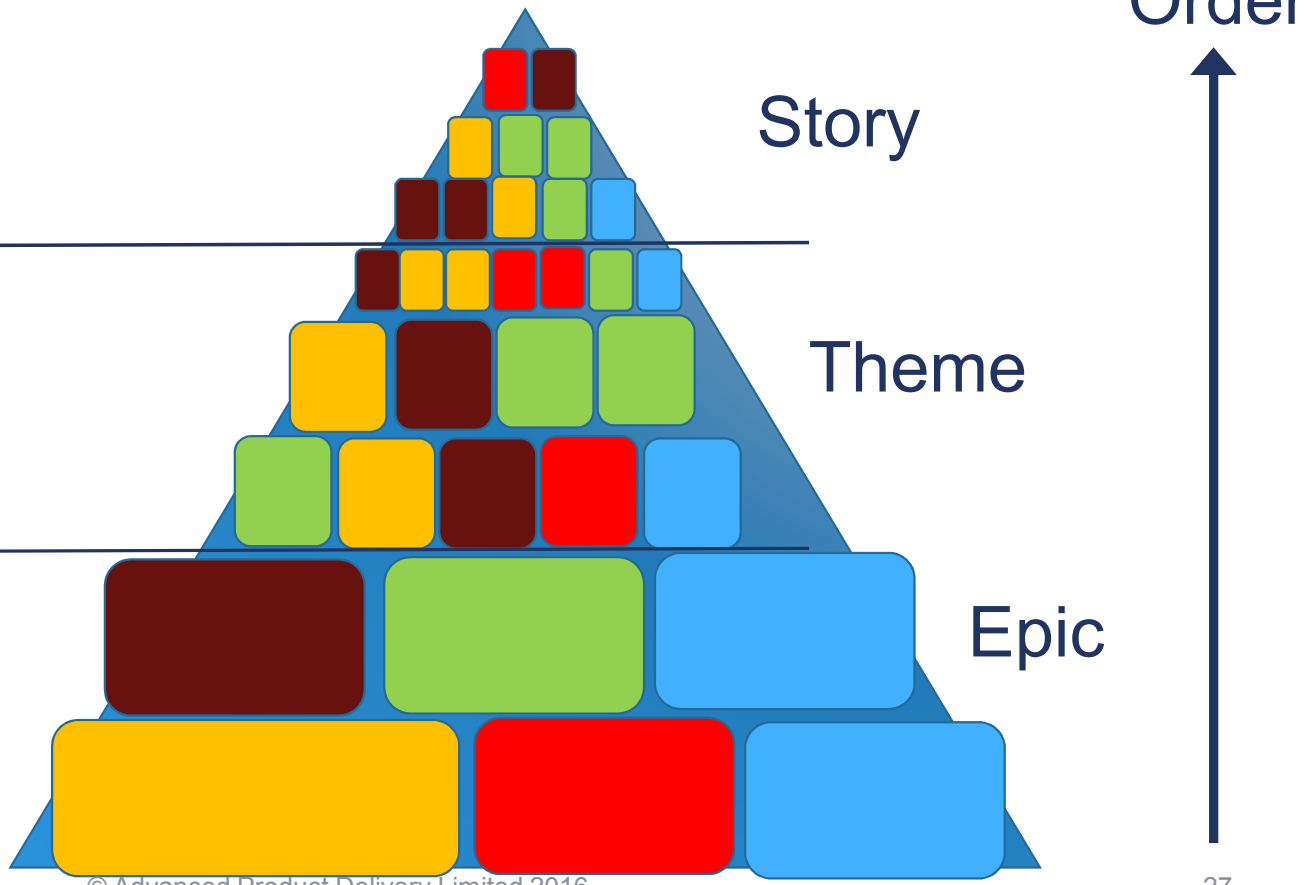
The Product Backlog Iceberg



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Working with Big Data

- Data is Different
- But not that much!

- How to implement Agility with Big Data

...

Key aspects

- Team Practices – Communicate
- Iterative, Incremental – “Chunking”
- Focus on user visible Value
- Be “Done”
- Document continuously
- Test and deploy automatically
- Bring the end users closer - Collaborate

"Done" with Big Data

- Built/Coded
- Tested at volume
- Deployed
- Rollback tested
- Performance tested
- Security tested

```
Done();
```

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