Professional

Scrum Master

by Scrum.org – Improving the Profession of Software Development

Team Warm-Up Questions

2 MIN

	True	False
Agile teams do very little planning		
Agile is not suited for fixed bid projects		
Models like PMI and PRINCE2 are more suited to high-risk projects than agile		
Developers do not have the people skills needed to talk to customers		
Moving people between projects helps spread expertise and improves the organization		
Agile teams don't create documentation		
Some people need to be told what to do		

- Mark each statement true or false
- Review this page during or after class. Are your answers still the same?

Why Are You In This Class?

- Introduce yourself
- Have you used Scrum before?
- Are you a Scrum Master?
- What's your background:
  - Development?
  - IT?
  - Other?

It's Your Experience. Own It.

5 MIN

Develop guidelines for how to work together during this class.

How will the class deal with:

- Off-track discussions
- Lunch
- Break times and signals
- Electronics such as phones, tablets, and laptops
- End of day timing

This course is collaborative.

Talk to me, talk to each other.

Timeboxing

After any breaks we will start on time.

Right to Pass

You have the right to pass in any activity or exercise we do.

TFTBOFTR

Training from the back of the room aims to maximize your retention

Stand Up

Standing up provides 10% more oxygen to your brain.

Take Care

Take care of your own needs. You don't need to ask for permission.

Cellphones

Phones on silent please. If you need to take a call, leave the room.

Parking Lot

Put topics we don't have time to cover on the parking lot to review later.

Feedback Door

Give us feedback every time you leave the room.

Failure Bow

When you fail.
Admit it.
Take a bow. Receive applause :)

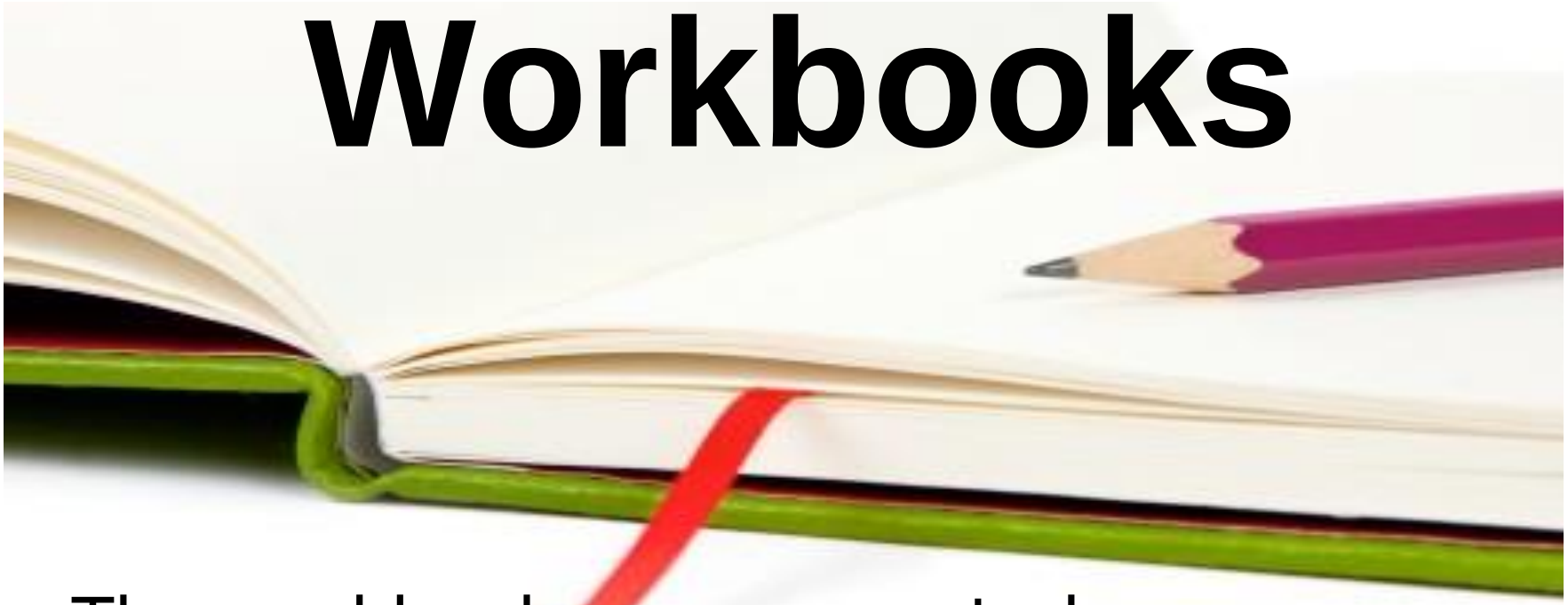
Toys

Table toys are for fiddling. They help kinesthetic learning.

Photos

We will provide photos of all flip charts after the course.

Workbooks



The workbooks are yours to keep.
Please take notes and doodle.

Hands Up

Put up your hand and be quiet when you are ready to move on.

Off Track

Wave both hands if someone is going off topic.

Agenda

- Introductions
- Theory & First Principles
- The Scrum framework
- People & Teams
- The Scrum Master
- Scrum at large

With joyful exercises along the way!

AGENDA

DAY 1

Agile Manifesto
What is Agile?

Values & Principles
Scrum Framework
Product Backlog

Backlog Grooming
Estimation
Release Planning

Teams
Distributed Scrum

±9:00

Tea
±1030

Lunch
±1230

Tea
±1500

Close
±1700

DAY 2

Scrum Roles
Sprint Planning

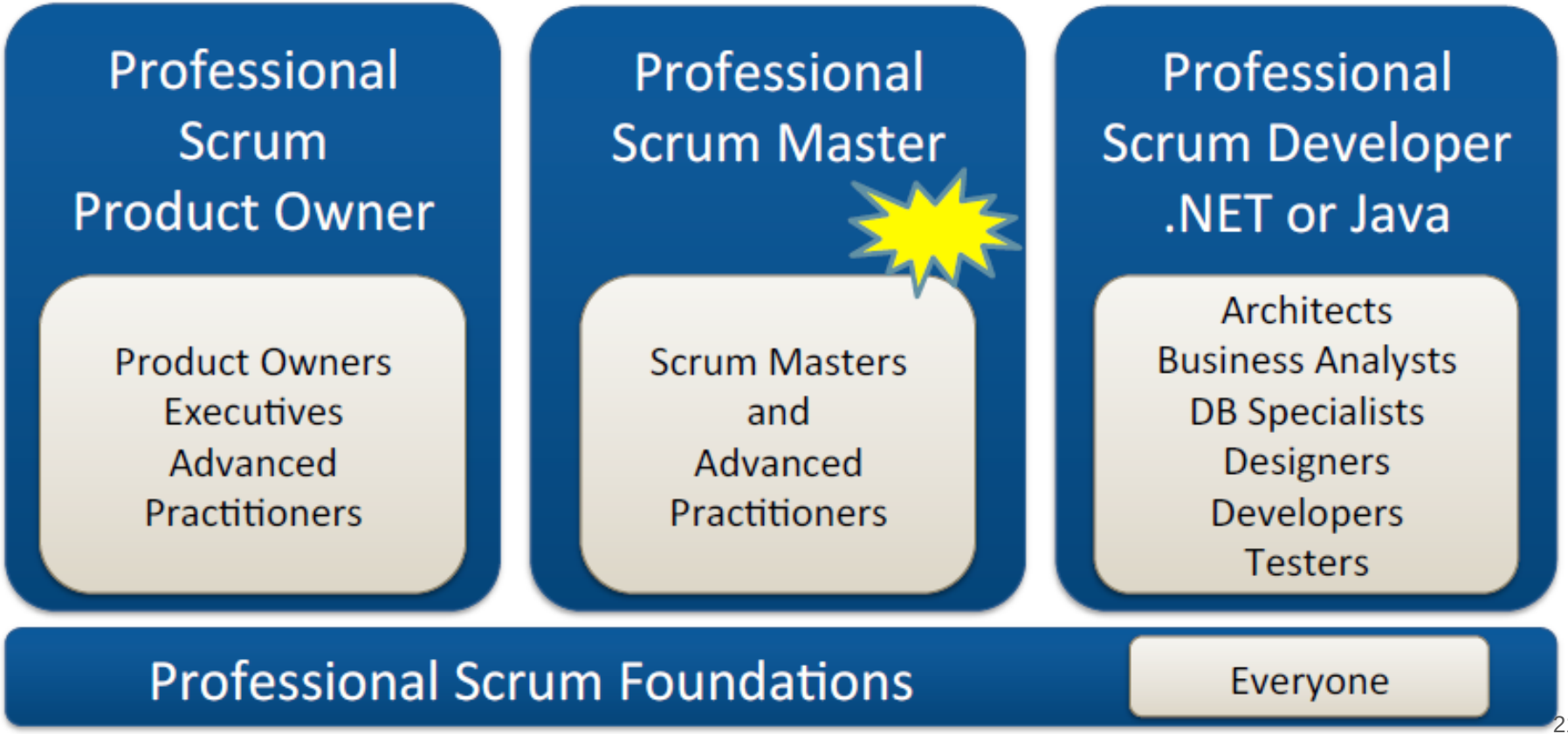
Sprint Execution
Definition of Done
Review + Retrospective

Simulation
Questions & Answers

Quiz
Certification
What now?

Professional Scrum At Scrum.org

Scrum.org
People . Agility . Value



Professional Scrum Master Course

Purpose

Provide experience and insights so students understand how to best use Scrum to build complex products.

Understand the theory and principles behind Scrum that guide decision making, and the Scrum Master role in doing so.

Audience

People well-versed in Scrum fundamentals as described in the Scrum Guide with practical experience.

Ideally, attendees have passed the Professional Scrum Master level I assessment.

A person with a new idea is a crank until the idea succeeds.

- Mark Twain

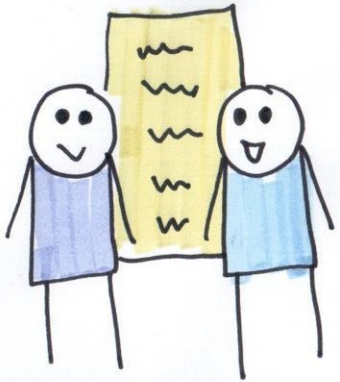
Theory and First Principles

Professional Scrum Master

Who is in the room?

Find a partner (someone you don't know) :)

Fill in the posters around the room.



create a card for your neighbour

- name
- role at work
- super power
- favourite sport
- 1 interesting Fact

AGILE MANIFESTO

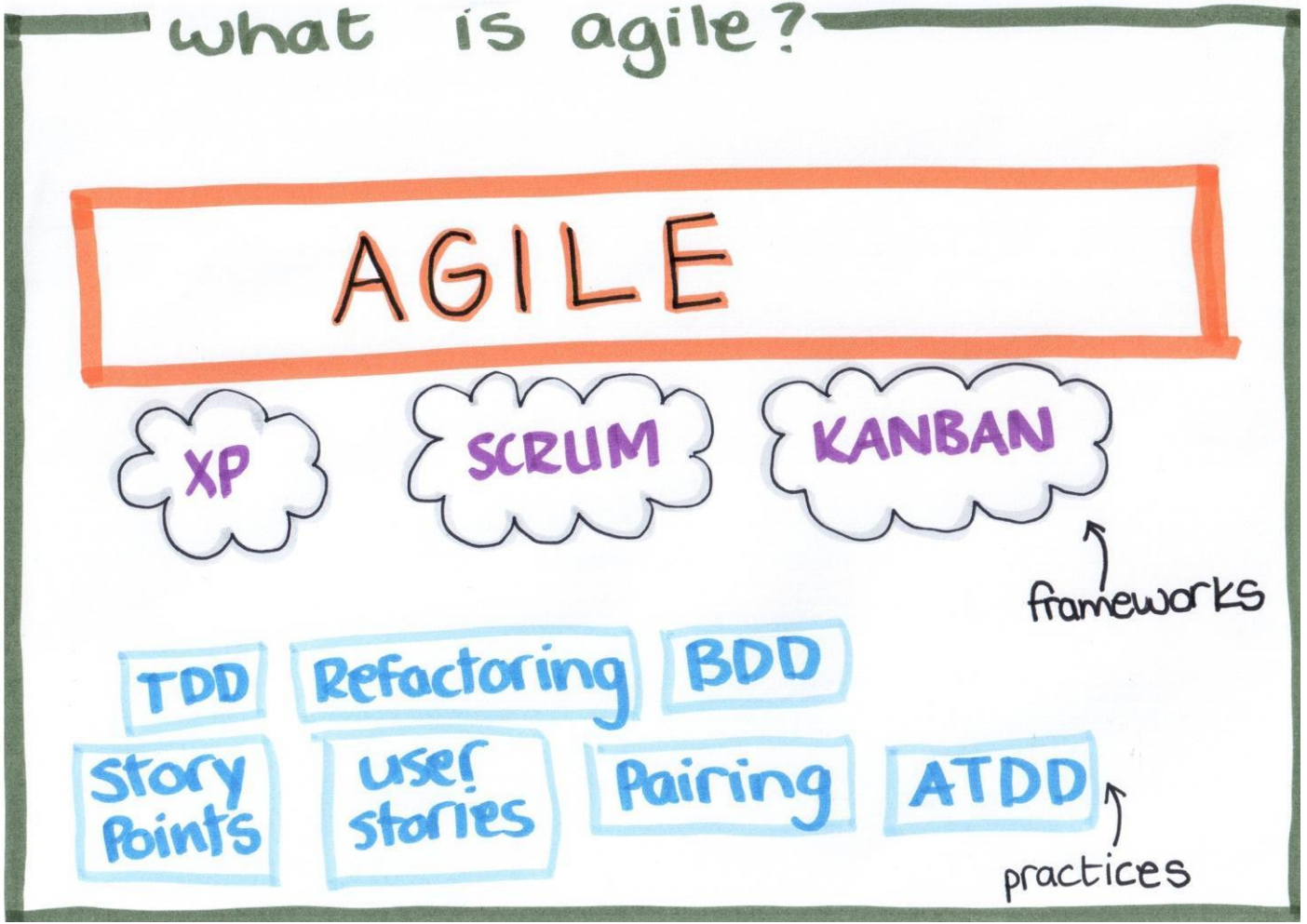
individuals & interactions over processes & tools

working software over comprehensive documentation

customer collaboration over contract negotiation

responding to change over following a plan

https://agilemanifesto.org


what is agile?
AGILE
XP
SCRUM
KANBAN
frameworks
TDD
Refactoring
BDD
Story Points
user stories
Pairing
ATDD
practices

Ernesto's Thoughts

- It helps to understand how teams develop.
- The Tuckman Stages of Group Development is a useful model in this regard. Developed in 1965 by the psychologist Bruce Tuckman, it describes the phases that most teams progress through in order to become gel into an actual team.
- Tuckman built his model on 26 studies on how small groups develop, and identified five phases

WORKS WITH KIDS AND WITH SCRUM TEAMS AND EVERYONE IN BETWEEN

Forming

- In this first phase, the team is mostly concerned with their reason for being.
  - Why are they together? What is the purpose of the team? What tasks is the team supposed to pick up?
- In this phase, people are usually not familiar with each other yet.
- The sense of safety that comes with familiarity is still missing, meaning that criticism, irritations, doubt and uncertainties are not yet openly voiced.
- Instead, people tend to focus on the task at hand and what is expected of them.
- In this phase, people don't generally feel part of a team yet.
- **During this phase, the best role for the Scrum Master or Coach to take is that of teacher.**
- Make sure that people know what to do and provide clarity on purpose and (initial) structure

Storming

- When a sense of familiarity and safety starts to form within the team, people become more comfortable with each other.
- The openness to voice doubts, worries and frustration grows.
- The first conflicts emerge.
- Initially, conflicts will focus primarily on tasks (‘who will do what?’, ‘how will we do this?’), not on each other.
- But as familiarity increases, small irritations between members (you included) will surface.
- This is a natural result of differences between what members expect from themselves, each other and the team.

Storming Part 2

- Be mindful that conflicts can be active (people are voicing them) or passive (resistance or withdrawal).
- Although this is not always a fun phase to be in, it is a critical phase in the team's development.
- If sufficient opportunity is given to constructively resolve conflicts, the team will learn to trust each other.
- Trying to shortcut this phase by covering up conflicts or ignoring them is the worst thing you can do.
- **The best role for the Scrum Master is that of coach.**
- Don't resolve the conflicts for the team, but help them identify conflicts and resolve them themselves

Norming

- When the conflicts that emerge during the storming phase can be dealt with in a constructive and safe manner, the team moves into the norming phase.
- The focus of this phase is to find a balance between what members expect from each other and the team.
- This has to do with aspects of the work (e.g. quality, speed, thoroughness) and how people behave (social norms).
- In other words, the team is agreeing on the norms, values and rules that govern their work as a team.
- During the ‘norming phase’, discussions become more task-oriented. This is much like what happens in the first phase, but in a way that is more mindful of the norms that the team has established.

Norming Part 2

- This is the phase where people start to truly feel part of, and loyal to, the team.
- **The best role to take as a Scrum Master is that of mentor.**
- Using the Scrum Framework and your knowledge of Agile Software Development, you can help the team to work out a productive mode of working

Performing

- Now that there is safety in the team, and a shared sense of what is important and what is not, the team can work constructively together.
- In this phase, people become more flexible in their role and what they do.
- This is the phase where self-organization becomes most evident; a team member that stands in for an unavailable Scrum Master or developers that pick up tasks outside their comfort zone.
- The fear or failing and making mistakes has mostly dissolved.
- Although task-oriented discussions are (and will remain) common, the general atmosphere within the team is positive and constructive.
- **The best role for the Scrum Master is that of adviser.**
- The team is perfectly capable of solving most problems on their own, but help them find the best solutions

Adjourning

- All teams eventually dissolve. Perhaps the purpose of the team has been achieved, or the team is disbanded for other reasons.
- Especially for long-running teams, or teams that have worked together intensively for even a short period, this can be traumatic and painful.
- In this phase it is important to use rituals and events to say goodbye to the team.
- **The best role for the Scrum Master is that of facilitator.**
- Provide opportunities for people to express emotions that are associated with departures and help them make sense of it

IF ANYONE JOINS OR LEAVES THE TEAM… IT IS A NEW TEAM

Summary

- All teams progress through these phases. Some faster, some slower.
  - Some teams get stuck in a particular phase — usually the ‘storming’ or the ‘norming phase’ — when key conflicts remain unresolved.
- Changes in team composition, even if it is just a single person, generally regress back to the ‘norming phase’.
  - A powerful reason not to mess with team composition too often.
- How much time a team needs to progress through the stages greatly depends on team composition and external factors, but it certainly is not matter of hours or even days. **My experience is that teams need at least three or four sprints to arrive at the norming phase, and a couple more to arrive at the performing phase.**

Meeting The Team

A Sprint in the life of a Scrum Master

5 MIN

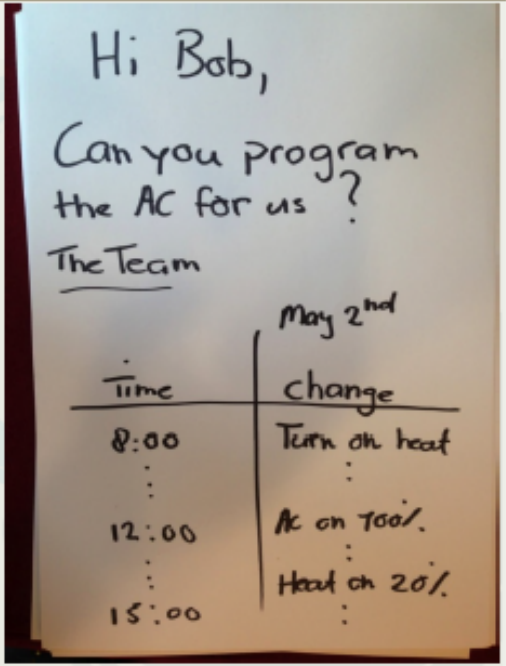
Purpose: Explore how variables lead to complexity

You are the new Scrum Master for a team that tells you about the terrible temperature in their room.

At the central, Bob needs to program the settings for the heating, air conditioning, venting, and blinds throughout the day.

Bob needs to know all the variables that influence the room temperature to program the climate system upfront. No other adjustments are possible during the day.

The team wants a constant 22°C temperature.



Question: What variables will you take into account? *(hint: number of people is one)*

It Is A Complex Situation

- Number of people in room
- Metabolism of each person
- Activity of each person
- Opening/closing of doors
- Weather: including sun, clouds, and outside temperature
- Temperature of adjoining rooms
- Construction material of the building
- Floor of the room
- Will food be served, when, what type, and how much?
- Temperature of food brought into room

The Complexity Of Software Development

5 MIN

List the variables and parameters that have to be considered in software development.

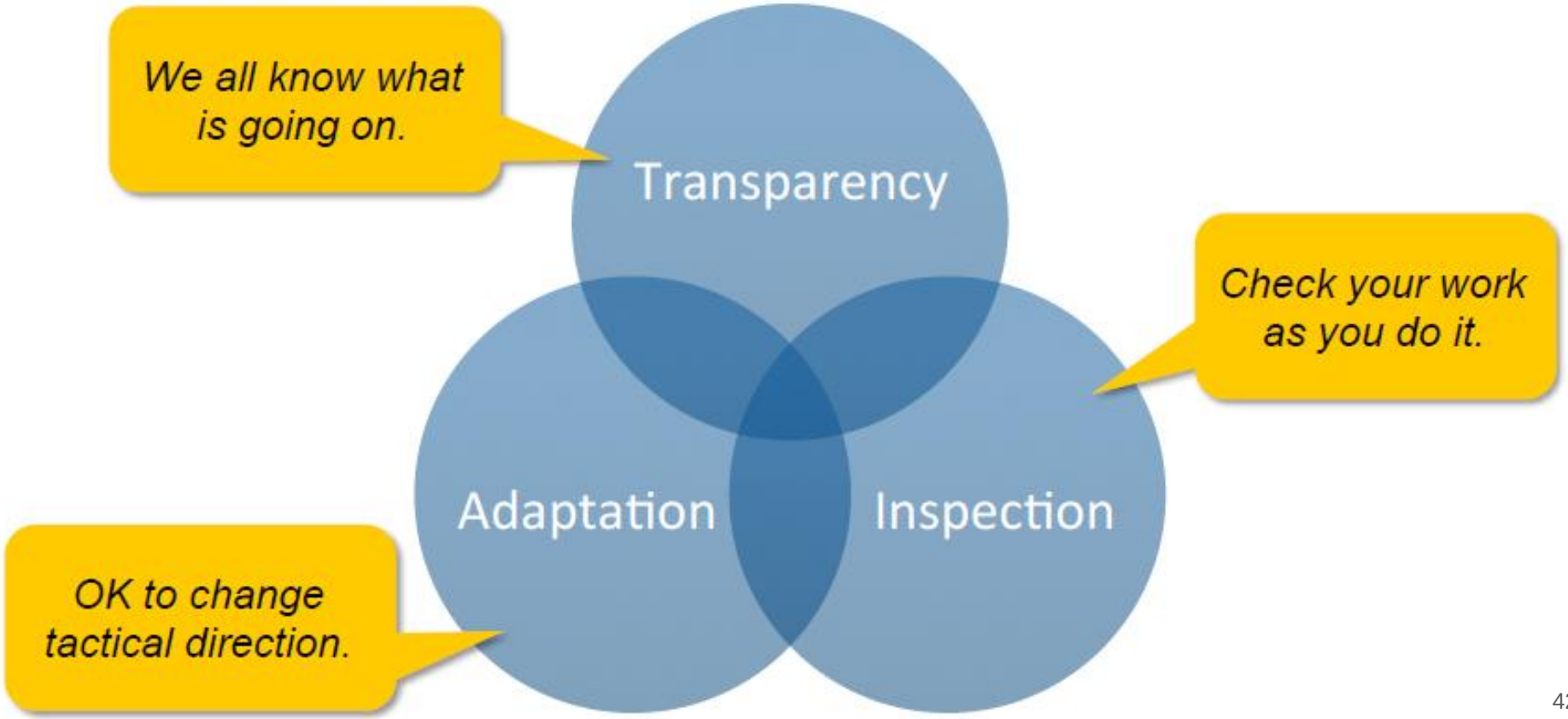
- How predictable are they?
- What would you do to control them?

There Is A Simple Solution

Variables can be ignored by using an empirical process:

- **Inspect** the room temperature at the right *frequency*
- **Adapt** the systems that drive the temperature (heating and air cooling) from a common *agreement*
- **Transparency** is needed to make sure the real temperature is inspected

Scrum Has Three Legs

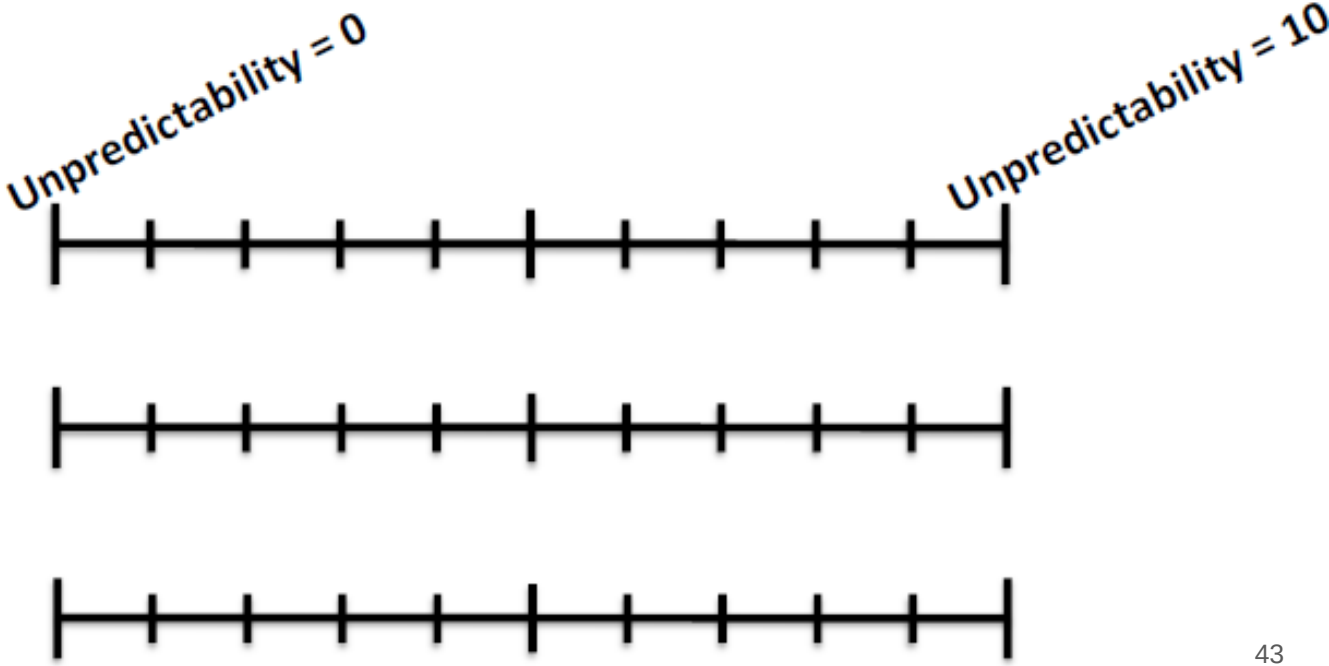


The Predictability Of Software Development

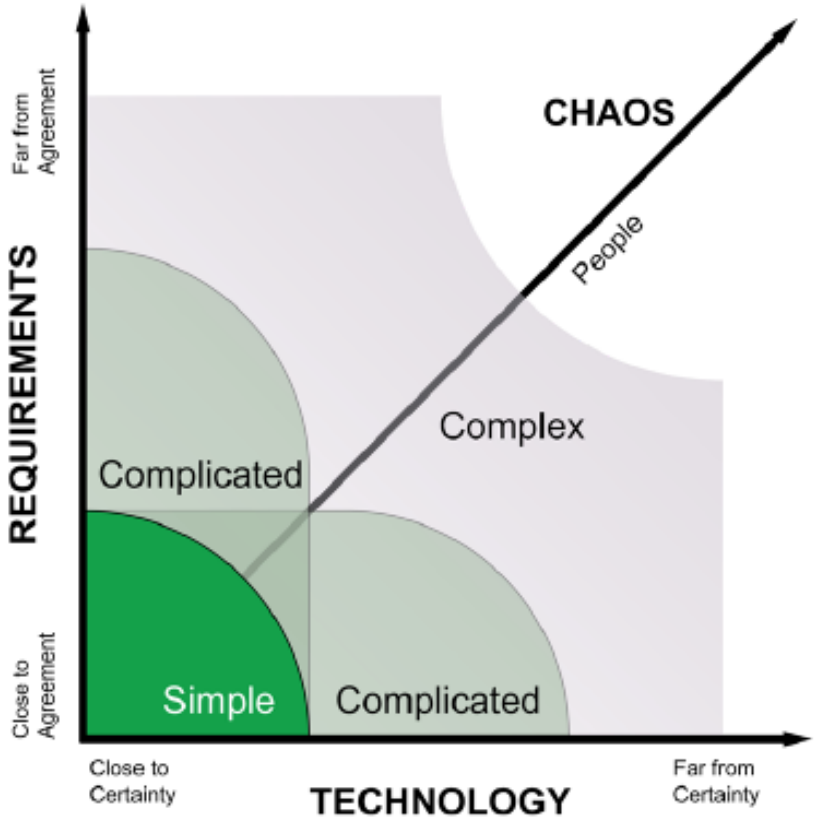
10 MIN

Put a slider (▼) at 0-10 for the 3 major variables in software development on the scale of unpredictability:

- _____:
- _____:
- _____:



The Complexity Of Software Development



Simple

Everything is known

Complicated

More is known than unknown

Complex

More is unknown than known

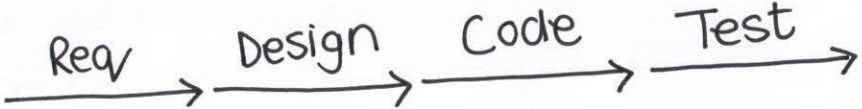
Chaotic

Very little is know

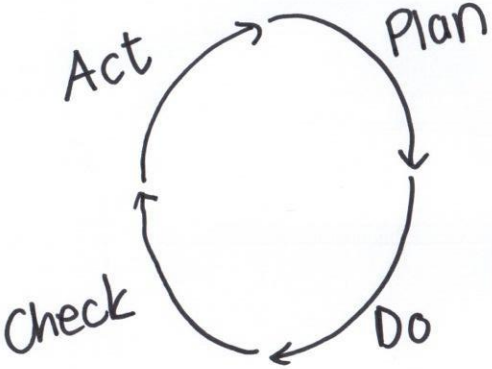
Source: Ralph Stacey, University of Hertfordshire

Process Models

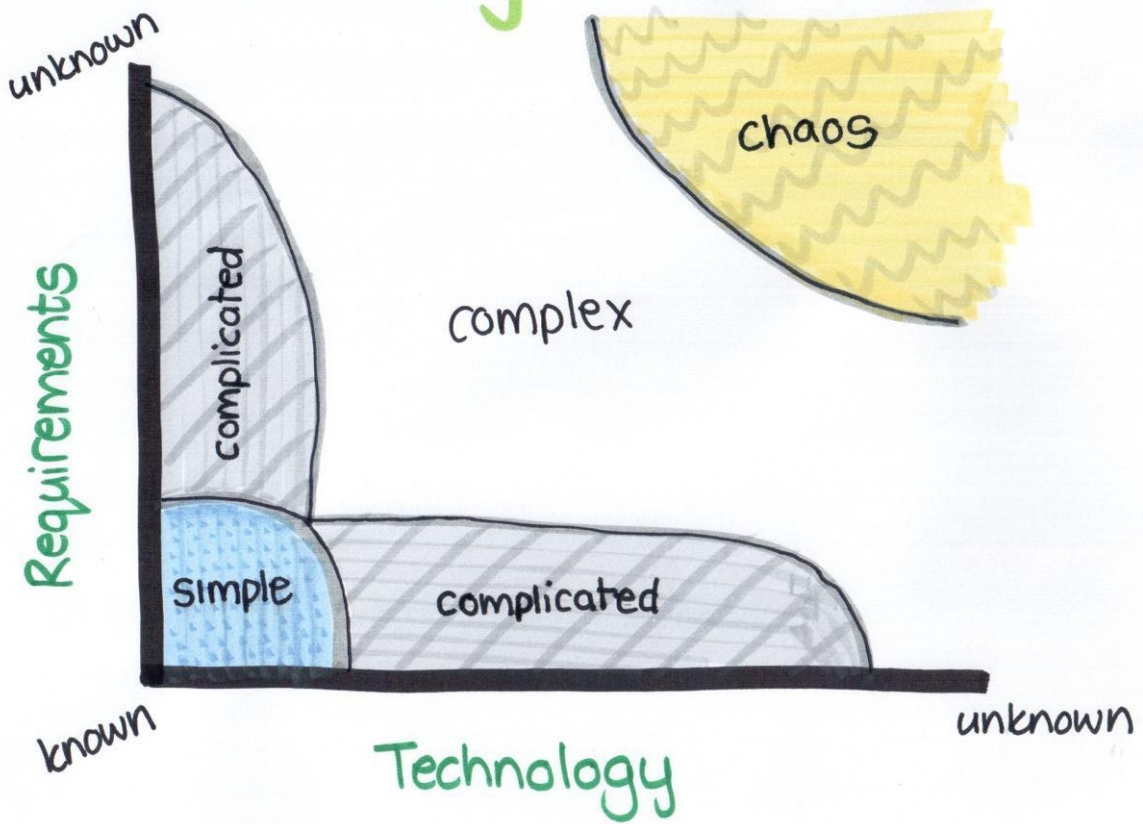
Defined



Empirical



Stacey matrix



Taking 60 Steps (1)

5 MIN

1. Form pairs, where one person is the boss, the other is the worker.
   - The boss may only say: Go, Stop, Right, Left, Faster, Slower
   - The worker must follow the boss's commands
2. Bosses must get workers to take 60 steps in 2 minutes
3. The boss can command, but not touch, the worker
4. Do not leave the defined space
5. Walking in place is not a step

Taking 60 Steps (2)

5 MIN

Same rules as before, except everyone is a worker responsible for choosing how to proceed by him or herself.

1. Stay within boundaries, no touching, talk as much as you want.
2. Proceed 60 normal paces within two minutes.
3. Stop where you are when you get to 60 paces.

Relating Complexity To Management Style

Project Type	Characteristics	Leader's Job
Chaotic	High Turbulence No clear cause-and-effect Unknowables Many decisions and no time	Immediate action to re-establish order Prioritize and select actionable work Look for what works rather than perfection Act, sense, respond
Complex	More unpredictability than predictability Emergent answers Many competing ideas	Create bounded environments for action Increase levels of interaction and communication Servant leadership Generate ideas Probe, sense, respond
Complicated	More predictability than unpredictabili Fact-based management Experts work out wrinkles	Utilize experts to gain insights se metrics to gain control e, analyze, respond mand and control
Simple	Repeating patterns and consistent events Clear cause-and-effect Well establish knowns Fact based management	Use best practices Extensive communication not necessary Establish patterns and optimize to them Command and control

Source: "Leadership Framework for Decision Making," Snowden and Boone, HBR, 2008

Complexity Calls For The Right Management Style

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Situation Dictates The Type Of Process

Predictive

- Work and outcomes are understood before execution
- Given a well-defined set of inputs, the same outputs are generated every time
- Follow the pre-determined steps to get known results

Examples: Assembly line, construction, accounting

Empirical

- Frequent inspection and adaptation occurs as work proceeds
- Processes are accepted as imperfectly defined
- Outputs are often unpredictable and unrepeatable

Examples: Sales, marketing, theater, creative writing

Empirical Processes Require Courage

Meeting The Management

10 MIN

Purpose: Exploring the essential advantages of Agility

Hi,

Heard lots of good things about your team.
Want to know more about agile.

See you in 10 minutes.

Your CEO

Question: Explain to the CEO what ‘agile’ is about.

Definition of Agility (n)

–noun

1. The ability to rapidly and deliberately respond to changing demand, while controlling risk.
2. Flexibility, the capacity and capability of rapidly and efficiently adapting.
3. The ability to innovate.

Definition Of Scrum (n)

–framework

1. Helping people address complex problems.
2. Productively and creatively deliver products of the highest possible value.

https://www.scrum.org/resources/scrum-guide

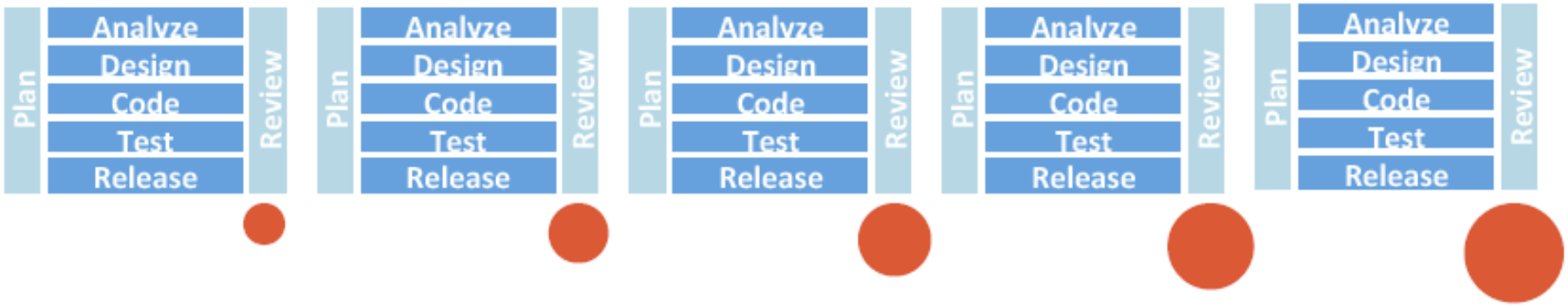
Scrum Is A Foundation For Agility

Limit risk, provide transparency and be able to adapt through short, high value iterations:

- To deliver valuable, opportunistic pieces of functionality.
- By self-organizing, cross-functional teams.

Scrum Team

Scrum Delivers Frequently



Working software is available.

"A Scrum project is only one Sprint long. A release of software is the sum of multiple increments (and previously developed software, if any). A Scrum project cannot fail, only deliver unacceptable return on investment."

- Ken Schwaber

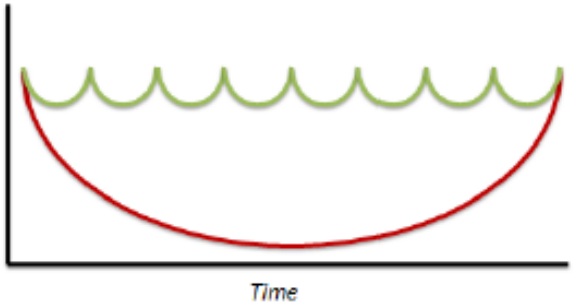
Relating Iterative-Incremental To Success

5 MIN

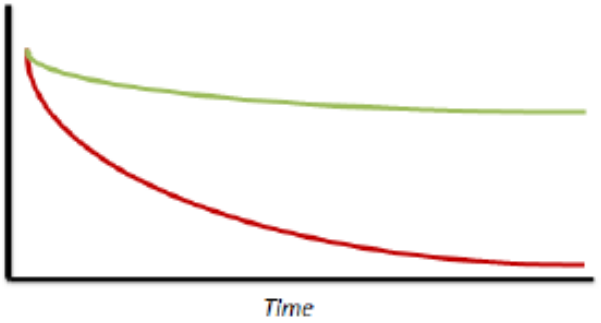
Can you picture the evolution of value and risk over time with an iterative-incremental approach? Other parameters that contribute to success?

Comparing Evolutions

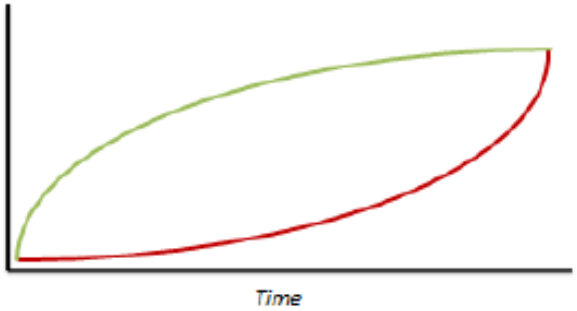
Visibility



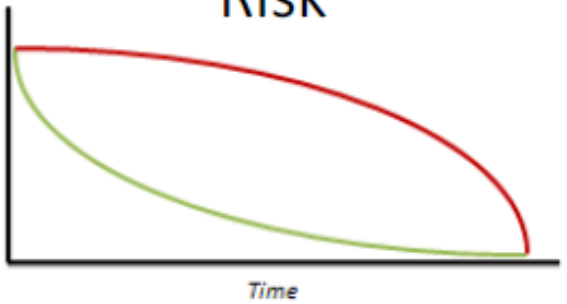
Ability to Change



Business Value



Risk



Waterfall | Scrum

Scrum: What's In A Name?


FATBURGER
Since 1952
®
The Last Great Hamburger Stand®

Is It Customer Service?

10 MIN

Purpose: Explore the impact of courage and transparency

You are a student working your way through college. You work at FatBurger earning 2.20 $/hour. You are on the 2pm to 11pm shift, and the only person on duty. You are cleaning up at 10:30 when a customer approaches and orders a Double FatBurger Deluxe, with onions, cheese, and bacon and an order of fat fries. You ring up the order. The price is $6. The customer informs you that he only has $1.20.

- FatBurger is high quality. Everything is cooked from scratch.
- There is no pre-cooked food you were planning on throwing out.
- FatBurger uses strict inventory control. Anything you take to give to the customer will be charged to your paycheck.
- The clerk has not yet entered the order.

Question: What do you do? What do you tell the customer?

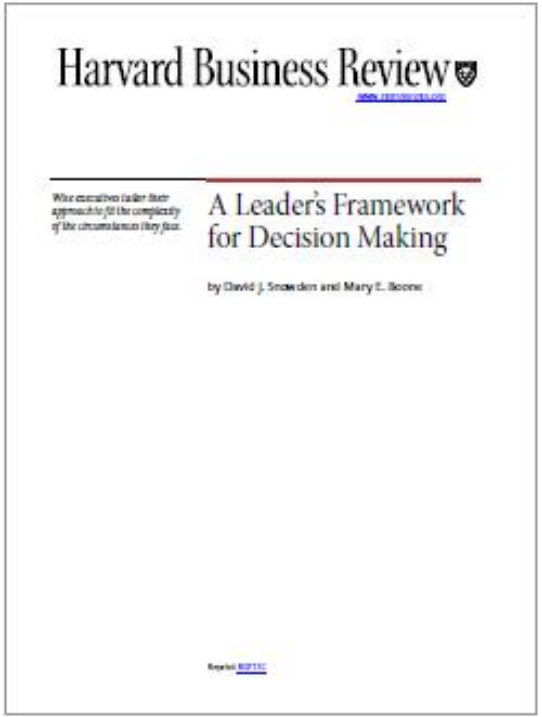
Take-Away About Foundations Of Scrum

- Software development resides in the complex domain.
- The right process produces the right results; the best fit for complexity is the empirical process.
- The 3 legs of empiricism are inspection, adaptation and transparency.
- Transparency requires trust and courage.

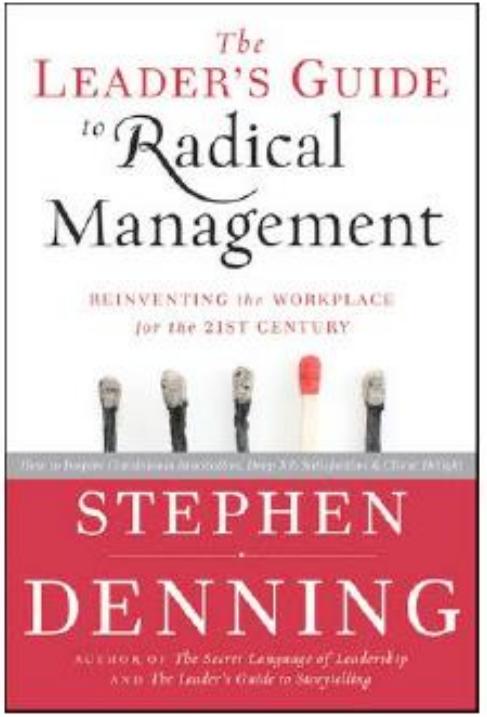
Suggested Reading

"The New New Product Development Game" (Takeuchi, Nonaka)

"A Leader's Framework for Decision-Making" (Snowden, Boone)

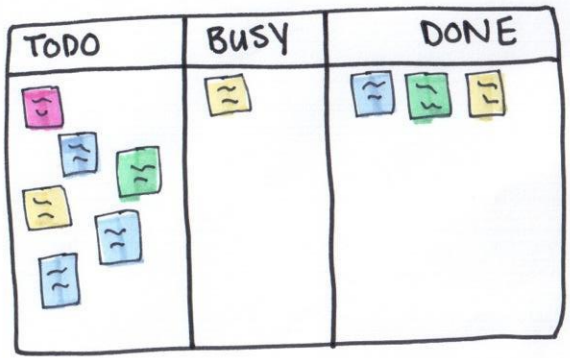


"Radical Management" (Stephen Denning)



QUESTION BACKLOG

- write up your questions
- 1 per post-it
- prioritize at your table
- create a taskboard
- update throughout course
  (we will give you time)



Values

- courage
- openness
- respect
- focus
- commitment

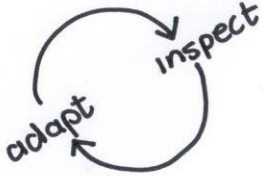
PRINCIPLES

→ prioritisation → self-organisation

→ empiricism → emergence

→ collaboration → time-boxing

1+1=3



A man who carries a cat by the tail learns something he can learn in no other way.

- Mark Twain

The Scrum Framework

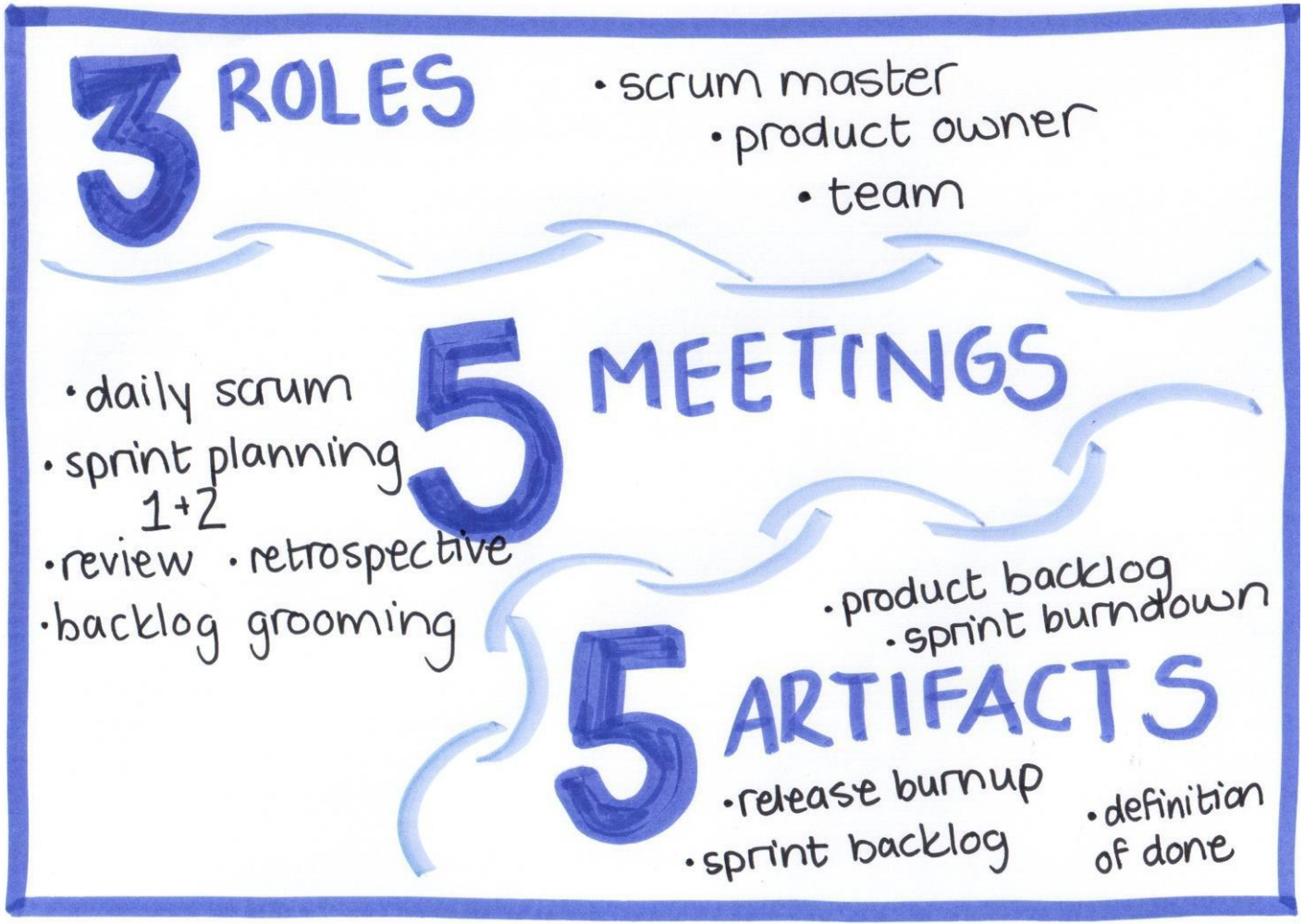
Professional Scrum Master

What Is Needed For Scrum?

5 MIN

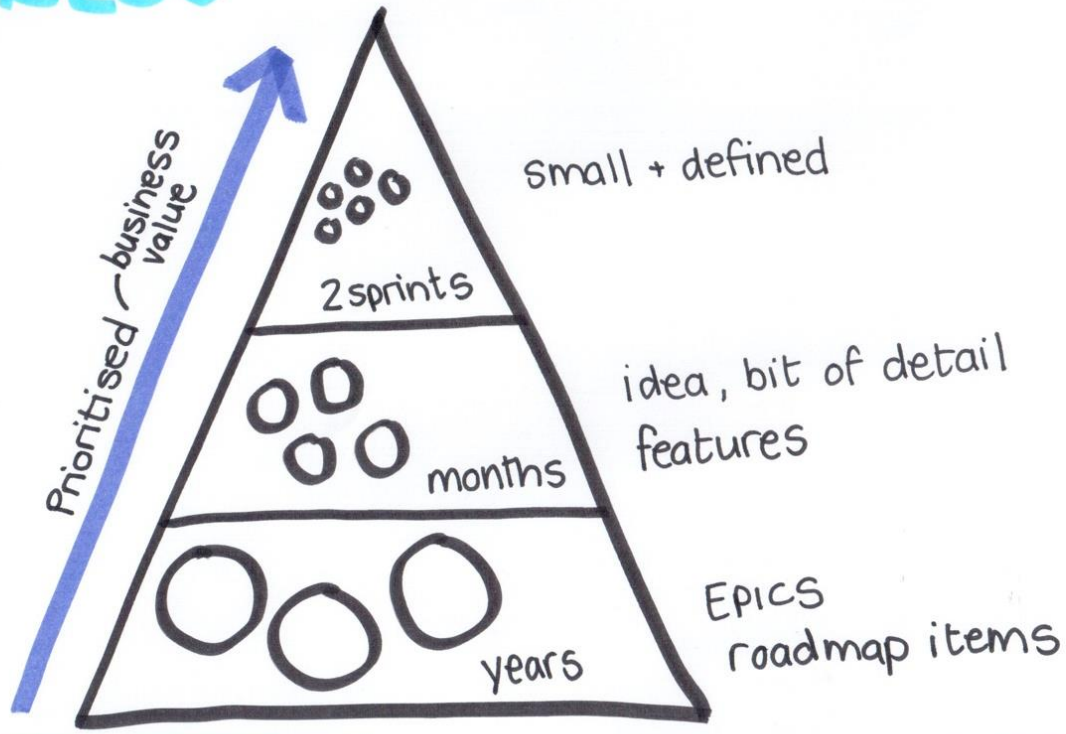
Explore the elements in the Scrum framework:

Roles	Artifacts	Events
•	•	•
•	•	•
•	•	•
		•
		•

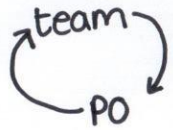

3 ROLES
• scrum master
• product owner
• team
5 MEETINGS
• daily scrum
• sprint planning 1+2
• review
• retrospective
• backlog grooming
5 ARTIFACTS
• product backlog
• sprint burndown
• release burnup
• sprint backlog
• definition of done

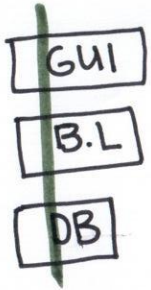
PRODUCT BACKLOG

DEEP



BACKLOG GROOMING

- understanding requirements
- estimating
- acceptance criteria
- shared understanding 

- 3x
- vertical slice 

when?

before the sprint (during the previous sprint)

time?

For 2 week sprint:

2 x 1.5 hrs

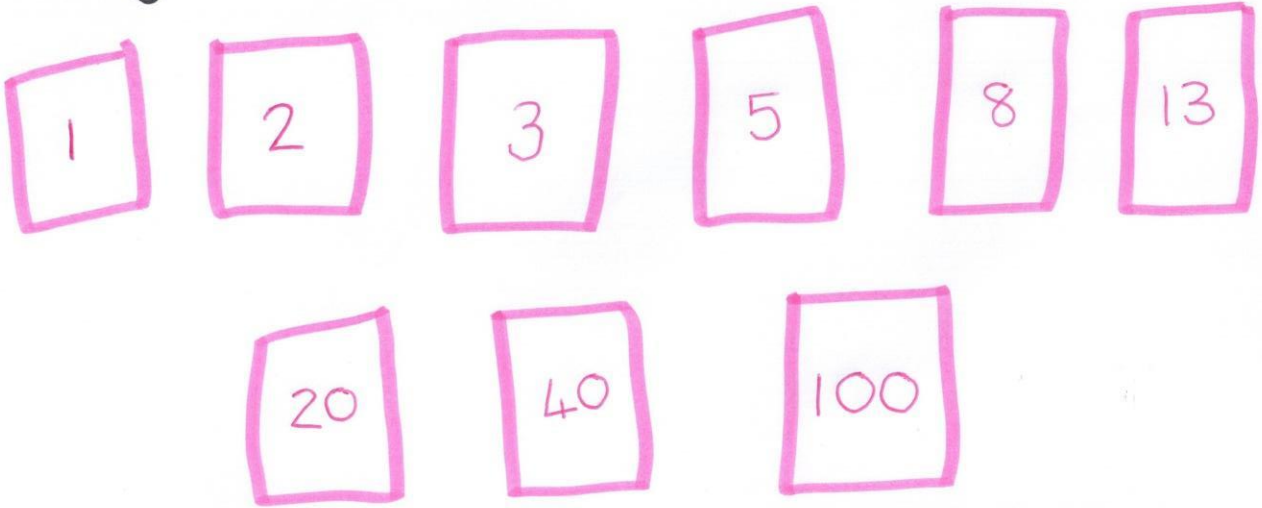
who?

P.O, SM, team

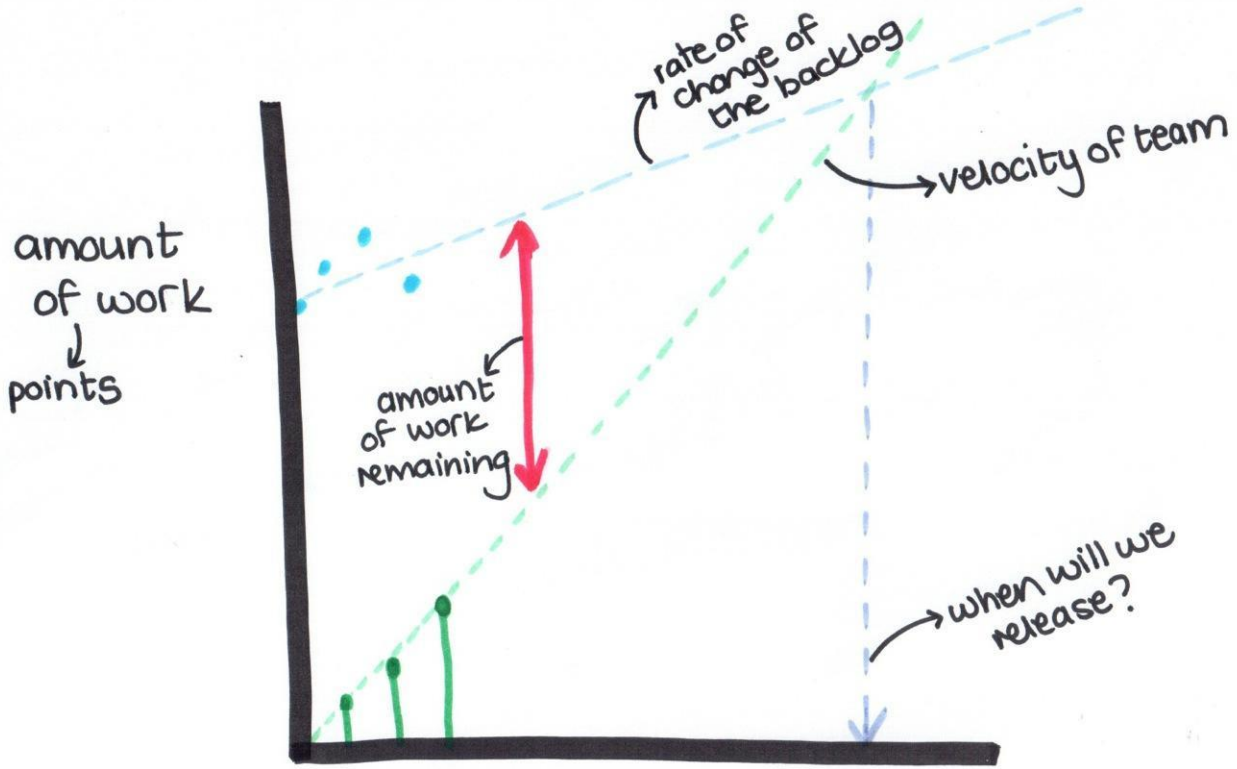
- anyone with knowledge

estimation

- it will be wrong. Thats ok.
- relative estimation → they don't change if you get faster
- story points
- why? Make decisions

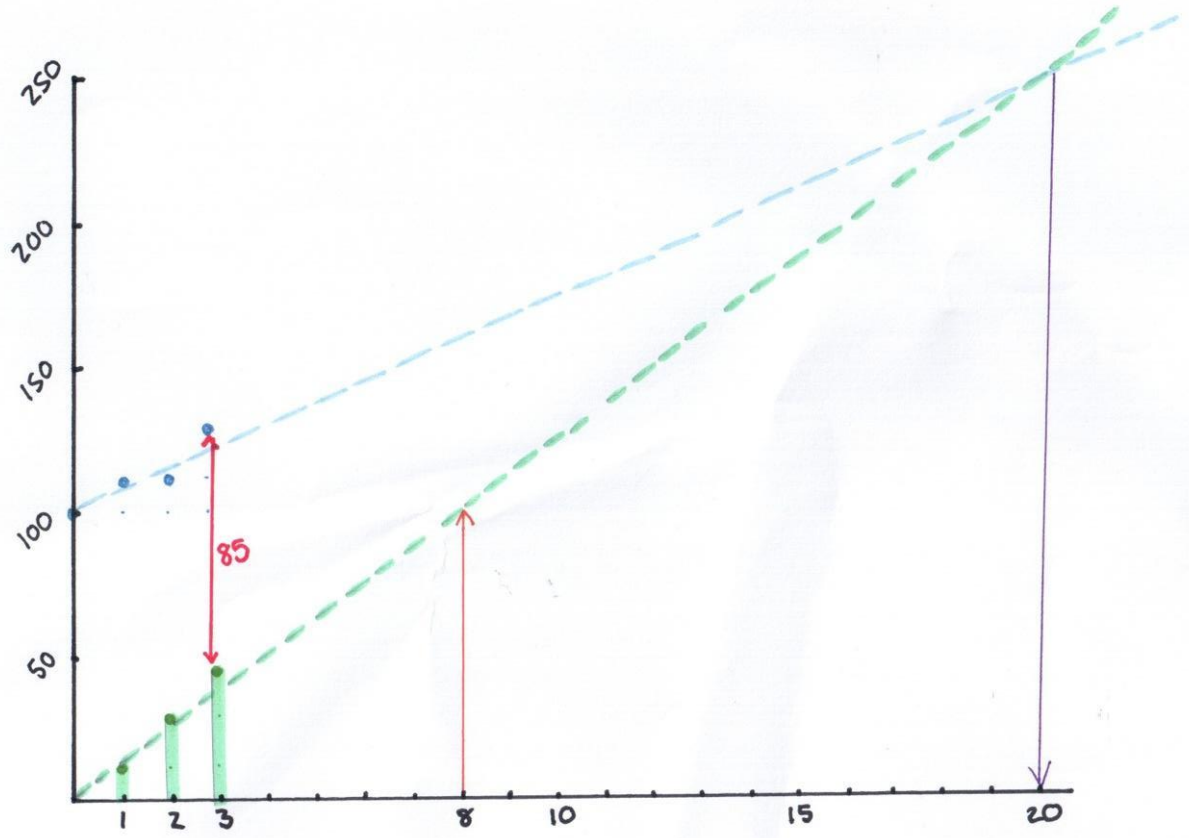


RELEASE PLANNING



- owned & updated by Product Owner

Release Burndown Exercise



TEAMS

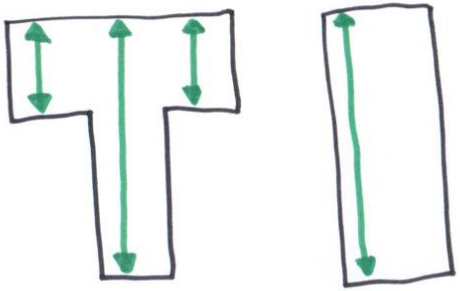
cross-functional

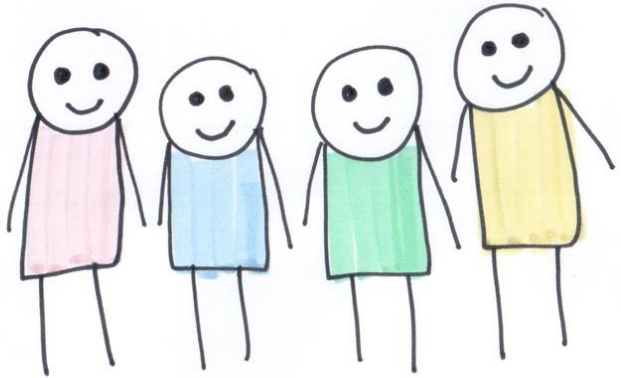
stable

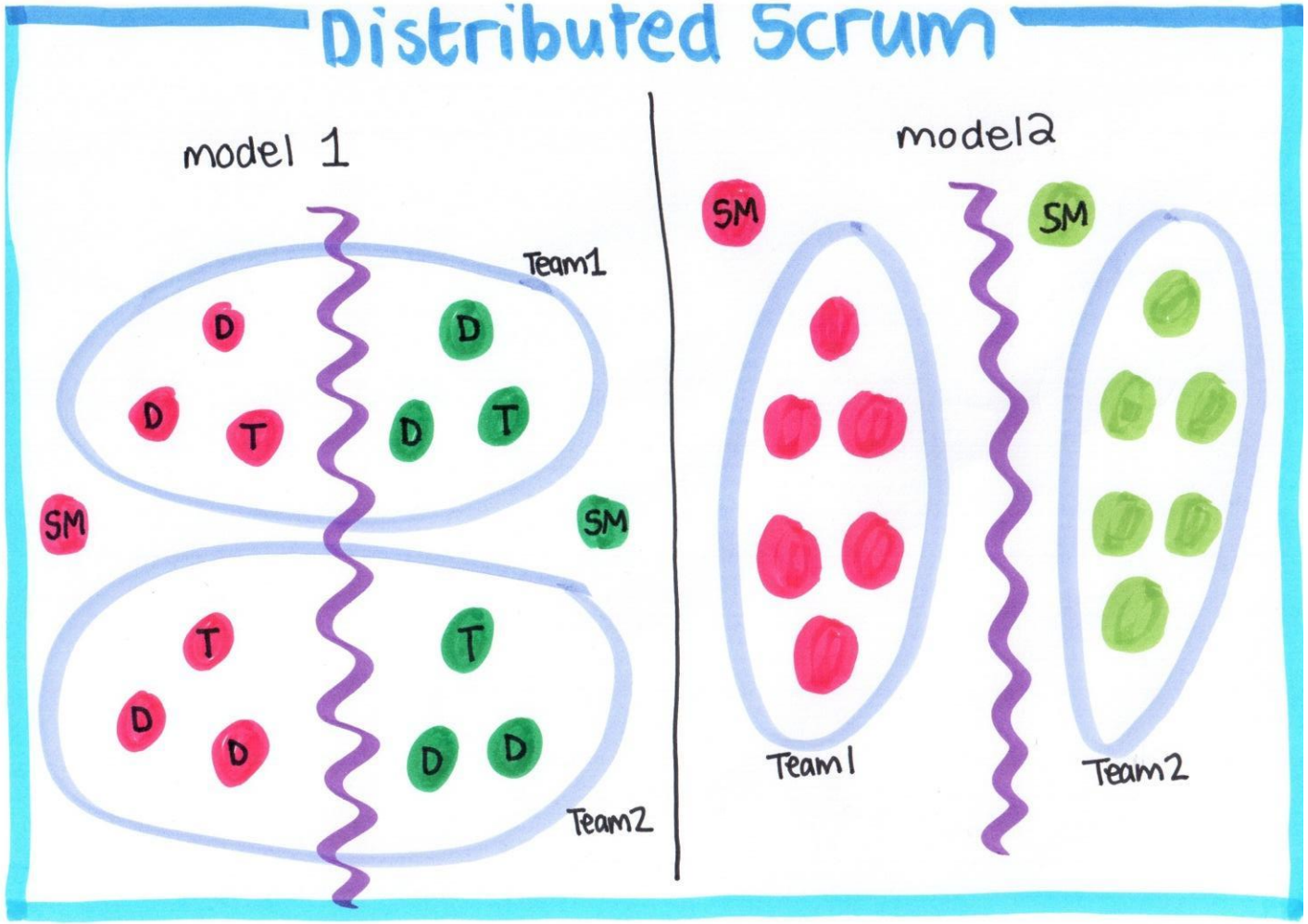
size 5-9

co-located

self-organised






Distributed Scrum
model 1
Team1
D
D
D
D
T
D
T
SM
SM
T
T
D
D
D
D
Team2
model2
SM
SM
Team1
Team2

Exploring Accountability

5 MIN

With the temperature problem removed, you can focus more on the team.

You discover that there isn't really a Product Owner in the team. The Development Team therefore creates the Product Backlog.

What would you advise them?

Roles: Each One Has A Specific Responsibility

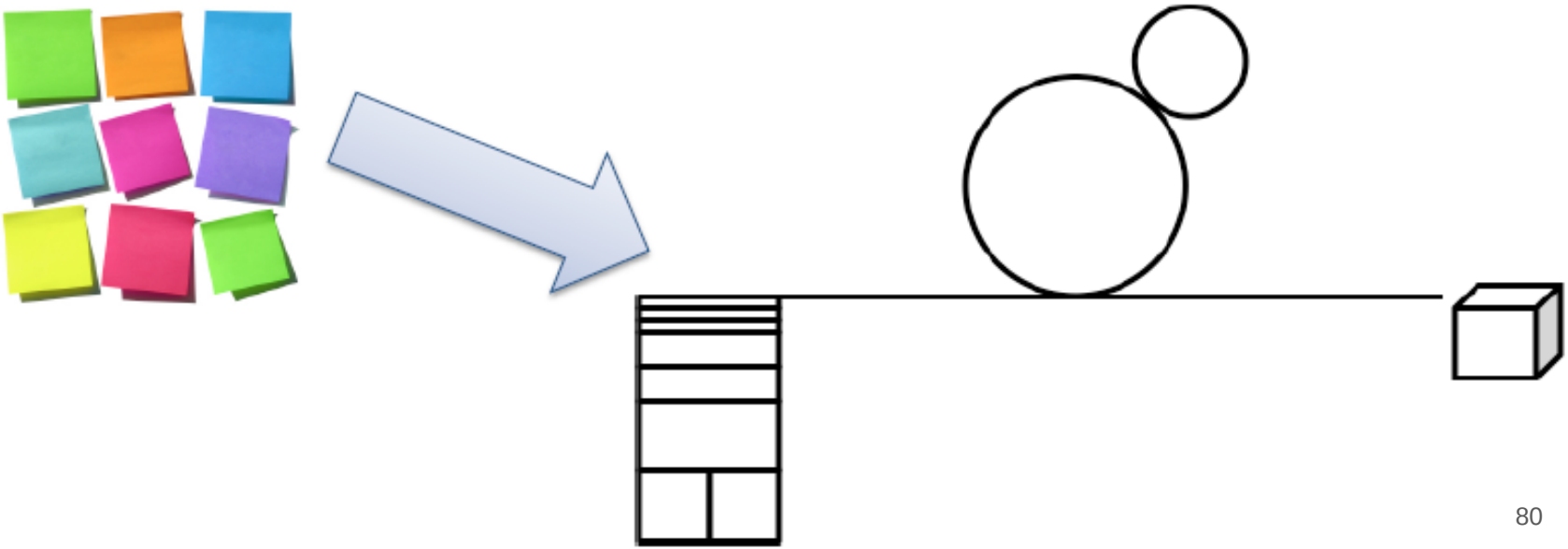
Development Team	• Manages itself • Delivers Done Increments
Product Owner	• Optimizes value of the Product • Manages the Product Backlog
Scrum Master	• Manages the Scrum Process • Removes Impediments

Fitting The Pieces Together

10 MIN

Your team is unclear on how Scrum works. You have made up a drawing of the complete process to visualize it.

Each student, add an element of Scrum to following scheme:



How Is Scrum Empirical?

5 MIN

Purpose: Explore the role of the Scrum elements in empiricism

Event	Inspection	Adaptation
Sprint Planning	A?	Sprint Goal, Forecast, Sprint Backlog
Daily Scrum	Progress toward Sprint Goal	B?
Sprint Review	Increment, Sprint, Product Backlog	C?
Retrospective	D?	Actionable and committed improvements

Question: What is missing? How is it transparent? Who should attend? What's the time-box?

Test Time

http://scrum.org/open-assessments

You will NOT have a perfect score and that is ok. Please jot down any questions you got incorrect in your workbook.

Please take the exam TWICE.

Roles, Artifacts & Events In Action

Roles

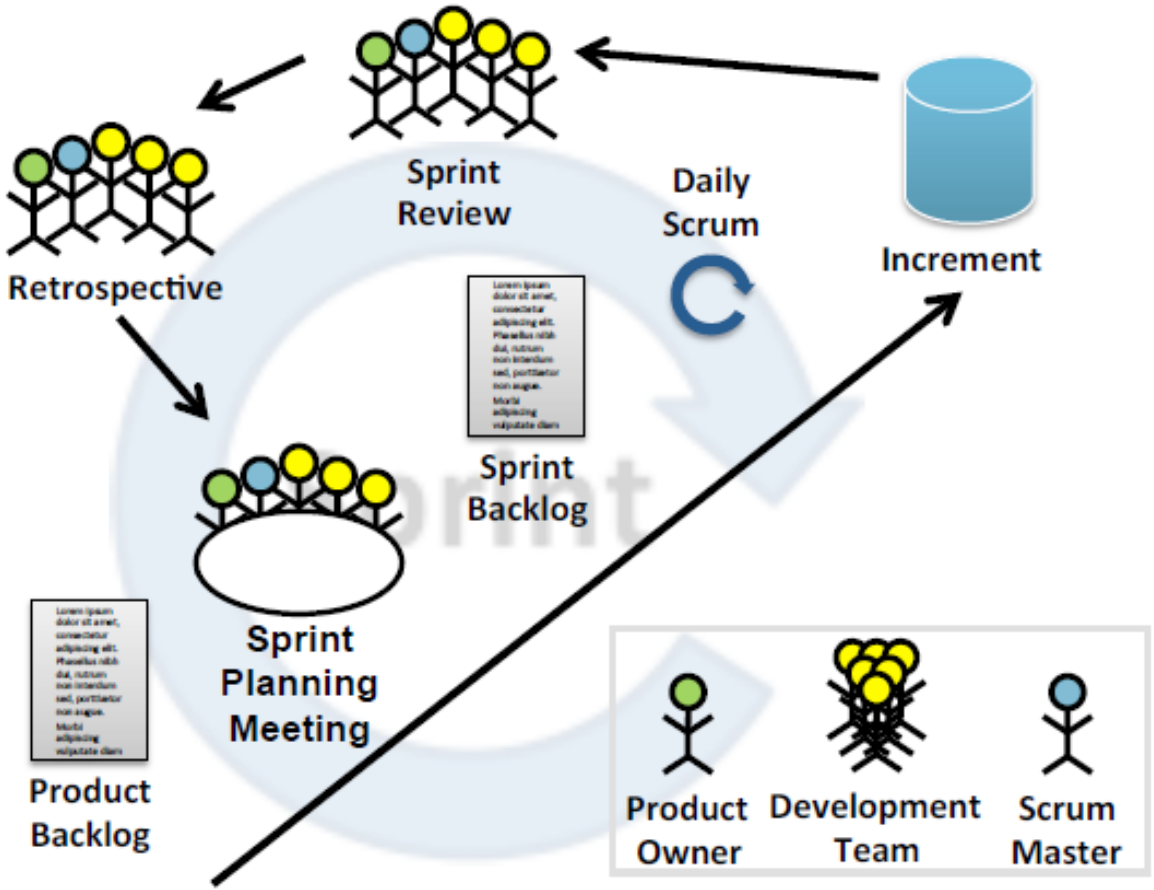
- Product Owner
- Development Team
- Scrum Master

Artifacts

- Product Backlog
- Sprint Backlog
- Increment

Events

- Sprint
- Sprint Planning
- Daily Scrum
- Sprint Review
- Retrospective



Judi Is In Trouble

5 MIN

Purpose: Demonstrate accountability of Scrum roles

Your CEO tells you of his friend Judi who has a problem with her software development.

She is CEO of a community portal in San Francisco. The portal has over 20m subscribers, of whom about a million are always active.

Judi is very distressed because the portal has not been updated with new functionality for over 5 months. Only news and data are updated.

There are five Product Managers, all vice presidents, responsible for advertising, dating, community, vacations, and classified functionality. Judi has incented them on their functional area's revenues over last year by 10, 18, 84, 33, and 120%.

Question: He asks you for a recommendation for Judi to fix this.

David Saves The Day

5 MIN

Purpose: Demonstrate Scrum roles

David is Product Owner at the Sprint Planning.

He presents a Product Backlog different from what he and the other Product Managers agreed on.

After more than 3h of bickering, David and the Product Managers are nowhere.

Question: You are there to help them get started. What do you suggest?

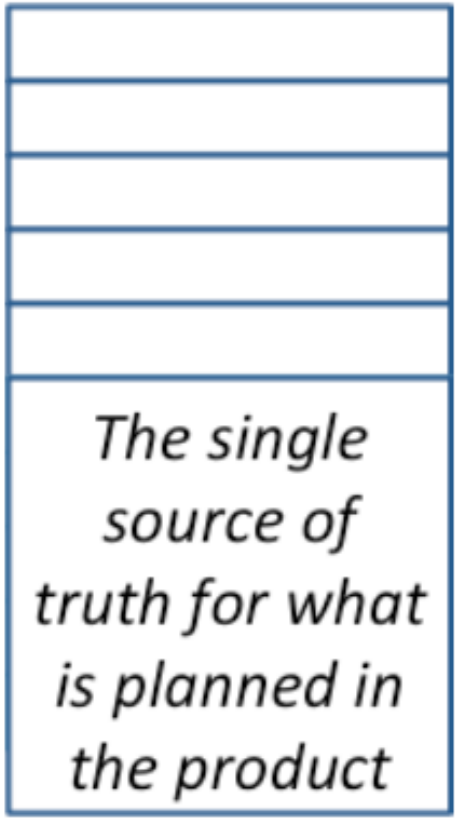
What Is A Scrum Sprint?

Sprints are time-boxed iterations that serve iterative-incremental development.

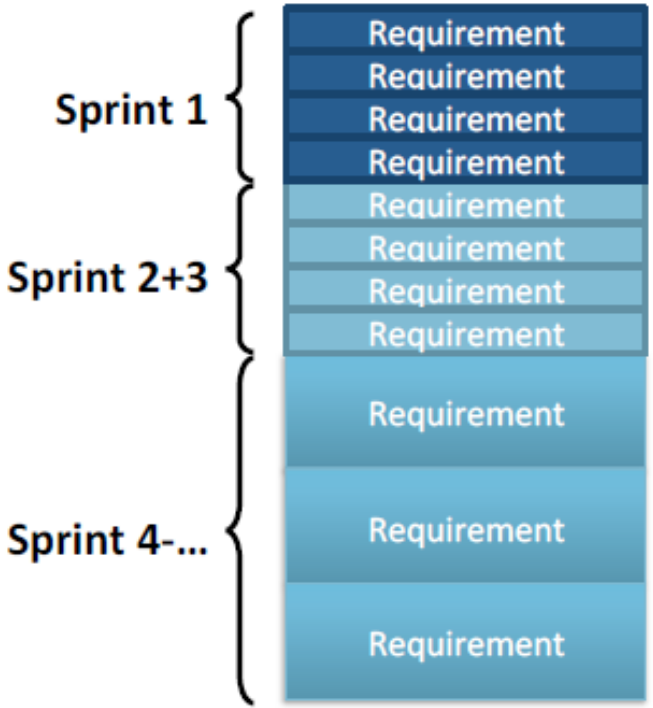
- All development is done within a Sprint
- A Sprint has a constant duration of 1 month or less
  - Sprint length is determined by acceptable planning horizon
- Scrum knows no phases, only Sprints
  - No testing, hardening, release, analysis Sprints

Product Backlog Holds The Requirements In Scrum

- Inventory of things to be done
- Requirements to achieve system or release goal
- Ordered based on
  - ROI, value, dependencies, risk
  - Other factors
- Transparent
- Minimal but sufficient
- Managed by Product Owner
- The single source of work for the Development Team

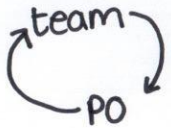


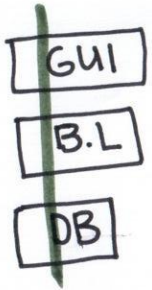
Upcoming Product Backlog Items Are Refined To Ready



- Top ordered PBIs are well understood and easily selected in Sprint Planning
- Product Backlog is continuously refined to increase understanding, granularity and transparency.
- Refinement usually consumes no more than 10% of the capacity of the Development Team.

BACKLOG GROOMING

- understanding requirements
- estimating
- acceptance criteria
- shared understanding 

- 3x
- vertical slice 

when?

before the sprint (during the previous sprint)

time?

For 2 week sprint:

2 x 1.5 hrs

who?

P.O, SM, team

- anyone with knowledge

Build Plan As Needed

(minimizing unordered inventory)

1. Already funded, underway project – detail inventory for next several Sprints
2. Unfunded, new project with trust – detail inventory to level needed to estimate based on history.
3. Unfunded, new project without history – detail inventory to level where reasonable likelihood of meeting initial plan.
4. Unfunded new project with distrust – detail all inventory and build trust during project.

Sprint Planning Meeting Is The First Step

5 MIN

There is a Product Owner now, who manages the Product Backlog.

But the Development Team doesn't know how much Product Backlog to select in the Sprint Planning meeting.

How would you advise them?

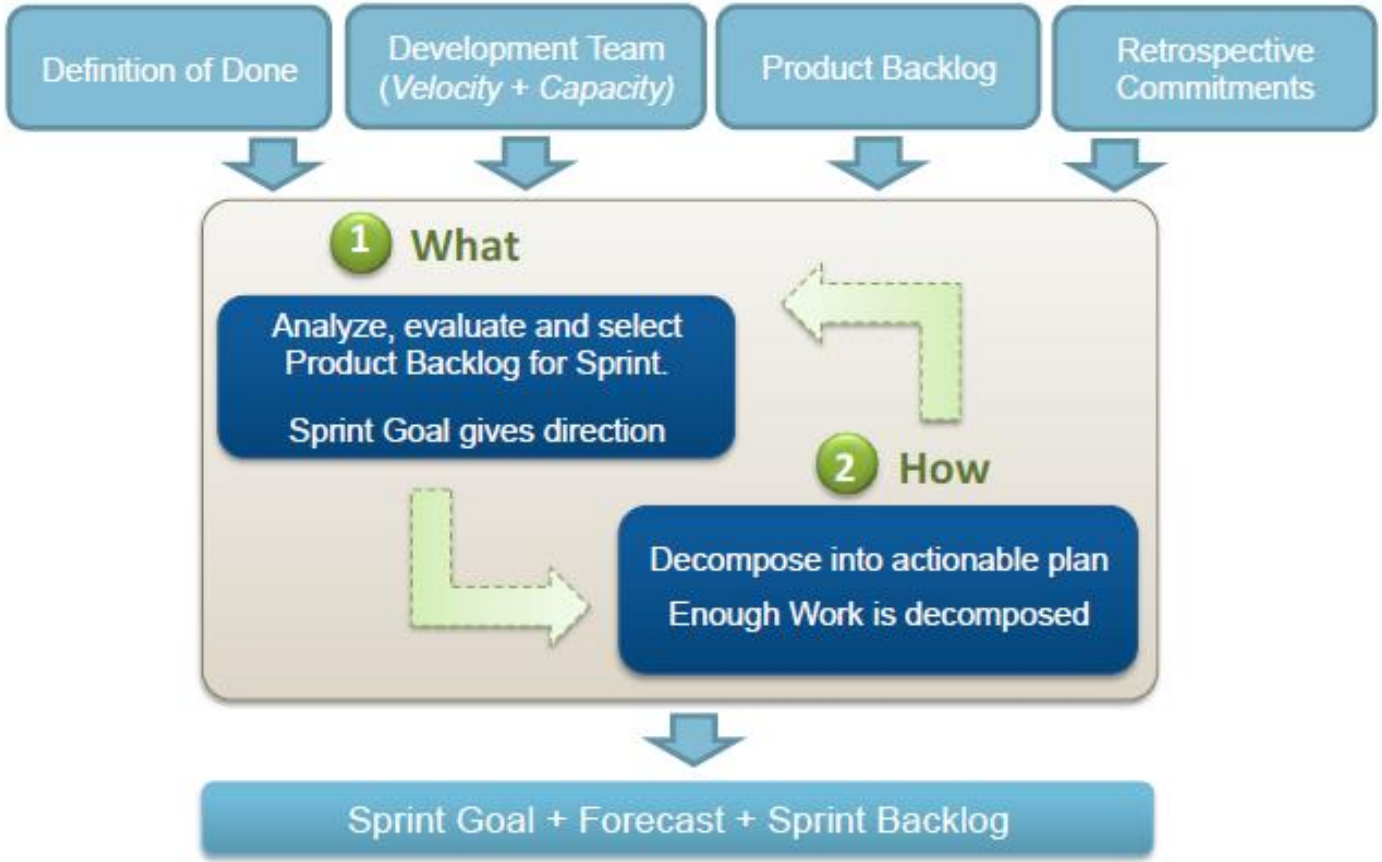
Sprint Planning

- The full Scrum team – that is the product owner, scrum master and the development team – all attend sprint planning.
- The product owner presents the current product backlog and answers any questions the team might have regarding it.
- The scrum master observes, ensuring any questions are resolved and facilitates the meeting to ensure a successful outcome.
- Based on these interactions with the scrum master and product owner, the development team should determine what it can realistically deliver and make a forecast for the sprint based on this.

Sprint Planning Resource

https://jmp.sh/EwuEqmD

Sprint Planning Meeting Flow



SP1

WHAT

- commitment
- check acceptance criteria
- SM reminds ← leave
  public holidays
  previous velocity

when?

1st thing of the sprint.

time?

1hr per week of sprint

(2week sprint = 2hours)

who?

team, PO, SM, anyone with knowledge

SP2

HOW

- design session
- solutioning
- how team will deliver this
- might create tasks ☺

when?

after SP1

time?

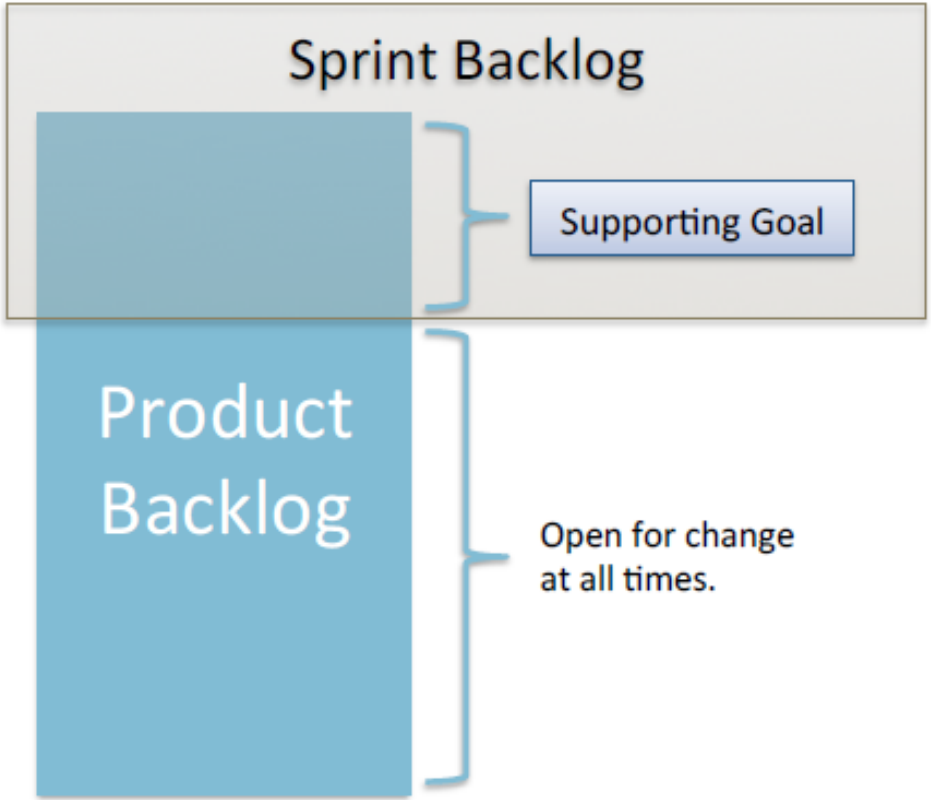
1hr per week of sprint

who?

team, SM, PO on call

Sprint Goal And Scope

- Sprint scope is a forecast and refines as a Sprint progresses.
- Scope may be re-negotiated upon Sprint learning.
- Sprint Goal provides guidance for the Sprint and flexibility on how the functionality is implemented.
- No changes are made that would endanger the Sprint Goal.
- Product Backlog outside the current Sprint is always changing, evolving, and being reordered.



What Is Sprint Backlog?

- Sprint Backlog consists of the selected Product Backlog items and a plan to deliver them.
- Selected Product Backlog items are often decomposed.
- Work for the Sprint emerges.
- Development Team members sign up for work, they aren't assigned.
- Development Team members may modify the Sprint Backlog anytime, as they see fit.

Sprint 0

- A Kickstart is not something you should do in the final two hours on a Friday-afternoon.
  - It is the moment where the foundation of team is being laid.
  - I tend to reserve two to three days for a Kickstart.
- The first day (meeting) is mostly spent on a Scrum Training to refresh the principles of Scrum and on how to best apply Scrum within the context of the team.
- The second meeting is spent on team manifest.
  - This helps to trigger the kind of discussions and conflicts that are part of the ‘storming phase’.
- The third meeting is spent on setting up a Product Backlog and starting the first sprint

Getting People to Open Up is HALF the battle

- It doesn’t matter if people are entirely new to each other, or if they’ve already worked with each other for a long time.
- Spend some time during the first session as a team to get to know each other. Sometimes I ask people to introduce themselves as the super hero they’d like to be, or any corny activity.
- This works well independent of how well people know each other.
- The key here is to break the ice and to get people out of their comfort zones.

For Scrum to Work - you must TEACH Scrum

- A Scrum Team should not have only two members that have actually read a book on Scrum or participated in a course, while the rest doesn't really have a clue ('Something with meeting every day for 15 minutes').
- Scrum is so popular these days that people often have very different interpretations and misconceptions about what Scrum is and what it isn't.
  - I will often ask the team to DEFINE scrum and then present my overview and explain roles
  - I will initiate conflict that will arise in the STORMING phase by asking open questions like:
    - How can we make Scrum work for us?
    - What opportunities and risks does Scrum present for you?

Formulate a Team Vision

- You can help a team move through the norming phase by having them think about what it means to be a good team.
  - One exercise that works really well is to have teams imagine the worst possible team and the best possible team.
- Based on a number of characteristics (like ‘communication’, ‘leadership’ and ‘quality’) I let them pair up and brainstorm typical behaviors and things you’re likely to hear when working with these teams

Create a Team Contract

When beginning with Scrum, it is helpful to create clarity.

- How are we going to work as a team?
- Who is responsible for what? When are the Scrum Events?
- Clarity in roles and tasks is important for teams that are in the very early stages of formation (forming & storming).
- Because the team does not yet offer a perfectly safe environment, members need to know what is expected of them.

This is why I often help teams to formulate a Team Contract during their Kickstart.

Team Contract

- Who are the members of the team? What do they bring to the team?
- How are the roles distributed. Who is the Scrum Master / Product Owner, and who's part of the Development Team? People not on the sheet are not part of the Scrum Team, and therefore do not participate during the various Scrum Events unless specifically invited;
- When and where are the various Scrum Events? Who is expected to be there?
- What happens when someone's late to a Scrum Event, or unable to join altogether?
- When are we — as a team — happy with a Sprint?

Team Name

- During the norming phase, teams start developing an identity.
- This identity consists of norms, values and principles on how people want to work together.
- A very simple but powerful exercise is to have teams come up with a name for their team during the Kickstart.
- I usually ask pairs to come up with as many good names as they can think of, and then let the team dot-vote on the best name.
- Although picking a name is always useful to promote a team identity, it works even better when there are more teams close to the team's proximity.
- Teams start taking pride in their name.

Team Name

- This naming-exercise works because it taps into something that social- and organisational psychologists call ‘mere group membership’.
- People more easily associate themselves with a group if you give them something small to identify with.
- Especially when there are other teams close by.

Set Expectations

- A good Scrum Team does not form within 1 or 2 sprints.
- It takes time to learn how to best work together.
- Except for a good Kickstart, there is no way to speed up team formation through artificial means.
- Make sure to manage the expectations of the team and the people around the team, so that the initial motivation does not drop when reality hits.
- The first few sprints are generally quite tough.

Set Expectations

- When teams start they begin in the ‘forming phase’.
- This means that they are task-oriented and usually quite optimistic.
- The kind of psychological safety to express doubts and worries is not yet present, which often leads to artificial optimism.

Your Expectations

- During the first sprints this safety will start to form as people work together more closely.
- Conflicts, irritations and frustrations will start to emerge.
- This is only natural, as people get to know each other better (and start getting irritated by things) and the difficulties of development hit the team.
- Once teams move into the ‘norming phase’, more time will be needed to help the team formulate norms, principles and values.
- It is only when a team hits the ‘performing phase’ that teams can be fully productive.
- This is usually three to five 2-week sprints down the road.

Retros, Retros, Retros...

- The Sprint Retrospective is sometimes seen as a good opportunity to complain about things that are not working.
- This is not a productive, helpful use of this important Scrum Event.
- Instead, the Sprint Retrospective is *the* Scrum Event where a team grows.
- Don’t skip Sprint Retrospectives. Prepare them well and try different approaches.
- Different formats for Sprint Retrospectives help (new) teams reflect on themselves and their process through different lenses.

Retros

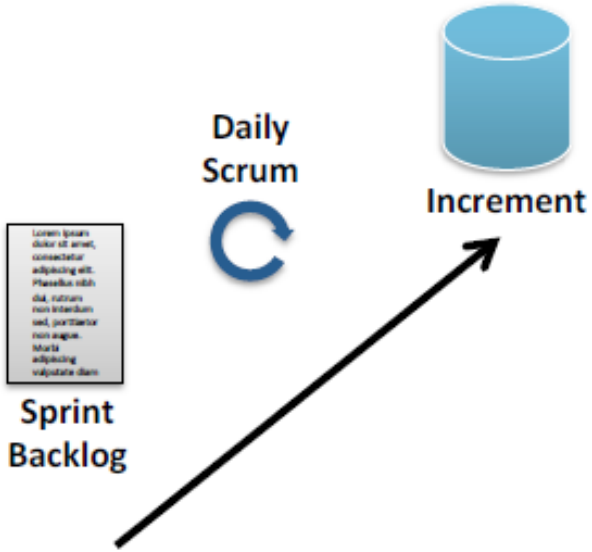
- With new teams I often start with a plus/delta format.
- I ask members to write down at least two pluses (things that went well) and two deltas (things that can be improved) individually and in silence, and then let everyone present their post-its and put them on a board with two columns (plus and delta).

Involve Management to Support the Kickoff

- A Scrum Team will be dealing with a lot of complexity, both internally and externally.
- When kickstarting a new Scrum Team, it helps to ask management to come and show their support for the process.
- This can be done at the start of the Kickoff, or at the end.

- The final tip is the most important one.
- Scrum Teams are self-organizing units that deliver working software.
- Self-organization is a fairly abstract, vague term.
- ***What it boils down to is that a team becomes increasingly capable to solve problems on their own.***
- The role of the Scrum Master, or the Agile Coach for that matter, is not to solve the problems for a team, but help the team solve the problem themselves.

Daily Scrum



- 15 minute daily meeting
- Consistent place and time
- Three questions provide the basis for inspecting team progress toward the Sprint Goal
- Development Team creates a 24-hour plan

Daily Scrum

- All of the development team members are required at the daily scrum.
- It is also recommended that the scrum master attend to coach the team and facilitate as necessary e.g. teaching the development team to keep the meeting within the 15 minute time-box.
- Product owners are not required attendees but are recommended to attend when possible to efficiently answer any questions that the team might have, and to highlight and promote quick decision-making.
- Others might also attend the daily scrum but only as observers – it is the scrum masters job to ensure that they remain observers and do not disrupt the meeting.
- In all cases, the team should be mindful not to turn the meeting into a status update or reporting session to anybody else.
- The primary focus must be to inspect progress toward the Sprint Goal and to inspect how progress is trending toward completing the work in the Sprint Backlog.

Daily Scrum Details

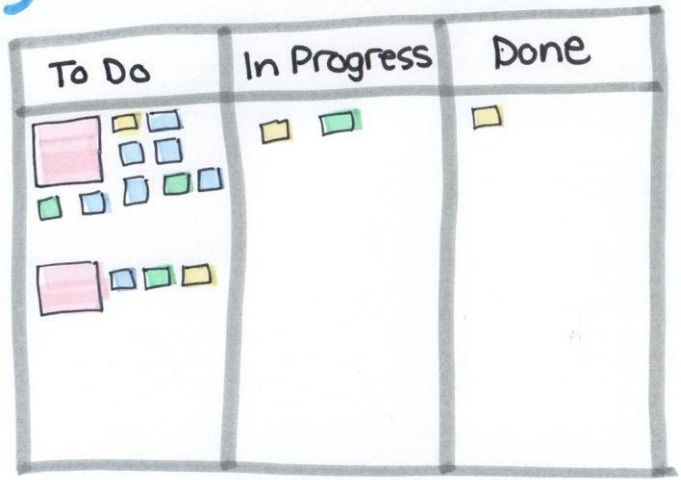
https://jmp.sh/qkro6rM

DAILY SCRUM

- are we on track?
- 15 minutes
- stand up
- for the TEAM

TASK BOARD = SPRINT BACKLOG

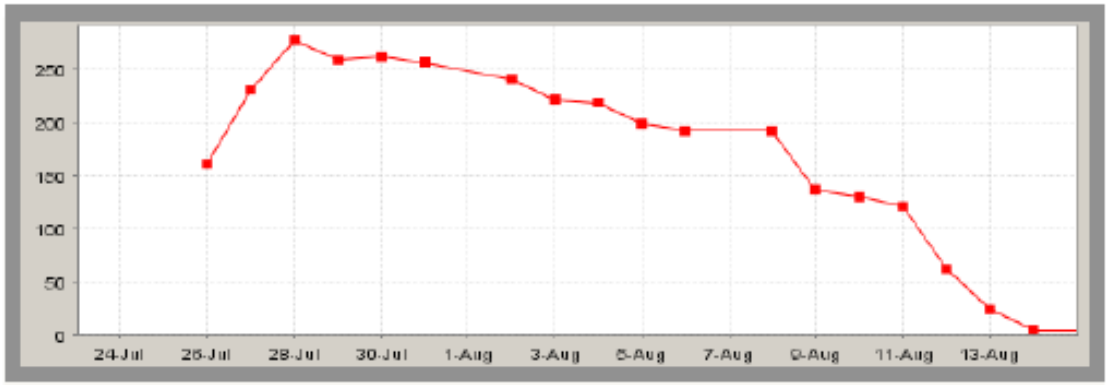
- visible
- 5-8 stories
- owned & updated by team



Monitoring Sprint Progress

Work remaining is updated daily

- Reflects Development Team intuition
- A trend may be used to look forward
- Posted for high visibility



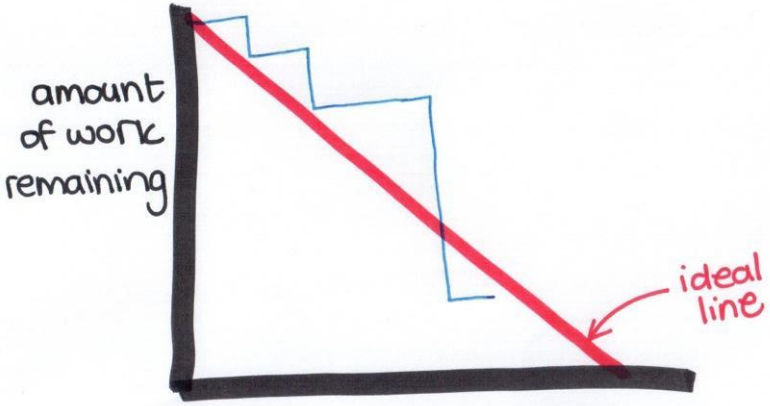
A commonly applied tactic to visualize progress are burndown charts.

SPRINT BURNDOWN

hours

tasks

story points



- owned & updated by team

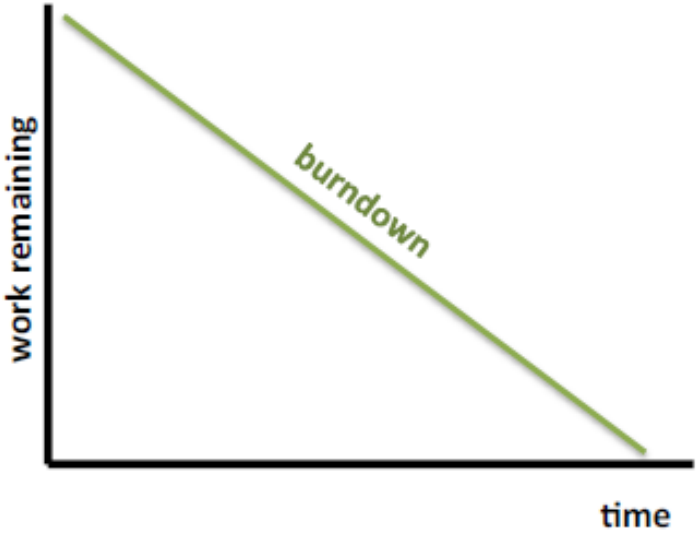
Burndown As Expected?


5 MIN

Your CEO had a meeting with executives of another company also doing Scrum. They are delighted with how well the Development Teams are doing.

- All teams are meeting their forecasts and planning well.
- Executives showed the displayed Sprint Backlog burndown.

What do you think?



Abnormal Termination Of Sprints

- Sprints may be cancelled early
  - Only by the Product Owner
  - Prefer adjusting Sprint Scope
- Reasons to cancel may include changes in competition, business, or technology feasibility
- After a Sprint cancellation, re-plan the Sprint.

A Little More Time

5 MIN

Purpose: Examine the value of time-boxing

The Development Team, no longer distracted by strange variations in the room temperature, is doing well during the Sprint.

However, they request a little more time, maybe 1 or 2 days, to get the testing done.

Question: Do you extend the Sprint?

Sprint Review

5 MIN

The Sprint Review goes well. The CEO and his senior management are there to encourage the Development Team.

At the end of the Sprint Review, the CEO and everyone present applaud the Development Team for their fine work.

How would you advise them?

Review

PRODUCT

- only show working software
- < 1hr to prepare
- only DONE stories
- Feedback → state of release

when?

end of sprint

time?

1 - 2hrs

(more with multiple teams)

who?

people who have feedback

SM, PO, team

Sprint Review

- Required attendees at the Sprint Review are the Scrum team and key stakeholders as invited by the product owner.
- The stakeholders invited by the product owner may vary sprint to sprint depending on the content of the product increment created.
- As the key forum for stakeholder feedback, it is vital that all members of the scrum team attend so that they can hear the same information first hand and be able to answer questions regarding the sprint and product increment as necessary.

https://jmp.sh/gUN9GWT

A Sprint Is A Feedback Loop

5 MIN

Connect the statements to the Scrum events. Cross out incorrect statements.

Inspect the Increment

The Product Owner informs the team of the Velocity required for the next Sprint

Figure out how to make the next Sprint more enjoyable

The Scrum Team inspects itself

Inspect Product Backlog and likely completion dates

Adapting the Definition of Done to increase product quality

Sprint Review

Sprint Retrospective

A demo to promote the product to the stakeholders

Inspect how the Sprint went with regards to people and relationships

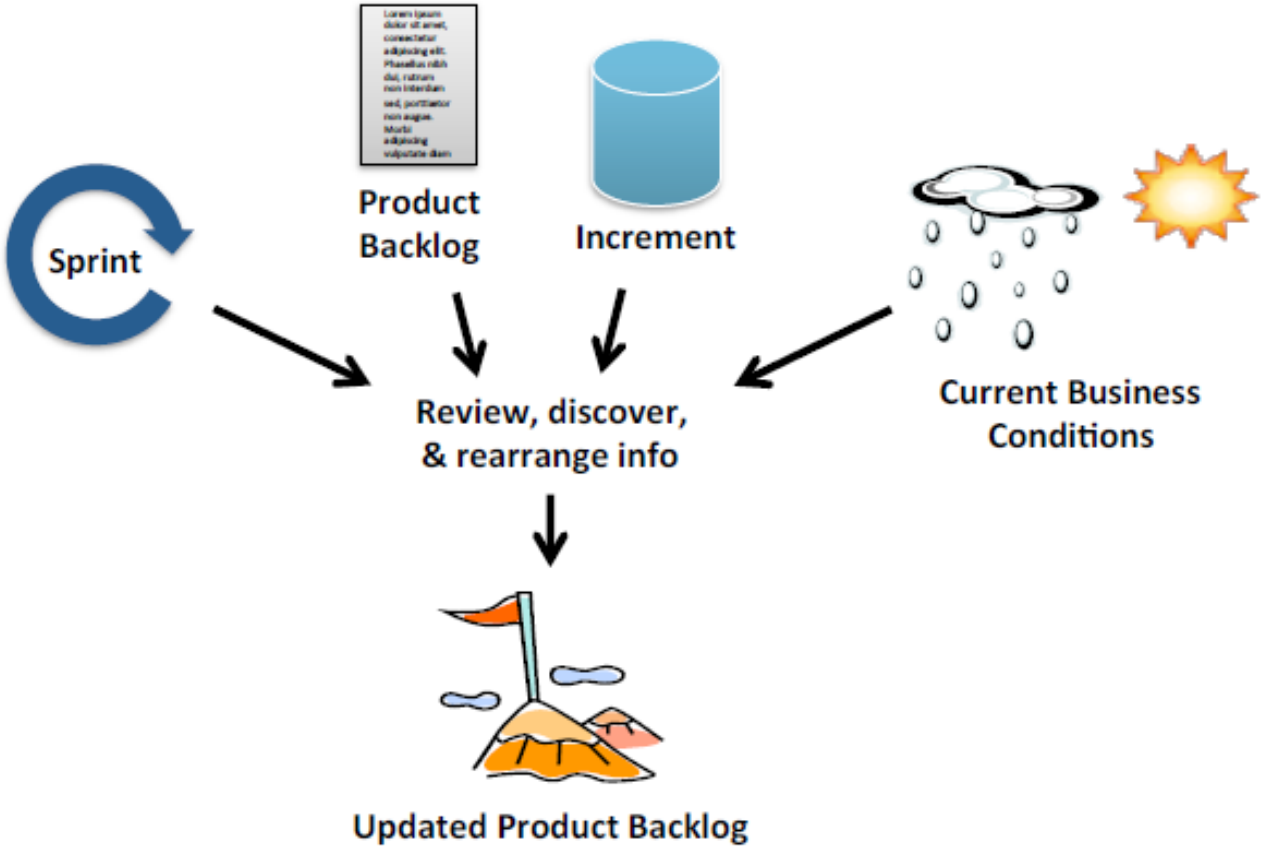
Inspect market place changes and potential use of the product

Adapt the Product Backlog

A status meeting for the steering committee

Source: ceduse

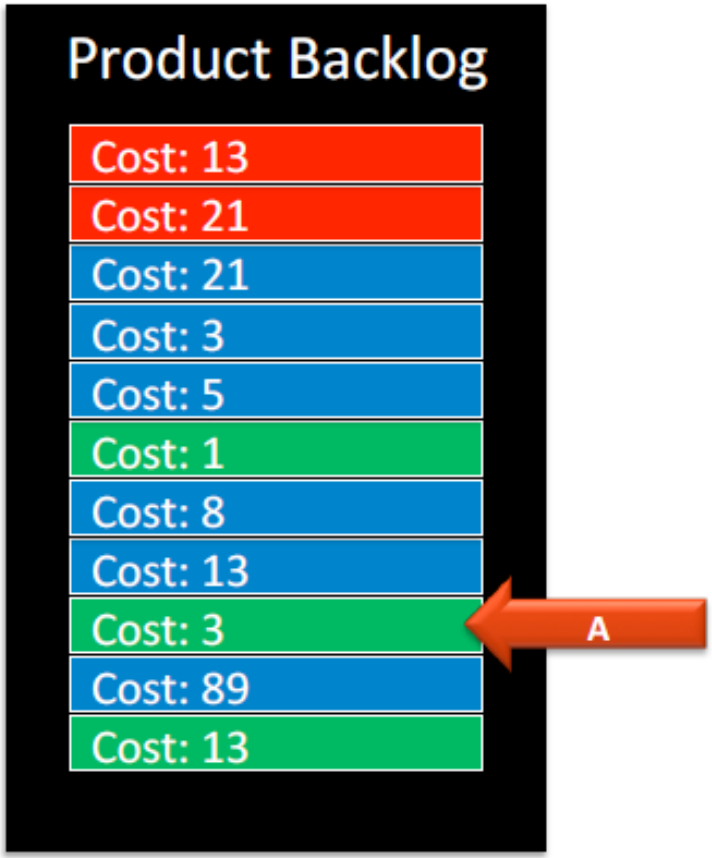
Flow Of Sprint Review Meeting



This a collaborative working session, not a demonstration.

When Will Constraint “A” Likely Ship?

5 MIN



At the next Sprint Review one of the stakeholders wants to know when item A is likely to ship.

How to deal with this question?

- Average Team Velocity = 33
- Sprint Length = 2 weeks

Defect

Requirement

Constraint

What Will Be Ready In 8 Weeks?

5 MIN

At the next Sprint Review one of the stakeholders wants to know when what will be ready in 8 weeks.

How to deal with this question?

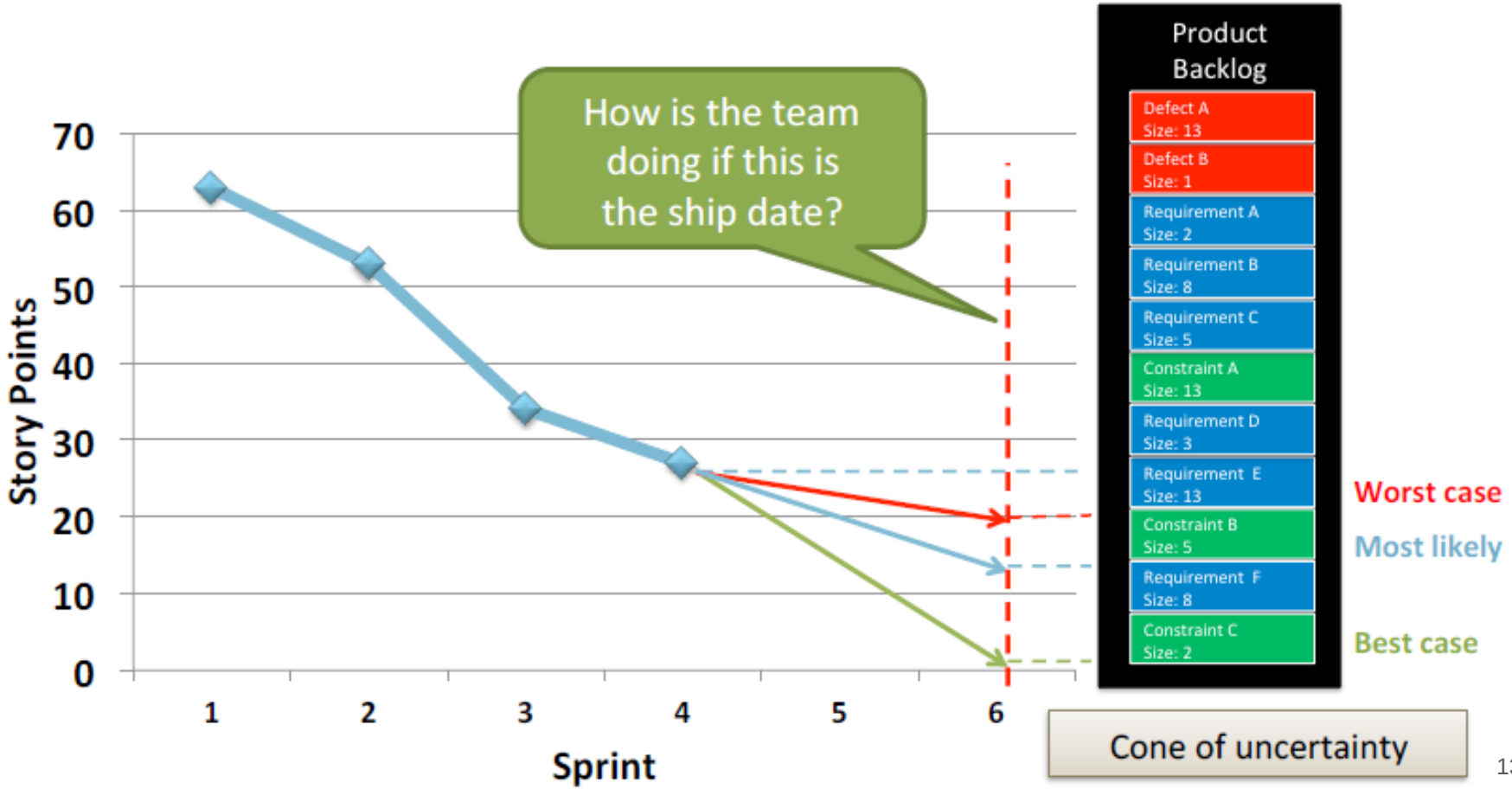
- Average Team Velocity = 18
- Sprint Length = 2 weeks

Defect

Requirement

Constraint

Monitor Release Progress, balancing date target or feature target



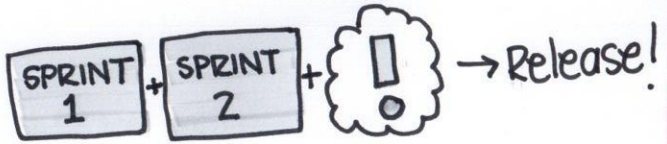
Definition of DONE

- between team & P.O.
- common definition
- maintain quality
- changes over time
- 5-8 items
- in control of team
- visible

undone work

- for a release
- known size
- 1 sprint MAX
- defined

X NOT bug fixing!



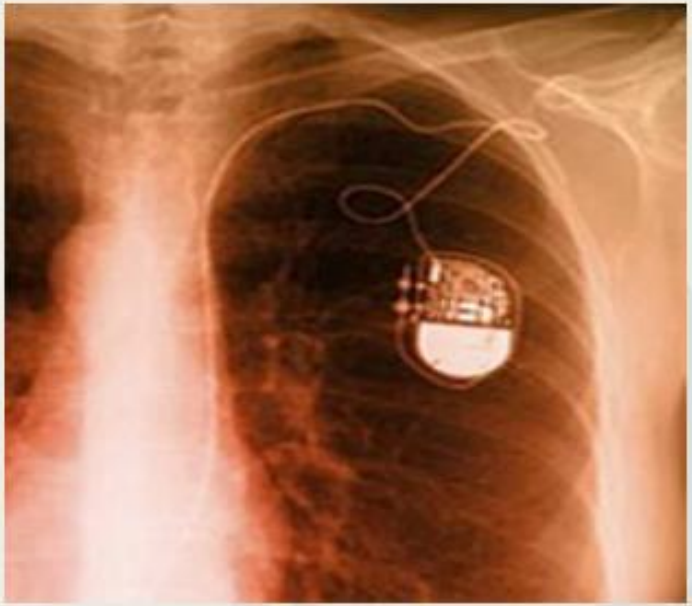
Defining Done

5 MIN

Purpose: Understand the importance of done

XYZ co builds life-critical products. Your Scrum team is one of seven teams working on a new release of firmware for one product.

You use 2 week Sprints. Each team has all the skills to fully develop the requirements into a done Increment.



Question: What would your Definition of Done be? What's so important about it?

Did Your Definition Of Done Include These?

- Performance testing
- Stability testing
- Refactoring
- Immunological response testing
- Integration with the work of the other six teams
- Integration testing with the work of the other six teams so the Increment is the totality of all seven teams
- Release notes
- Internationalization to the six cultures where the product will be sold
- User acceptance testing
- User Documentation
- Regression testing
- Code reviews

An undone or opaque Increment is the equivalent of putting a wet washcloth over a thermostat.

Skills vs Definition of Done

5 MIN

User documentation is part of XYZ's Definition of Done. However, there aren't enough technical writers available for all teams. Your Team doesn't have one.

What would you advise as Scrum Master?

(a) Leave the writing undone
(b) Do the writing every 4 Sprints, just before the release
(c) Don't start new Sprints until a writer is available
(d) Stop and hire an external writer
(e) The team is still responsible for doing the writing, understanding that their work may not be as good as a skilled writer's (impediment)

Done Provides Transparency

- Have a complete Definition of Done that mirrors “ready to ship.”
- Ensure that the Definition of Done optimizes maintainability, sustainability and enhanceability.
- Adhere to done every Sprint.
- Adhere to done for every finished item in the Sprint to avoid surprises at Sprint end.
- Done is for the entire product, not just for a Scrum Team’s Increment.

Retrospective

- As the key inspect and adapt ceremony for the Scrum teams process, all members of the team are required to attend the retrospective; the development team, the scrum master and the product owner.
- Having all members of the team present promotes whole-team accountability, transparency and trust.
- Likewise, it is considered dysfunctional to have anybody outside of the Scrum team regularly attend the retrospective as this could jeopardise the ability of the team to create the safe environment required to allow open, trusting communication.

Retrospective

PROCESS

- how are we working as a team

Data → Analyse → 1 Action

- Data: facts
- Analyse: root cause
- Action: team

- safety
- SM prepares & facilitates

Agile Retrospectives
- Esther Derby + Diana Larson

when?

after sprint review

time?

90 min

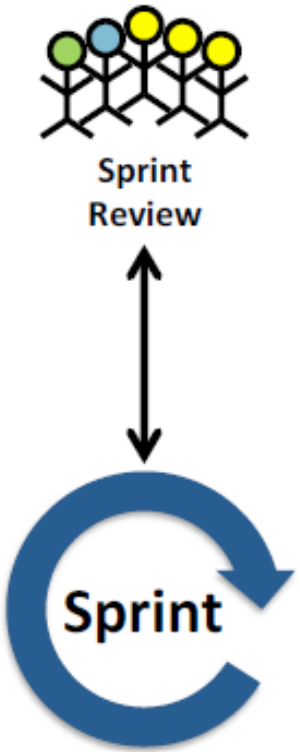
who?

team + SM

anyone team invites

PO (if trust)

Sprint Retrospective



- Scrum Team inspects how the last Sprint went
  - People, relationships, process, tools
  - Definition of Done
- Scrum Team selects actionable improvements for implementation in next Sprint

https://jmp.sh/DlnJZmN

A Call For Help: Save The Company!

The project to build a killer application, crucial for the survival of the company, is heavily over schedule.

Given your proven success, the CEO wants your team to take over.

The open work may be re-estimated by your team. From experience the company has gathered some data to adjust estimates.

Money is not an issue. You have 4 months until release, starting in December. It is now November.

Hi,

The company needs your help. You need to take over a project and make it Scrum.

Will explain. See you in 10 minutes.

Your CEO

Save The Company: Good To Know

The company has already invested 554 mio € in market research, a new website, press and promotion, infrastructure, designs, analysis and development, media campaigns and partner trainings.

If the application is not released in time, with all functionality, the company and its 350 employees is running the risk of bankruptcy.

The CEO wants to know if your team can build the release, and needs to know what the cost will be.

All of the stated functionality needs to be in. You can bring in other teams to help you. They have been asked the same.

Responding to the CEO


15 MIN

- Your team turns the open work into a Product Backlog and estimates the release to take 385 person days.
- Your team is co-located and has worked together for over four years.
- You work in monthly Sprints.
- There are 16 working days per person per monthly Sprint.
- The company uses €10,000 per month per person for costing.
- If you need to add capacity, you may work with another team or external resources.

How will your team do it and save the company? How much will it cost? Explain.

Closing

10 MIN

Discuss within your team what this means to you, your customers, and the way you work.

Take-Away About The Scrum Framework

- Scrum implements empiricism in software development.
- Every Scrum role (3) has a clear accountability.
- The Scrum artifacts (3) provide transparent information.
- All Scrum events (5) serve inspection, adaptation and transparency.

Whose job is it...

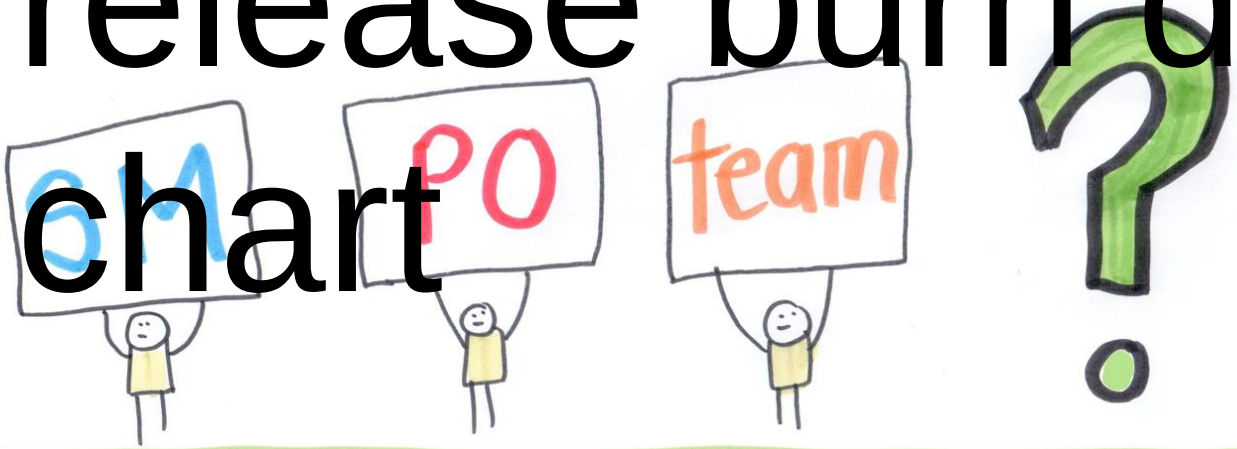
Estimates the size of items on the Product Backlog

Whose job is it...

Participates in Sprint Planning

Whose job is it...

Updates the release burn down chart



Whose job is it...

Ensures that the team follows Scrum practices

Whose job is it...

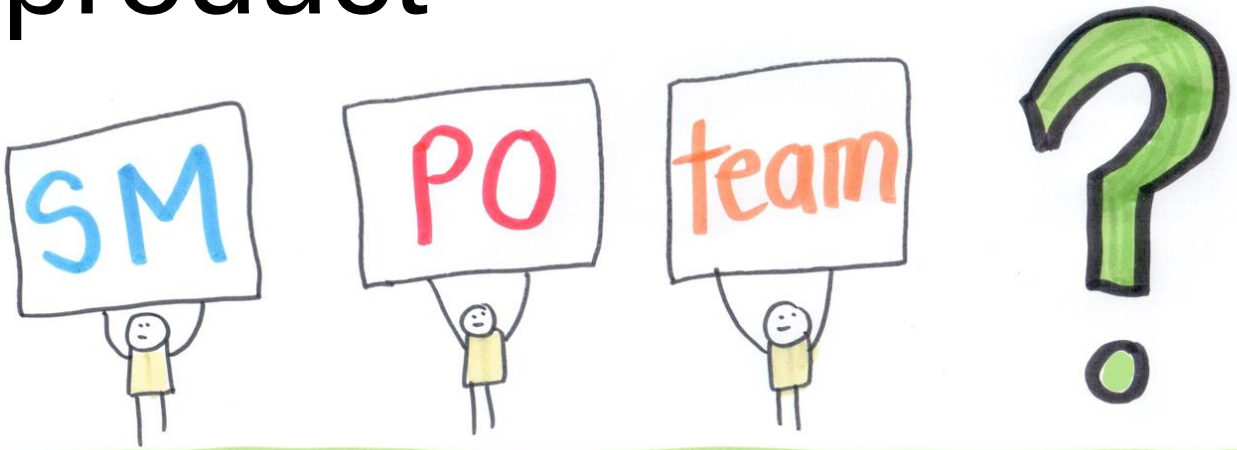
Updates the sprint backlog when tasks are done

Whose job is it...

Ensures impediments are removed

Whose job is it...

Manages the budget and return on investment of the product



Whose job is it...

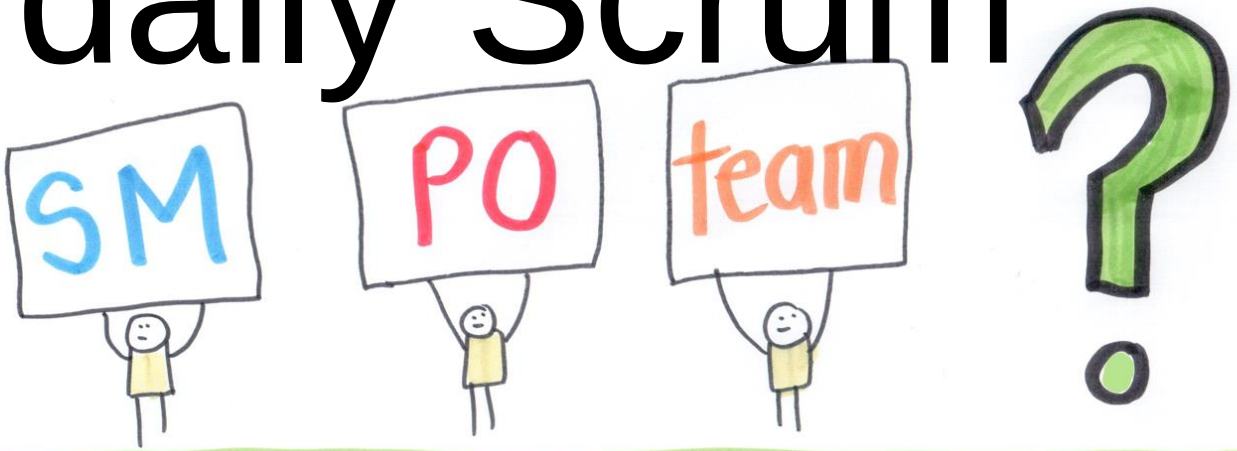
Assigns tasks to team members

Whose job is it...

Accepts the delivery of the sprint

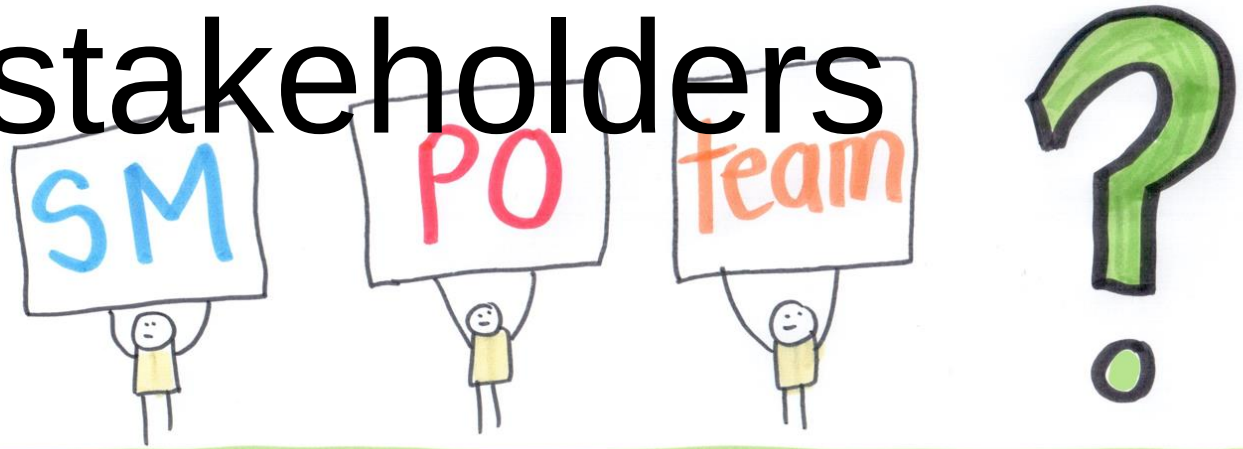
Whose job is it...

Must attend the daily Scrum



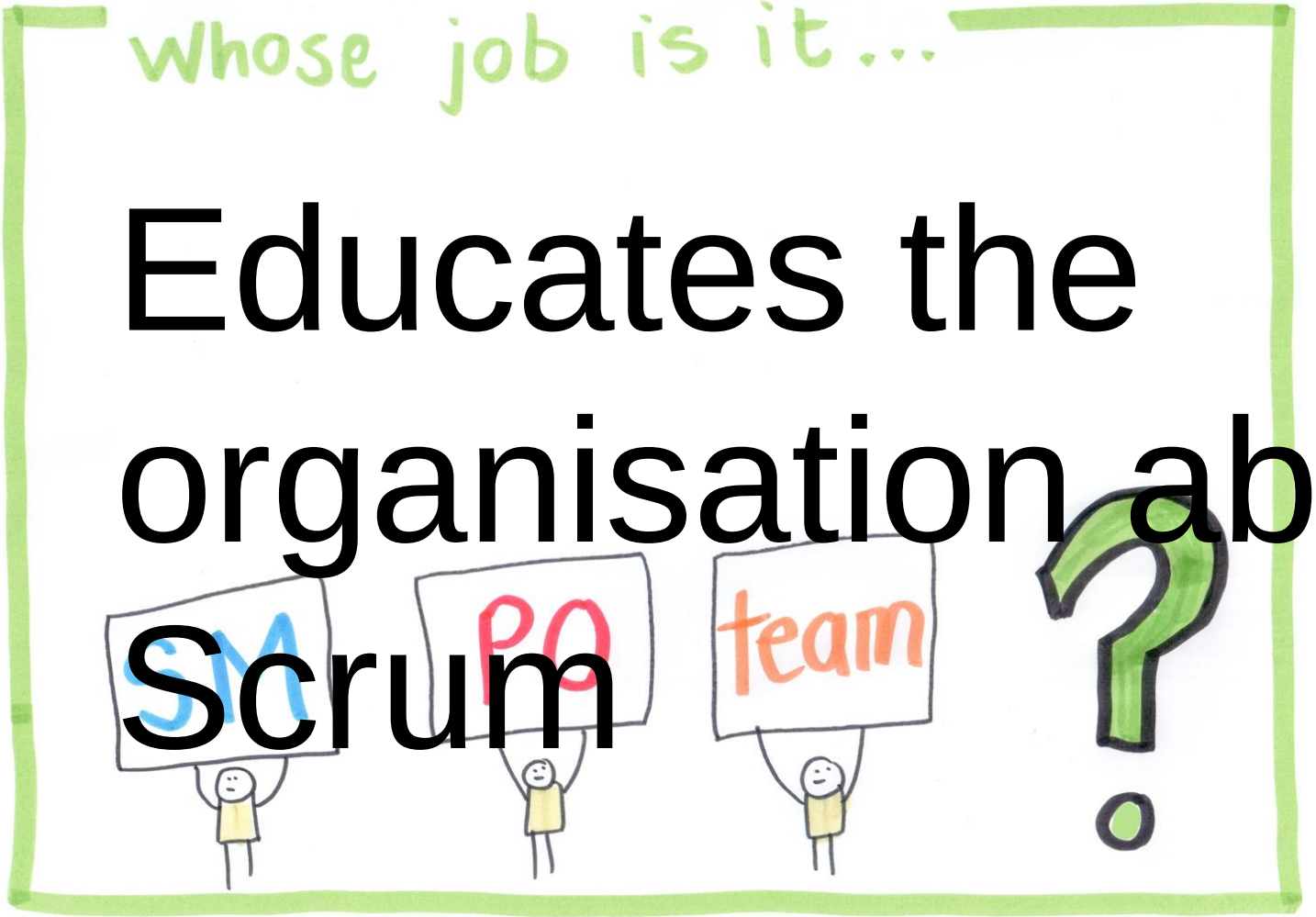
Whose job is it...

Communicates status of the release to stakeholders



Whose job is it...

Updates the sprint burn down chart


Whose job is it...
Educates the organisation about Scrum
SM
PO
team
?

Whose job is it...

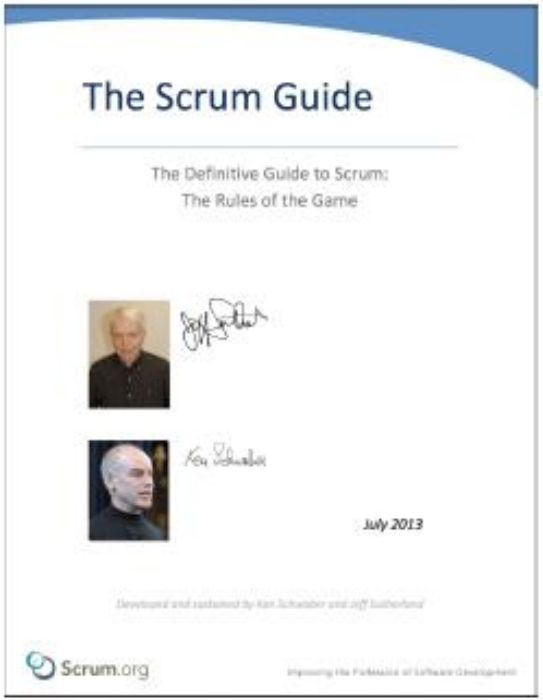
Decides how much will be delivered in a sprint

Whose job is it...

Ensures each story meets the definition of done

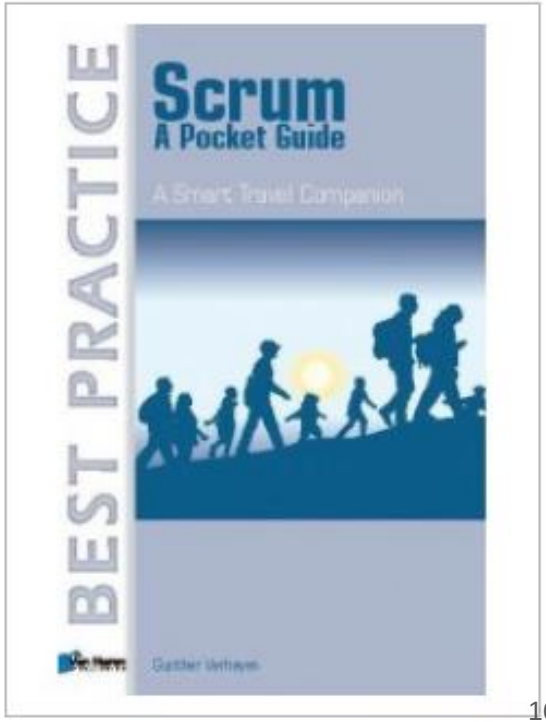
Suggested Reading

"The Scrum Guide" (Ken Schwaber, Jeff Sutherland)



"Agile Project Management with Scrum" (Ken Schwaber)

"Scrum – A Pocket Guide" (Gunther Verheyen)



Not finance. Not strategy. Not technology. It is teamwork that remains the ultimate competitive advantage, both because it is so powerful and so rare.

- Patrick Lencioni

People & Teams

Professional Scrum Master

Scrum Values

The Scrum values are the foundation for behavior and practices in Scrum.

They are closely related to the theory and first principles of Scrum and support teams in their work.

Scrum Masters can always fall back on these essentials.

What Truly Motivates People

External rewards like money (carrot-and-stick) work only for simple, mechanical work

- It has opposite effects in cognitive, complex or creative work

Money counts, but the secret to commitment lies beyond it, in:

- Autonomy – Organizing my own work
- Mastery – Becoming better at my work
- Purpose – Making a contribution

Constructing The Team(s)

10 MIN

Purpose: The role of the Scrum Master in teams coming into existence

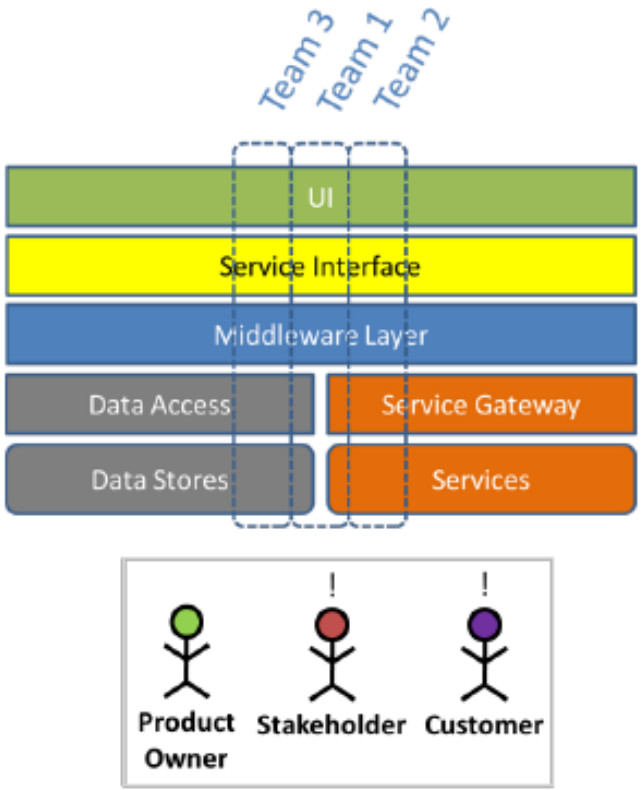
Your organization is starting the development of a new product line. All 200 people that will be part of the teams have been made available. These resources have all required technical and development expertise.

Management asks you, as Scrum expert, to divide them into Scrum Development Teams.

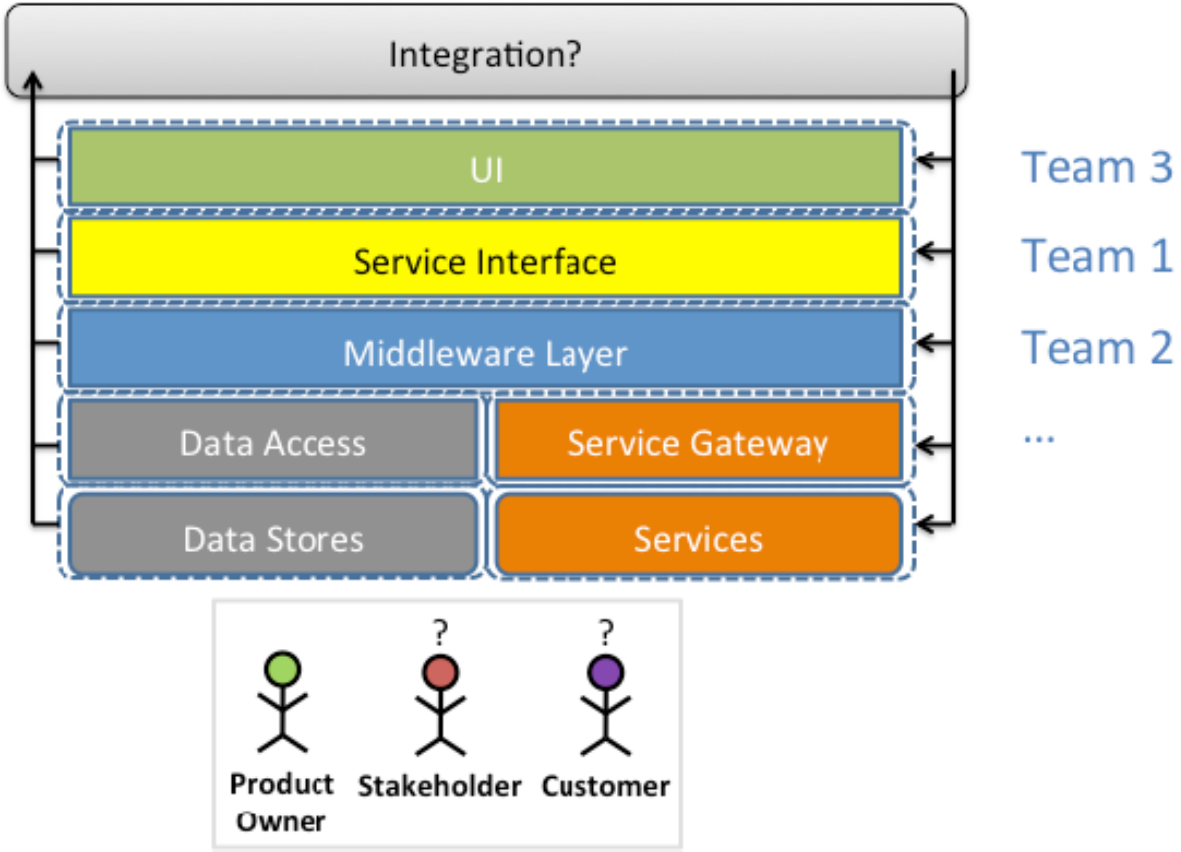
Question: What will you take into account? How will you proceed?

Feature Teams Enhance Transparency

- Each team has all skills to turn Product Backlog into Increments of working software.
- Vertical slicing; work is divided by end-user functionality.
- Work is integrated continuously within each Sprint.
- Transparency ensured; No unknown, undone work.



Component Teams Are More Complex To Manage



The Cindy Problem

5 MIN

Purpose: How to deal with scarce skills

You are Scrum Master for three Scrum Teams. They work from the same Product Backlog, have the same Product Owner, and share a common code base.

The Development Teams report that in the next three Sprints they will all be working in one area of the database. Cindy is the only DBA that knows that subschema well. The Teams will need Cindy full-time for their Sprints.

Question: What do you suggest?

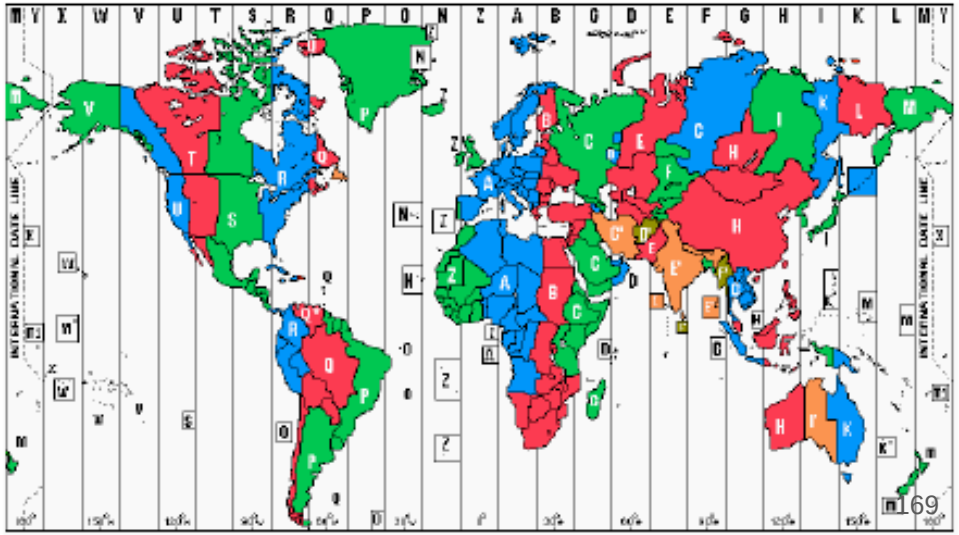
Dispersed, Distributed Teams

5 MIN

You are Scrum Master on a Scrum Team where:

- You and two other members work in Boston, MA
- One works in St. Petersburg, Russia
- Two work in Beijing, China
- One works in San Jose, CA

How will you conduct the Scrum meetings?



What Does Scrum Call for?

- Scrum does not require team co-location
- Scrum recommends, but does not mandate team size
- Inspect and adapt

"A co-located, self-organizing Scrum Team is 100% more efficient than otherwise."

(Source: Boston Consulting Group, 2005)

Product Owner Availability

5 MIN

The Product Owner and the Development Team are trying to work out their working relationship, and want your advice.

They wonder how much time the Product Owner should spend with the Development Team?

- Full time, just for the Sprint Planning and Review?
- Is he/she needed at the Retrospective?
- Should he/she attend the Daily Scrum?

Team Start-up: Take Your Time

Take some time with the Scrum Team for:

- Introductions and backgrounds. *Why is everybody in this team? What made you the person you are today?*
- Team name
- Ground rules, rules of etiquette, social conventions
- Shared team values, team dream
- Organizing the team room
- Planning the Scrum Meetings (time and place)
- Create an initial Definition of Done
- Establish the engineering practices required for 'Done'
- Product Vision, the first version of Product Backlog and estimates

Task Switching

Source: Gerald Weinberg, Quality Software Management: Systems Thinking

Team Behavior

10 MIN

Committing to a team is often challenging for our behavior and our interpersonal relationships.

- What would you consider desirable behavior? *Call it 'Green Zone behavior'.*
- What would you consider dysfunctional behavior? *Call it 'Red Zone behavior'.*

The Four Stages Of Group Development

Source: Bruce Tuckman

A Behavioral Shift Toward Team-oriented Thinking

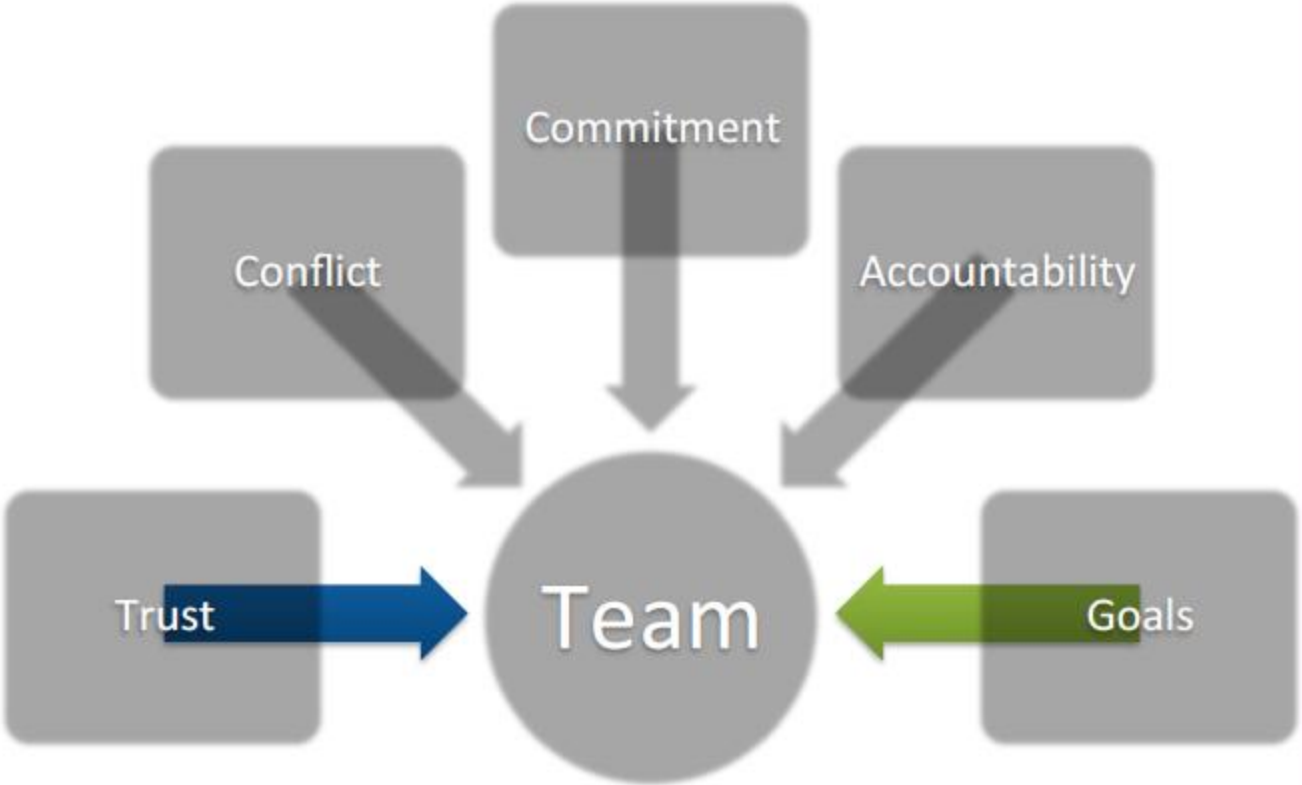
Green Zone behavior

- Listening, responding
- Non-defensive speaking
- Open, unthreatened
- Firm, but not rigid
- Welcoming feedback
- Mutual success
- Looking for excellence

Red Zone behavior

- Transmitting, not receiving
- Responding defensively
- Feeling wronged
- Battles and antagonism
- Taking it personal
- An enemy perspective
- Individual radiation

The Assets Of A Collaborative Team



Trust: asset or dysfunction?

Trust

- Constructive
- Vulnerability
- Room for emotions
- Conviviality
- Safety

Absence of trust

- Defensive
- Reluctance
- Hallway backbiting
- Protective
- Muted voices

Conflict: asset or dysfunction?

Conflict	Fear of conflict
• Constructive disagreement	• Artificial harmony
• Passionate engagement	• Avoidance
• Meaningful dialogue	• Silent tension
• Unfiltered, unguarded opinions	• Interpersonal attacks
• Most important issues first	• Indecisiveness

'Built-in Instability' is a natural characteristic of self-organizing teams facing challenging goals (see Nonaka-Takeuchi, The New New Product Development Game).
It is an element of productive tension from which creativity and learning emerges.

Commitment: asset or dysfunction?

Commitment

- Disagree and commit
- Buy-in
- Transparency over work
- Collective wisdom utilization
- Clear, opportunistic decisions

Lack of commitment

- Enforced consensus
- Hidden concerns
- Hesitation
- Inner-team competitiveness
- Feign agreements

Accountability: asset or dysfunction?

Accountability

- Challenging standards for excellence
- Open agreements
- Clear plans of action
- Mutual challenging
- Being accountable to the team

Avoidance of accountability

- Low standards accepting mediocrity
- Ambiguity
- Politics
- Backroom lobbying
- Accountability vacuum

"Accountability." The willingness of team members to call their peers on their actions, commitment, and behavior with regards to shared goals, values and standards.

Goals: asset or dysfunction?

Results	Inattention to results
• Shared goals • Regular measurements • Transparency • Willing sacrifices • Meaningful and controllable objectives	• Personal heroism • Individual credit claims • Only Ego • Status & career first • Emotional indifference to achievements

Addressing The Elephants In The Room

15 MIN

How, as a Scrum Master, can you engage people into Green Zone behavior? How do you help teams from degrading?

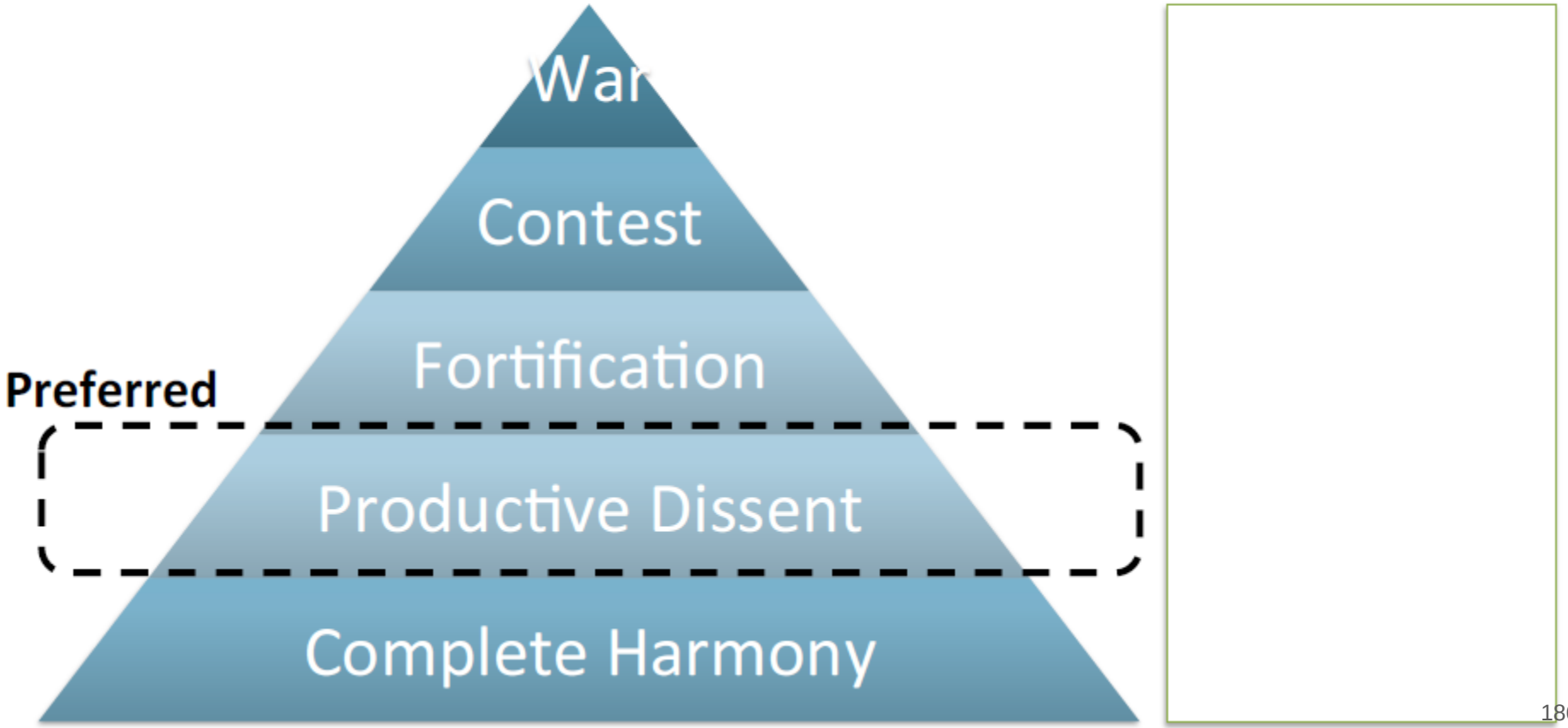
- (absence of) **Trust**
- (fear of) **Conflict**
- (lack of) **Commitment**
- (avoidance of) **Accountability**
- (inattention to) **Goals**

A Scrum Master's Overall Impact Is Indirect

- Lead by example. Be the first one to be vulnerable, and create an environment where it's safe to be vulnerable. Be a living demonstration of the assets, including sincere and immediate apologies when breaking them.
- Create an environment of safety. Encourage debate, support it and keep it productive. Facilitate conversations using coaching techniques, like open questions.
- Try to have key decisions made clear at the end of team meetings, making responsibility and deadlines clear.
- Learn to read the room. Be connected without being present.
- Remind the team that conflict is good and natural and healthy.
- Show patience. Find comfort in silence, let the team take action, step in, speak up.
- Restrain from solving. Reveal, not resolve. Be careful not to try and steer the team towards premature resolution of conflict with the intention of protecting people. Help the team members to learn and develop positive conflict resolution skills.
- Be comfortable with the prospect of a decision turning out not to lead to the anticipated result or effect.
- Caring for people.
- Show low tolerance for organizational impediments.

Purpose Of Team Facilitation

Conflict Levels

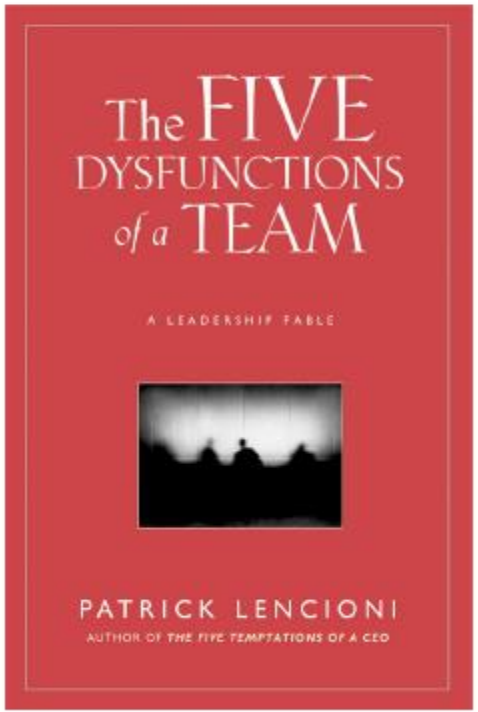


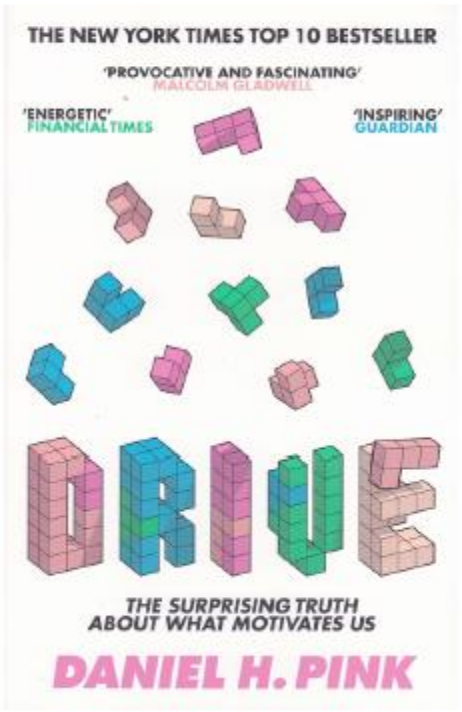
Take-Away About People & Teams

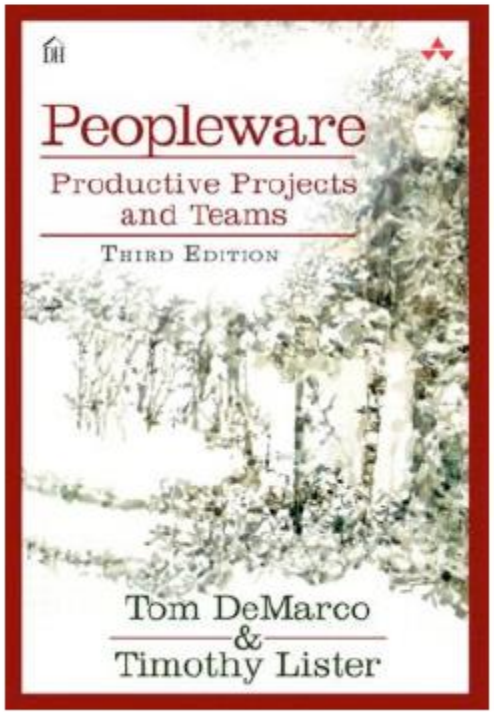
- People take their commitment more seriously than other people's commitment taken for them.
- Teams are more productive than the same number of individuals.
- Teams and people do their best work when they aren't interrupted (focus).
- Products are more robust when a team has all of the cross-functional skills to do the work.
- Under pressure to "work harder," quality is automatically and increasingly reduced.
- Changes in team composition often lower productivity for a time.

Suggested Reading

"The 5 Dysfunctions of a team" (Patrick Lencioni)	"Drive" (Daniel Pink)	"Peopleware" (Tom DeMarco, Timothy Lister)







It does not take a majority to prevail... but rather an irate, tireless minority, keen on setting brushfires of freedom in the minds of men.

- Samuel Adams

The Scrum Master

Professional Scrum Master

Meaningful Conversations

15 MIN

Here are two important base techniques that a Scrum Master can use in conversations:

- Active Listening
- Open Questions

What are they about? What is so important about them? What is their purpose?

The Purpose Of Conversation

Active Listening

- Active and passive feedback (smile, posture, mirroring)
- Eye contact
- Rephrase
- Summarize

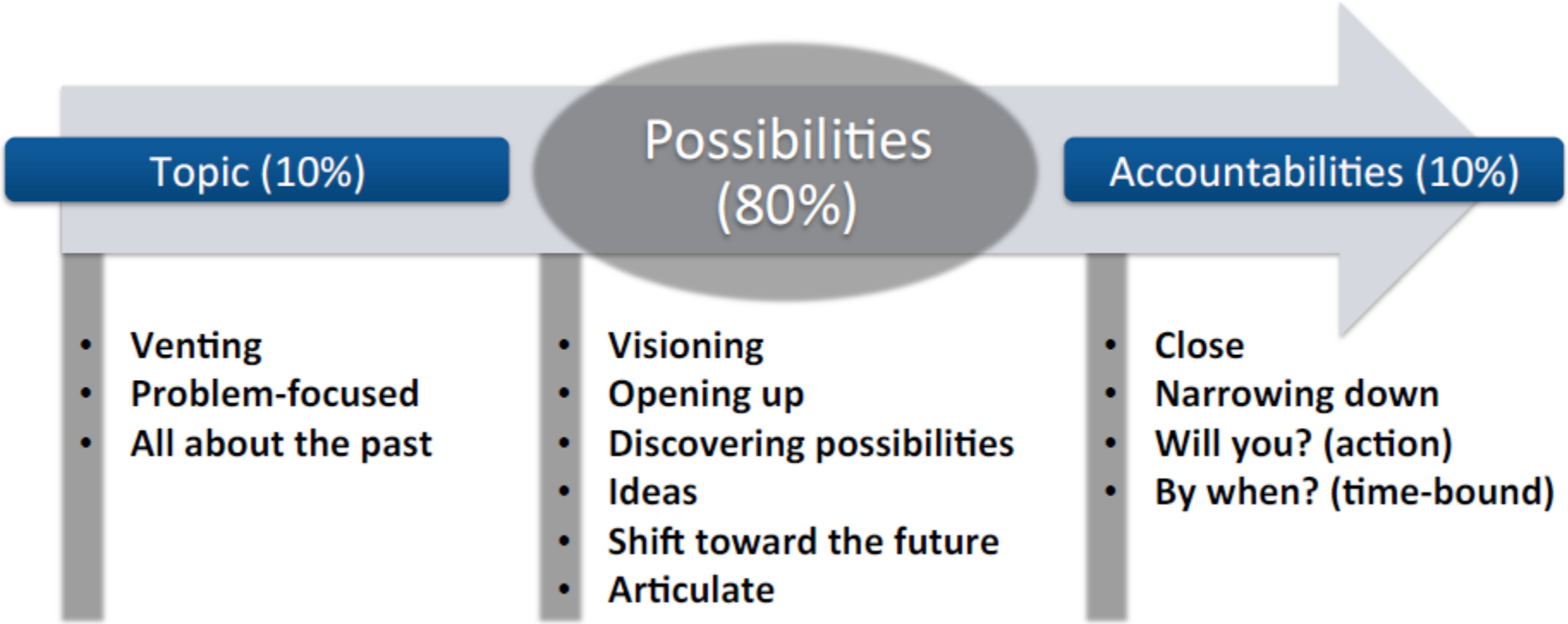
Open Questions

- One question at a time
- Short, concise phrasing of questions (7 words or less)
- An invitation for introspection
- The answer is unknown
- Invoking a meaningful response (no yes/no questions)
- Exploring options and possibilities
- Time-boxing gives focus

The Levels Of Listening

1. A continuous interpretation of the speaker's words, relating everything back to 'me'
2. Listen and respond from a direct link with the speaker
3. A collaborative connection in which the listener uses intuition, the surrounding and the atmosphere in the collaborative exploration

A Guided Conversation



Mind the Scrum Master's role: revealing over resolving or deciding

Addressing Common Dysfunctions

10 MIN

You are Scrum Master of a team that tells you:

We aren't getting anything out of Retrospectives, so we want to stop doing them.

What would you advise them?

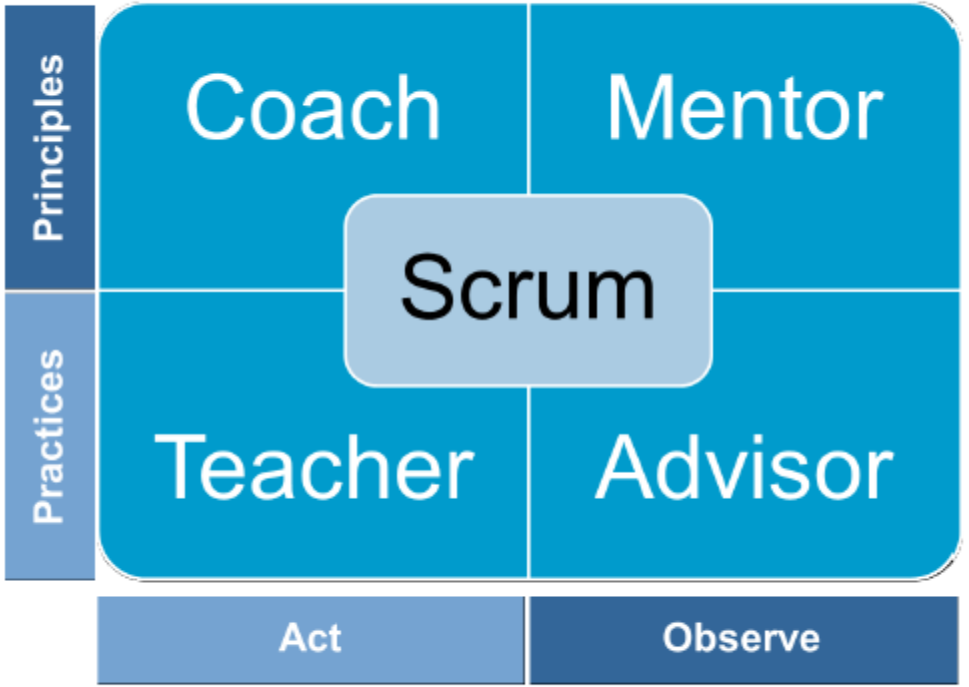
Guide the conversation. Prefer active listening and open questions.

The Many Appearances of a Scrum Master

15 MIN

A Scrum Master is a master of appearances.

- Which context may call for what style?
- How does the audience influence this?
- How does time influence this?



Any appearances you might want to work on?

Scrum Master Skills

15 MIN

- List the activities and accountabilities of a Scrum Master.
- List the skills and traits a Scrum Master needs to be effective and successful.

Skills	Traits

Scrum Master Responsibilities

- Ensures Scrum is understood and enacted
- Facilitates Scrum events as needed or requested
- Help everyone adhere to Scrum's theory, practices, and rules
- Servant leader for the Scrum Team
- Cause change that improves quality or productivity
- Embody agility to the organization

From Controller to Enabler

Move away from	Move toward
Coordinating individuals and individual contributions	Coaching people in Scrum and positive team behavior by gradually embodying the Scrum values.
Providing answers as a subject-matter expert	Enabling self-organization within Scrum Teams
Investing in specific outcomes (budget and scope)	Helping Product Owners manage Product Backlogs and work with stakeholders
Deadlines	Focusing Product Owners on flow and Value
Prescribing technical solutions	Helping Development Teams understand and expand the Definition of Done
Fixing problems	Guiding Development Teams to discover what works best for them

Prepare For More Dysfunctions

10 MIN

Identify a real-world dysfunction being experienced on your team

- Format it into a concise syntax
- Identify the Scrum principle or theoretical basis that it violates
- Identify organizational dysfunction embedded in the Scrum dysfunction
- Quantify impact of the dysfunction

Hard Choices

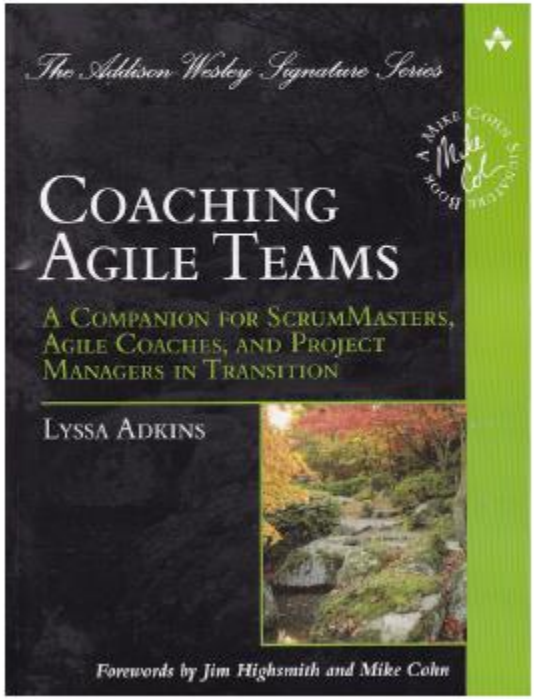
- Adopting Scrum requires making hard choices.
- Modifying Scrum will not solve the problem, but it may hide it for a while.
- Changing everything overnight will not solve the problem, either.
- Be patient but keep challenging the status-quo.

Take-Away About The Scrum Master

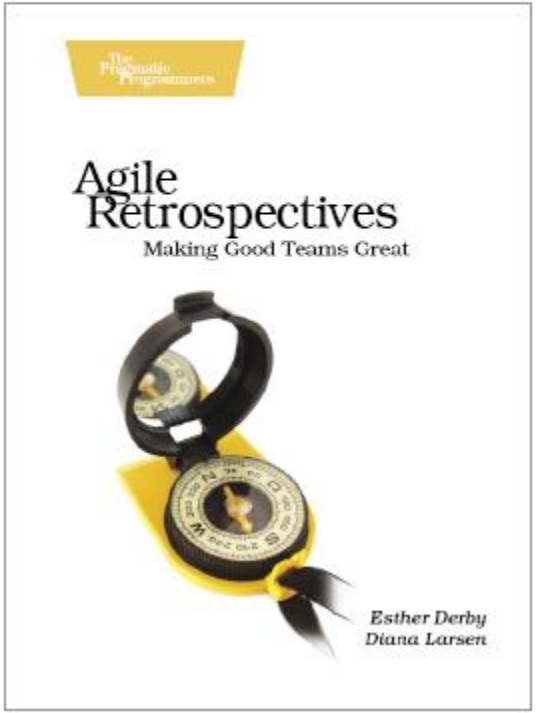
- A Scrum Master's focus is the understanding and proper usage of the Scrum framework.
- The Scrum Master teaches, coaches and mentors the Scrum Team and the organization.
- Being a Scrum Master requires distinct skills.

Suggested Reading

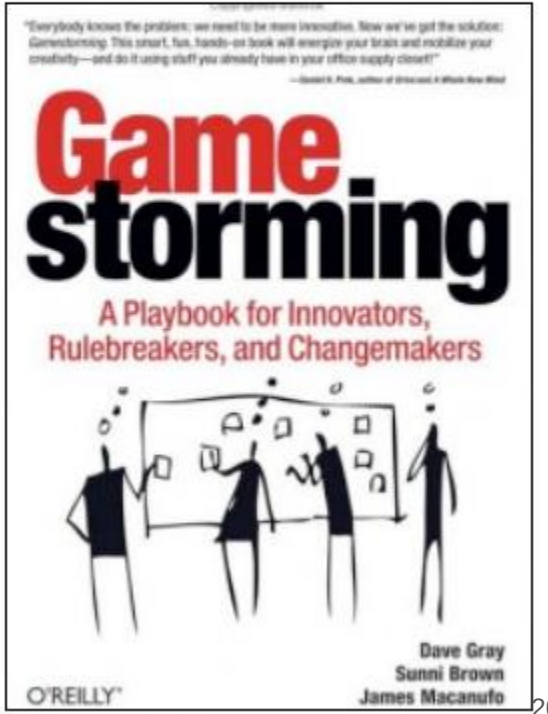
"Coaching Agile Teams" (Lyssa Adkins)



"Agile Retrospectives" (Esther Derby)



"Gamestorming" (Dave Gray, Sunni Brown, James Macanufo)



If a problem cannot be solved, enlarge it.

- Dwight D. Eisenhower

Scrum At Large

Professional Scrum Master

How Will You Scale?

15 MIN

You and a friend have started a Scrum tool company. You use Scrum. You are the Scrum Master and your friend is the Product Owner. You have seven developers.

You accept $20m from a venture capitalist to grow the company. You plan to add 70 new developers to your company.

What does the larger organization look like? Be prepared for:

- How do you hire and manage employees?
- How does the company's organization chart look?

Simplicity and Bottom-up Emergence

Many different scaling problems, and therefore distinct scaling scenarios, exist. There is not one silver bullet solution.

Scrum promotes bottom-up thinking with top-down support to discover and emerge what works best for you, your organization and your context.

Source: Gunther Verheyen, "Scrum – A Pocket Guide (A Smart Travel Companion)", Van Haren Publishing, 2013

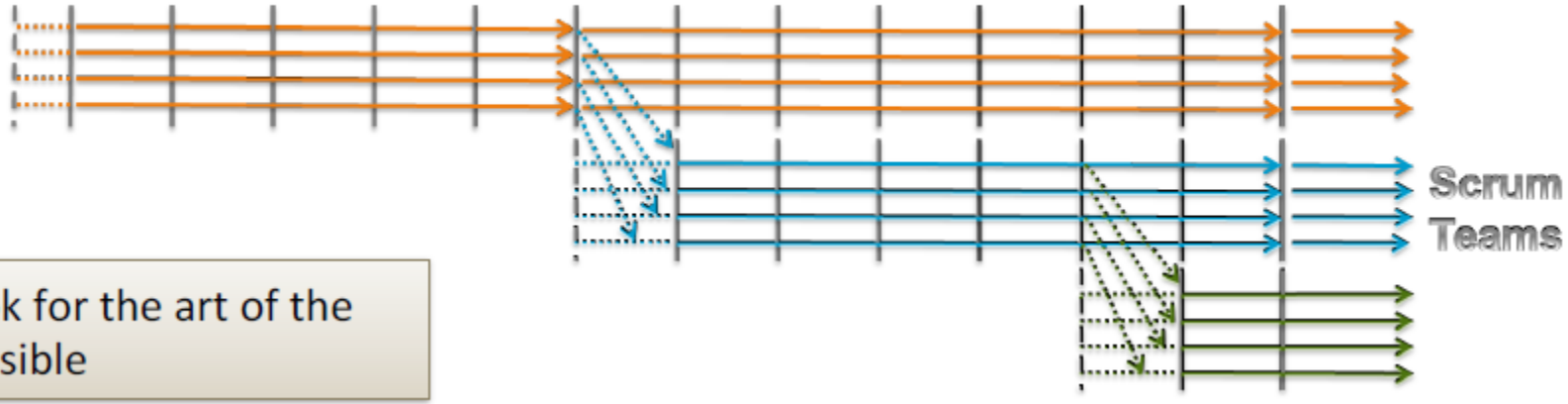
Start With Scrum (it's simple, though not easy it seems)

1. Is there a Scrum Team with a recognized Product Owner, a Development Team with 3 to 9 members and a Scrum Master?
2. Is there an ordered Product Backlog?
3. Is there a Sprint Backlog that shows remaining work in the Sprint?
4. Is each Sprint 1 month or less in duration?
5. Is a potentially releasable product Increment produced each Sprint?
6. Does the Scrum Team create a plan for the Sprint in a Sprint Planning Meeting?
7. Does the Development Team re-plan each day at a Daily Scrum?
8. Is the Increment inspected by stakeholders at a Sprint Review?
9. Does the Scrum Team conduct a Sprint Retrospective each Sprint?

Spreading Teams Organically

- Start with some Scrum Teams
- Allow the Teams to learn to play the game
- Balance Team Continuity vs. spreading members to new Scrum Teams

Development Team
+ Product Owner
+ Scrum Master
Scrum Team



Look for the art of the possible

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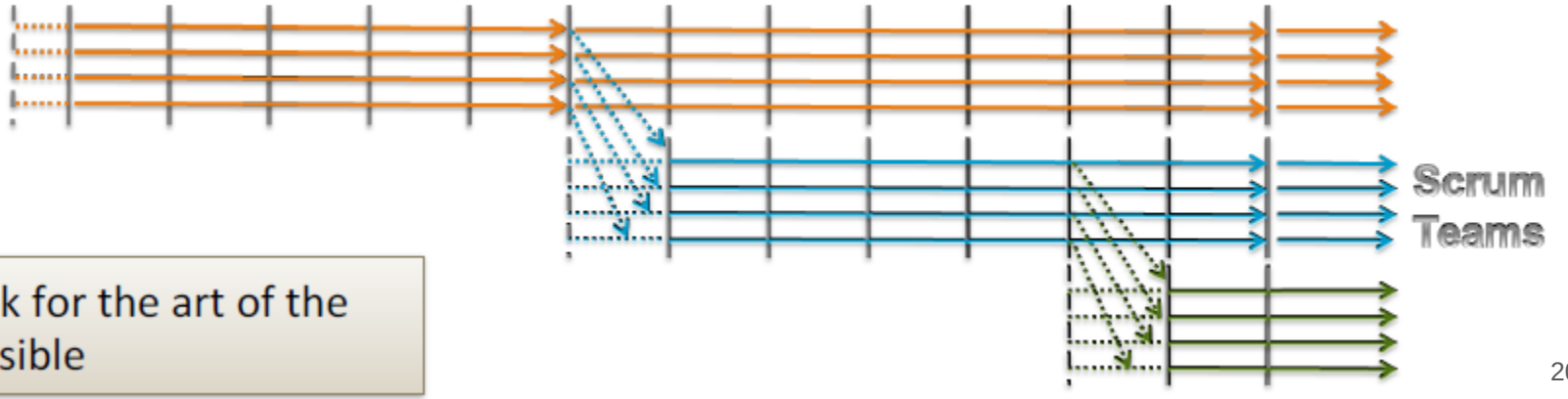
+ Scrum Master
Scrum Team



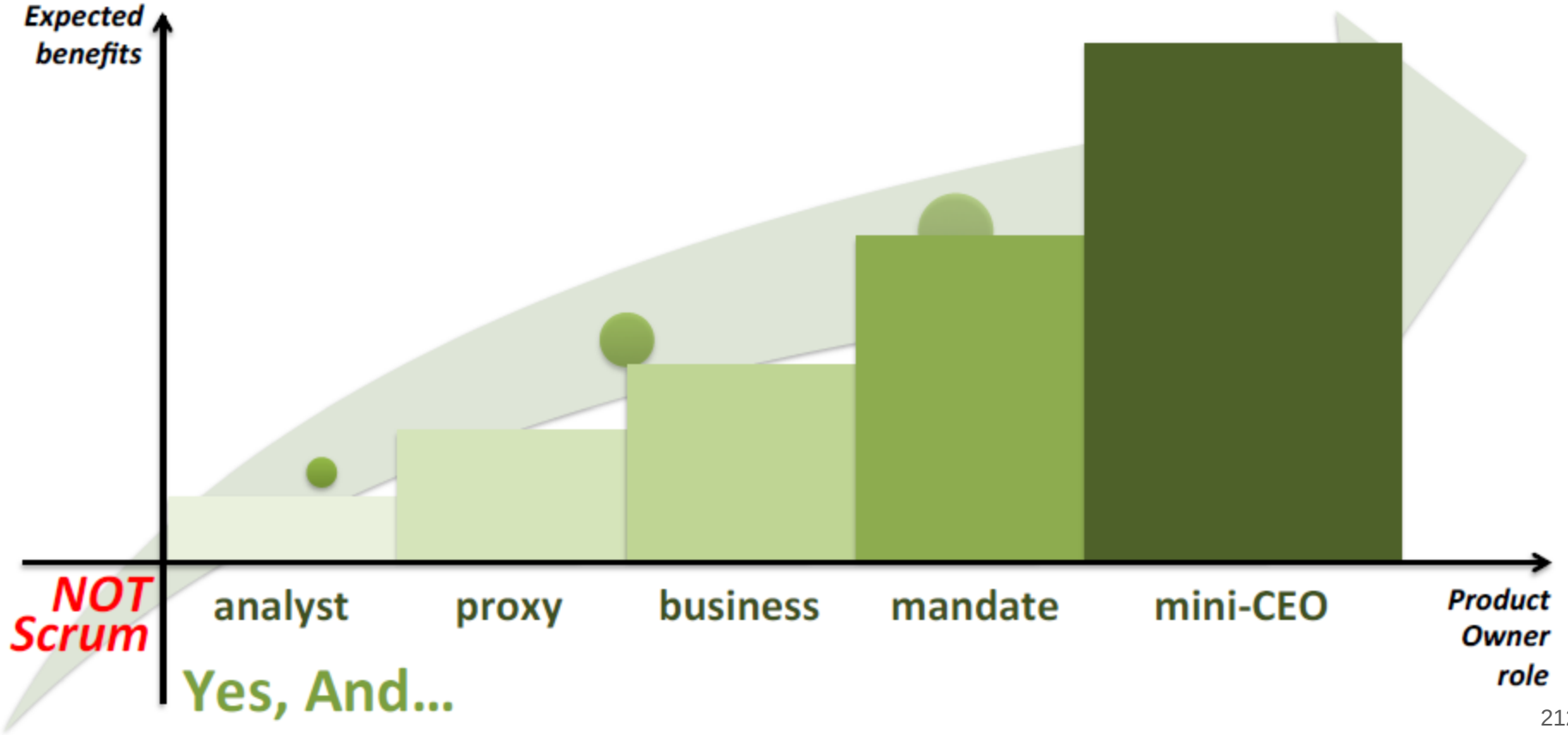
Look for the art of the possible

Scaling Options Within The Team (just to name a few)

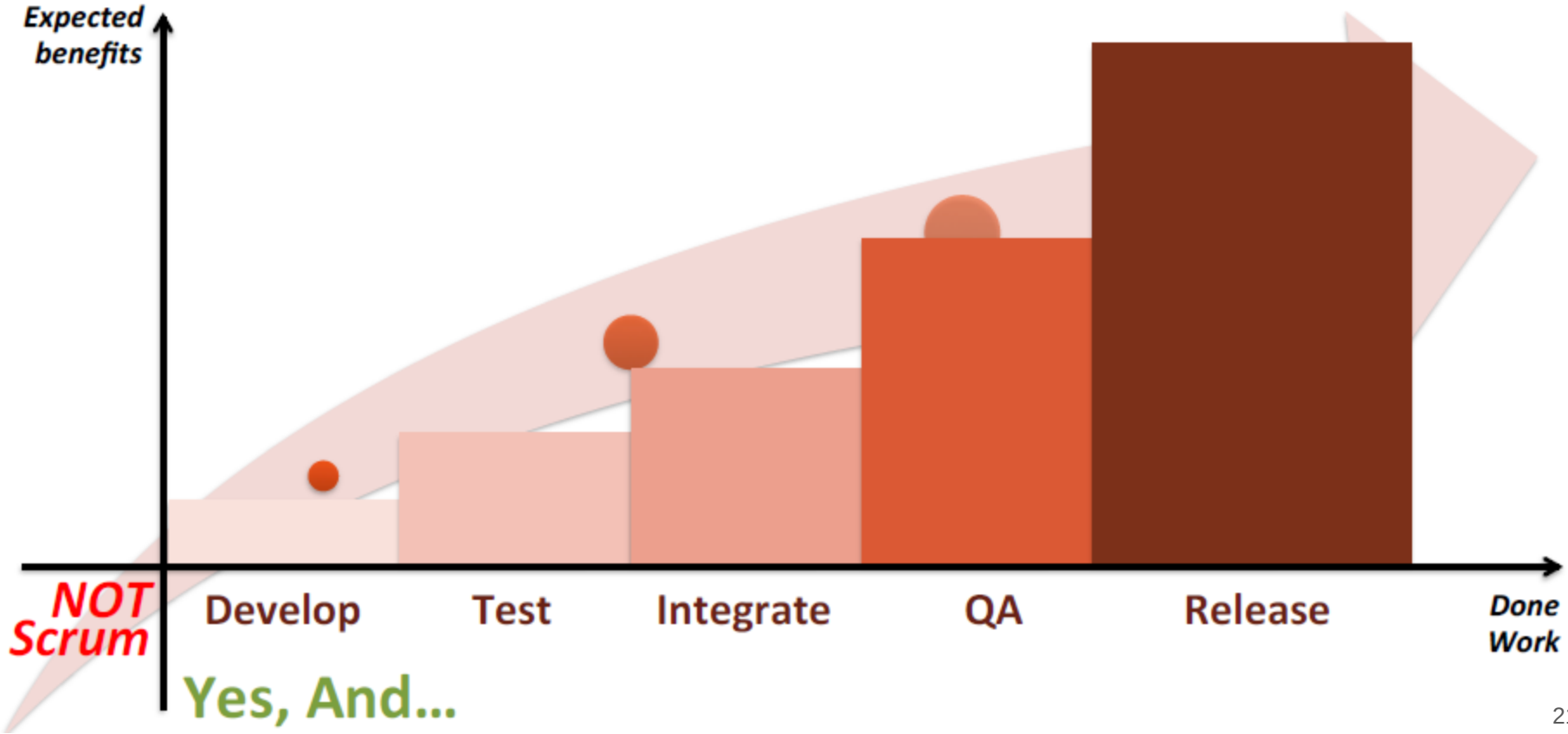
- Team effectiveness and collaboration
  - Feature teams
  - The 5 assets of a team, with e.g. conflict handling capabilities
  - Reduction of multi-tasking, or multi-project assignments
  - Improved relationships (e.g. Development Team-Product Owner)
- Skills (training)
- Elimination of low value through an ordered Product Backlog and a mandated Product Owner
- Engineering: standards, tooling & automation
  - eXtreme Programming-style: TDD, Pair Programing, Continuous Integration
  - Test automation (integration, regression)
  - On-demand availability of infrastructure
- Quality standards & guidelines
- A definition of Done that reflects releasable
- Autonomy and self-organization

Yes, We Do Scrum. And…

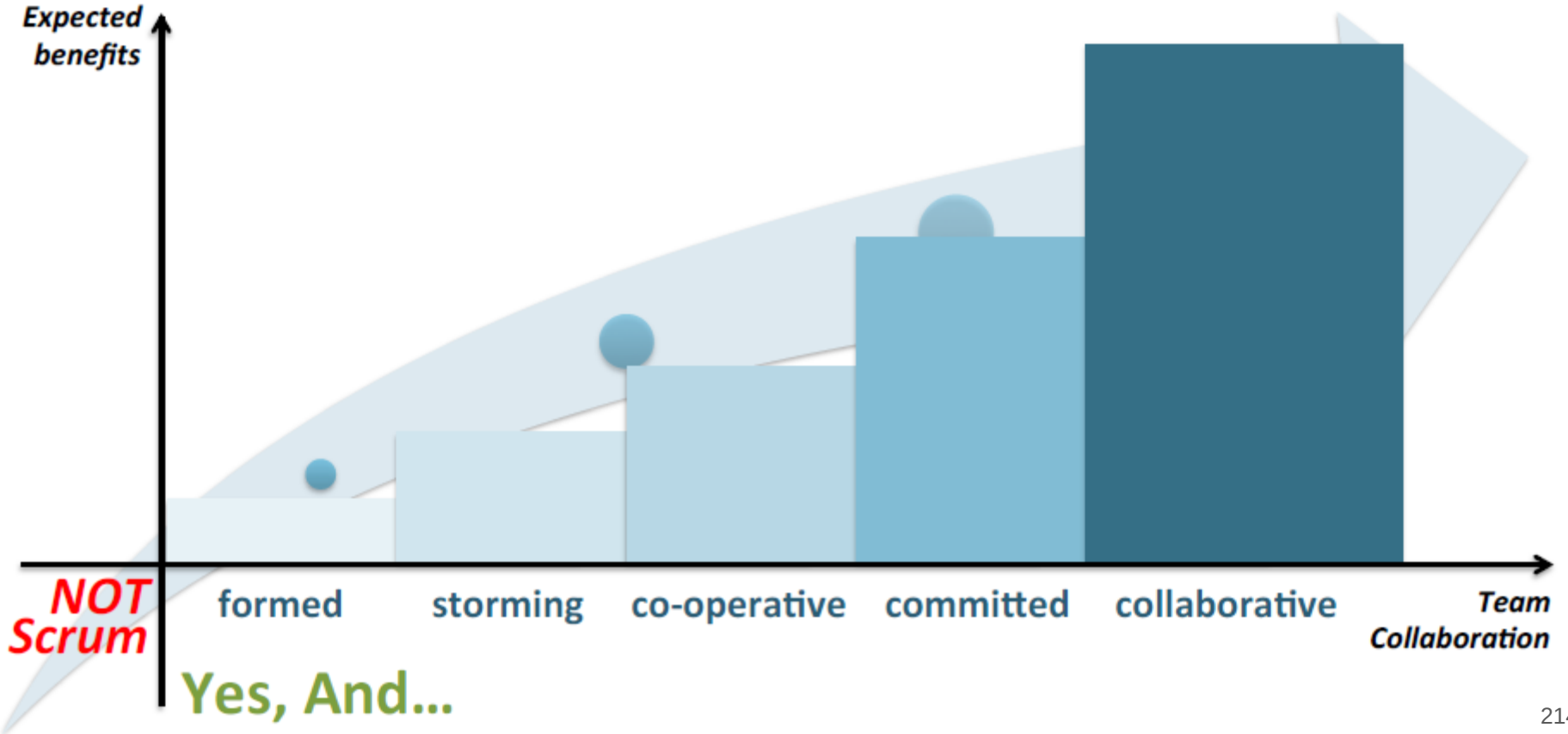
Yes, We Have A Product Owner. And…



Yes, We Have A Definition Of Done. And…



Yes, We Are A Team. And…

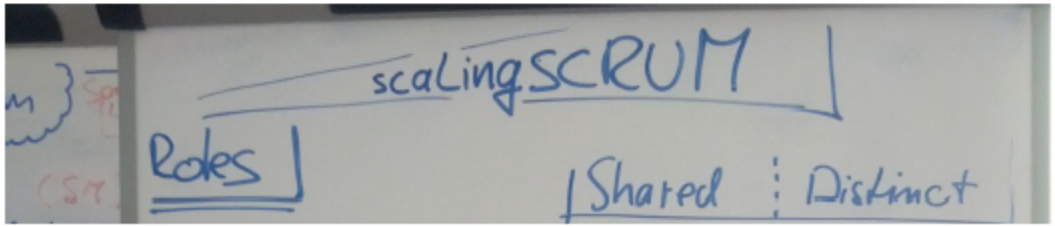


Or, You Can Add Teams

10 MIN

When multiple teams build a product, what elements of Scrum would you consider sharing?

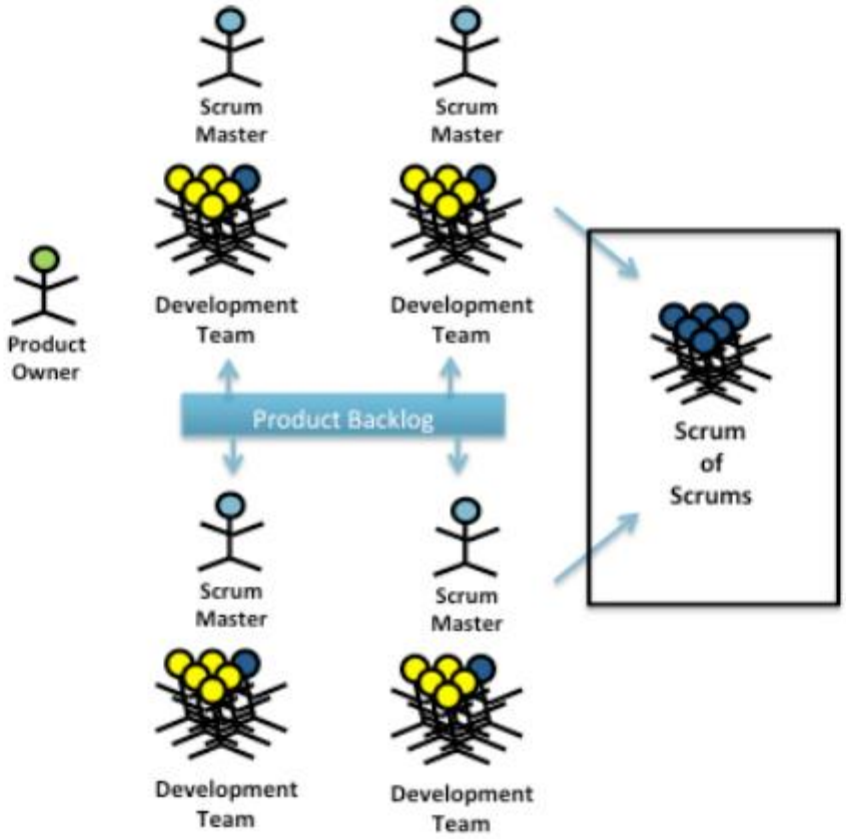
- What elements might be kept distinct per team?
- What would you do additionally?



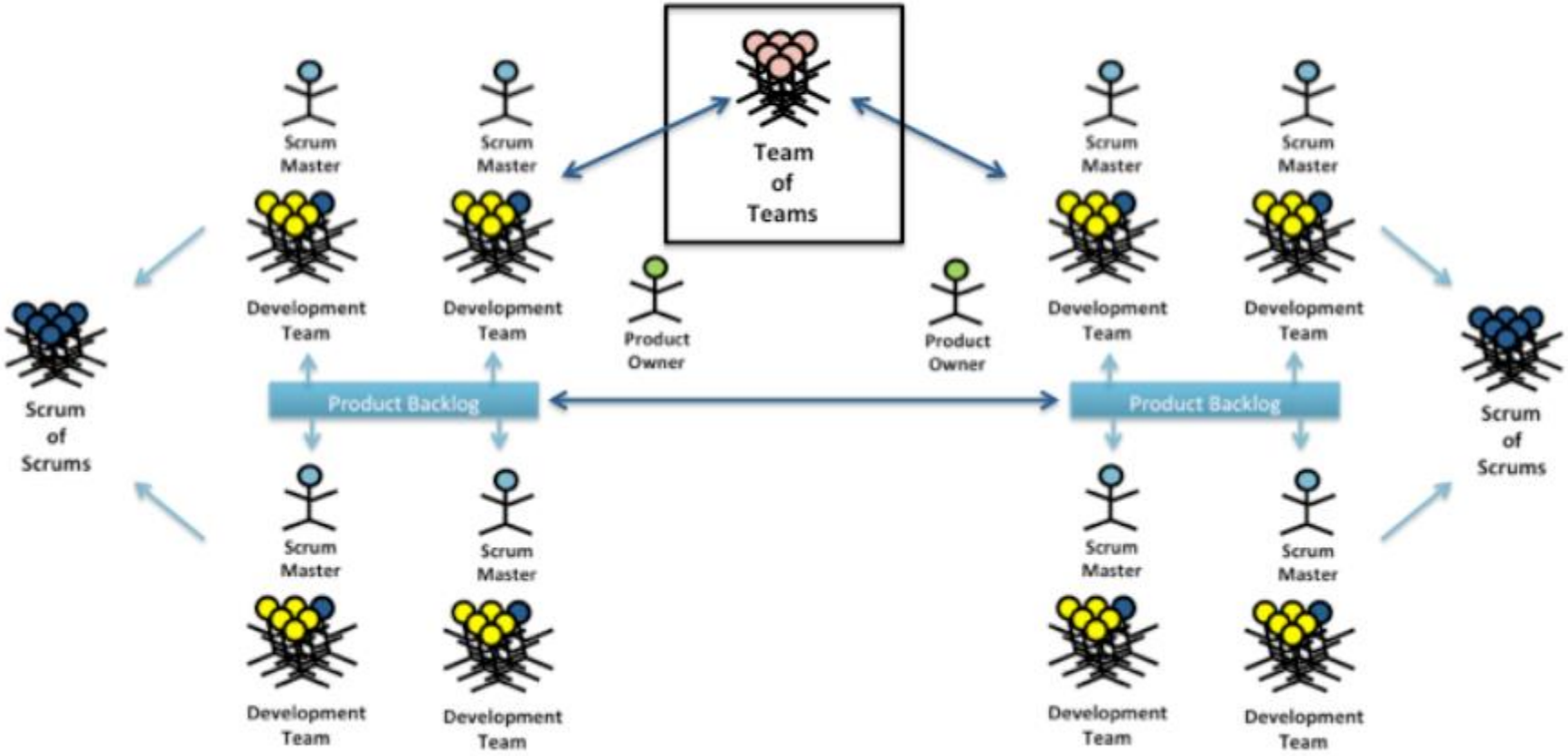
Source: Andreas Ebbert-Karroum

	Distinct	Shared
Roles		
Product Owner		
Development Team		
Scrum Master		
Artifacts		
Product Backlog		
Sprint Backlog		
Increment		
Events		
Sprint Planning		
Daily Scrum		
Sprint Review		
Sprint Retrospective		
Sprint		
Other?		

A Tactic For Scaling: Multiple Scrum Teams



A Tactic For Scaling: Multiple Products



A Tactic For Scaling: A Team-of-Teams

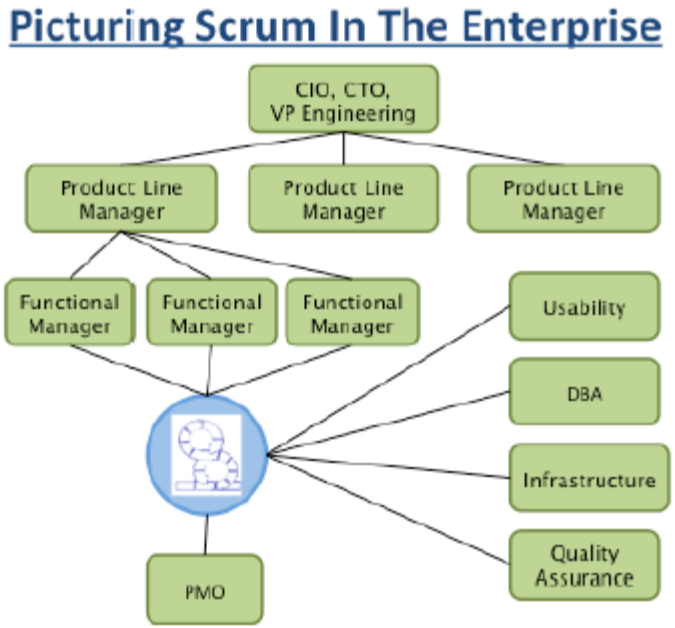
E.g. An Infrastructure Development Team:

- Feature Teams add work to the Infrastructure Backlog.
- The Infrastructure Development Team is staffed with developers from the Feature Teams until demand is met.
- When Infrastructure Backlog demand is low, developers move back to Feature Teams.

Observed Scrum Adoption Models

- Most common: Bottom up & stealth
- Critical project or release: PRN* Scrum

- **Contained innovation initiative: the Scrum (software) Studio**
- Profound and persistent change: Enterprise adoption



Pro Re Nata, or 'Take as needed'

Observed Scrum Implementation Challenges

- Outgrowing isolated Scrum Teams.
- Outgrowing flaccid Scrum:
  - A lack of engineering standards
  - A distant customer
  - The belief in magic over empiricism and hard work
- Frequent functional releases.

> Updating an existing hierarchical system is "like trying to rebuild an elephant so that it can be both an elephant and a panther. It's never going to happen."
>
> - John P. Kotter, November 2012

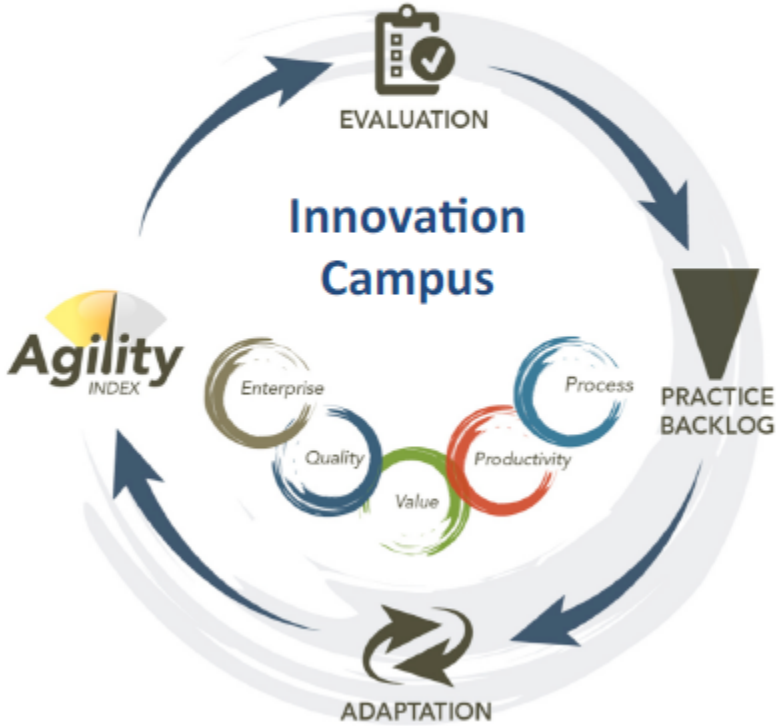
From Conventional Change To Accelerated Action

Source: "Accelerate!" (John Kotter, Harvard Business Review, November 2012)

The Agility Path Framework

Use Scrum to manage the innovation initiative:

- Progressively implement 8 accelerators via domain specific practices.
- Measure the overall progress to take informed decisions.
- Evaluate. All the time.

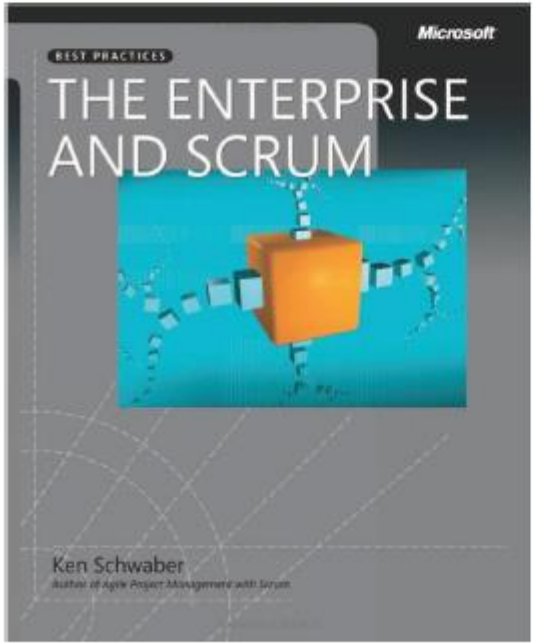


Take-Away About Scrum At Large

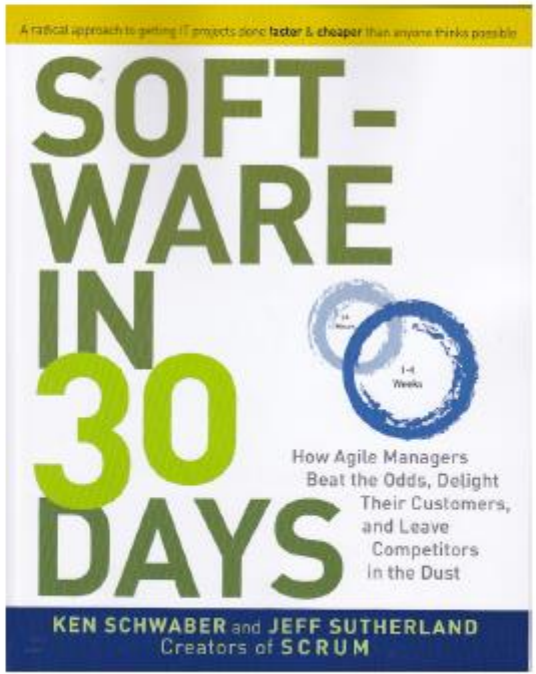
- Various tactics allow to scale Scrum, but the base rules remain the same.
- Transforming to Scrum is more about behavior and cultural change than it is about ‘process’.
- Lasting change requires top-down involvement.

Suggested Reading

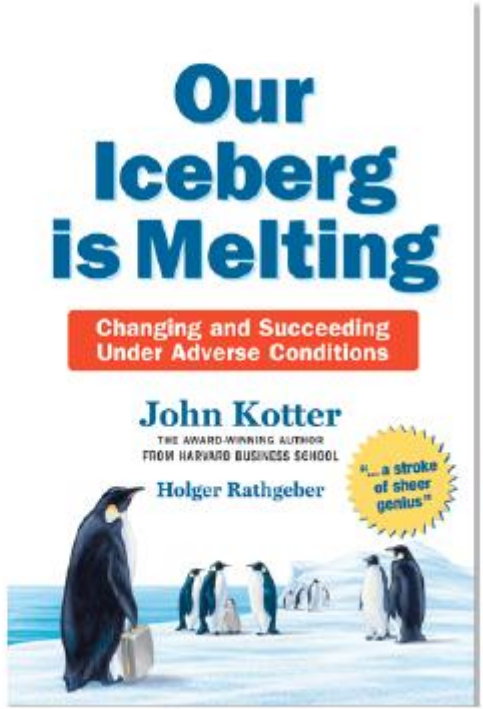
"The enterprise and Scrum"
(Ken Schwaber)



"Software in 30 Days"
(Ken Schwaber, Jeff Sutherland)



"Our iceberg is melting"
(John P. Kotter)



Nothing focuses the mind like a noose.

-Mark Twain

Closing

Professional Scrum Master

Test Time

http://scrum.org/open-assessments

You will NOT have a perfect score and that is ok. Please jot down any questions you got incorrect in your workbook.

Please take the exam TWICE.

Three Things You Wanted To Know (re-visit)

Did we cover what you absolutely wanted to know?

Did we set some questions aside that we still need to go into?

It's Your Call

10 MIN

I've had 2 great days of discovery about being a professional Scrum Master. But, when I go back to work I still have to deal with many old ways of working (dates, actuals, predictions).

Identify 3 actionable ideas or improvements from this class you will try.

Next Steps

Feedback

- Feedback is incredibly important, and we take it very seriously. Your feedback helps us to continually inspect, and adapt our courses to your needs. http://www.scrum.org/feedback/

Take the Scrum Open assessment

- This is free. Create an account via http://www.scrum.org/Registration and use the Scrum open assessment as a learning tool to test your basic knowledge of Scrum at http://www.scrum.org/Assessments/Scrum-Open-Assessment

Take the PSM I assessment

- You receive one free attempt for taking this course. The Support Team will email you instructions within 5 days. Be sure to add support@scrum.org to your list of accepted addresses. You have 14 days from when you receive your access code!

Take the PSM II assessment

- Upon your request, you receive a $200 discount for taking this course. Email support@scrum.org for the coupon code.

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RSS
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Thank You!