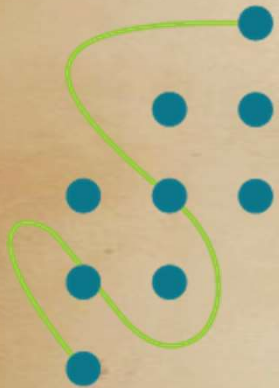


Certified Scrum Master (CSM) Training

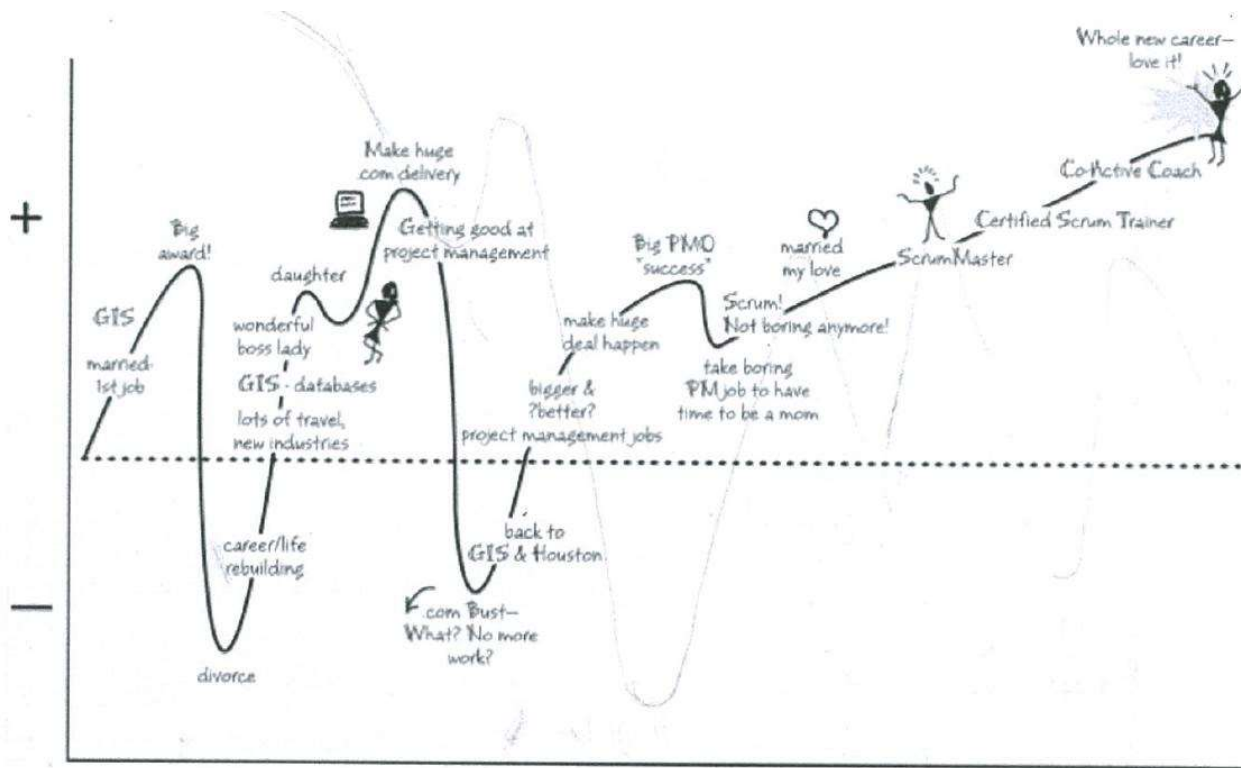


**ROCKET NINE
SOLUTIONS**



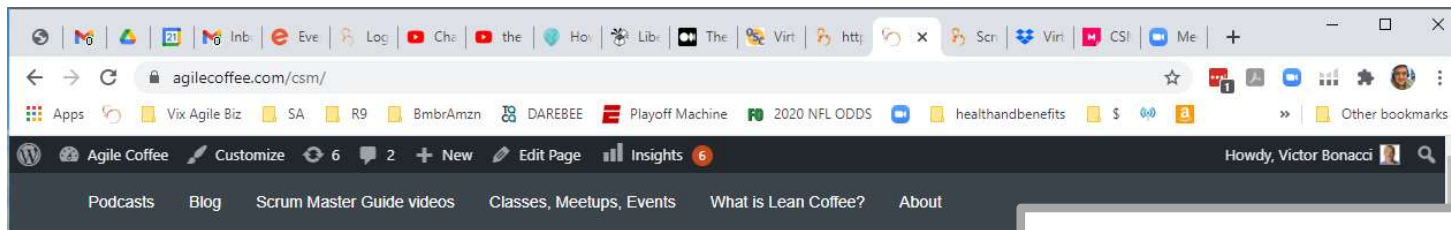
Victor Bonacci
Certified Scrum Trainer
Host of the *Agile Coffee Podcast*
victor@rocketninesolutions.com

My Journey



Scrum Trainer
Agile Coach
ScrumMaster
Product Owner
IT Manager
Project Manager
Product Manager
Tech Lead
Programmer
Analyst
Webmaster

Teacher
Filmmaker
VISTA
Restaurateur



agilecoffee.com/csm



COACHING . CONVERSATION . COMMUNITY

Find the right brew:

CSM class resources

Below are resources that Vic uses in his CSM class. Same as in Dropbox.

Slides (pdf) and Workbook (pdf)

Scrum Guide - 2017 (for test), 2020 (current)

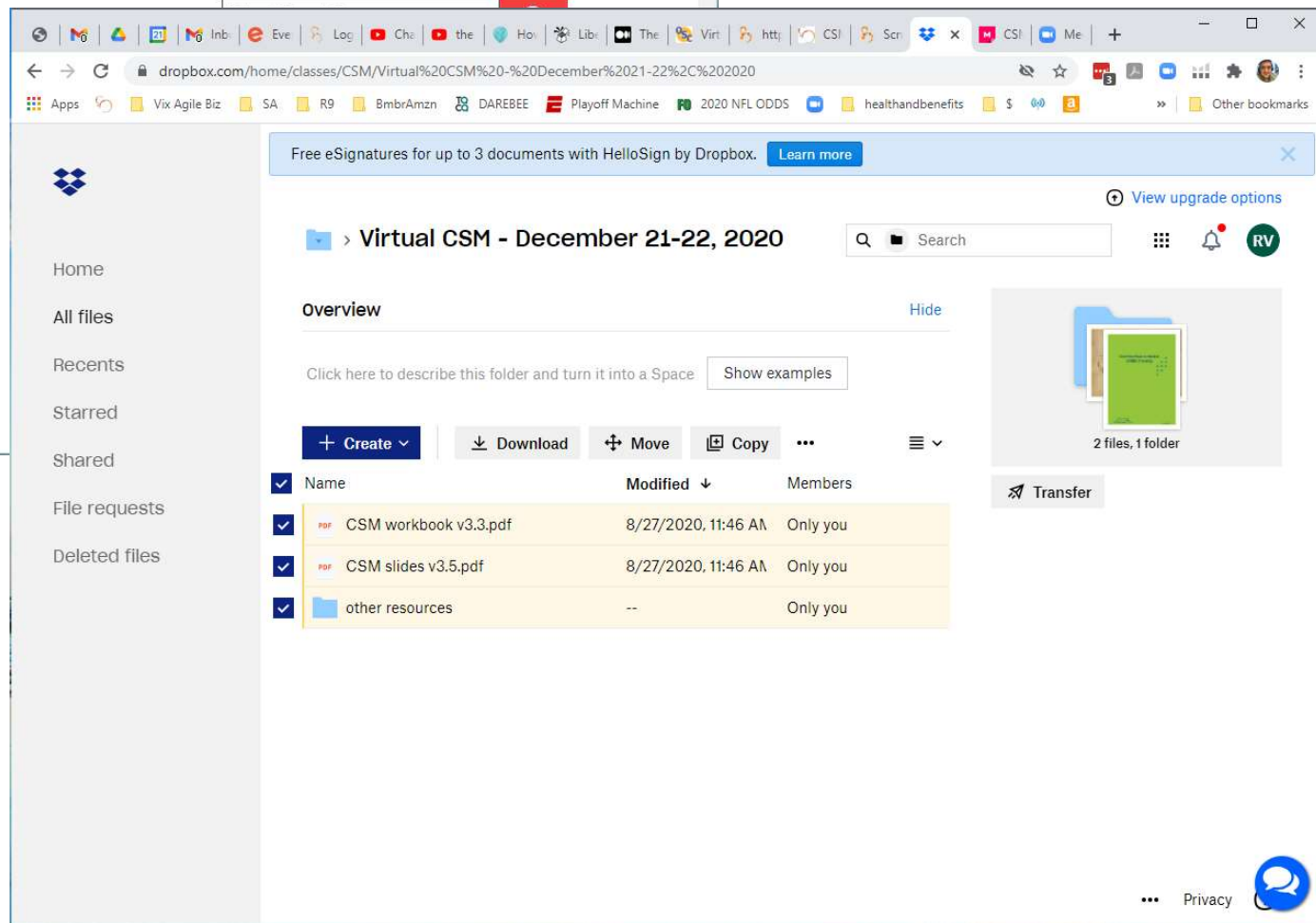
Scrum Alliance:

- Learning Objectives: Scrum Foundations (2020), CSM (2020)
- CSM Test Content Outline (2020)

Story Splitting worksheet

Scrum Master Checklist and Competencies Assessment

Edit



MURAL

The screenshot shows a web browser window with the URL `app.mural.co/t/r91783/m/r91783/1605645261472/722b82cc299dba054eae8e65fce0c8109a44959b`. The browser tabs include "Drafts (61) - vixwork@gmail.com" and "Untitled mural • vixR9". The browser's bookmark bar shows various sites like "Vix Agile Biz", "SA", "R9", "BmbrAmzn", "DAREBEE", "healthandbenefits", "Sophia", "Esther's Lab", and "NFLBite".

The MURAL interface is titled "Untitled mural" and shows a dark workspace with a toolbar on the left. A blue tooltip in the center reads: "Before you jump in: If you've never used MURAL, here's a guide to help you learn the basics." with a "GOT IT" button. The top right of the workspace has "SHARE" and "All changes saved" text.

The right sidebar, titled "Getting started in MURAL", contains the following sections:

- ADD ELEMENTS**
 - Add sticky notes** by double clicking on the mural
 - Add text and other elements** by dragging them from the sidebar
 - Add images** by dragging them in from your computer
 - Add links and other files** by pasting them into the mural (Ctrl + V)
- EDIT ELEMENTS**
 - Double click Sticky Notes, Text Boxes and Titles to edit their text
 - Right click any element for more options
- NAVIGATE THE MURAL**
 - Use your mouse to zoom
 - Click and drag to move

At the bottom of the workspace, there are zoom controls showing a zoom level of 20% and a "Zoom settings" button. User avatars are visible at the bottom center of the workspace.

Working Agreements

- Please use your video camera at all times during the session.
- Please mute your audio when you are in the "big room" (except when talking).
- Please participate.
- Please do not share and attribute other people's stories outside of the class.
- Please take care of yourself.
- Other? Add in the Chat window



Explore Certifications
Grow more agile through the Scrum Alliance learning journey



Renew Your Certification
Remain an active member by renewing your certification



Search Courses
Find training and certification that meets your needs

Explore our certifications
Search all courses

Certification benefits
Scrum Education Units
Renew your certification

What is Scrum?
What is business agility?

EXPLORE BY ROLE

- Agile Coach
- Developer
- Leader
- Product Owner
- Scaling Practitioner
- ScrumMaster
- Trainer

Your business needs to adapt and evolve quickly. You want to grow more agile, and it's not easy to go it alone. We can help. As a not-for-profit, Scrum Alliance serves our members in the pursuit of a better way to work. Join our community. Discover your people.

[Find Your Course](#)



2001
ESTABLISHED

1221482
CERTIFICANTS

67255
COURSES

Discover the benefits of creating an agile organization.

ENGAGED TEAMS

INNOVATIVE PRODUCTS

DELIGHTED CUSTOMERS



I'm ready! **HOW** do I get certified?

1

Find Your Course

Search our courses offered by trainers around the world. Since each class is a unique experience, you'll find the perfect class that fits your needs.

2

Take Your Course

Complete a live online or in-person CSM course. All CSM courses offer at least 14 hours of interactive instruction from a verified trainer.

3

Pass Your Test

Activate your Scrum Alliance® certification account and pass your CSM test by correctly answering 37 out of the 50 questions within the 60-minute time limit.

Ready to get started?

Get Certified

More resources for you

- [Scrum Foundations Learning Objectives 2022](#)
- [CSM Learning Objectives 2022](#)
- Not sure if you should take the CSM or CSPO course? [Take our short self-assessment](#) to find out which certification path is best for you.



Help

SCRUM FUNDAMENTALS



COLLECTION

SCRUM FUNDAMENTALS



ARTICLE

SCRUM FUNDAMENTALS



ARTICLE

SCRUM FUNDAMENTALS



Read the official Scrum Guide online

Read Online >



Download the official Scrum Guide PDF in English

Download (English) >



Download the official Scrum Guide in over 30 different languages

Select language & Download >

What is Scrum?

Scrum is a framework for developing and sustaining complex products. This Guide contains the definition of Scrum. This definition consists of Scrum's roles, events, artifacts, and the rules that bind them together. Ken Schwaber and Jeff Sutherland developed Scrum; the Scrum Guide is written and provided by them. Together, they stand behind the Scrum Guide.

Share Your Ideas!

If you have ideas for improving the website or the Scrum Guide itself, please share them! You may do so by sending a message to our support e-mail.

Share an idea

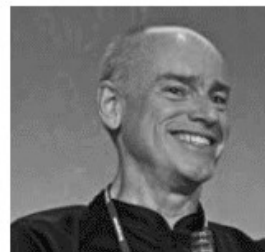
About the creators of Scrum



Meet Jeff Sutherland

Jeff is the co-creator of Scrum and a leading expert on how the framework has evolved to meet the needs of today's business...

Read More



Meet Ken Schwaber

Ken Schwaber co-developed the Scrum process with Jeff Sutherland in the early 1990s to help organizations...

Read More

What's New in the 2020 Scrum Guide?

Even Less Prescriptive

Over the years, the Scrum Guide started getting a bit more prescriptive.

The 2020 version aimed to bring Scrum back to being a minimally sufficient framework by removing or softening prescriptive language.

- removed Daily Scrum questions
- soften language around PBI attributes
- soften language around retro items in Sprint Backlog
- shortened Sprint cancellation section
- and more



What's New in the 2020 Scrum Guide?

Overall Simplification of Language for a Wider Audience

The 2020 Scrum Guide has placed an emphasis on eliminating redundant and complex statements as well as removing any remaining inference to IT work (e.g. testing, system, design, requirement, etc.)

The Scrum Guide is now less than 13 pages.



TO DO

DOING

DONE

Scrum Master Core
Competencies

Scrum Roles

Backlogs &
User Stories

Service to the
Product Owner

Sprint Planning

Service to the
Developers

Scrum Events

Service to the
Organization

Why & What
of Agile & Scrum

Introductions



Why & What of Agile & Scrum



The Breakout Bunch



The Breakout Bunch

Why is Agile in demand?

What about the modern world
of work makes Agile valuable?

PACE OF
CHANGE



TECHNOLOGY
AND
AUTOMATION

CUSTOMER
EXPECTATIONS



KNOWLEDGE
IS NOW A
COMMODITY

GLOBALIZATION

PRODUCT
COMPLEXITY

INCREASED
REGULATIONS

HYPER-
COMPETITION

em·pir·i·cism

/ə'm'pirə,sizəm/

the theory that all knowledge is derived from sense-experience. Stimulated by the rise of experimental science, it developed in the 17th and 18th centuries, expounded in particular by John Locke, George Berkeley, and David Hume.

Empirical Process

- Variable Inputs
- Adaptable Process
- Variable Outputs
- Plan-Do-Study-Act

vs

Defined Process

- Known Inputs
- Repeatable Process
- Expected Outputs
- Assumptions

SCRUM

M

U

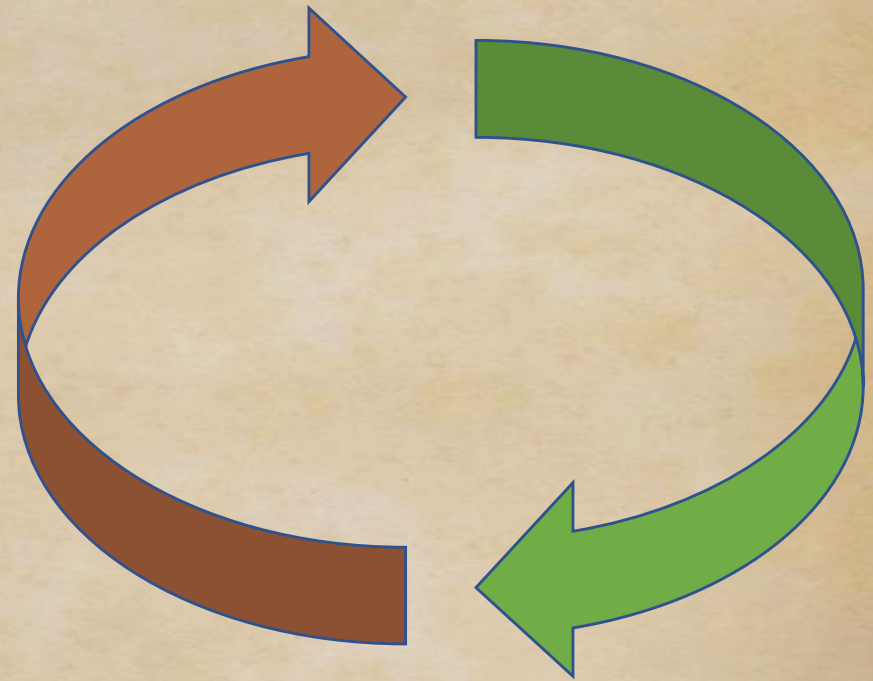
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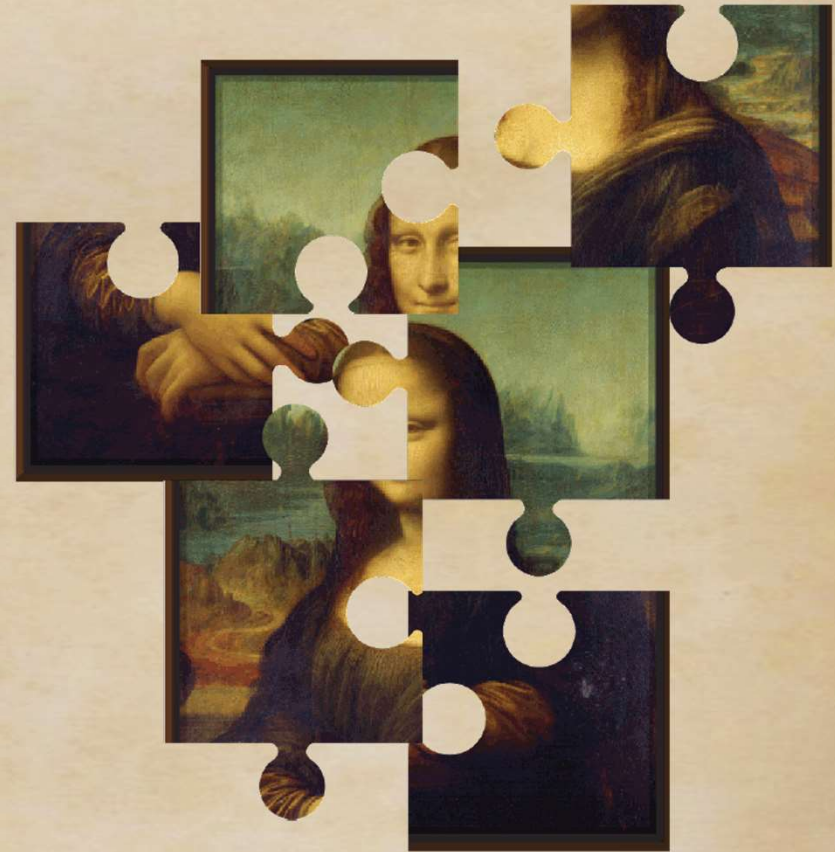
L

EMPIRICISM

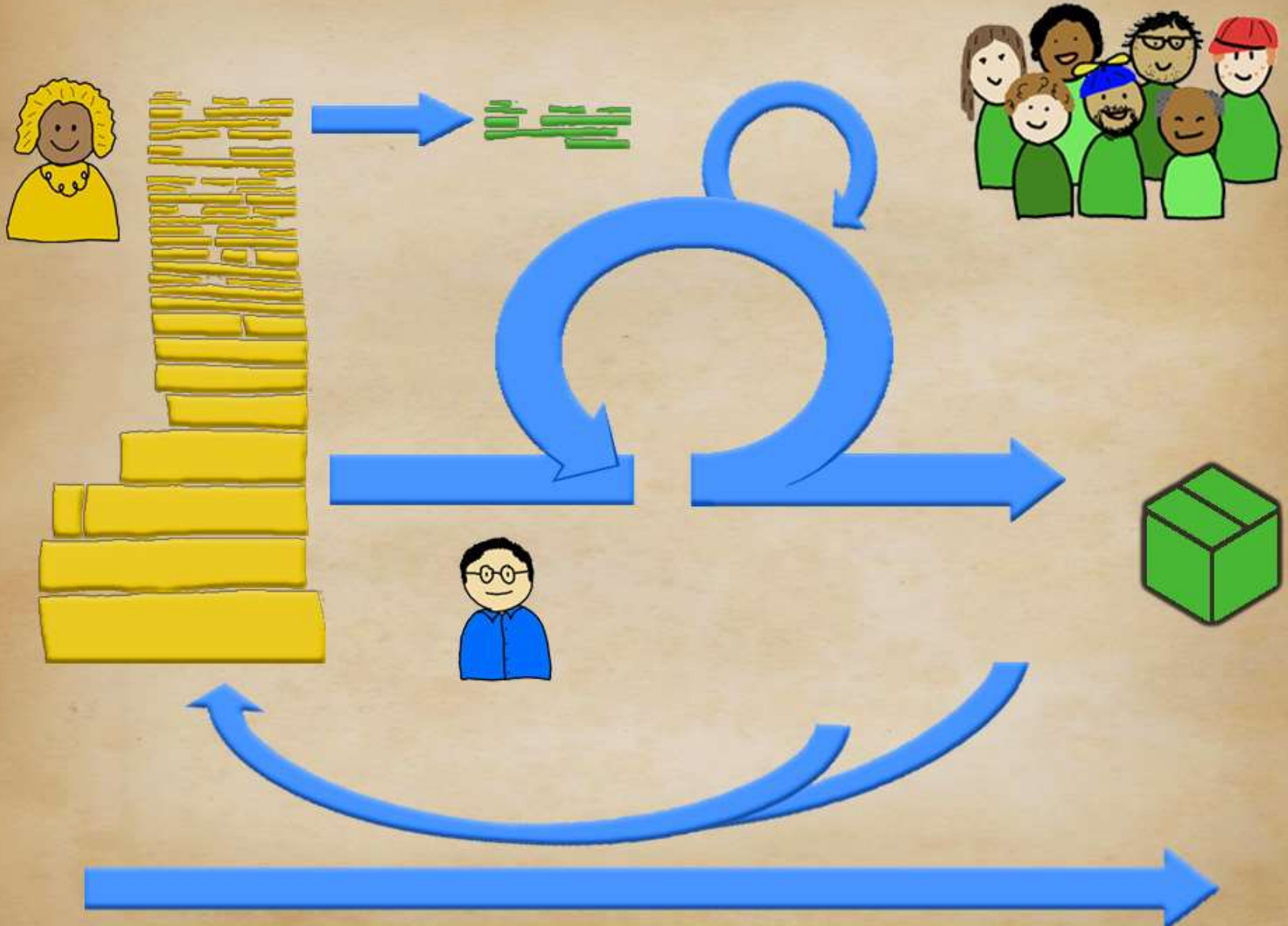
Iterative vs Incremental



Iterative vs Incremental

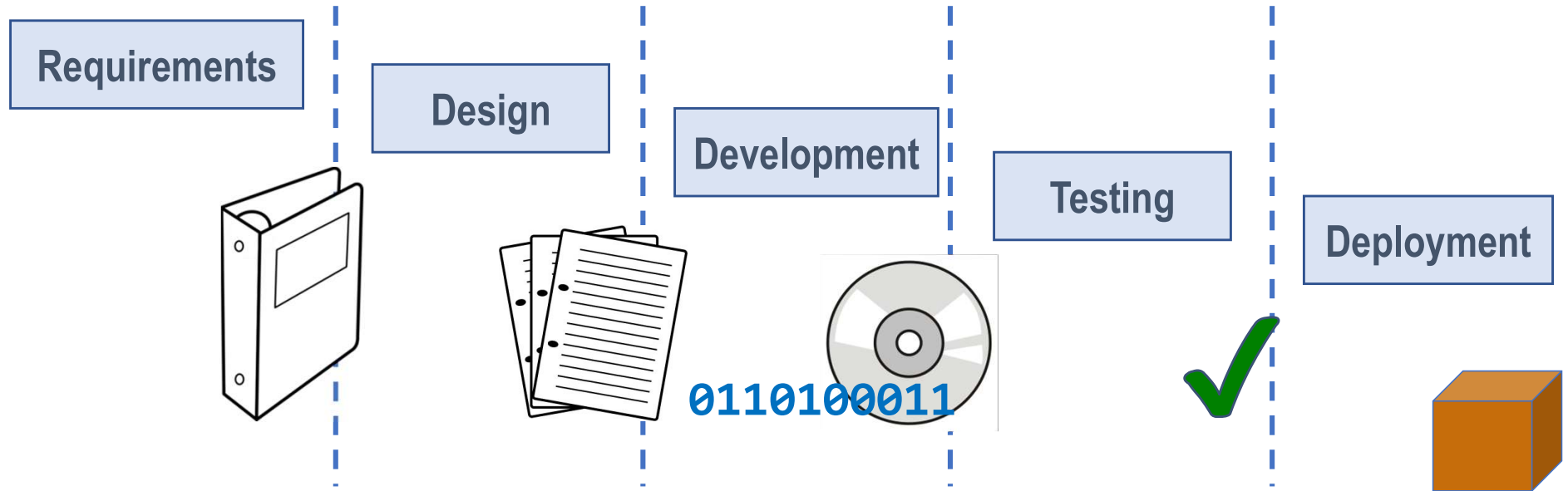


Scrum Framework

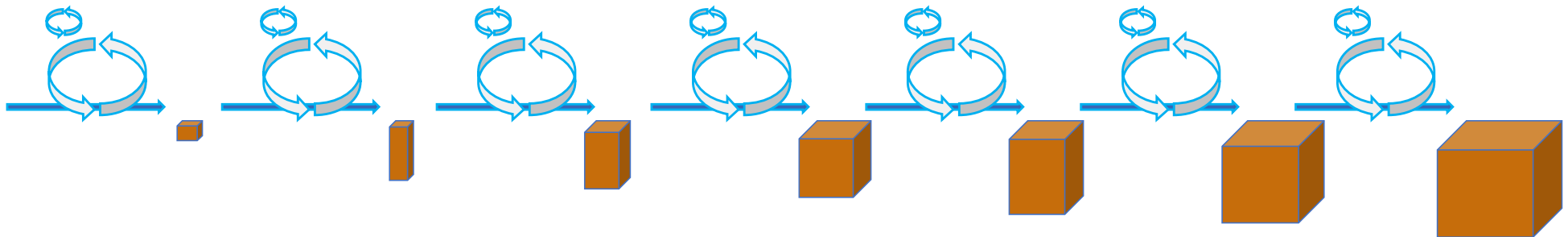


Linear vs Iterative

Waterfall (Linear)



Agile/Scrum (Iterative)





Business Students



Kindergarten Students



0



18 Minutes



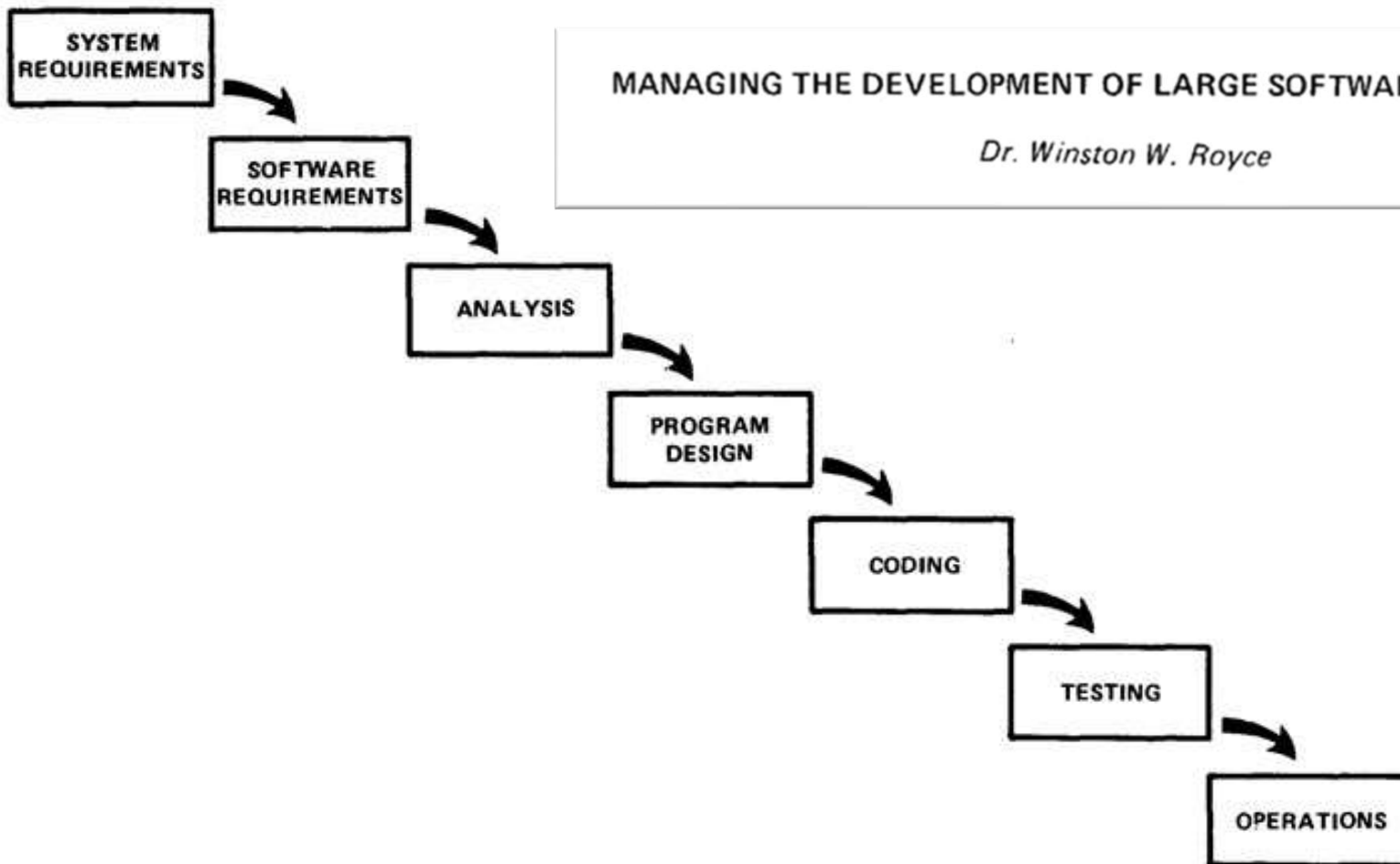


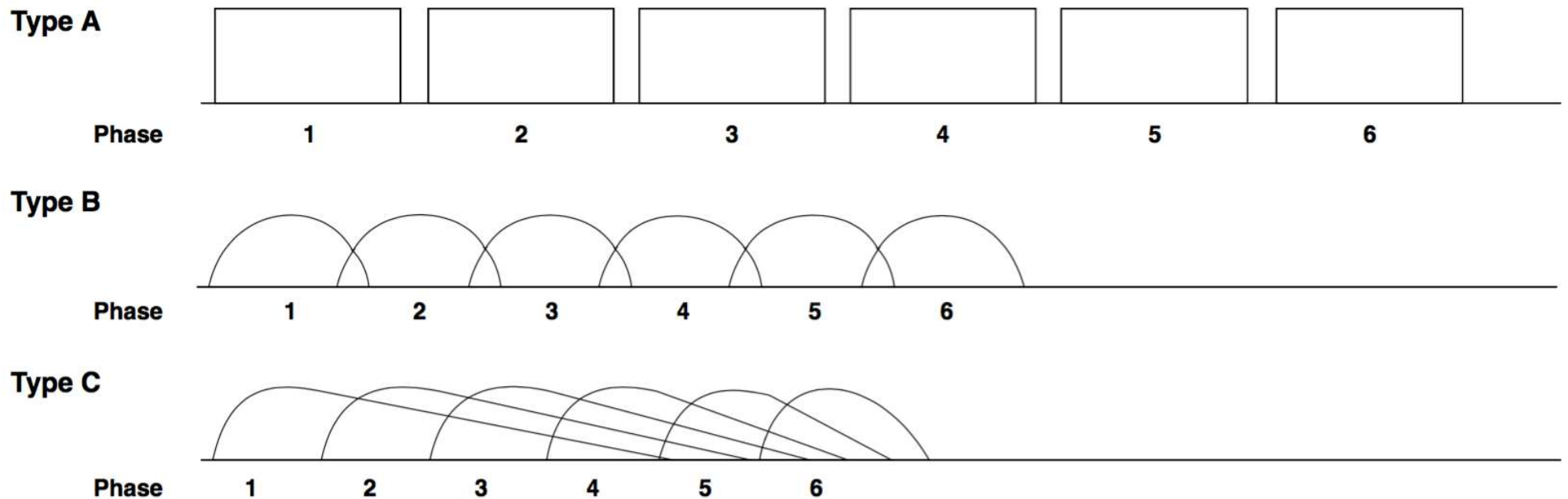
Figure 2. Implementation steps to develop a large computer program for delivery to a customer.

I believe in this concept, but **the implementation described above is risky and invites failure.** The problem is illustrated in Figure 4. The testing phase which occurs at the end of the development cycle is the first event for which timing, storage, input/output transfers, etc., are experienced as distinguished from analyzed. These phenomena are not precisely analyzable. They are not the solutions to the standard partial differential equations of mathematical physics for instance. Yet if these phenomena fail to satisfy the various external constraints, then invariably a major redesign is required. A simple octal patch or redo of some isolated code will not fix these kinds of difficulties. The required design changes are likely to be so disruptive that the software requirements upon which the design is based and which provides the rationale for everything are violated. Either the requirements must be modified, or a substantial change in the design is required. In effect the development process has returned to the origin and one can expect up to a 100-percent overrun in schedule and/or costs.

New New Product Development Game (1986)

EXHIBIT 1

Sequential (A) vs. overlapping (B and C) phases of development





HBR

JANUARY-FEBRUARY 1986

The New New Product Development Game

Hiroataka Takeuchi and Ikujiro Nonaka

The rules of the game in new product development are changing. Many companies have discovered that it takes more than the accepted basics of high quality, low cost, and differentiation to excel in today's competitive market. It also takes speed and flexibility.

This change is reflected in the emphasis companies are placing on new products as a source of new sales and profits. At 3M, for example, products less than five years old account for 25% of sales. A 1981 survey of 700 U.S. companies indicated that new products would account for one-third of all profits in the 1990s, an increase from one-fifth in the 1970s.¹

This new emphasis on speed and flexibility for a different approach for managing new development. The traditional sequential "stage-gate" approach to product development, favored by the National Aeronautics and Space Administration's phased program planning (PP) may conflict with the goals of maximum flexibility. Instead, a holistic or "rugby" approach where a team tries to go the distance as a

In today's fast-paced, fiercely competitive world of commercial new product development, speed and flexibility are essential.

Mr. Takeuchi is an associate professor of industrial engineering at the University of Michigan. Mr. Nonaka is an associate professor at Hitotsubashi University.

SCRUM Development Process

Ken Schwaber

Advanced Development Methods
131 Middlesex Turnpike Burlington, MA 01803
email virman@aol.com Fax: (617) 272-0555



Jeff Sutherland

Ken Schwaber

ABSTRACT. The stated, accepted philosophy for systems development is that the development process is a well understood approach that can be planned, estimated, and successfully completed. This has proven incorrect in practice. SCRUM assumes that systems development process is an unpredictable, complicated process that can only be roughly described as an overall progression. SCRUM defines the systems development process as a loose set of activities that combines known, workable tools and techniques with the best that a development team can devise to build systems. Since these activities are loose, controls to manage the process and inherent risk are used. SCRUM is an enhancement of the commonly used iterative/incremental object-oriented development cycle.

KEY WORDS: SCRUM SEI Capability-Maturity-Model Process Empirical cycle.

1. Introduction

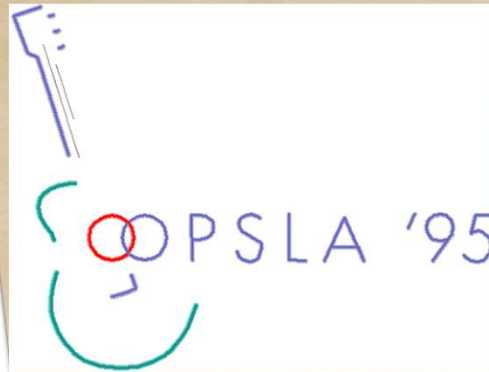
In this paper we introduce a development process, SCRUM, that treats major portions of systems development as a controlled black box. We relate this to complexity theory to show why this approach increases flexibility and produces a system that is responsive to both initial and additional requirements discovered during the ongoing development.

Numerous approaches to improving the systems development process have been tried. Each has been touted as providing "significant productivity improvements." All have failed to produce dramatic improvements.¹ As Grady Booch noted, "We often call this condition the software crisis, but frankly, a malady that has carried on this long must be called normal."²

Concepts from industrial process control are applied to the field of systems development in this paper. Industrial process control defines processes as either "theoretical" (fully defined) or "empirical" (black box). When a black box process is treated as a fully

¹ Brooks, F.P. "No silver bullet—essence and accidents of software engineering." *Computer* 20:4:10-19, April 1987.

² *Software Analysis and Design with Applications*, p. 8. Grady Booch, The Benjamin/Cummings



up the Agile Manifesto

Agile Software Development with Scrum

red
yellow
green
blue
red
blue
yellow
green
blue

Color Test

Ken Schwaber Mike Beedle



World Cup USA 94

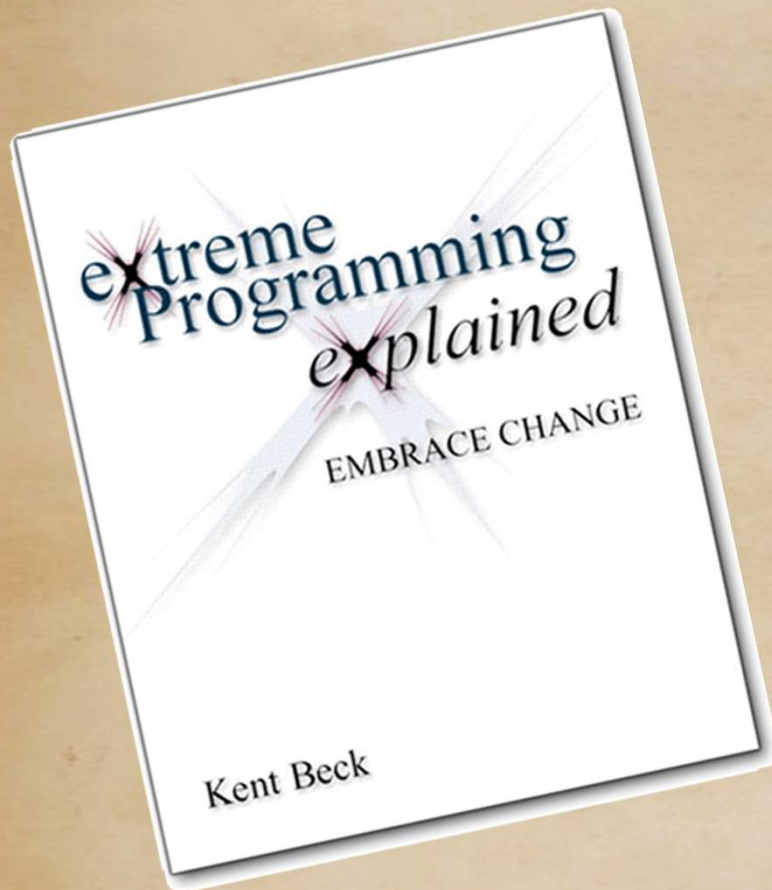
HARRY POTTER
J.K. ROWLING

NO CHILD LEFT BEHIND
LIT

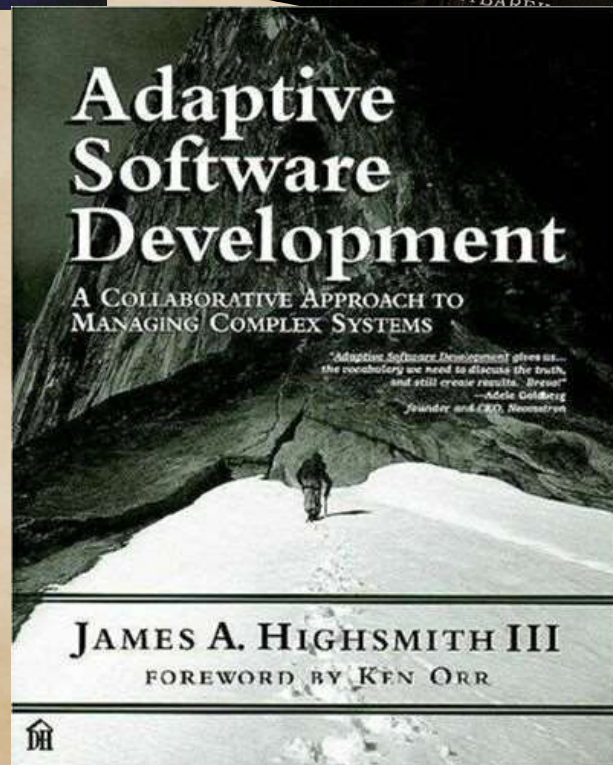
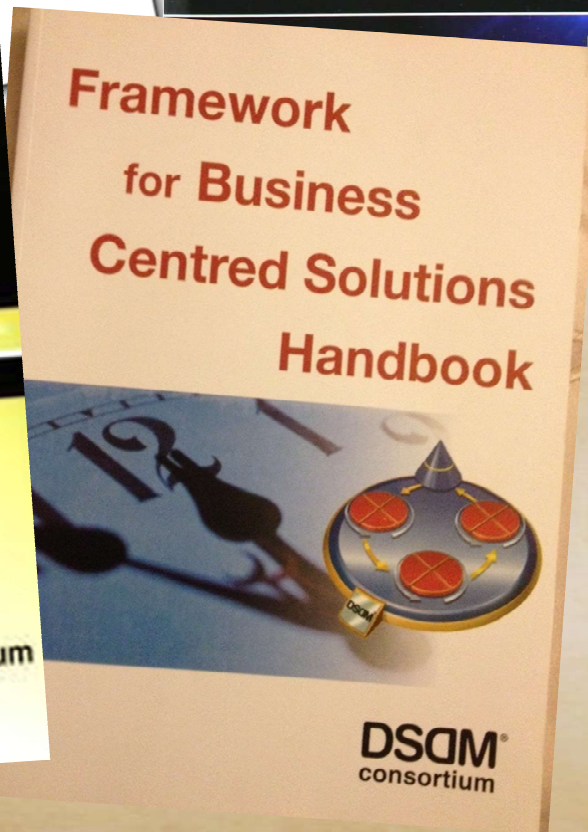
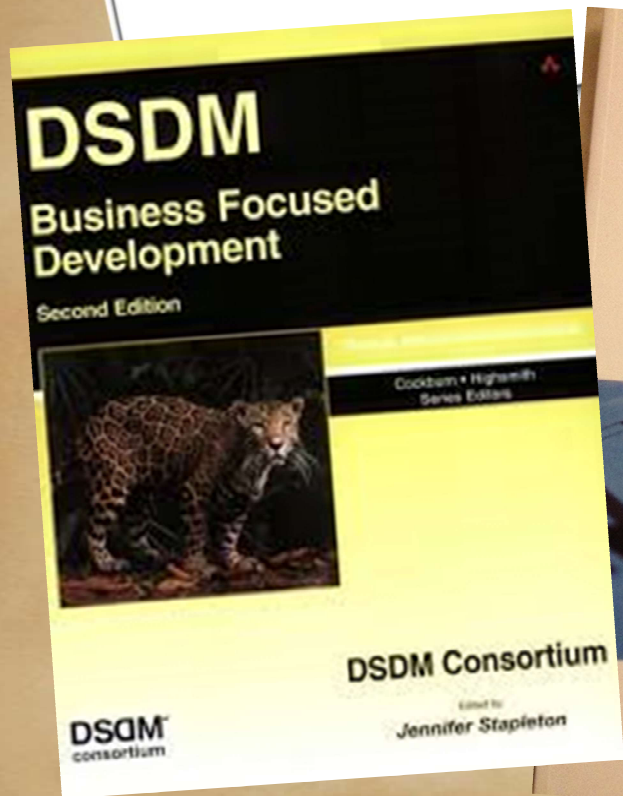
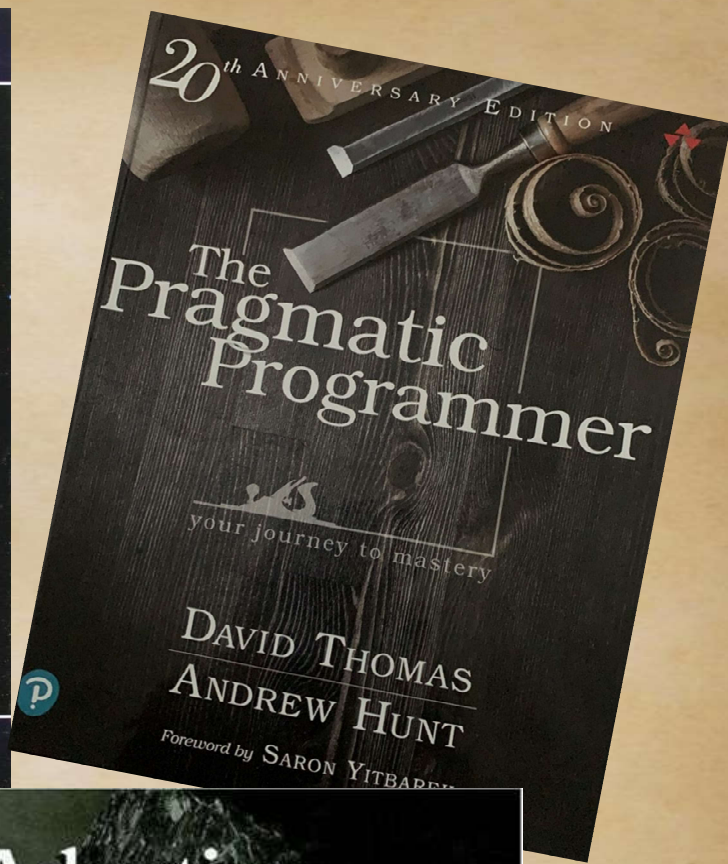
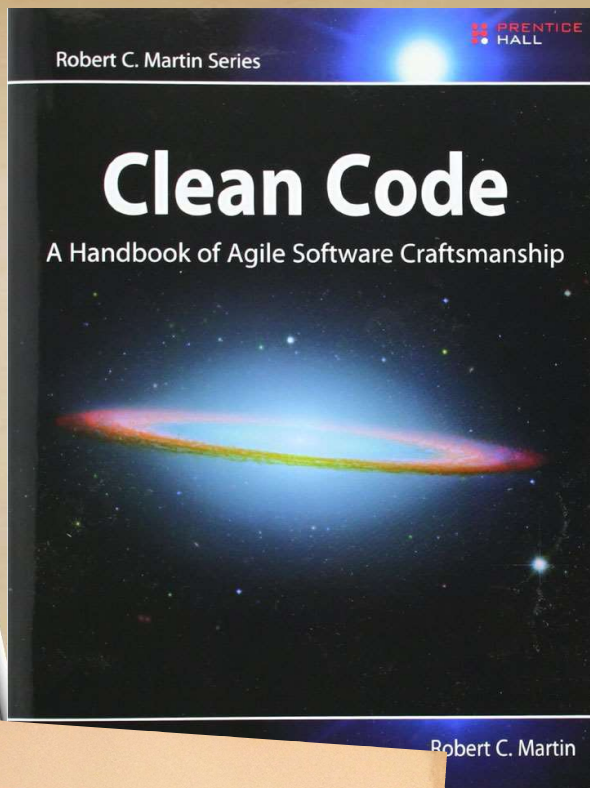
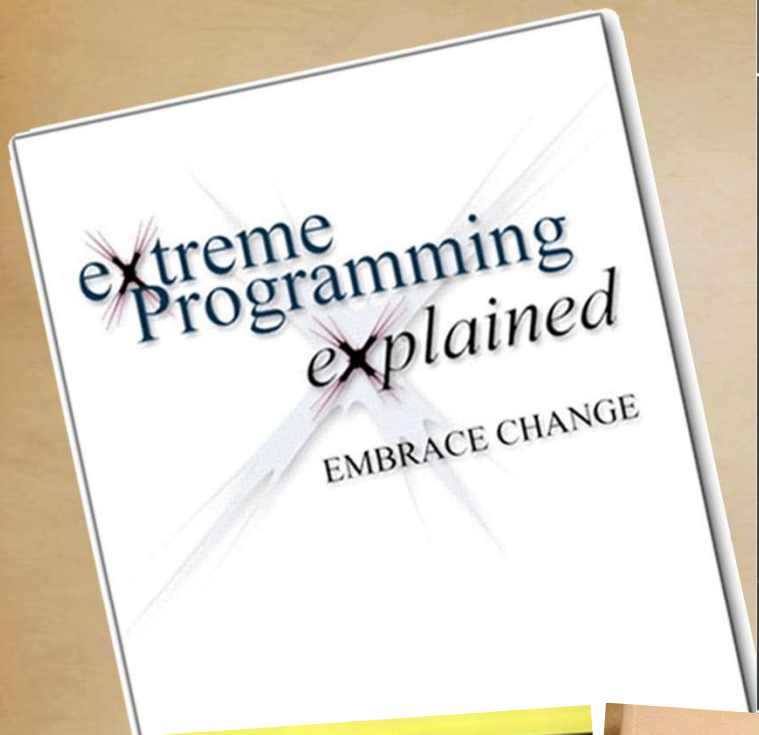
The 1990s

The 19


eXtreme Programming (XP)



- Pair-programming
- Test-Driven Design (TDD)
- Unit Test first
- Continuous Integration
- Whole team
- Simple designs
- Small releases
- No overtime
- Sustainable Pace



Snowbird, Utah February 2001

Purpose: uncovering 

We are figuring out better ways of developing software by doing it and helping others to do it.

interactions

1) individuals and ~~social networks~~ over process + tools

4) ~~4~~ responding to change over following ~~play~~

3) ~~3~~ customer collaboration over contract negotiation

Manifesto for Agile Software Development

Individuals and
Interactions

over

Processes and
tools

Working
software

over

Comprehensive
documentation

Customer
collaboration

over

Contract
negotiation

Responding to
change

over

Following a plan

We are uncovering better ways of developing software by doing it and helping others do it. Through this work 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

That is, while there is value in the items on the right, we value the items on the left more.

Manifesto for Agile Software Development, www.agilemanifesto.org

12 Principles of the Agile Manifesto

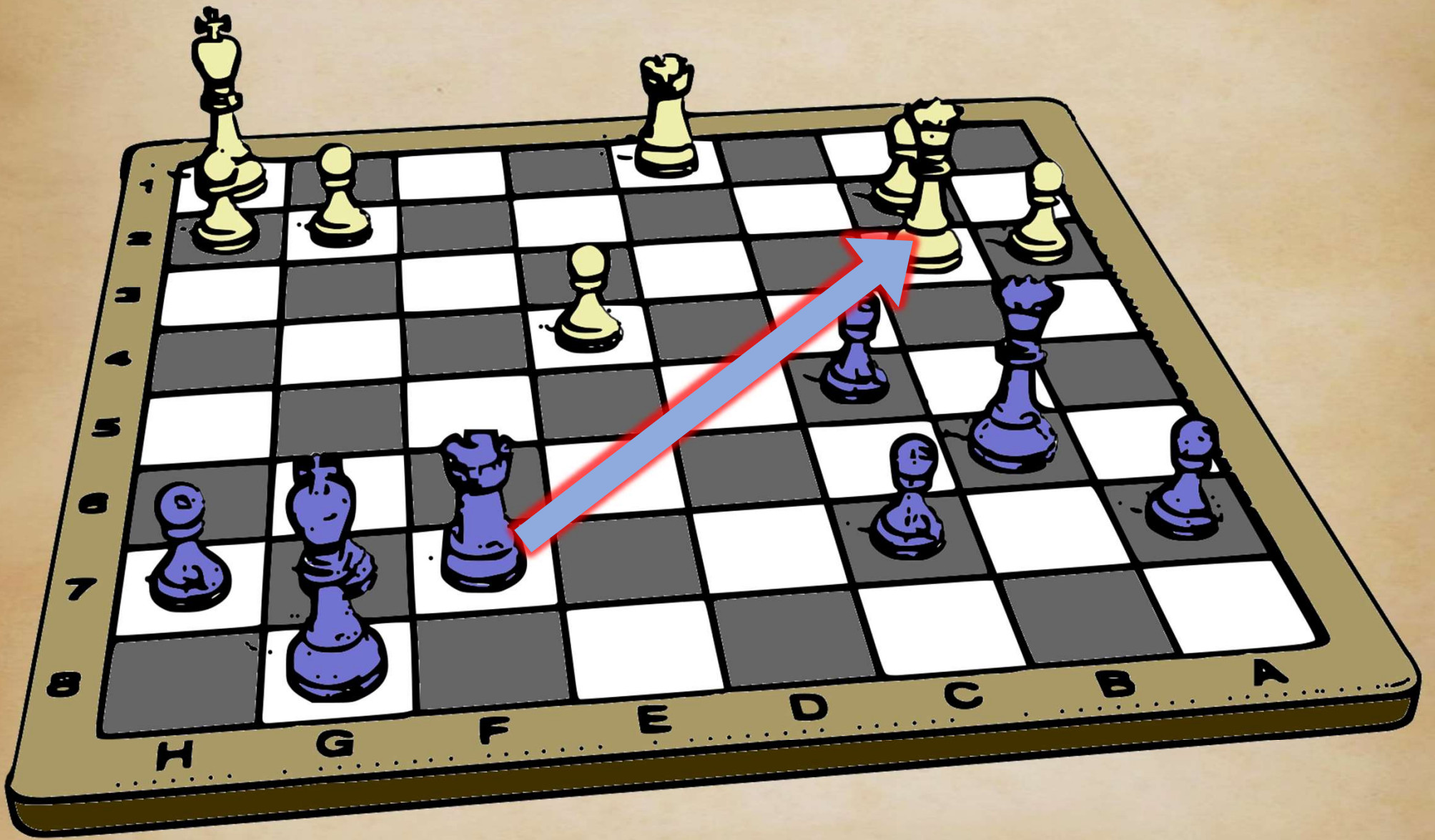
1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

12 Principles of the Agile Manifesto

7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity -- the art of maximizing the amount of work not done -- is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.



Manifesto for Agile Software Development, www.agilemanifesto.org





SCHWABERISMS

Scrum is like chess. You either play it as its rules state, or you don't.

Scrum guarantees you failure in 30 days or less

Scrum is like your mother-in-law, it points out ALL your faults.

Scrum is...

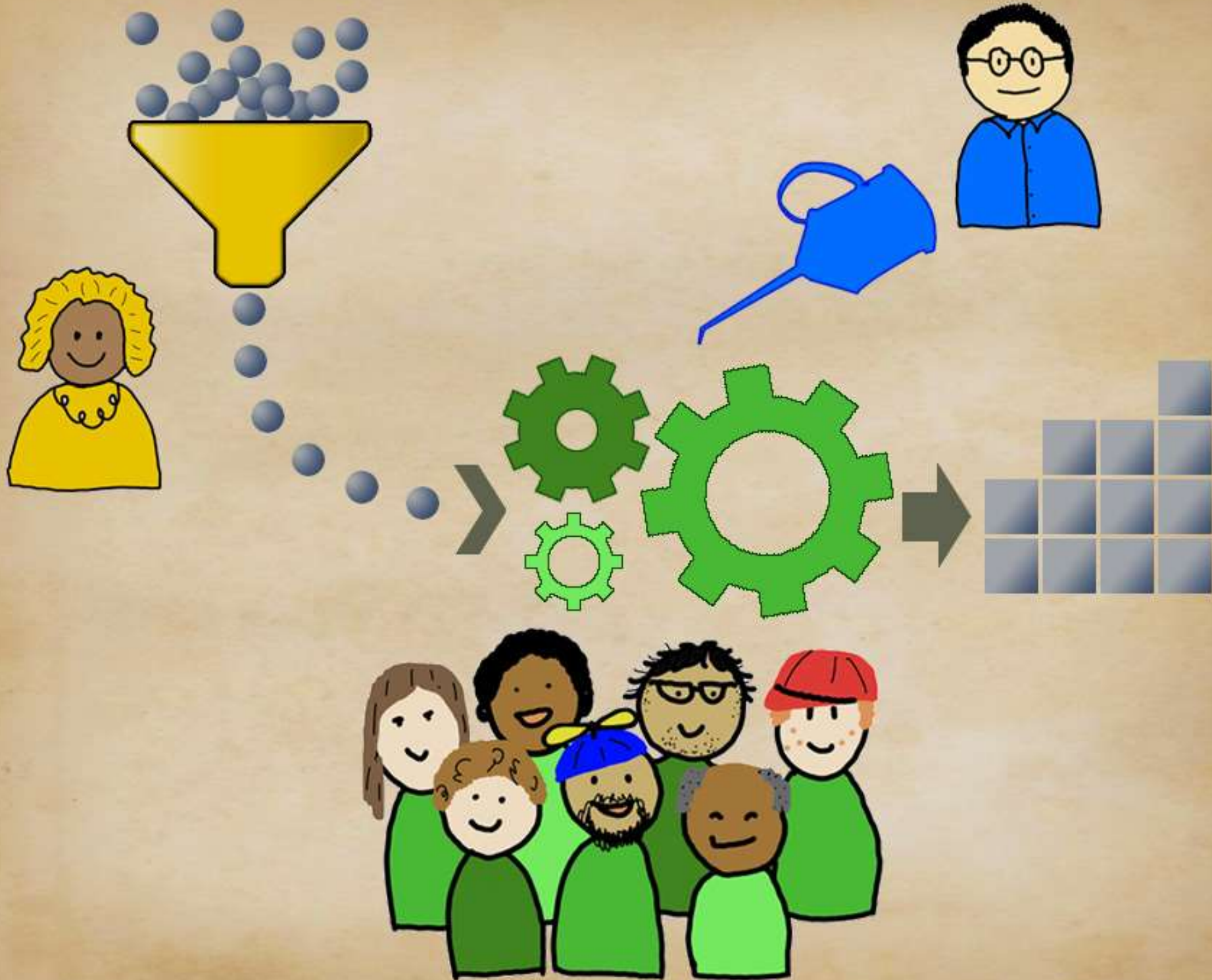
a lightweight, Agile framework
for iterative development

Lightweight - Set is small, not comprehensive

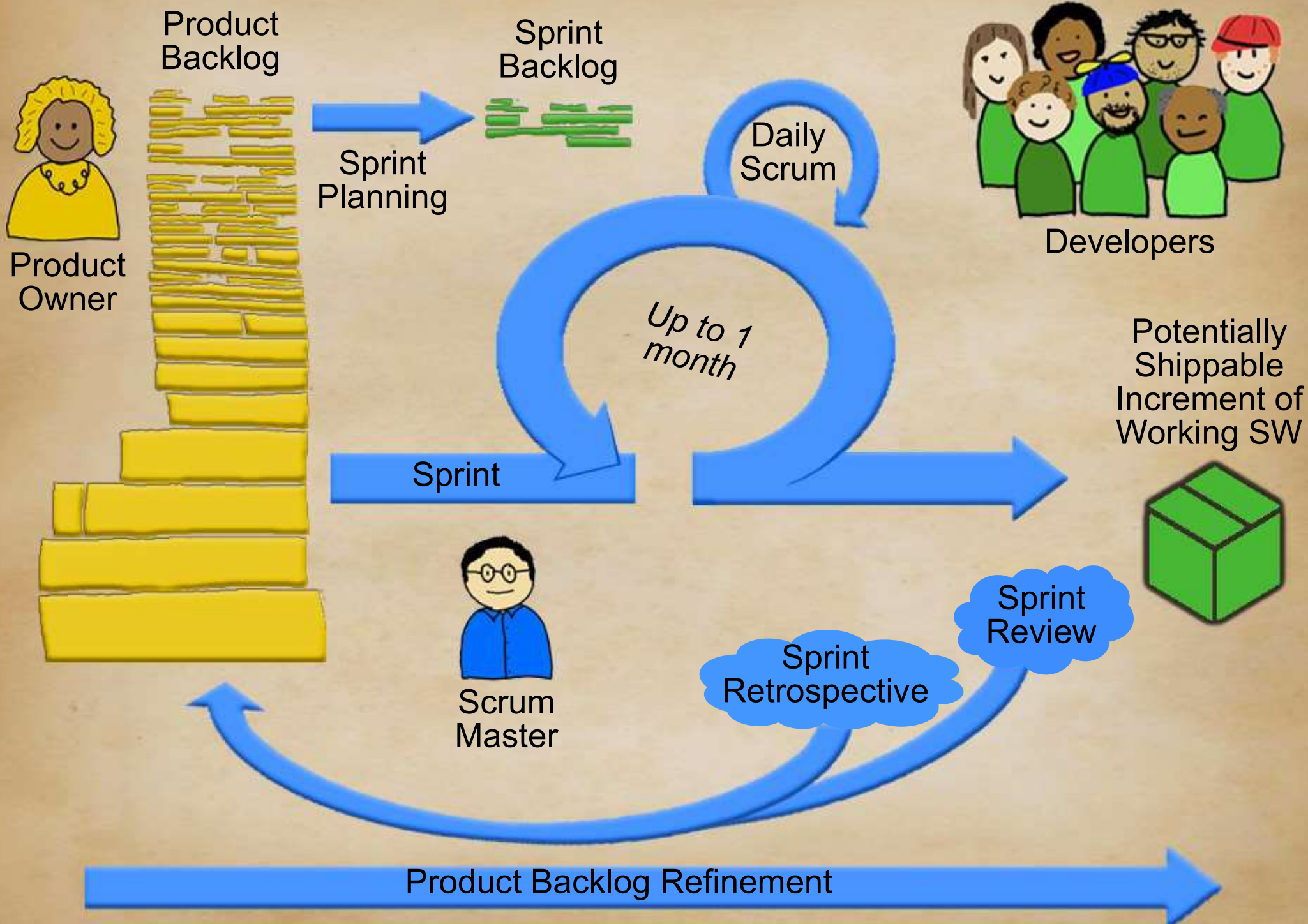
Agile - Reflects the *Agile Manifesto*

Process Framework - A specific set of practices

Iterative - Deliver results in frequent increments



Scrum Framework



What's New in the 2020 Scrum Guide?

One Team, Focused on One Product

The goal was to eliminate the concept of a separate team within a team that has led to “*proxy*” or “*us and them*” behavior between the PO and developers / builders / testers (formerly known as the *Development Team*).

There is now just **one Scrum Team** focused on the same objective, with three different sets of *accountabilities*: **Product Owner, Developers, and Scrum Master**



The Breakout Bunch

What values are celebrated
by your team / organization?

What values are missing?

O P E N N E S S

F O C U S

R E S P E C T

C O U R A G E

C O M M I T M E N T

<https://www.scrumalliance.org/about-scrum/values>



SCHWABERISMS

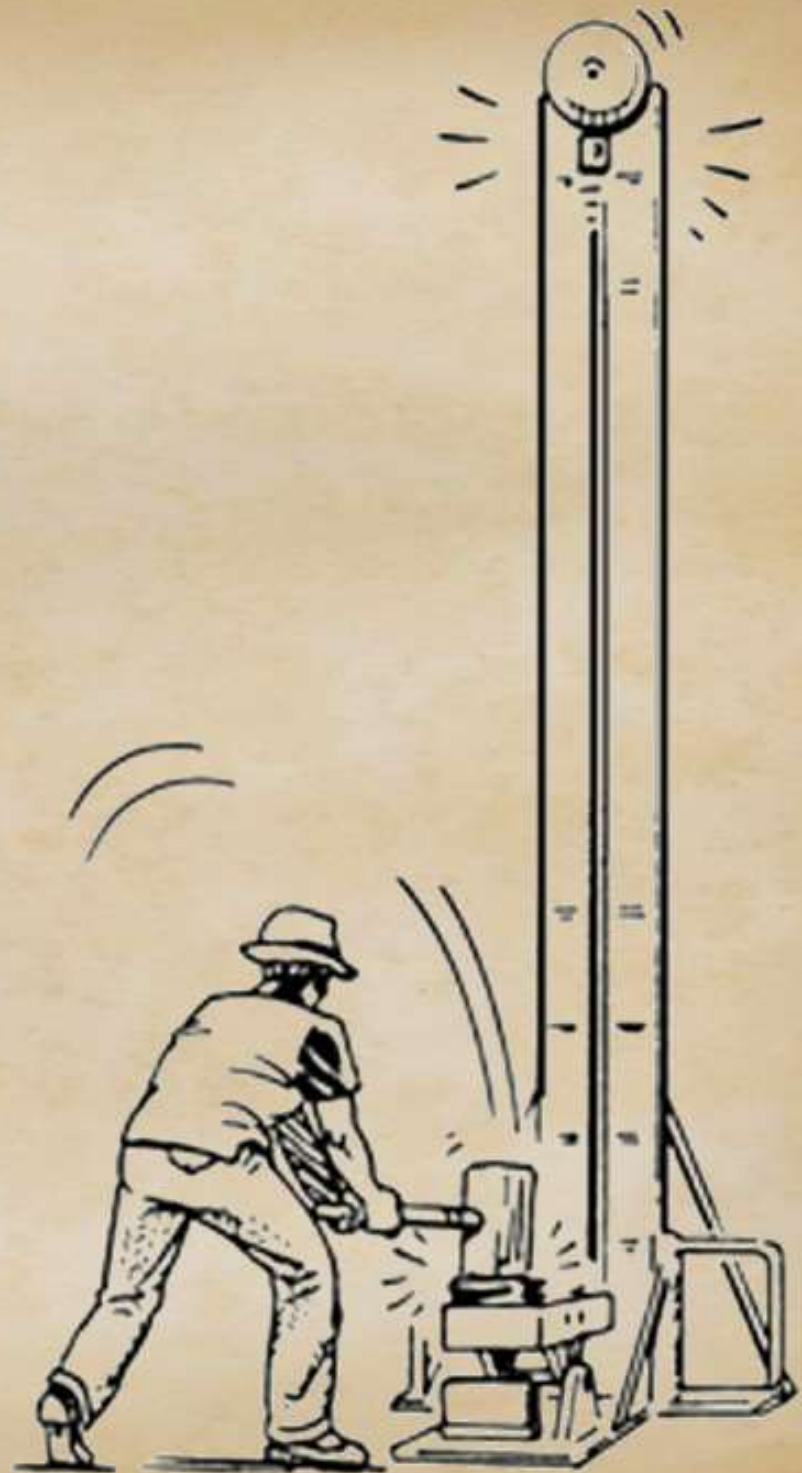
Can you foresee changing any of these values?

Yes, I think we should double the font-size of “Courage”.

DING!!

or

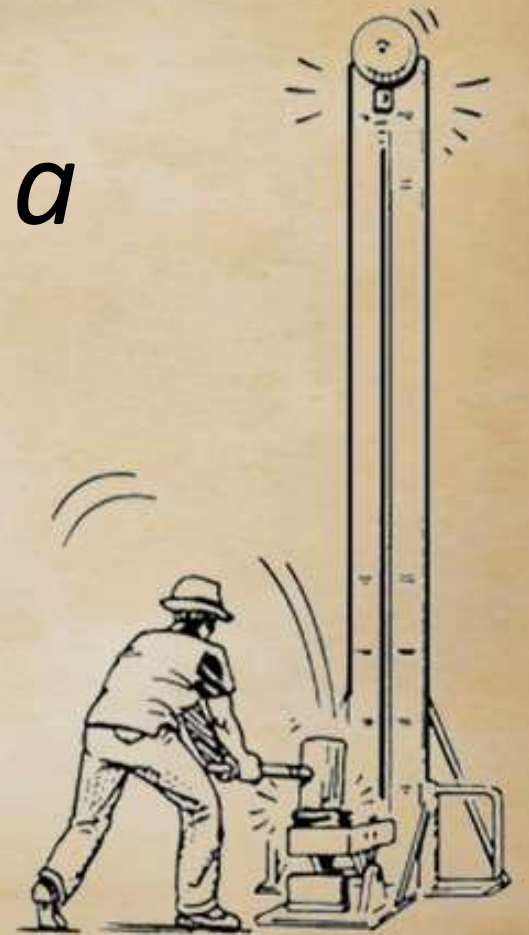
Dud...



Scrum is a methodology.

Scrum is a framework, not a prescriptive methodology.

DING!! or Dud...



It is not considered Scrum if parts of the framework have been removed.

Scrum only exists in its entirety.

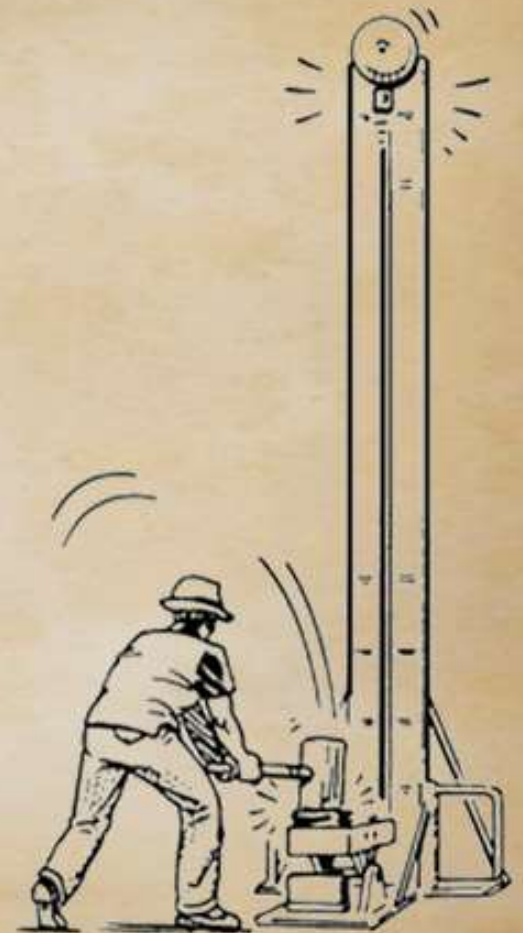
DING!! *or Dud...*



Scrum's values are:

- Commitment
- ~~Transparency~~
- ~~Inspection~~
- ~~Adaptation~~
- Courage
- *Respect*
- *Focus*
- *Openness*

DING!! or Dud...



TO DO

Scrum Roles

Backlogs &
User Stories

DAY 2

Service to the
Product Owner

Sprint Planning

Service to the
Developers

Scrum Events

Service to the
Organization

DOING

Scrum Master Core
Competencies

DONE

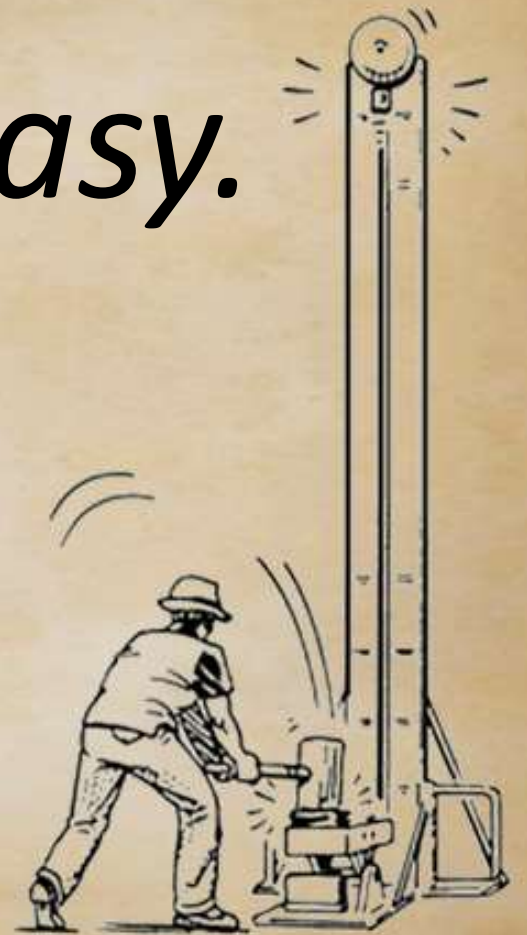
Introductions

Why & What
of Agile & Scrum

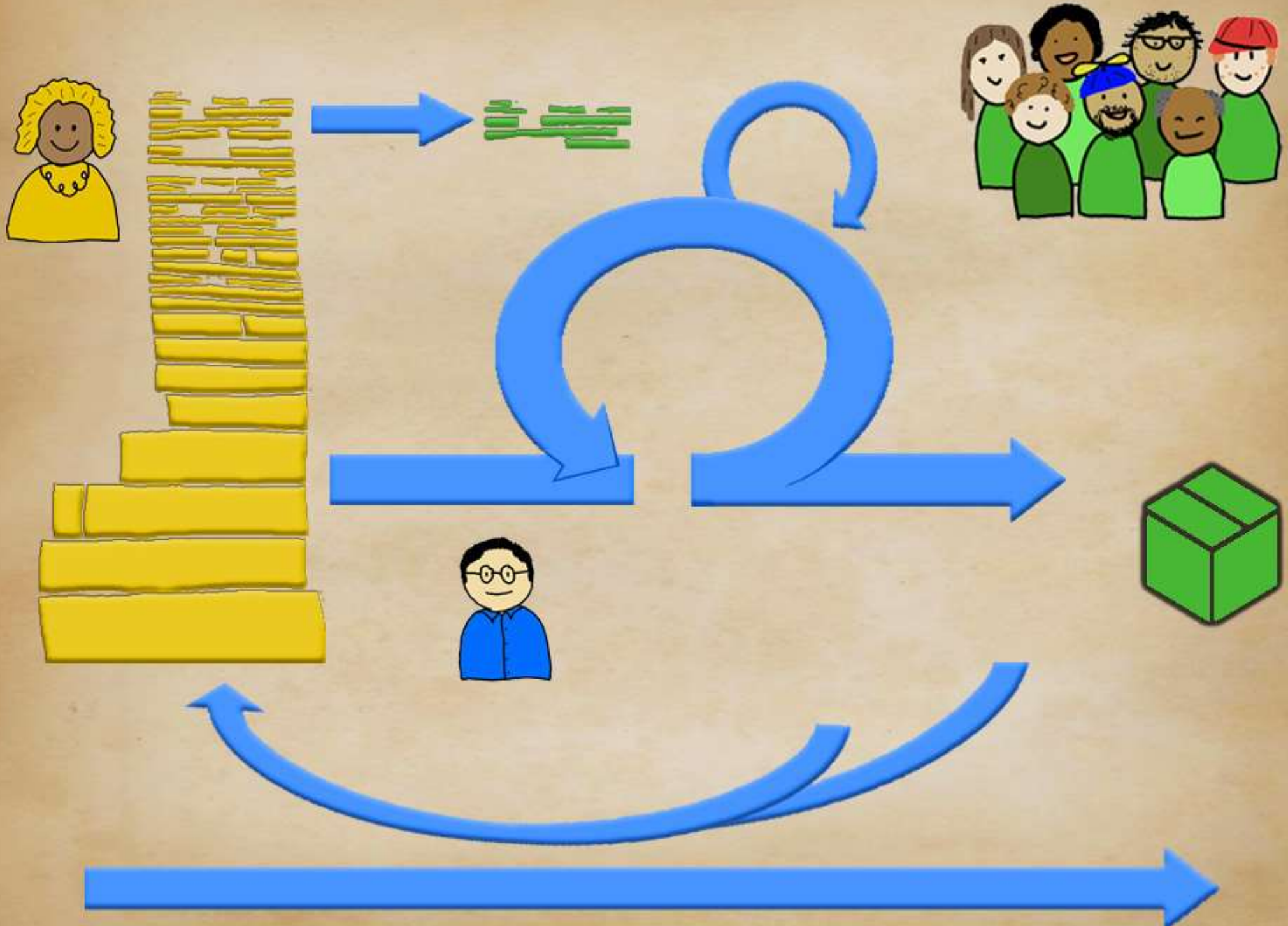
Scrum is simple.

Yes, but it's not easy.

DING!! *or Dud...*

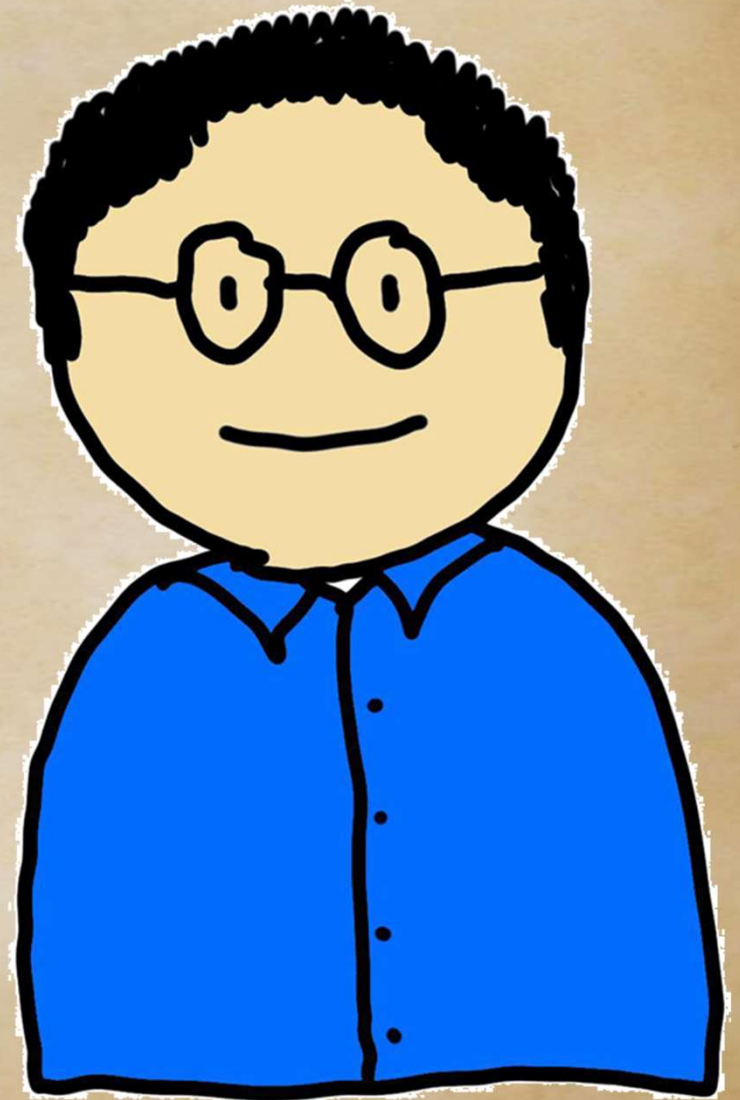


Scrum Framework



Scrum Master

- Knows Scrum & Agile
- True Leader who Serves
- Protect the team
- Remove impediments
- Coach / facilitate / mentor
- Promote and teach
- Uphold Scrum values



What's New in the 2020 Scrum Guide?

Removed term: *Servant-Leader*

Scrum Masters are now described as:

true leaders who serve the Scrum Team and the larger organization.



SELF ASSESSMENT: SCRUM MASTER COMPETENCIES

Rate your skill level for each competency as either High (3), Med (2), Low (1) or none (0). Sum each row on the far right - max of 9 pts.

Meetings & Facilitation

Prepare for meetings 3 + Facilitating / moderating 2 + Post-meeting follow-up 1 = 6

Team Dynamics

Mediate conflicts _____ + Help team make decisions _____ + Foster self-organization on team _____ = _____

Learning

Continuous Agile self-study _____ + Giving feedback _____ + Exchange with other Scrum Masters _____ = _____

Product

Help write/split user stories _____ + Help with release planning _____ + Product knowledge _____ = _____

Big Picture

Bring people together _____ + Help team report to mgmt _____ + Champion Agile within the org _____ = _____

Psychology

Envision the future _____ + Surface team values _____ + Help team improve crucial conversations _____ = _____

Lead Change

Help clear impediments _____ + Suggest new metrics _____ + Help continuously improve process _____ = _____

Mirror

Reflect Agile/Scrum values _____ + Keep team agreements _____ + Ask open questions _____ = _____

Miscellaneous

Help team keep focus _____ + Maintain Scrum tools _____ + Help PO define DoD _____ = _____

Scrum Master, defined:

The Scrum Master is accountable for establishing Scrum as defined in the Scrum Guide. They do this by helping everyone understand Scrum theory and practice, both within the Scrum Team and the organization.

The Scrum Master is accountable for the Scrum Team's effectiveness. They do this by enabling the Scrum Team to improve its practices, within the Scrum framework.

Scrum Masters are true leaders who serve the Scrum Team and the larger organization.

The Scrum Master serves the Scrum Team in several ways, including:

- Coaching the team members in self-management and cross-functionality;
- Helping the Scrum Team focus on creating high-value Increments that meet the Definition of Done;
- Causing the removal of impediments to the Scrum Team's progress; and,
- Ensuring that all Scrum events take place and are positive, productive, and kept within the timebox.

The Scrum Master serves the Product Owner in several ways, including:

- Helping find techniques for effective Product Goal definition and Product Backlog management;
- Helping the Scrum Team understand the need for clear and concise Product Backlog items;
- Helping establish empirical product planning for a complex environment; and,
- Facilitating stakeholder collaboration as requested or needed.

The Scrum Master serves the organization in several ways, including:

- Leading, training, and coaching the organization in its Scrum adoption;
- Planning and advising Scrum implementations within the organization;
- Helping employees and stakeholders understand and enact an empirical approach for complex work; and,
- Removing barriers between stakeholders and Scrum Teams.

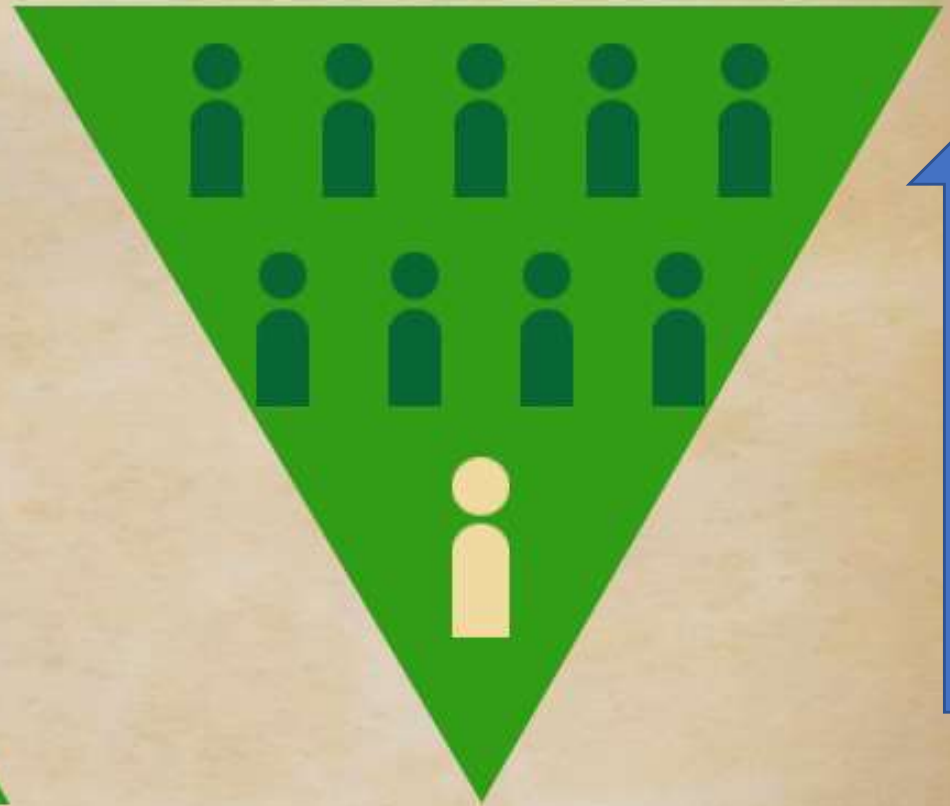
Traditional Leadership
(hierarchical teams)

Servant Leadership
(Agile teams)

CONTROL

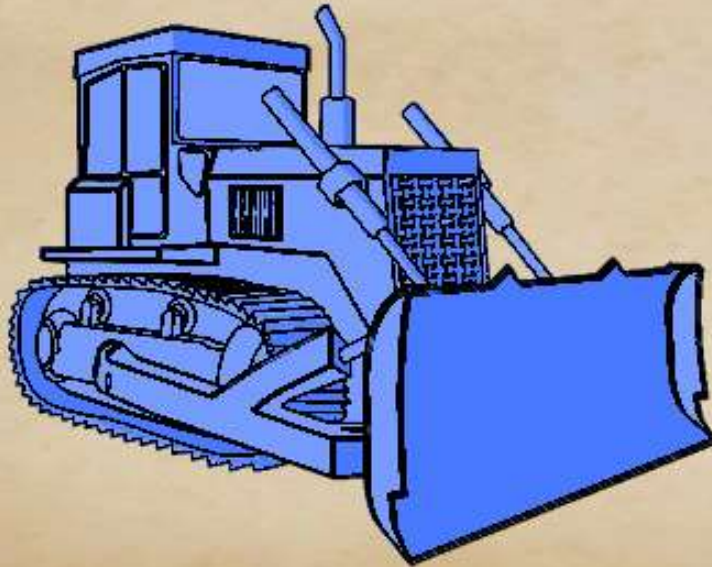
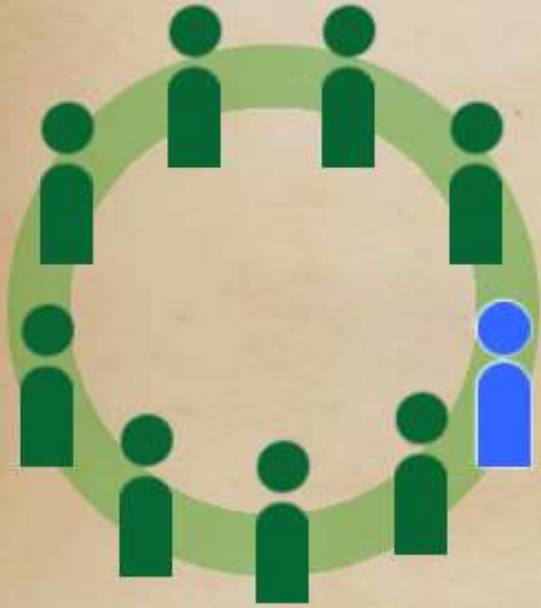


EMPOWER





- Support your team
- Grow your people
- Listen
- Build a community
- Reflect and learn





How are some ways that the Scrum Master can *facilitate* for the team or the organization?

Facilitating the Group's Decision-Making

F I S T O F F I V E

R O M A N V O T I N G

D O T V O T I N G

M U R A L

Work with Group

Teaching

Sharing information or knowledge to help someone perform an activity more effectively.

Facilitating

Focused on process more than content or outcome. Aid group in achieving knowledge and decisions.

Content Authority
(External Knowledge)

Process Authority
(Internal Knowledge)

Mentoring

Person with more experience assists others in developing specific skills and knowledge.

Coaching

Co-creative process to help someone find answers by themselves so they do it their way.

Work with Individual

Coaching

- The *coach is not an expert* in the client's situation.
- The coach must *act as a facilitator*, helping the person or team select the best options, and *not offering advice or direction*.

Coaching with the GROW model

Goal

Reality

Options (or Obstacles)

Will (or Way Forward)

TO DO

Backlogs &
User Stories

DAY 2

Service to the
Product Owner

Sprint Planning

Service to the
Developers

Scrum Events

Service to the
Organization

DOING

Scrum Roles

DONE

Introductions

Why & What
of Agile & Scrum

Scrum Master Core
Competencies



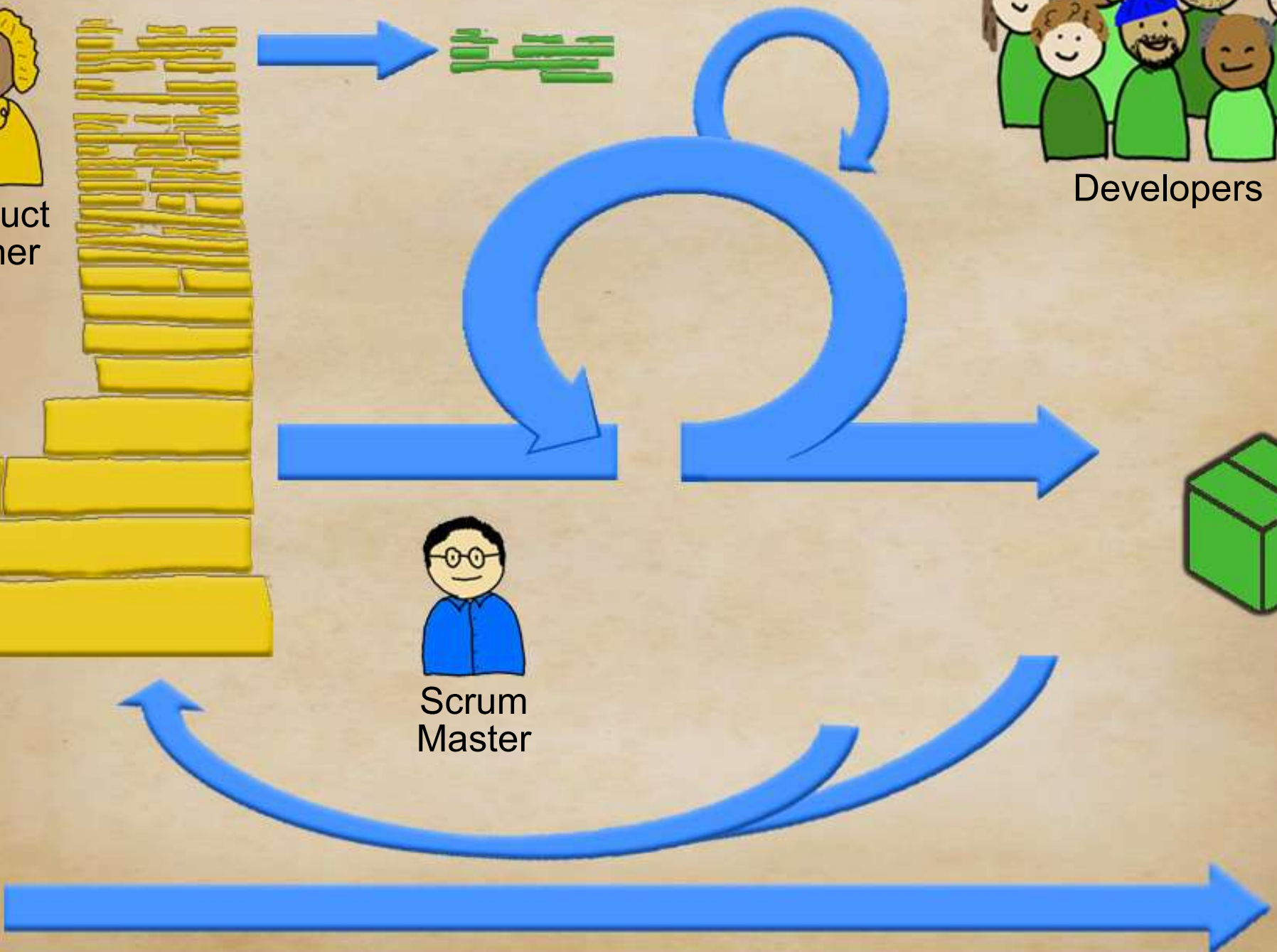
Product Owner



Developers



Scrum Master



What's New in the 2020 Scrum Guide?

Self-Managing over Self-Organizing

Previous Scrum Guides referred to Developers as self-organizing, choosing who and how to do work.

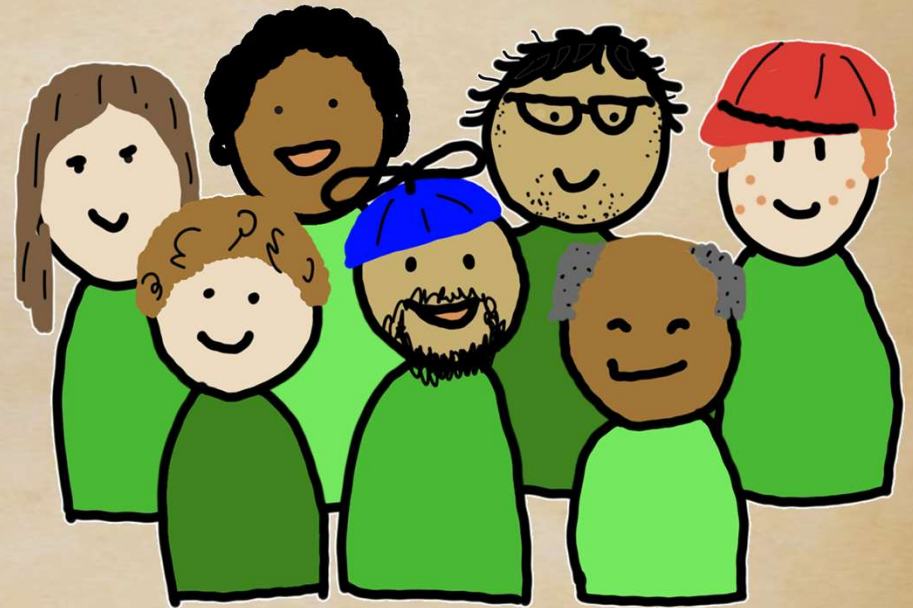
With more of a focus on the Scrum Team, the 2020 version emphasizes a self-managing Scrum Team, choosing who, how, and what to work on.



Developers

(accountability, not role)

- self-managing
 - (self-organizing)
- cross-functional
- Dedicated
- responsible for Quality
- follows the values
- Size = 10 or fewer
- owns the HOW



We typically start here...



- Functional silos
- Local viewpoints
- Working groups (1+1=2)
- Limited visibility
- Change is discouraged

Developers

Testers

Business Analysts

Product Mgmt

Specialists

User Experience

... and try to get to ...



- Cross-functional
- Systems-view
- Teams (1+1=3)
- High visibility
- Change is welcome

The Breakout Bunch

What are some challenges facing a self-managing team?

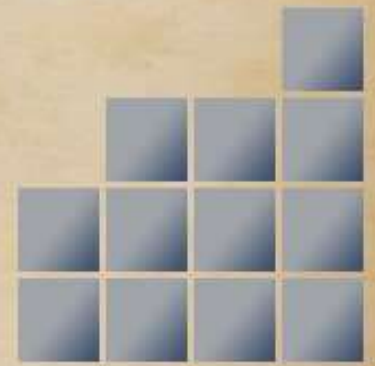
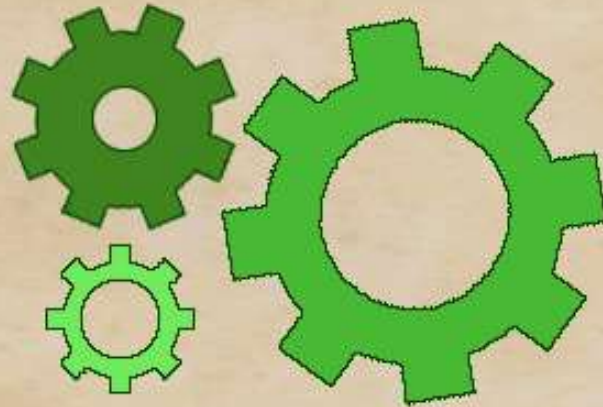
How can a Scrum Master help the team navigate these challenges?

(Remember to Stretch)

What can possibly go wrong if the Scrum Team has more than ten “developers”?



Developers commit to High Quality

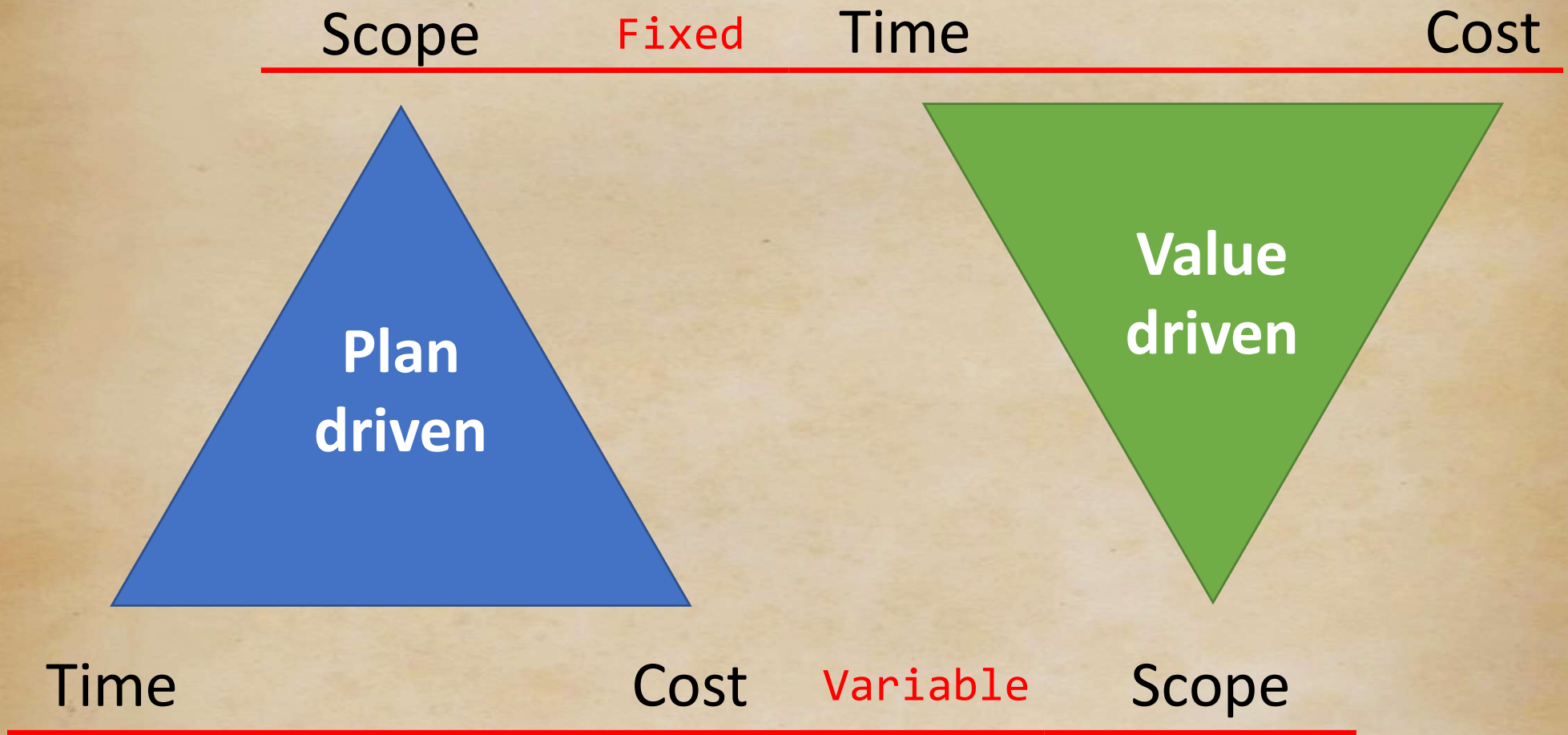


- Functionality
- Reliability
- Usability

- Security
- Scalability

- Efficiency
- Maintainability
- Portability

Quality must not be sacrificed

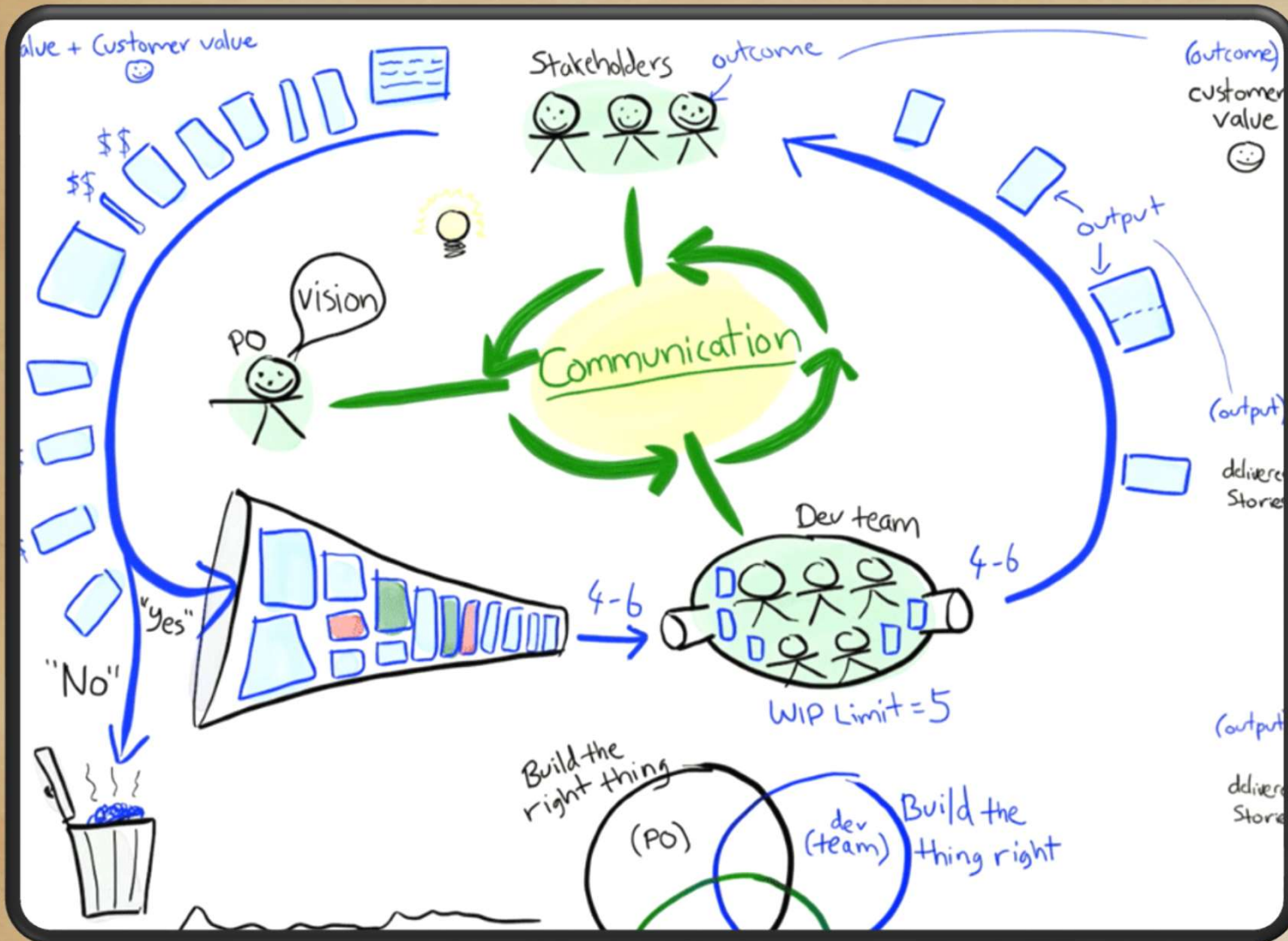


Traditional "Iron Triangle" Agile

Product Owner

- must have Authority (not simply a proxy)
- must have Knowledge
- must be Available (>50%) to the team
- owns the WHAT





What can possibly go wrong
if the Product Owner
is a group or a committee
and not a single person?



What can possibly go wrong
if people perform
multiple Scrum roles?



TO DO

DOING

DONE

DAY 2

Service to the
Product Owner

Sprint Planning

Service to the
Developers

Scrum Events

Service to the
Organization

Backlogs &
User Stories

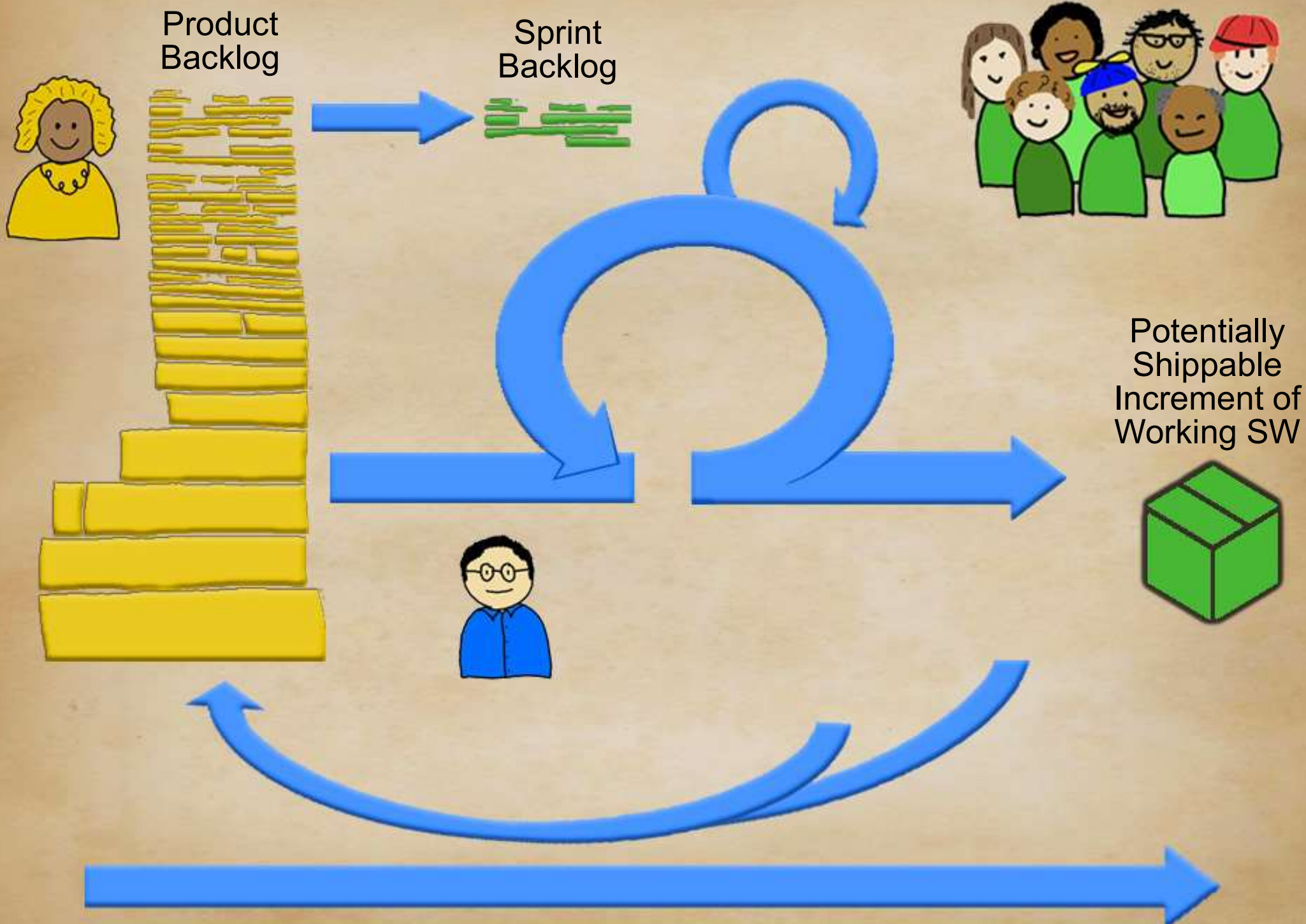
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Scrum Roles

Scrum Framework



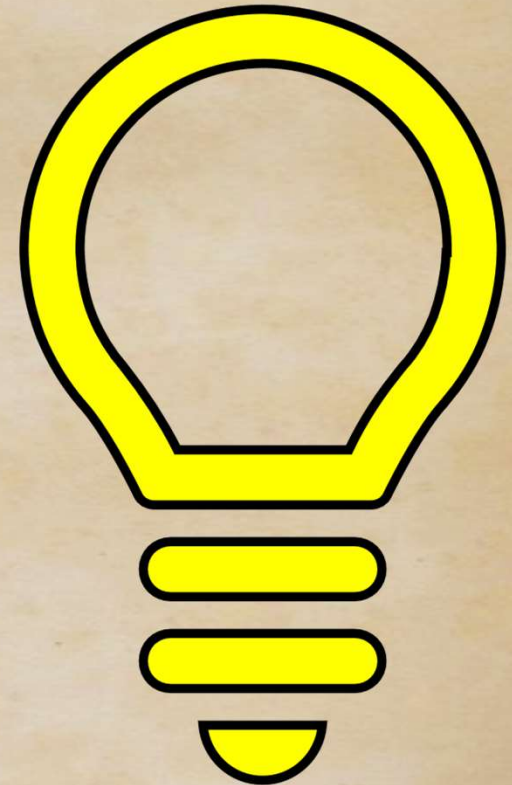
The Five Levels of Planning

Vision

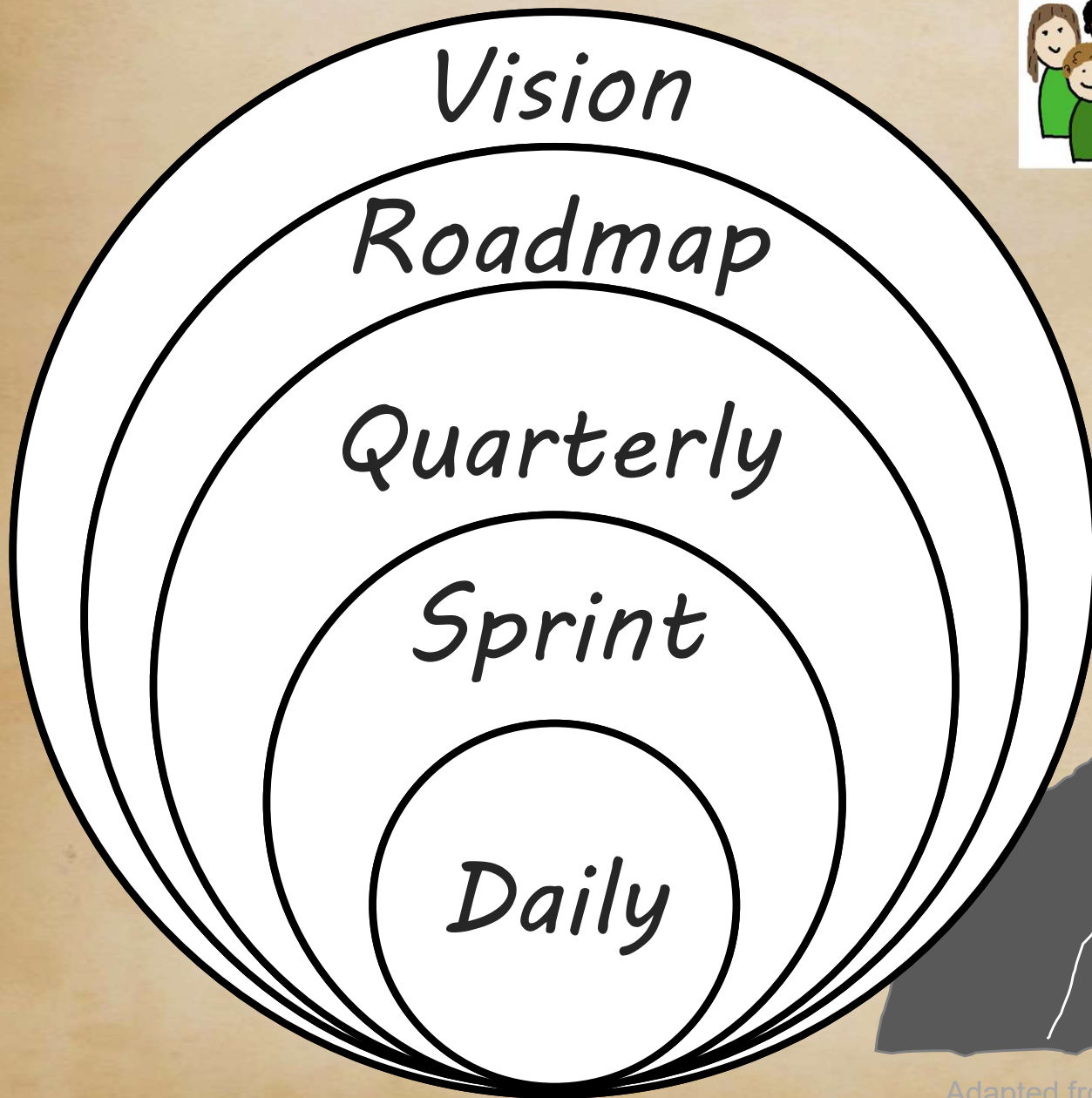
BIG IDEA

>1 year

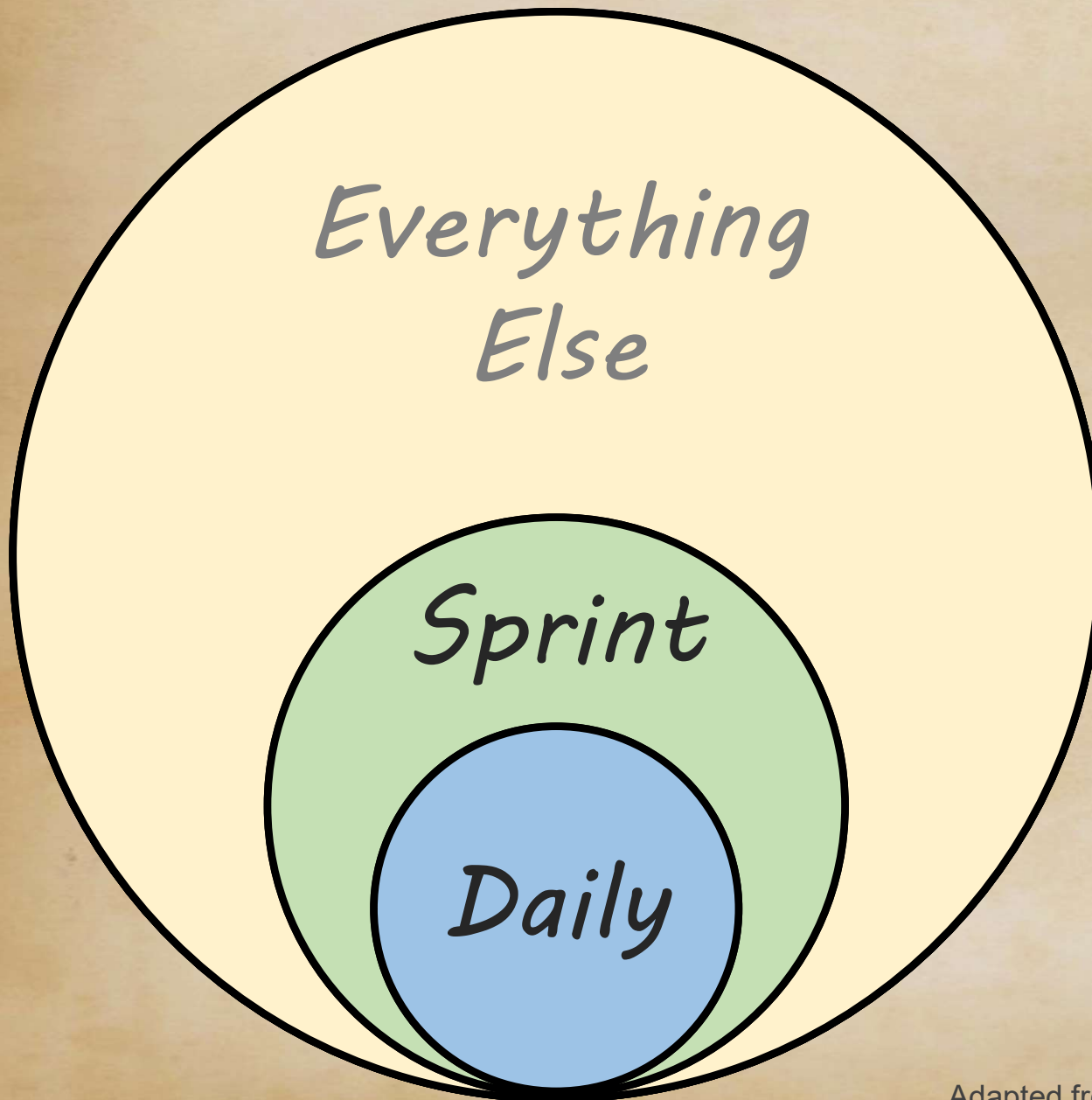
Elevator Pitch



The Five Levels of Planning



The ~~Five~~ Levels of Planning



Focus on the Planning,
not the Plan



Spread Planning throughout the Project

Encourage
change



Product Backlog

List of stuff we want done

Value focused

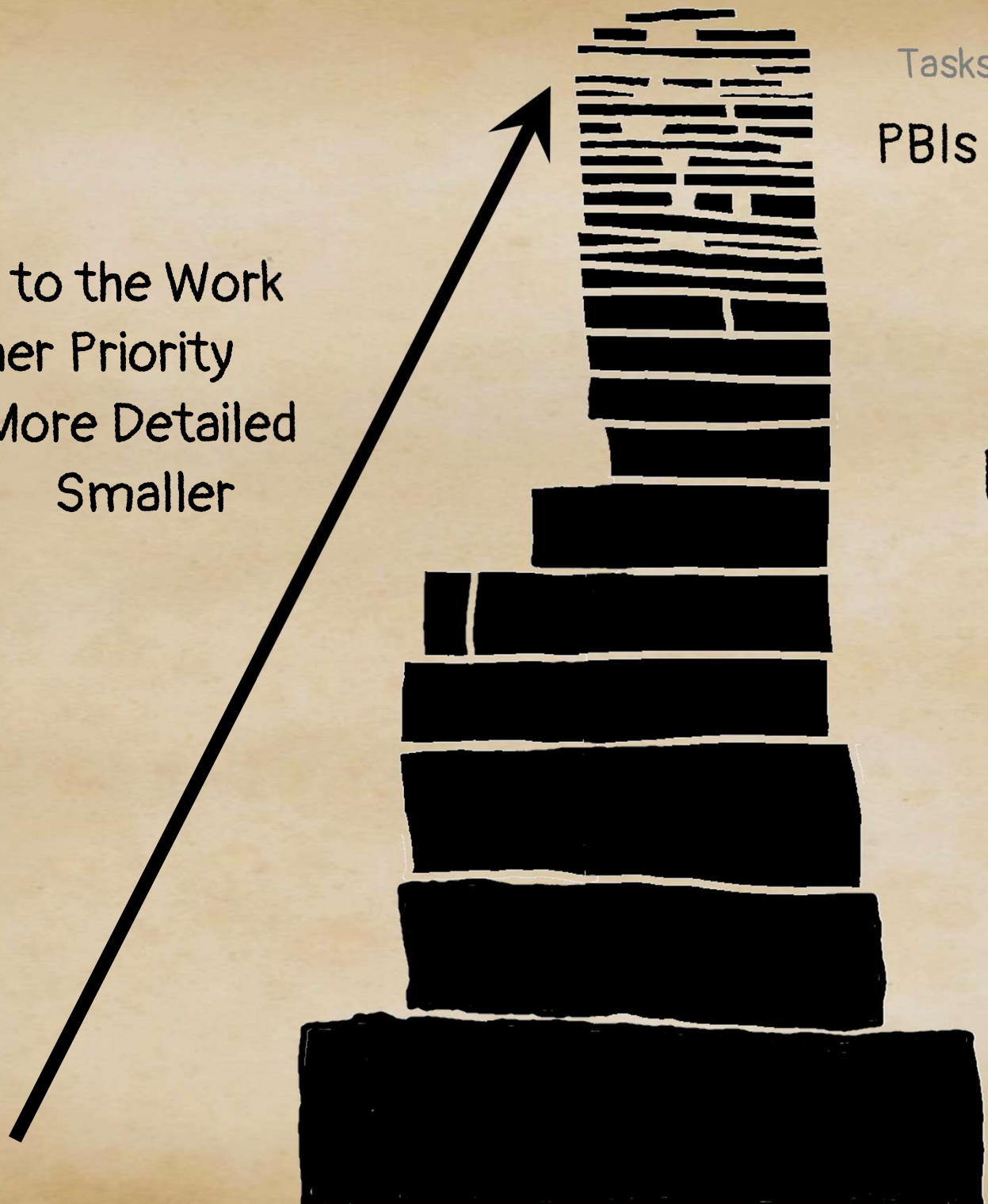
Stack-ranked by Product Owner

Refined by team and stakeholders

Elaborated just in time

Dynamic

Closer to the Work
Higher Priority
More Detailed
Smaller



Tasks
PBIs

Epics

Themes /
Initiatives

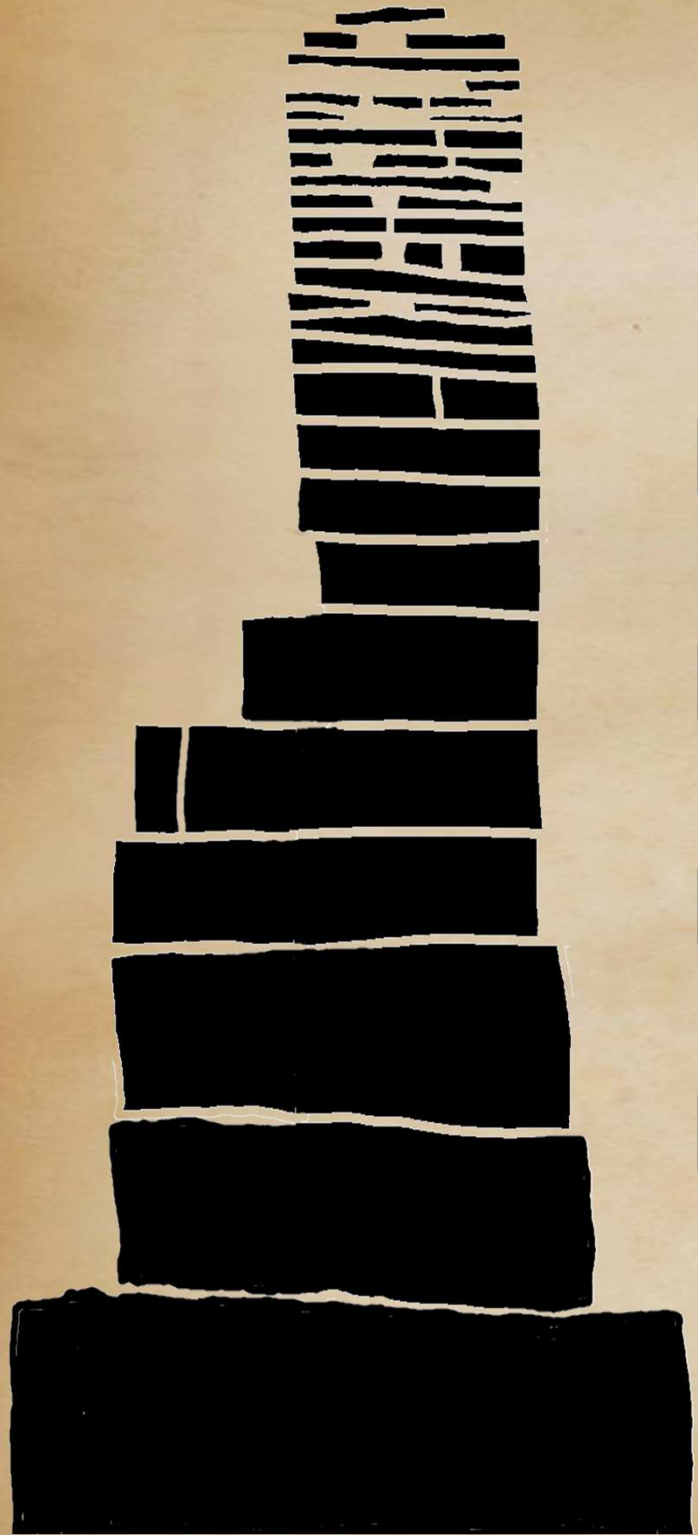
DEEP

Detailed Appropriately

Estimated

Emergent

Prioritized



Introduction of Product Goal

The 2020 Scrum Guide introduces the concept of a **Product Goal** to provide focus for the Scrum Team toward a larger valuable objective.

Each Sprint should bring the product closer to the overall Product Goal.



Commitment: Product Goal

- The Product Goal describes a future state of the product which can serve as a target for the Scrum Team to plan against.
 - The Product Goal is in the Product Backlog;
 - The rest of the Product Backlog emerges to define “what” will fulfill the Product Goal;
- The Product Goal is the long-term objective for the Scrum Team. They must fulfill (or abandon) one objective before taking on the next.

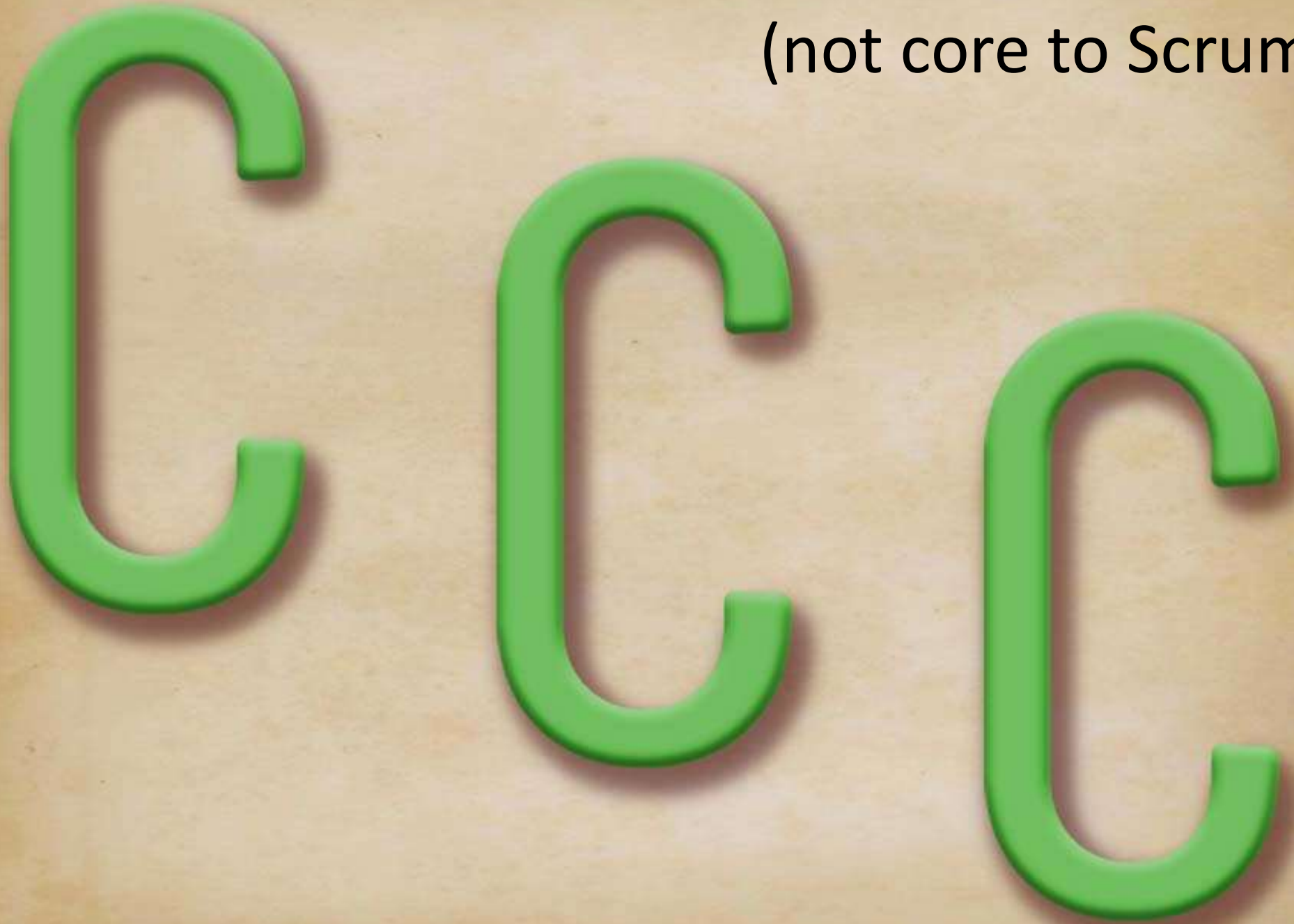
Product Backlog Items

- User Story (PBI)
- Epic
- Spike
- NFR
- Defect (Bug)
- Experiment / Improvement



User Stories

(not core to Scrum)



A “User Story” Template for PBIs

As a _____ , I want to _____ so that _____ .

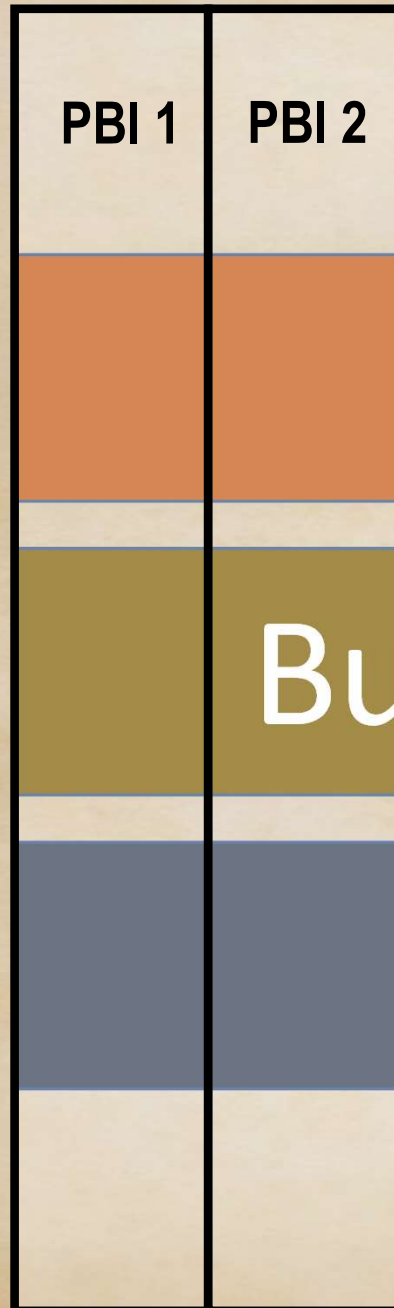
Who

What

Why

Any story template is a
suggestion, not a rule.





PBI 1

PBI 2

GUI

Business Logic

Database

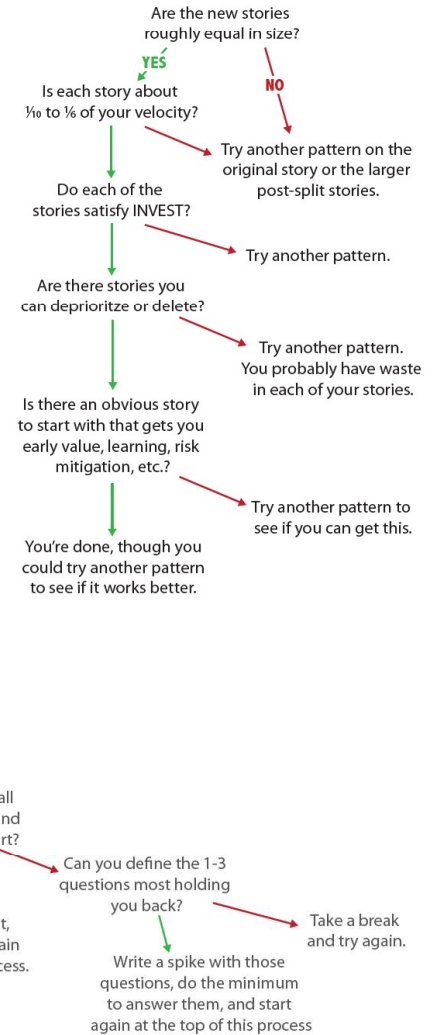
HOW TO SPLIT A USER STORY

1 PREPARE THE INPUT STORY

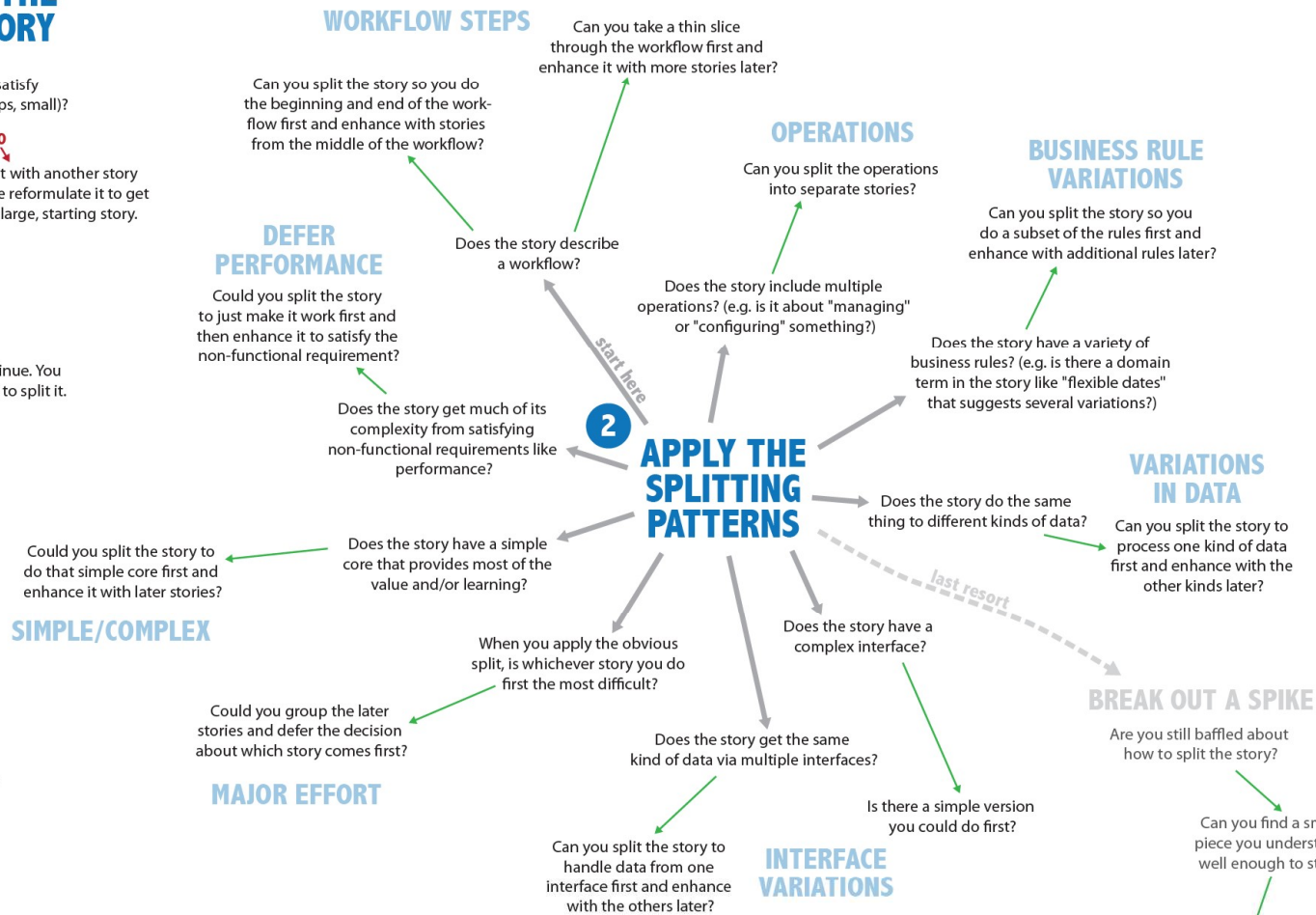


* INVEST - Stories should be:
 Independent
 Negotiable
 Valuable
 Estimable
 Small
 Testable

3 EVALUATE THE SPLIT



2 APPLY THE SPLITTING PATTERNS



Visit <http://www.richardlawrence.info/splitting-user-stories/> for more info on the story splitting patterns
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Last updated 2/21/2018

Product Backlog Items

Implied
Order

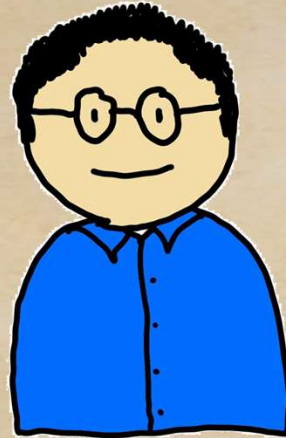
Title	Description	Estimate	Acceptance Criteria
Toast pops up	When the timer is done, the toast pops up so it doesn't get burned	5	<ul style="list-style-type: none">• Can set more or less time• When timer is done, spring releases
<i>Jhghhg uios</i>	<i>Ehiehpep pirpihrh pirh</i>	<i>8</i>	<i>Youb ob inhdff</i>
<i>Qwerty lorem ipsum</i>	<i>gpodawund covfefe</i>	<i>3</i>	<i>Oiua rwt khrgqw rtwer uopkbfgrgo qerg</i>

Product Backlog Responsibilities



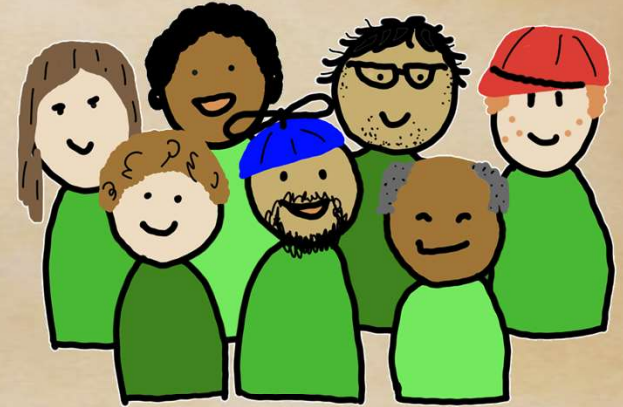
Product Owner

- Create
- Prioritize
- Maintain



Scrum Master

- Educate
- Coach

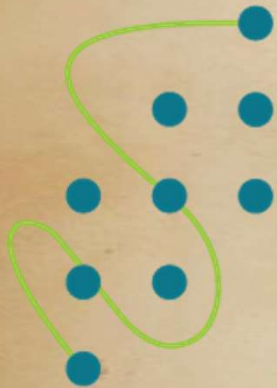


Developers

- Understand
- Estimate
- Implement

Certified Scrum Master (CSM) Training

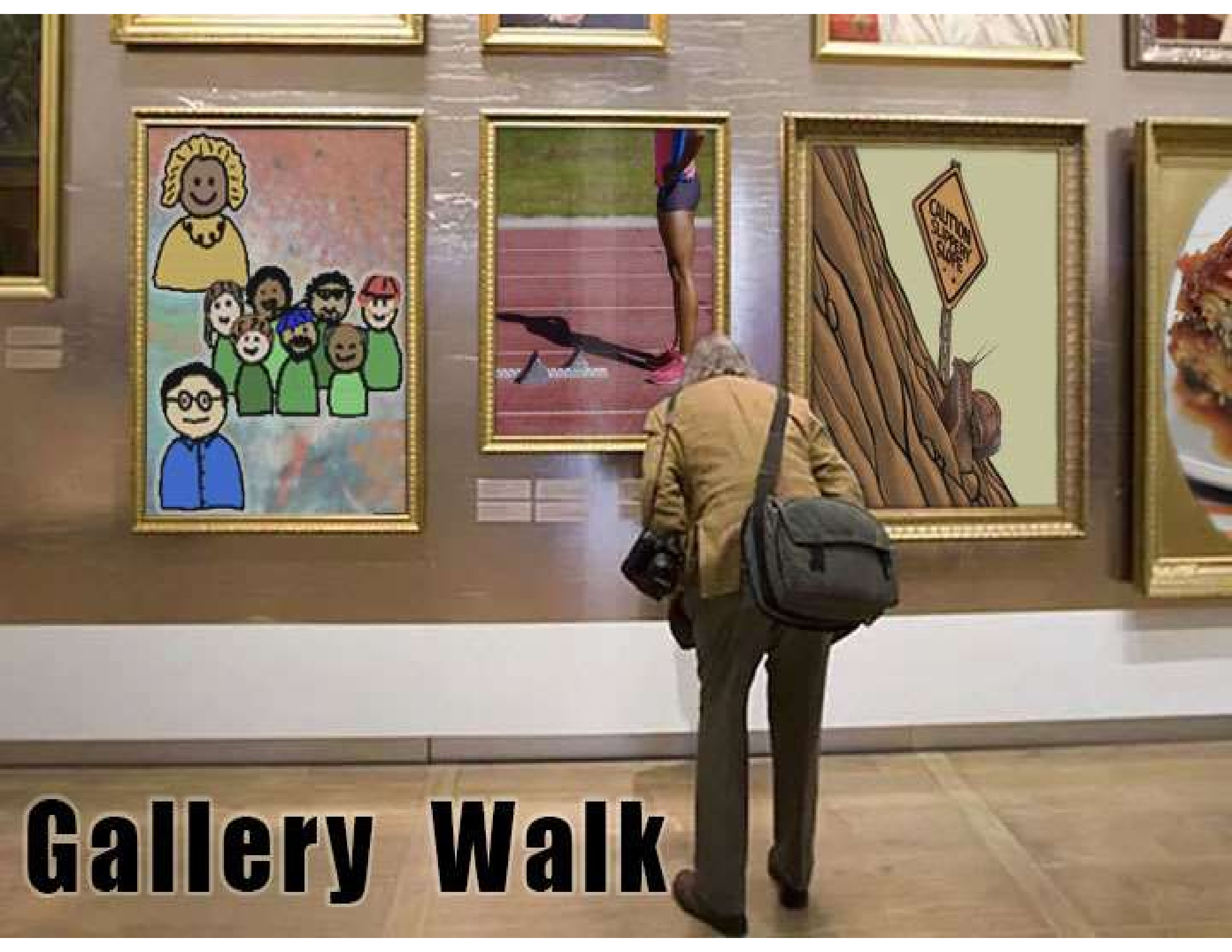
Day 2



**ROCKET NINE
SOLUTIONS**



Victor Bonacci
Certified Scrum Trainer
Host of the *Agile Coffee Podcast*
victor@rocketninesolutions.com



Gallery Walk

TO DO

Sprint Planning

Service to the
Developers

Scrum Events

Service to the
Organization

DOING

Service to the
Product Owner

DONE

DAY 1

Introductions

Why & What
of Agile & Scrum

Scrum Master Core
Competencies

Scrum Roles

Backlogs &
User Stories

DAY 2

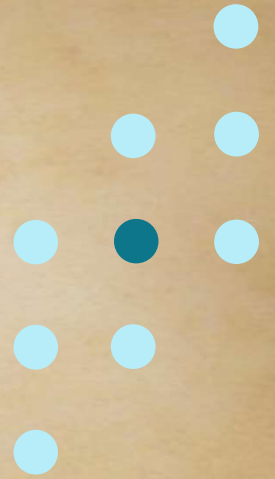
The Breakout Bunch

What topics might be discussed as part of Product Backlog refinement?

(Remember to Stretch)

What can possibly go wrong
if the Scrum Team doesn't
dedicate time for Product
Backlog refinement?





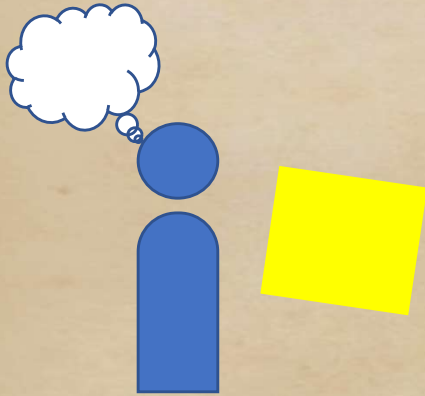
Service to the Product Owner

“Who knows Agile?”

43%	-	-	-	-	Scrum Master
14%	-	-	-	-	Dev Mgr / Dir / VP
14%	-	-	-	-	Project Manager
11%	-	-	-	-	Developer
6%	-	-	-	-	Product Manager
2%	-	-	-	-	QA
2%	-	-	-	-	Executive
2%	-	-	-	-	Business Analyst
1%	-	-	-	-	Product Owner

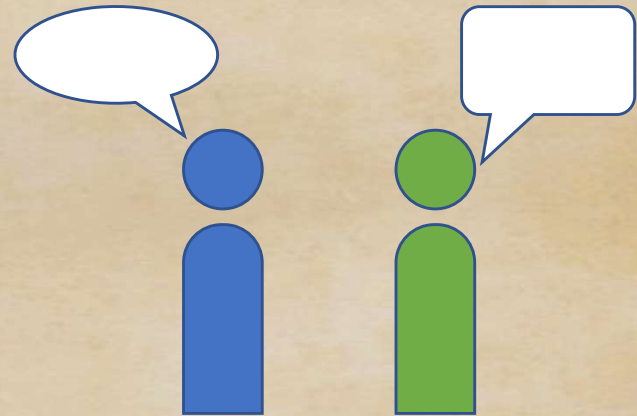
How can the Scrum Master support the Product Owner?

1



2

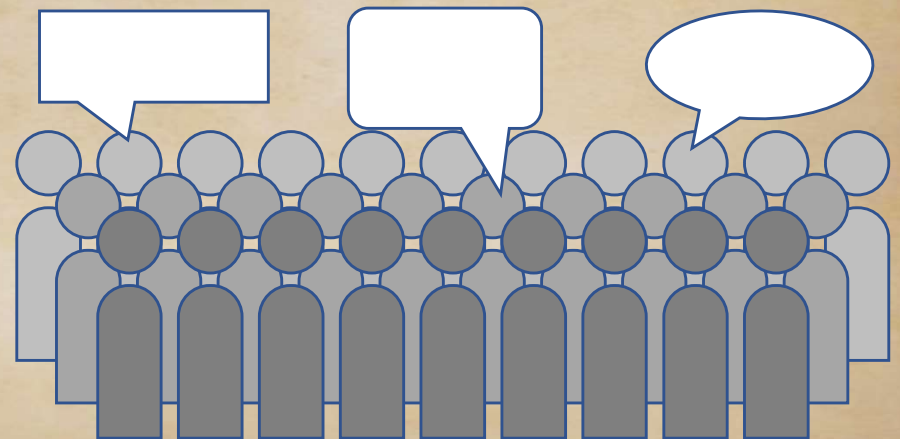
liberatingstructures.com



4



All

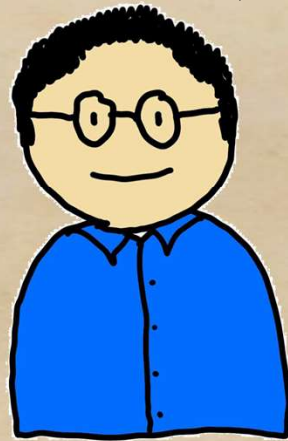


What's on your mind?
How can I help?



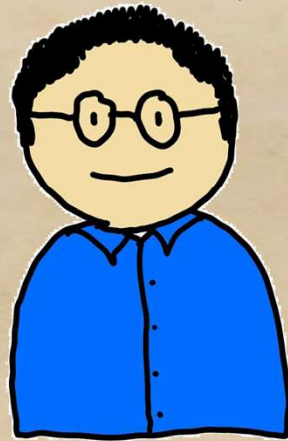
Do these user stories look good?
How can they be better?

What's on your mind?
How can I help?



Why do I need to spend so
much time with the team?

What's on your mind?
How can I help?



I'm overwhelmed and don't
know where to start



What are some
collaboration techniques
that a Product Owner can use
to work with the
Developers or stakeholders ?

(Remember to Stretch)

STORY MAPPING

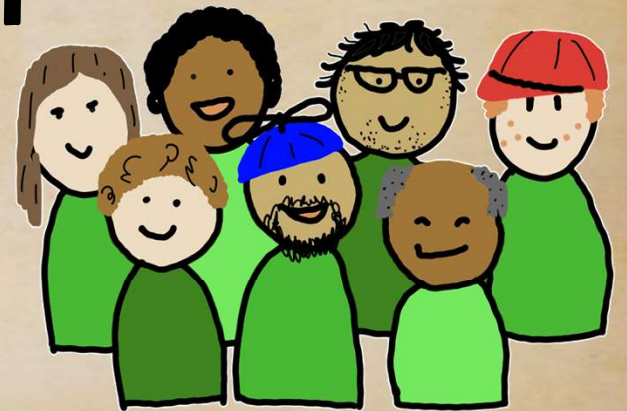


STORY WRITING WORKSHOP

PERSONA CREATION

CUSTOMER JOURNEY MAP

IMPACT MAPPING



PROTO-PERSONAS

LEAH

AGE: 22
LIFE STAGE: SENIOR IN COLLEGE WHO LIVES ALONE WITH HER DOG



"BEING ABLE TO HAVE MY DOG WHILE I GO TO SCHOOL AND ONLY WORK PART-TIME MEANS EVERYTHING TO ME."

MOTIVATORS:

HER DOG - Her schedule revolves largely around her dog, he is the constant and biggest support system in her day to day life.

INDEPENDENCE - She enjoys doing things on her own and creating her own schedule that is not entirely dependent on another's.

HER CAREER - She is fully committed to advancing her career in any way she can. In working part-time in her field of study while obtaining a Bachelor's Degree she hopes to appear both educated and experienced for her dream job.

USE FOR THIS WEBSITE:

- Seeking services she can utilize as a person of low income and in need of applying for help.
- Monitoring the food distribution locations.

ALICIA

AGE: 26
LIFE STAGE: AMBITIOUS VET GRADUATE



"HELPING ANIMALS IS WHAT I WENT TO SCHOOL FOR AND I'M REWARDED EVERYDAY FOR IT"

MOTIVATORS:

HER CAREER - She works long hours not because of the money but for the deep connection she has with her animal patients - she wants them to be happy and healthy.

HELPING OTHERS - She feels a stronger connection to people through their pets and understands the value of a relationship a pet owner has with their pet.

WELFARE OF ANIMALS & PEOPLE - On weekends she volunteers as a vet so she can provide care for pet owners who are struggling to afford veterinarian care.

USE FOR THIS WEBSITE:

- Keeping track of her schedule for upcoming clinics she needs to attend.
- Revising the FAQ's for Vets page for common concerns from pet owners that she hopefully can resolve.

DARREN

AGE: 40
LIFE STAGE: RECENTLY MOVED AND ENJOYS FOSTERING RESCUE ANIMALS.



"COMING HOME AFTER A LONG DAY TO SEE I AM DOING SOMETHING GOOD FOR THESE ANIMALS GIVES ME A SENSE OF PURPOSE"

MOTIVATORS:

HIS SONS - He strives to be a good example to his sons and is motivated to encourage them to do their very best.

ACCEPTANCE - Since he never felt satisfaction from neglecting college, he relies on fostering rescue animals to give him a sense of doing something for the greater good within the community.

SENSE OF PURPOSE - His goal is to be remembered as someone who was selfless and to be viewed as admirable in his place within society - even if it is a small place.

USE FOR THIS WEBSITE:

- Checking the site for newly surrendered pets at the shelter.
- Keeping in communication with the staff of the shelter regarding animals he is fostering.

IMPACT MAPPING A CHEATSHEET

Why are we doing this?

E.G. TO SAVE MONEY OR EARN MONEY

Who can help us achieve this goal?

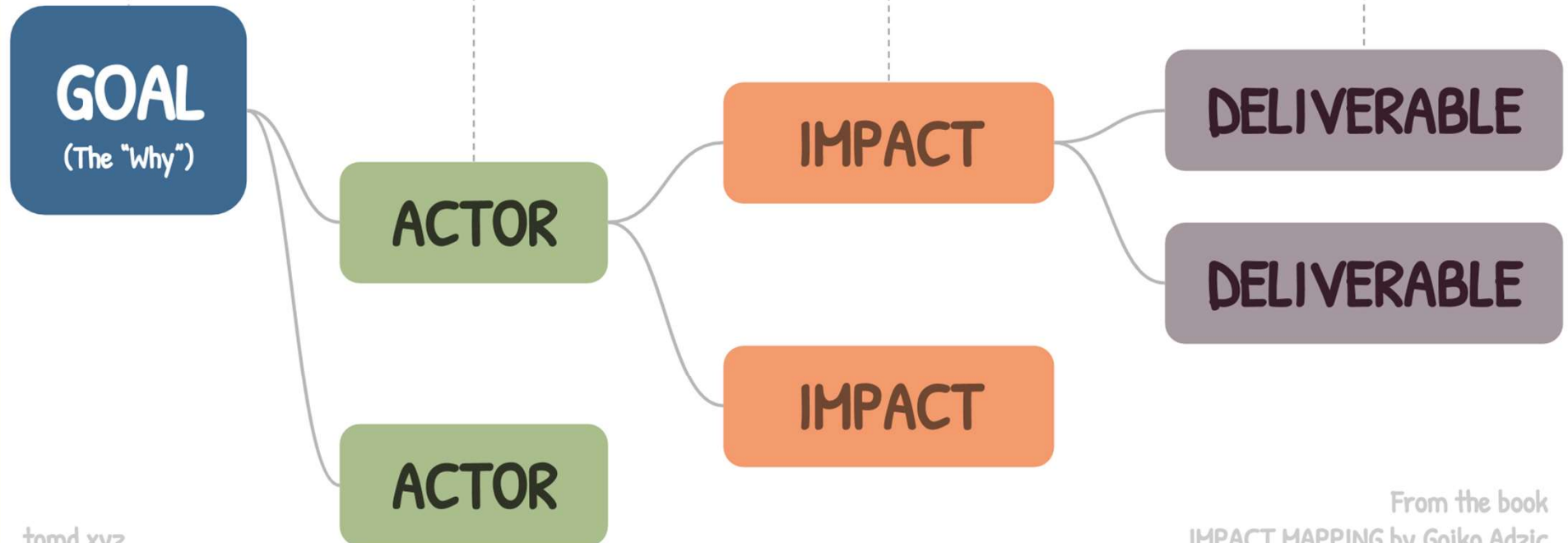
E.G.: INDIVIDUALS, ROLES, STAKEHOLDERS

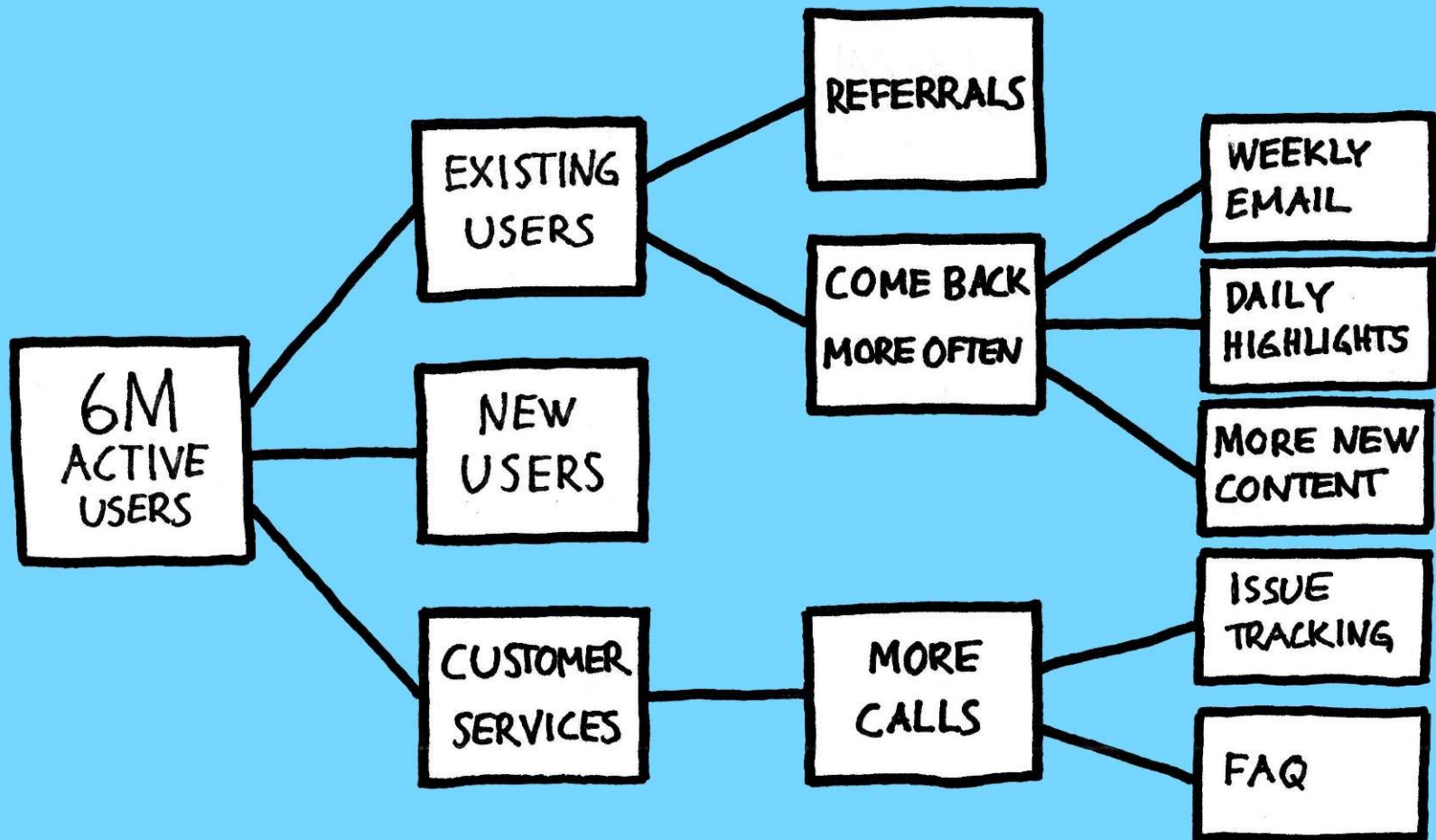
How can they help us achieve this goal?

E.G. A CHANGE IN BEHAVIOUR; INCREASE/DECREASE, STOP/START SOMETHING

What can we do to encourage that?

E.G. SOFTWARE FEATURES, BUSINESS ACTIVITIES





GOAL

ACTORS

IMPACTS

DELIVERABLES

TO DO

Service to the
Developers

Scrum Events

Service to the
Organization

DOING

Sprint Planning

DONE

DAY 1

Introductions

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Scrum Master Core
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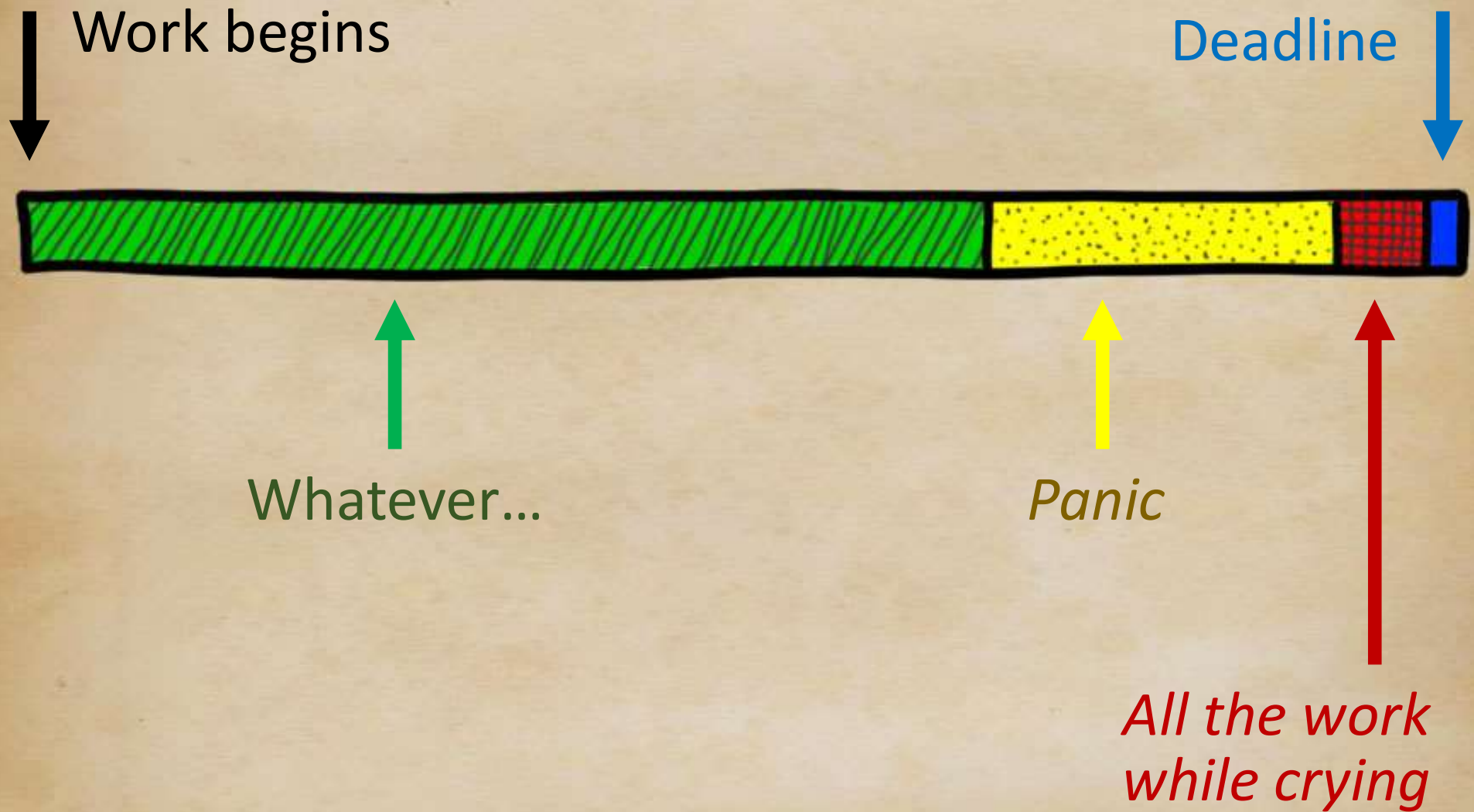
Scrum Roles

Backlogs &
User Stories

DAY 2

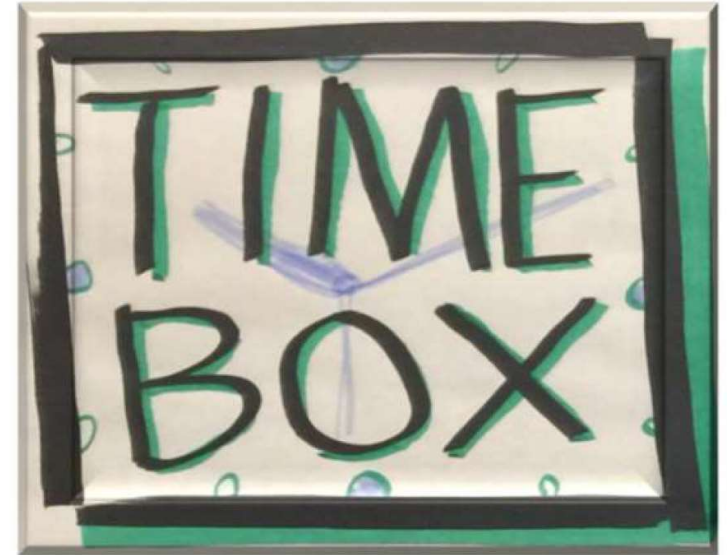
Service to the
Product Owner

The Creative Process



Benefits of Time Box

- *creates* **Regularity**
- *establishes* **WIP Limits**
- *forces* **Prioritization**
- *avoids* **Gold-Plating**
- *improves* **Predictability**
- *motivates* **Closure**
- *limits* **Risk**



Can you name
the SIX timeboxes
in Scrum?

6



Sprint Length

The Breakout Bunch

Why must the Increment be brought to the current definition of “Done” regardless of whether the Product Owner chooses to release it?

(Remember to Stretch)

Is it DONE?



Definition of DONE



Example DOD Items

- ***Unit tests created***, checked in, all passing
- Code ***checked in*** and ***builds successfully*** on integration environment
- Automated unit ***test coverage*** > 80%
- All ***acceptance criteria*** pass
- Peer ***code review*** complete
- No open defects
- Needed documentation is complete
- Product owner has reviewed and accepted story

The Breakout Bunch

What can possibly go wrong if the Scrum Team has a weak (or non-existent) definition of “Done”?



What can possibly go wrong
if multiple teams
working on the same
Product Backlog
don't have a
shared and consistent
definition of "Done"?



DEFINITION
OF
READY

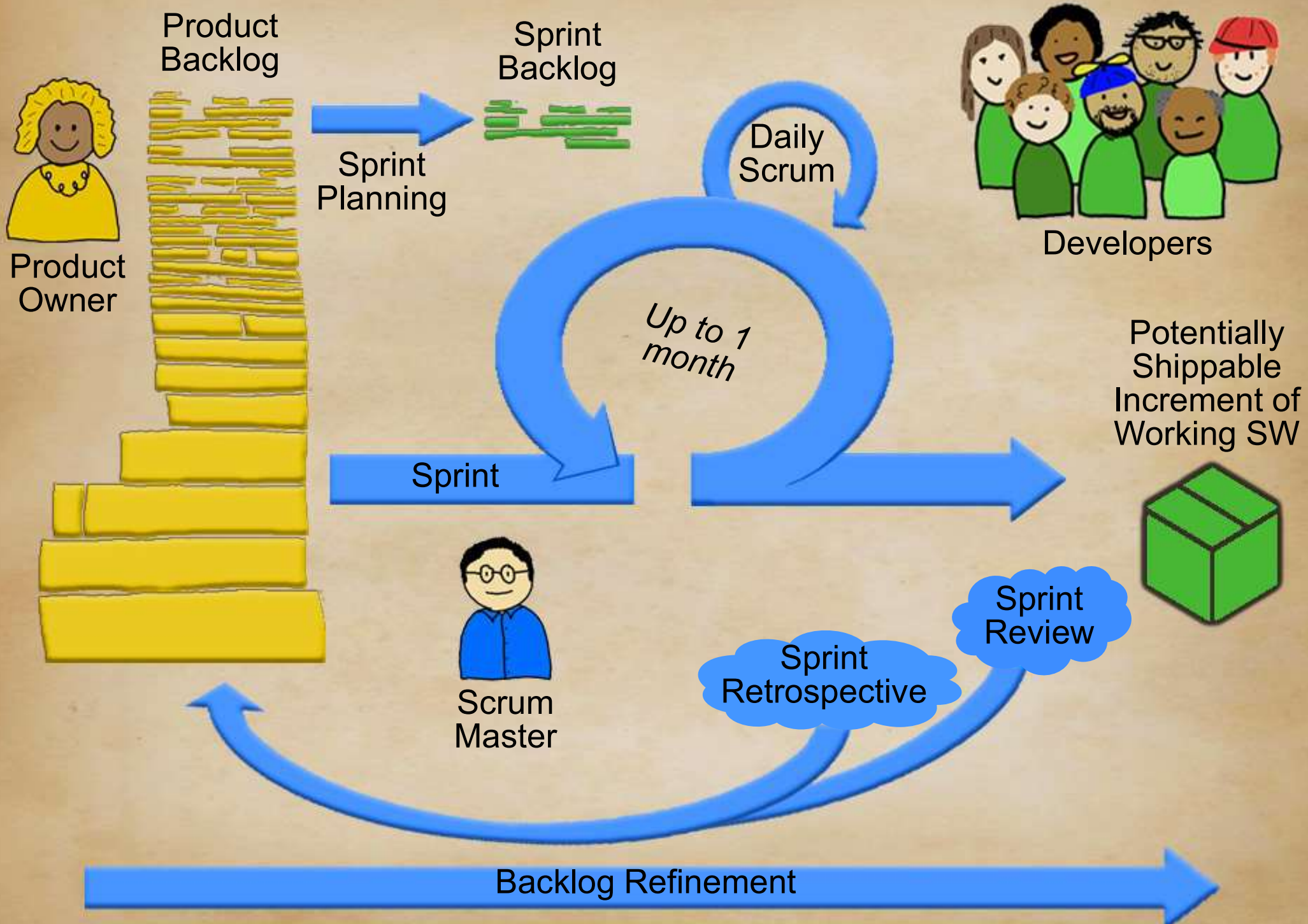
Example **DOR** Items

- Story defined with ***acceptance criteria***
- Parent epic identified
- ***Sized by team***, can be Done in under 3 days
- Team determines Story is INVESTed
- ***Dependencies identified*** and accepted
- Architectural stories are completed
- SMEs/Functional ***experts identified***
- ***API Contracts reviewed*** with developer
- UX artifacts created, ***mockup attached***

Sprint Planning



Scrum Framework





Sprint Planning

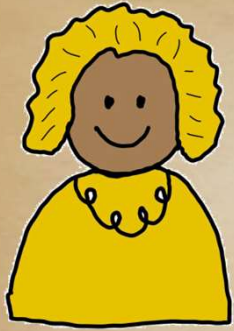
What is the recommended

Sprint Planning

The work to be performed in the Sprint is planned at the Sprint Planning. This plan is created by the collaborative work of the entire Scrum Team.

Sprint Planning is time-boxed to a maximum of eight hours for a one-month Sprint. For shorter Sprints, the event is usually shorter.

The Scrum Master ensures that the event takes place and that attendants understand its purpose. The Scrum Master teaches the Scrum Team to keep it within the time-box.



WHAT

*product,
criteria*



HOW
process, technology



What's New in the 2020 Scrum Guide?

Three Sprint Planning Topics

In addition to the Sprint Planning topics of **What** and **How**, the 2020 Scrum Guide places emphasis on a third topic: **Why**

This is in reference to the Sprint Goal.



(NO) **CHANGES**



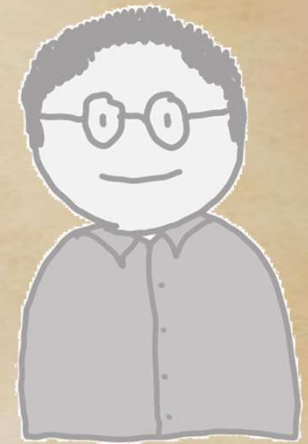
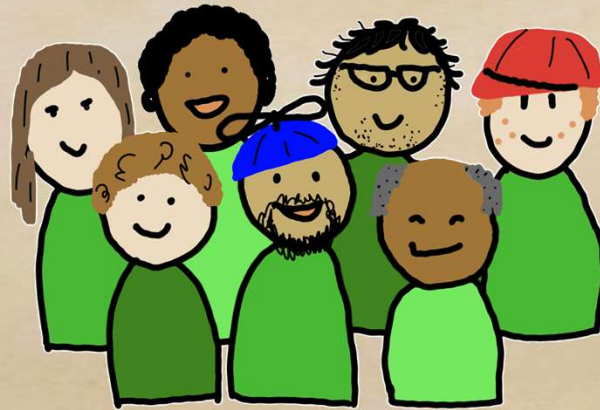
Responsibilities at Sprint Planning



Product Owner

- Suggests a Sprint Goal
- Answer questions about PBIs
- Negotiate scope

Responsibilities at Sprint Planning



Developers

- Decide how much work to bring into the Sprint
- Create Sprint Backlog items

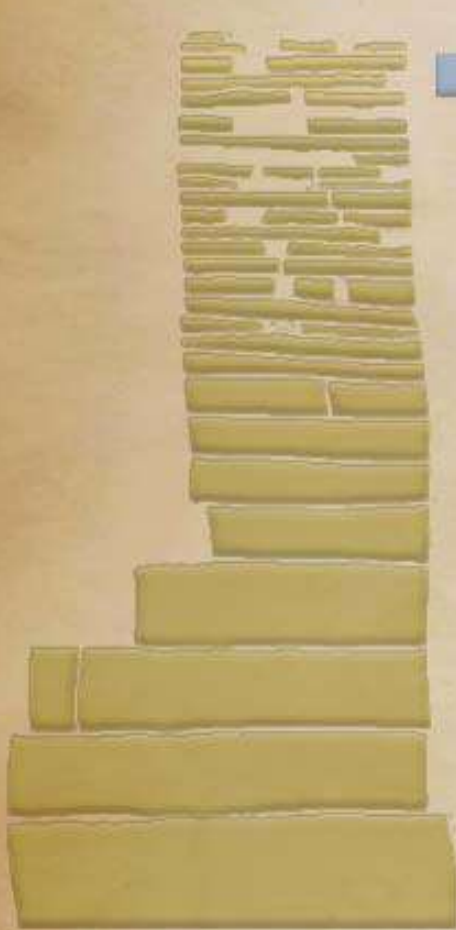
Responsibilities at Sprint Planning



Scrum Master

- Facilitate discussions
- Maintain the time box
- Help the team to neither over- nor under-commit

The Sprint Backlog



Real-time _____ of the work.

_____ may modify at any time.

_____ may remove PBIs.

Has just enough _____ .

Highly _____ view of tasks.

Used to turn _____ into _____ .

Changing the Sprint Backlog

- How does the Sprint Backlog change?
- Who can make changes/updates?
- What are the limits of these changes?



Commitment: Sprint Goal

- the single objective for the Sprint
 - one-sentence summary of the focus of the Sprint
- a commitment by the Developers
 - provides flexibility in terms of the exact work needed to achieve it



- Benefits include:

- Encourages the Scrum Team to work together rather than on separate initiatives
- Provides a greater context for the work
- Helps stakeholders to understand why they are being asked to participate in a Sprint Review

Q: can the Sprint Goal be changed?

Don't Extend the Sprint



- Sprints end when the timebox is over
- Drop scope from the sprint if necessary
 - Not the same as dropping scope from the release
 - Items probably (but not automatically) move to the next sprint
- Dropping scope should be a whole team discussion

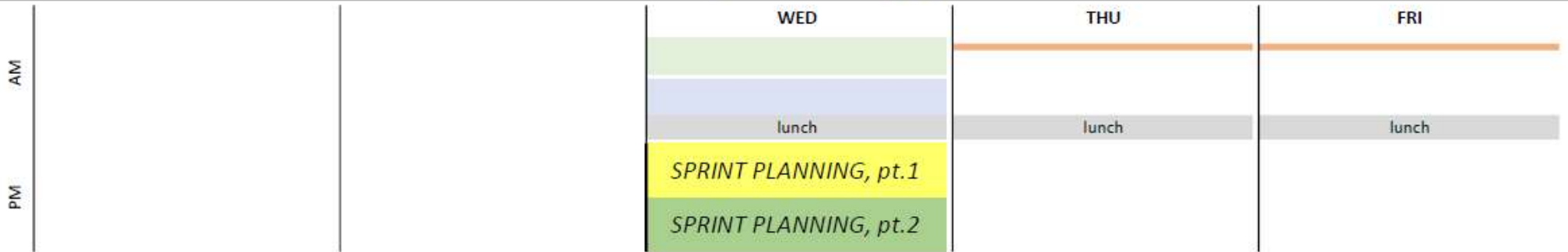
Sprint Cancellation

- A Sprint would be cancelled if the Sprint Goal becomes obsolete.
- Only the Product Owner may “cancel” a sprint
- Team may request an early end if they cannot deliver value in the sprint

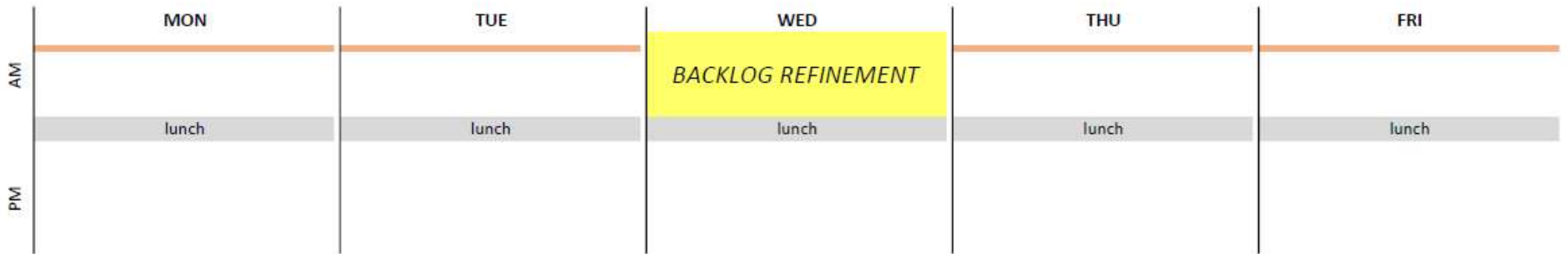


Sample Two-Week Sprint

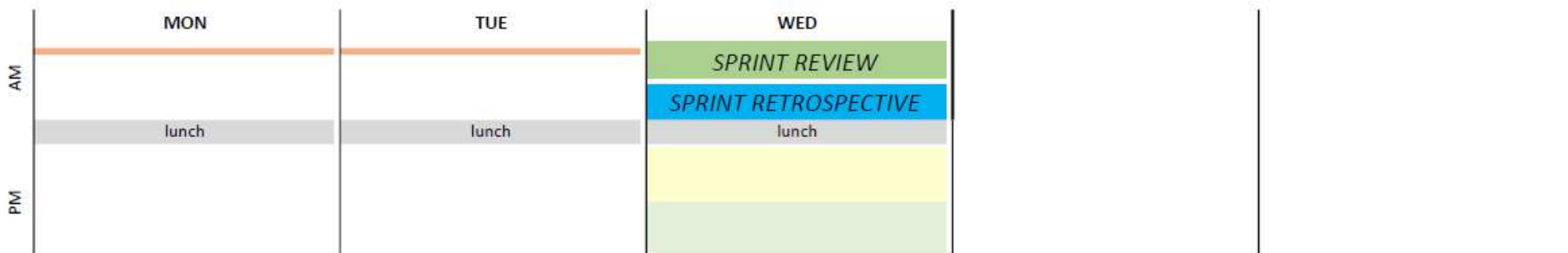
PRIOR SPRINT / WEEK 1



WEEK 1 / WEEK 2



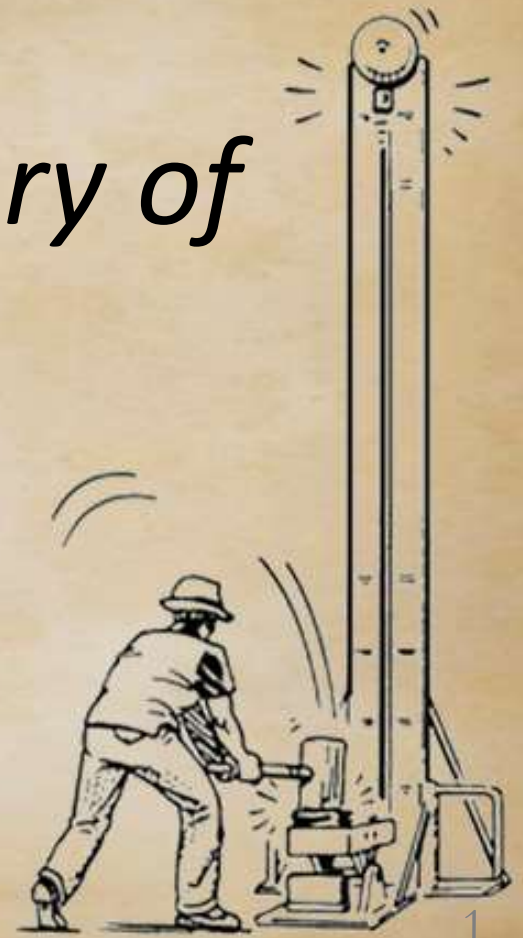
WEEK 2 / NEXT SPRINT



The Sprint Goal uses the standard who-what-why format.

It's a one-sentence summary of the focus of the Sprint.

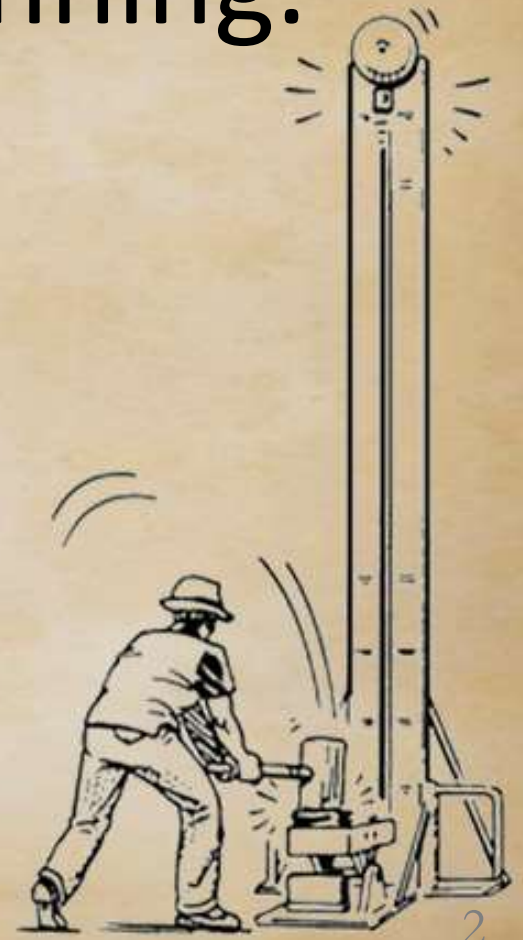
DING!! or Dud...



The Product Owner is wise to bring about 1.5 or 2 sprints' worth of PBIs to Sprint Planning.

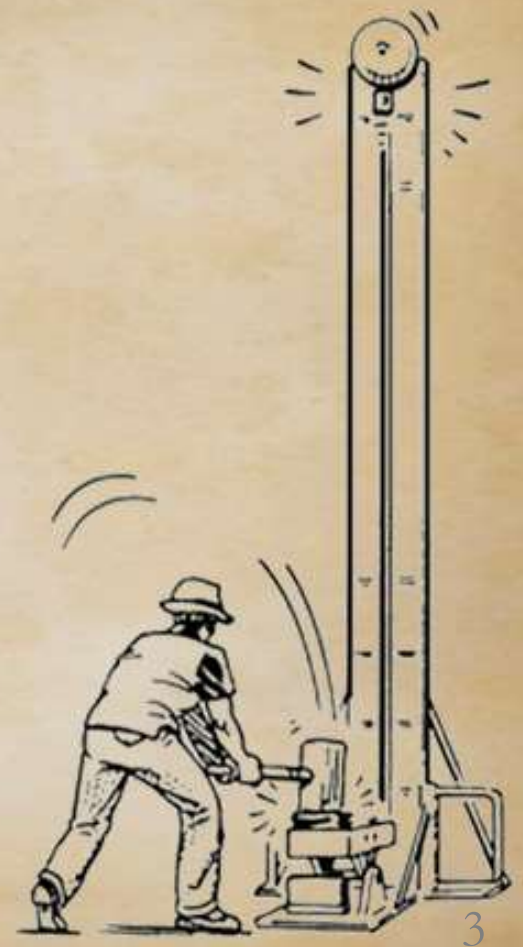
It's better to prepare more than not enough.

DING!! *or Dud...*



All members of the Scrum Team
attend and participate in Sprint
Planning.

DING!! *or Dud...*



TO DO

DOING

DONE

Scrum Events

Service to the
Organization

Service to the
Developers

Introductions

Why & What
of Agile & Scrum

Scrum Master Core
Competencies

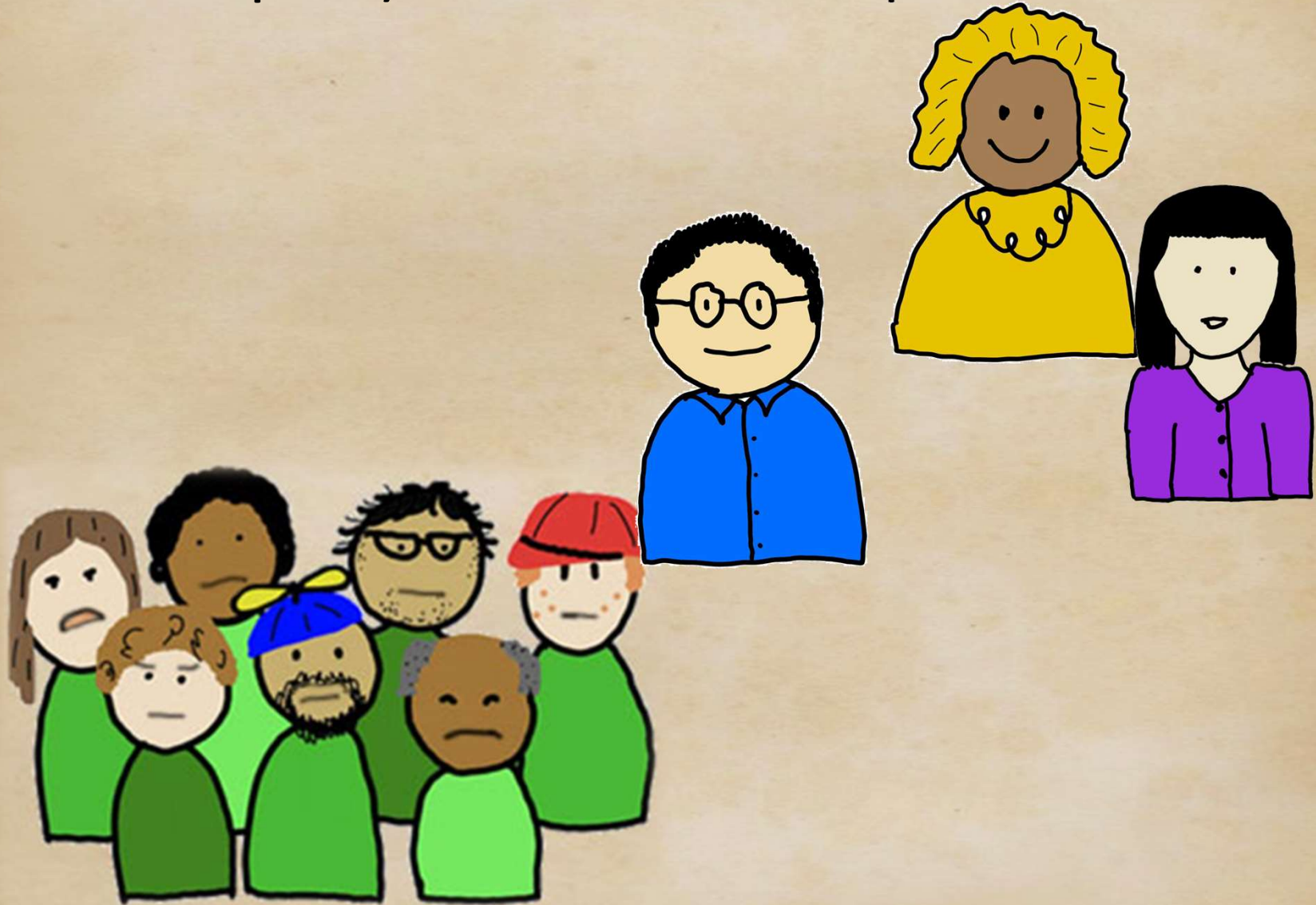
Scrum Roles

Backlogs &
User Stories

Service to the
Product Owner

Sprint Planning

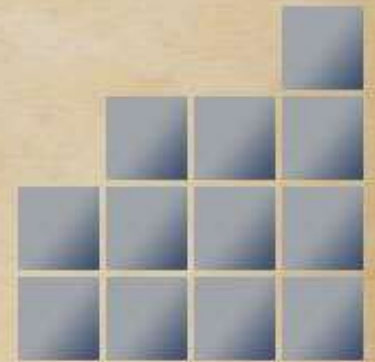
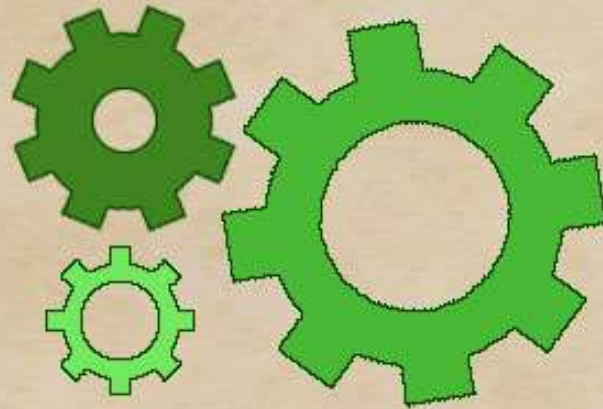
Scrum Master protects the Scrum Team
(esp. Developers) from excessive pressure



The Breakout Bunch

What can possibly go wrong if the Product Owner or a stakeholder applies excessive time pressure to the Developers?

Technical Debt accumulates



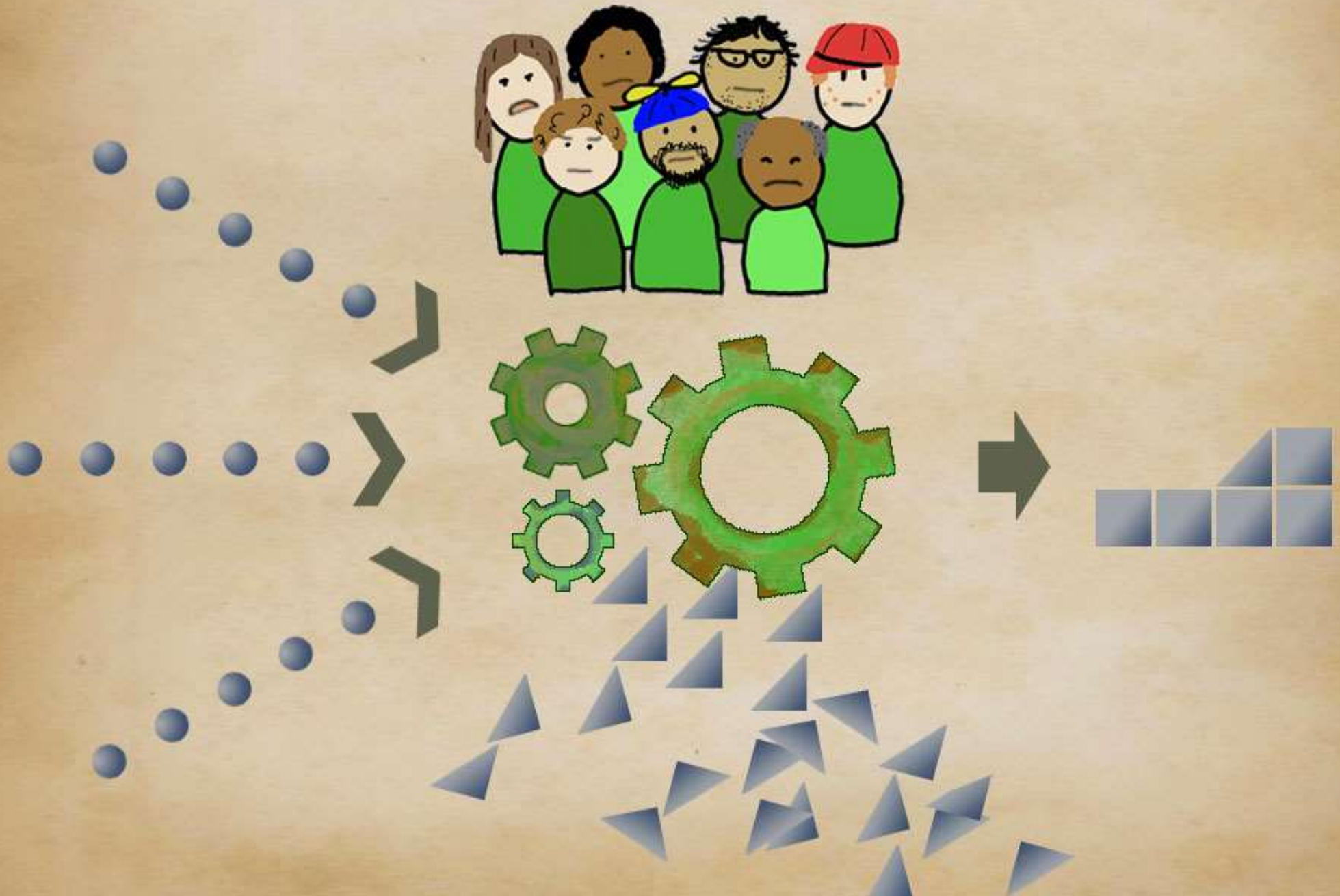
Technical Debt accumulates



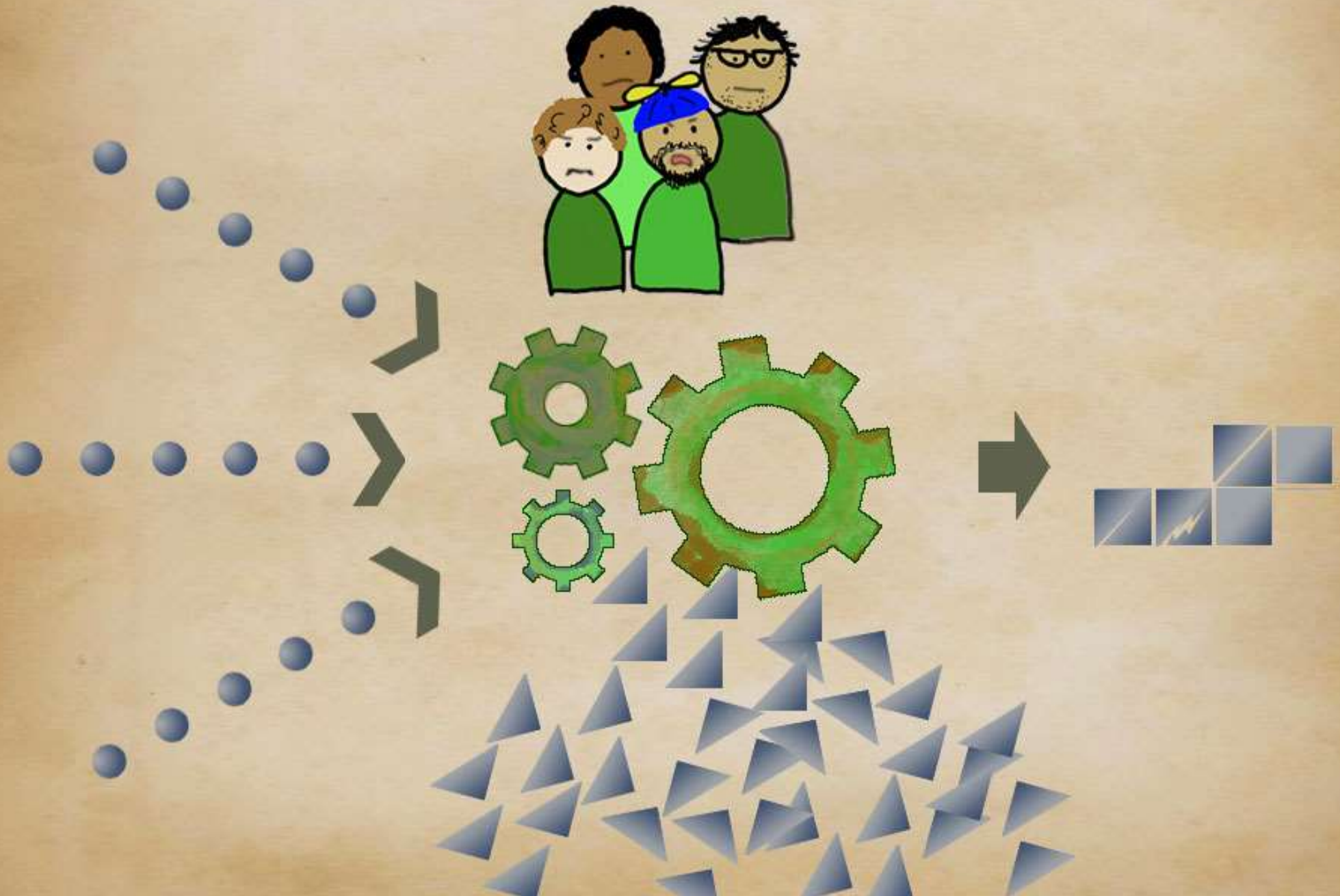
Technical Debt accumulates

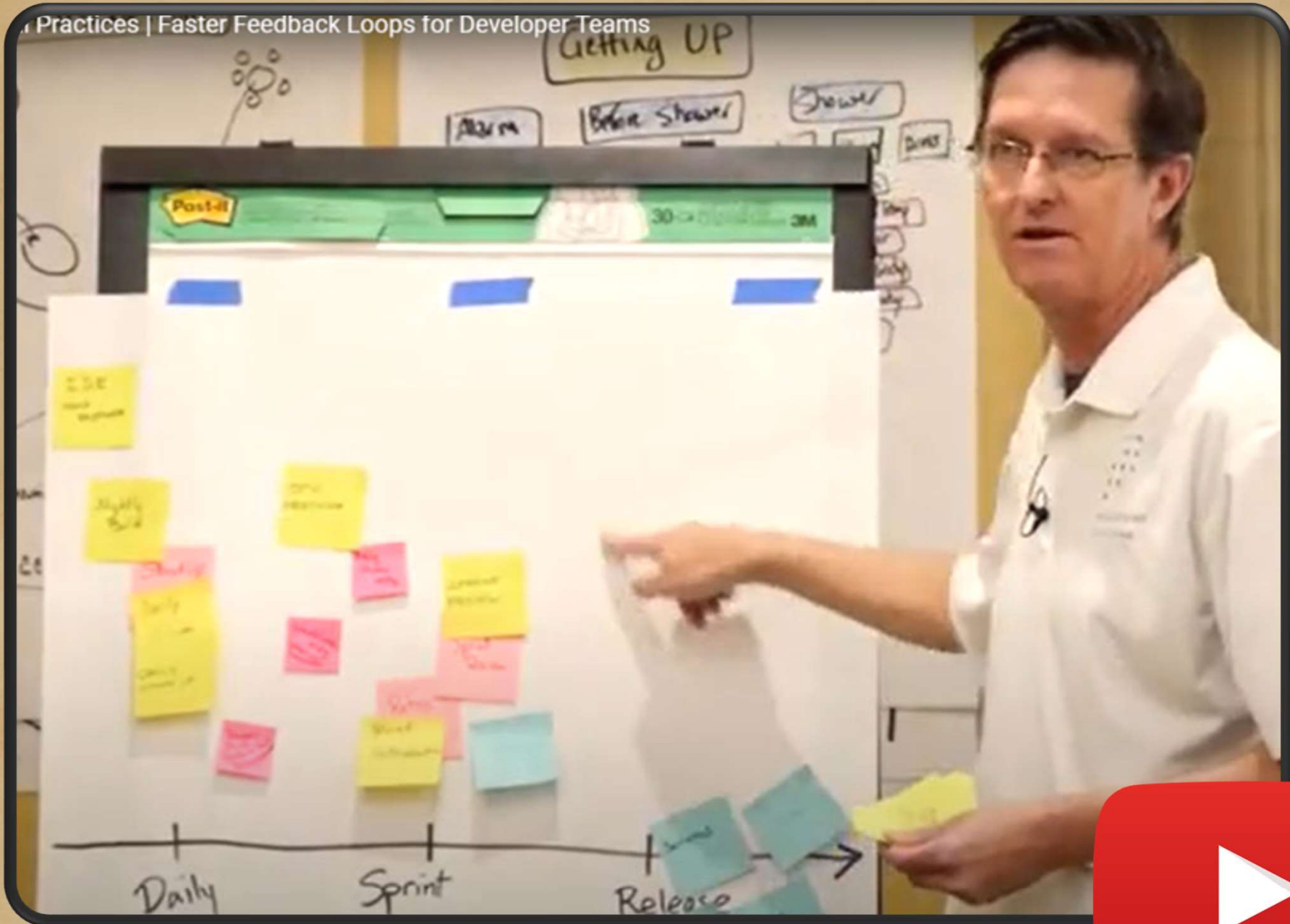


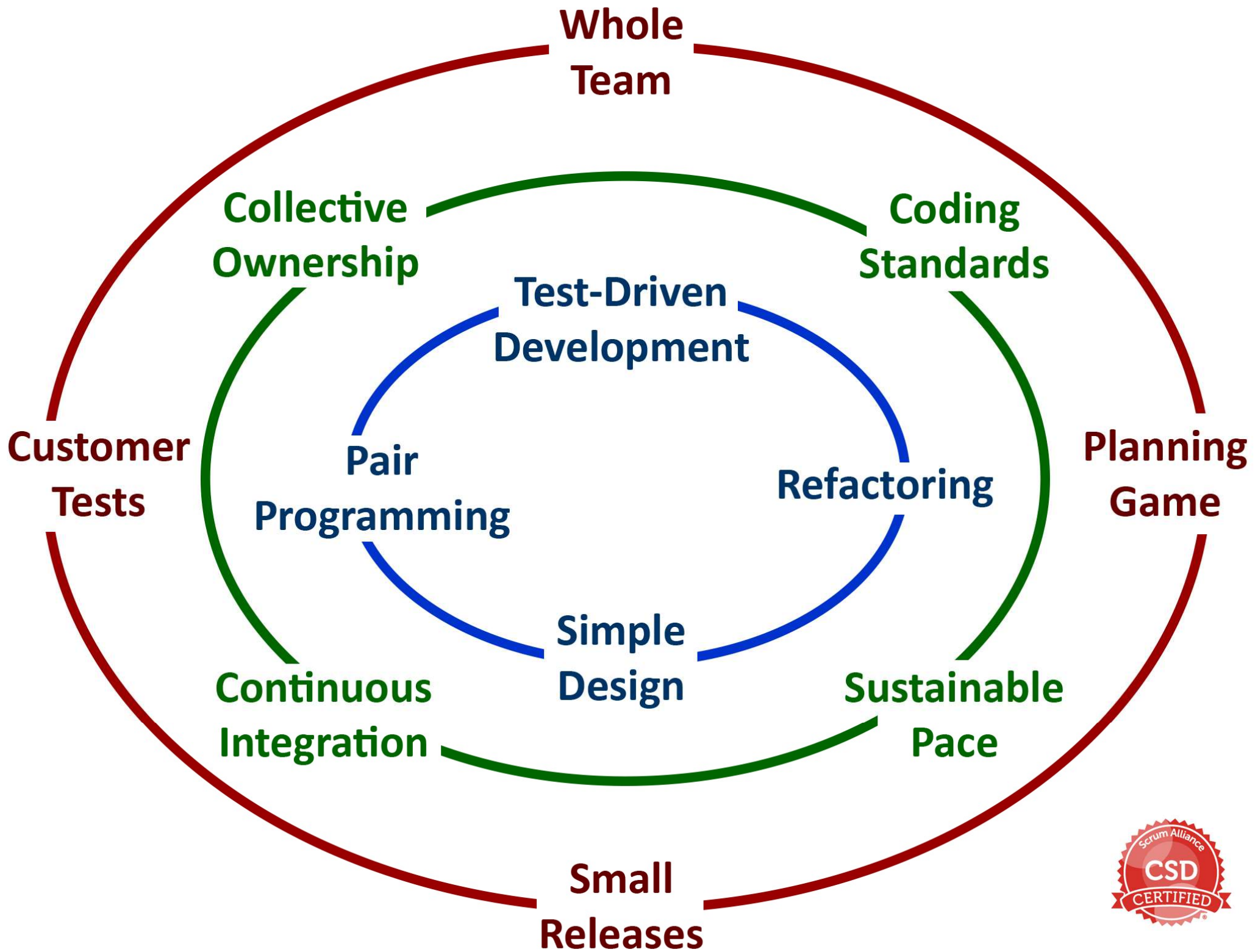
Technical Debt accumulates



Technical Debt accumulates



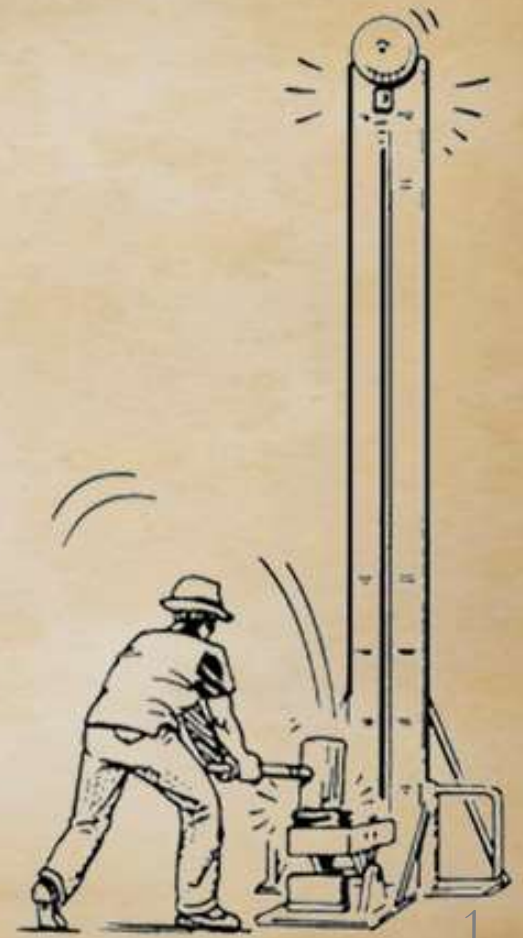




When under pressure to work faster, developers (unconsciously) compromise quality.

This is a commonly observed behavior.

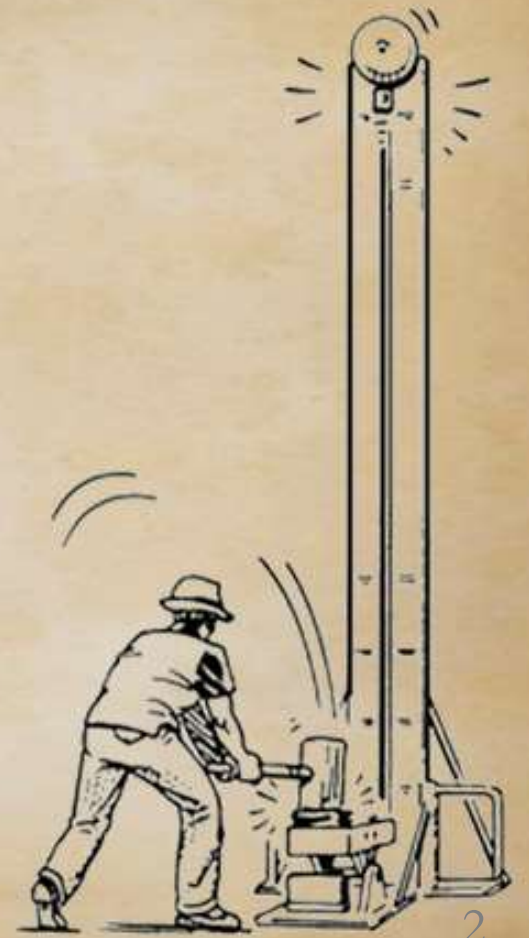
DING!! or *Dud...*



Each member of a cross-functional team needs to be able to perform ALL the tasks for any given PBI / user story.

All skills must be present within the team, but not in every member.

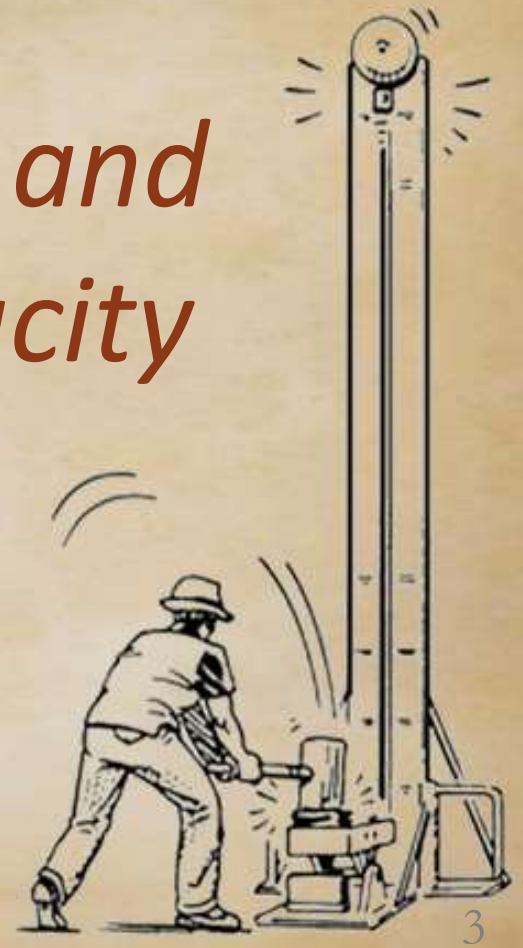
DING!! or Dud...



It is good for teams to have slack in their schedule so they can make improvements to their processes.

Constant focus on delivery and working at maximum capacity offers little down time to implement improvements.

DING!! or *Dud...*



Scrum Masters should track issues affecting the team and try to resolve impediments themselves or get help from others.

The Scrum Master should solve or escalate impediments as quickly as possible.

DING!! or *Dud...*



Adding team members will automatically increase velocity.

Changing team composition will impact velocity, but instant increases are rare.

DING!! or Dud...



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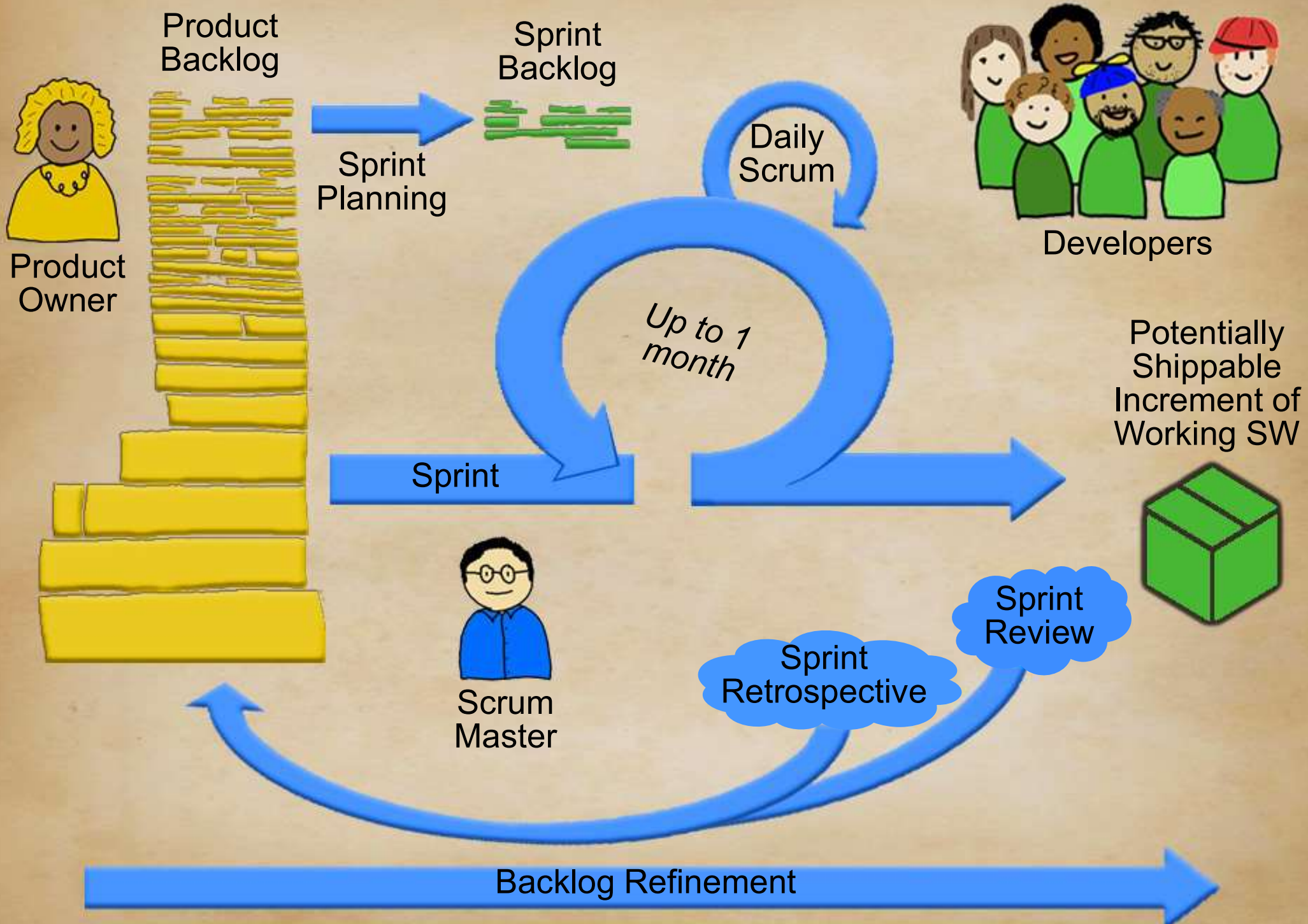
Backlogs &
User Stories

Service to the
Product Owner

Sprint Planning

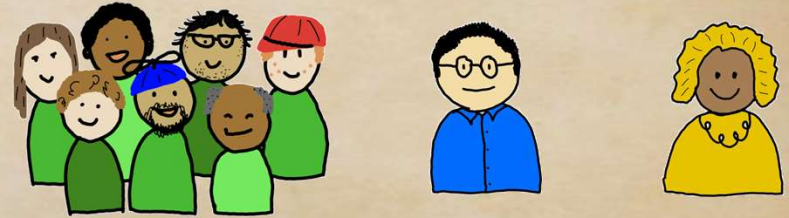
Service to the
Developers

Scrum Framework



Daily Scrum Responsibilities

M U R A L



Answer the three questions

Teach how to do a daily scrum

Review progress toward the Sprint Goal

Provide clarification

Offer observations, not solutions

Offer early feedback

Update the sprint backlog

Facilitate conversation if necessary

Answer the three questions			
Teach how to do a daily scrum			
Review progress toward the Sprint Goal			
Provide clarification			
Offer observations, not solutions			
Offer early feedback			
Update the sprint backlog			
Facilitate conversation if necessary			



DAILY SCRUM

No matter how heavy your armour is, this is a stand-up not a sit-down



Dysfunctional* Players Theater

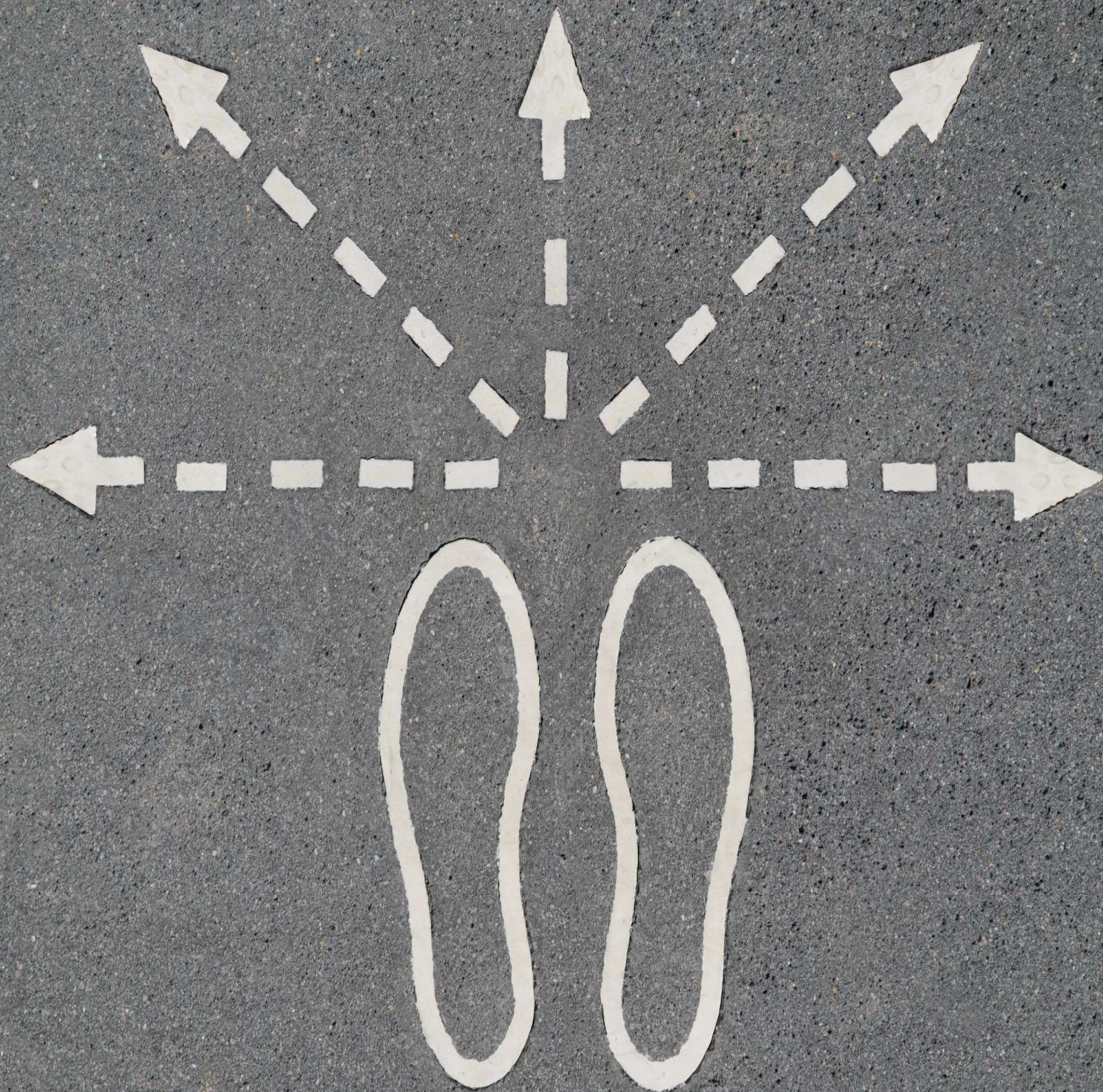
- By the Book
- Too Much Detail
- Has No Update
- ScrumMaster's Pet
- Late-comer
- Ignores Priorities
- The Solver
- Won't Ask for Help
- Remote Member
- Too Vague
- Off-topic Chatty
- Distracted by Phone

* One of these is not a dysfunction



how was our
service today?







- stakeholders
- mgmt
- other teams



SPRINT REVIEW

not just demo

more than a movie

Q & A
with cast & crew

→ demo working SW

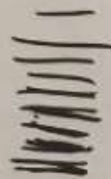
- screen shots
- stories

- key learnings
- schedule / release
- budget
- backlog priorities
- product fit in mkt

Outcomes



increment released

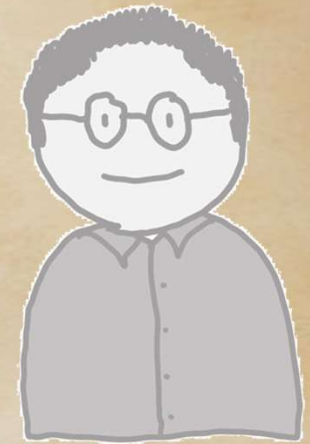


Prod Backlog updated



unnecessary work identified

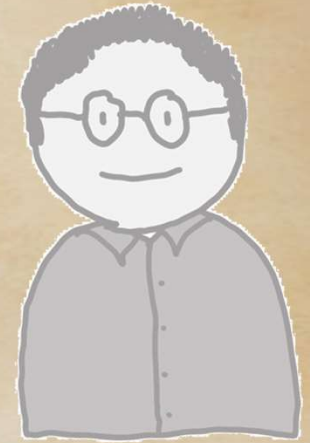
Responsibilities at Sprint Review



Product Owner

- Accept or reject items
- Solicit and process feedback

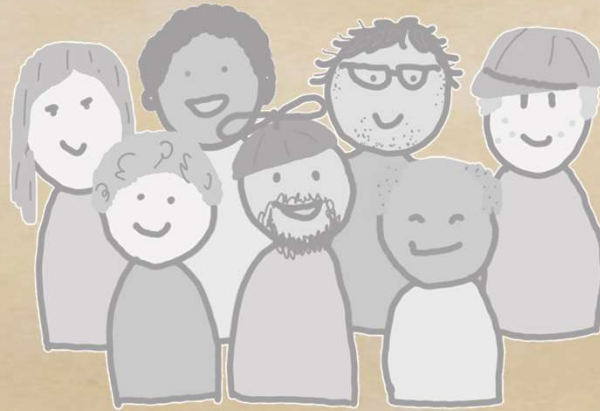
Responsibilities at Sprint Review



Developers

- Demonstrate the results of the Sprint
- Respond to questions

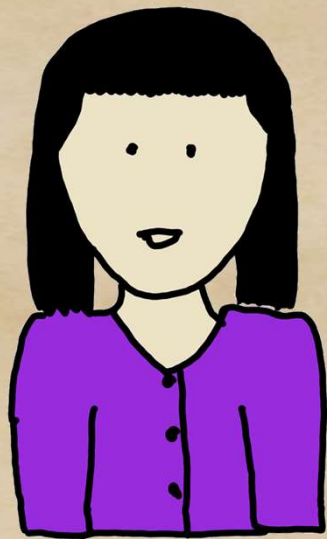
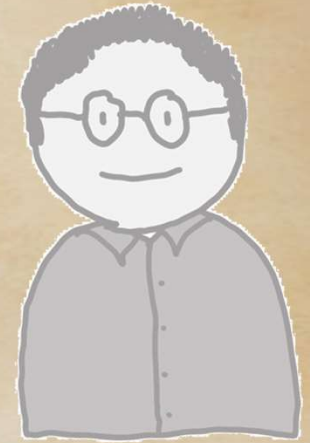
Responsibilities at Sprint Review



Scrum Master

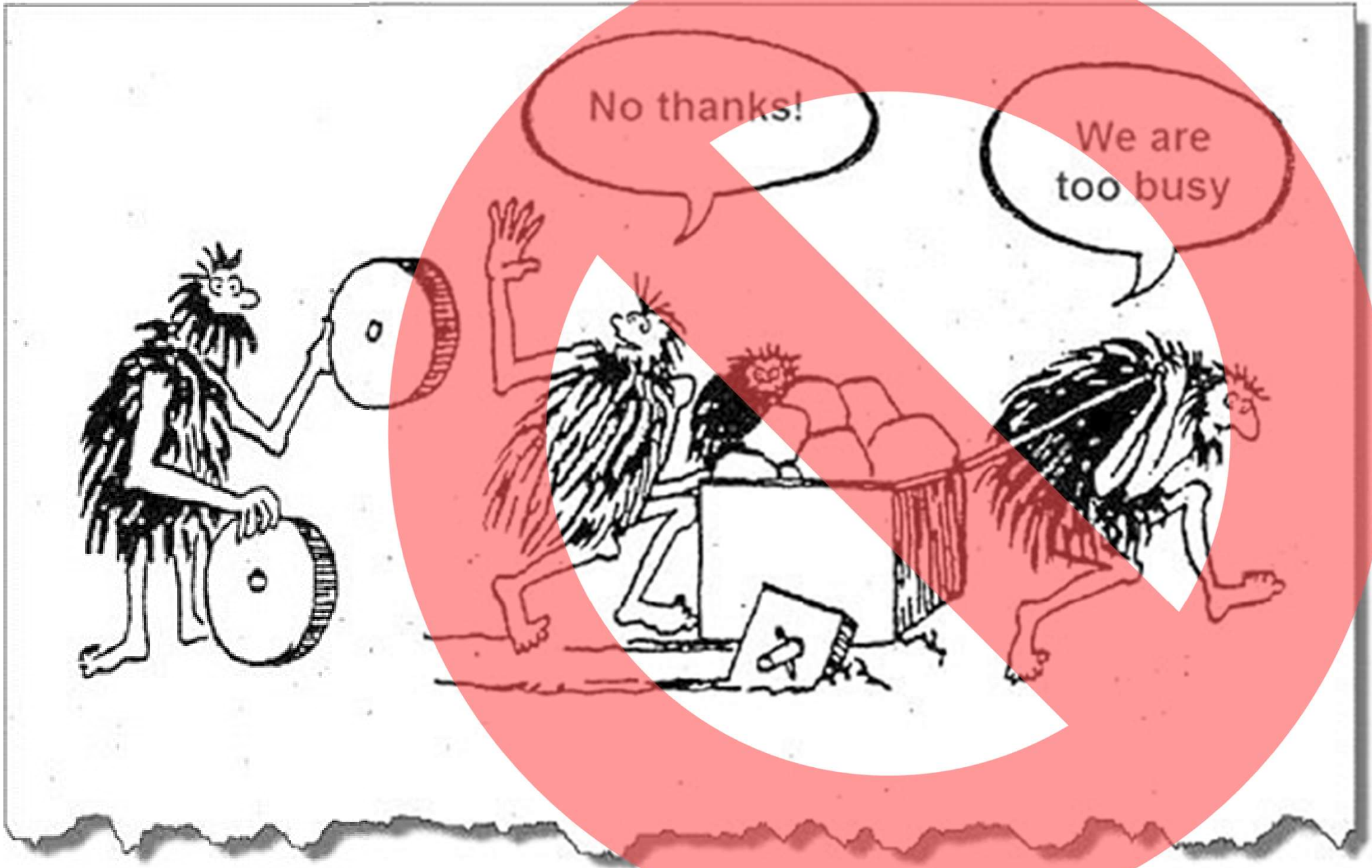
- Ensure that the review happens
- Maintain the time box

Responsibilities at Sprint Review



Stakeholders

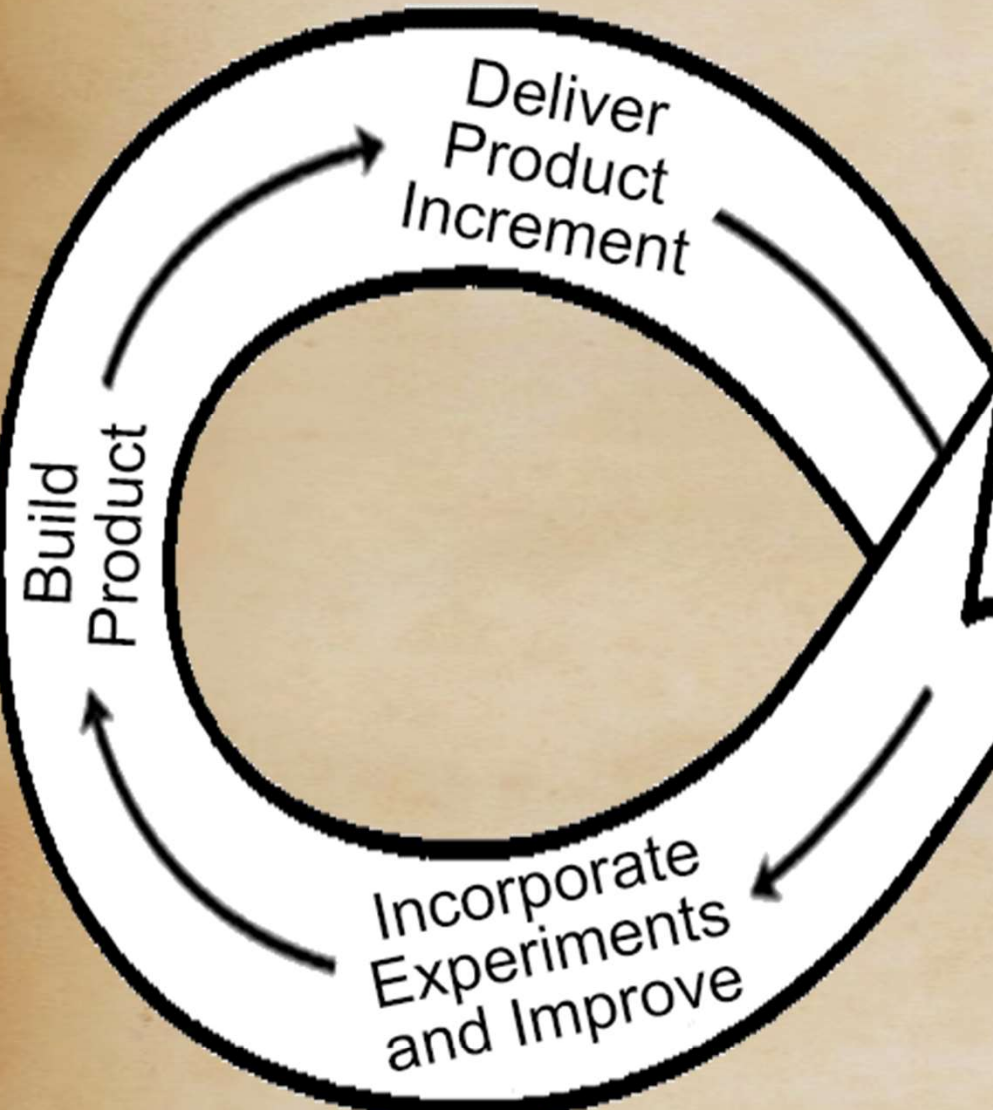
- Provide feedback
- Help resolve impediments



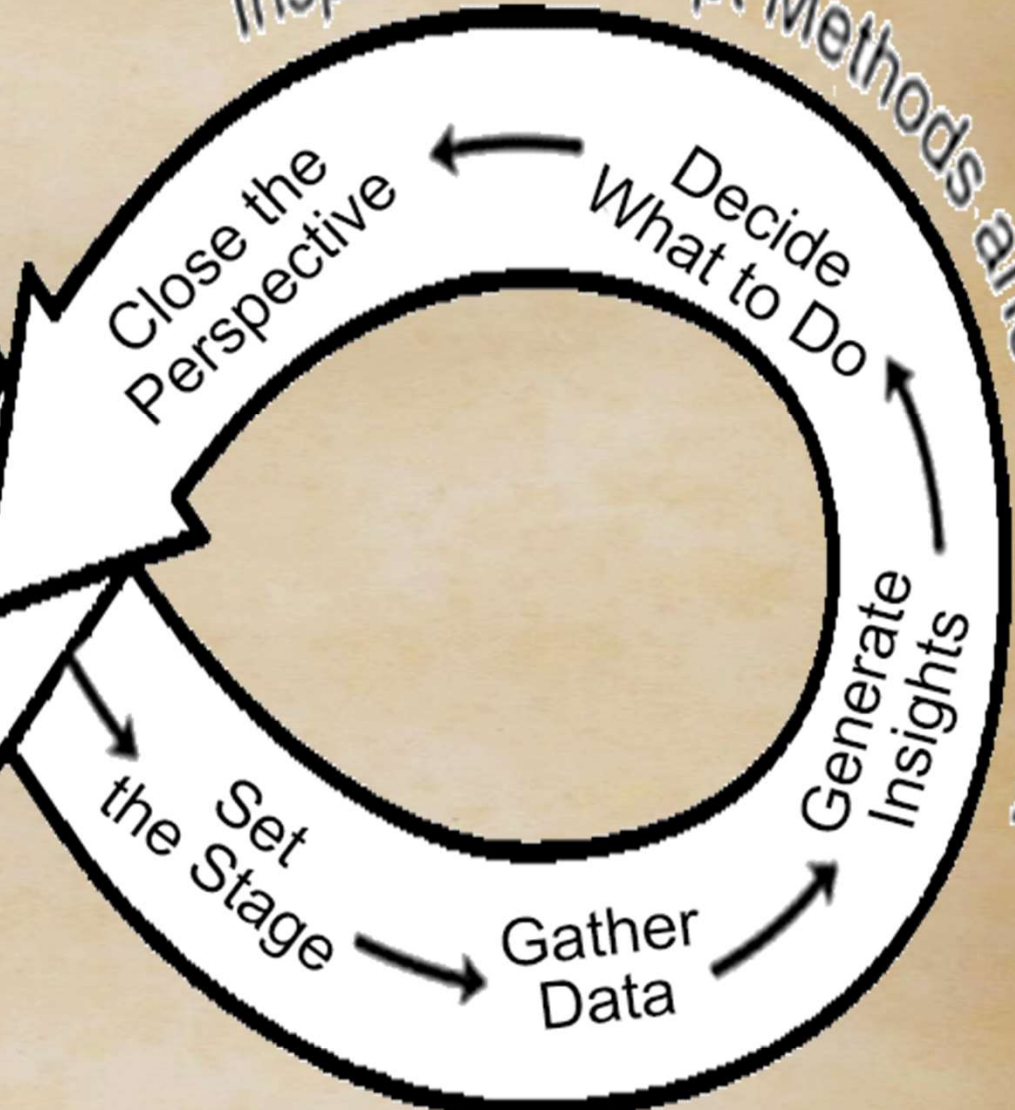
No thanks!

We are too busy

Iteration



Inspect and Adapt Methods and Teamwork



Retrospective

Sprint Review & Retrospective

What are the recommended maximum time-boxes for a one-month Sprint?

Sprint Review

1 hour

4 hours

8 hours

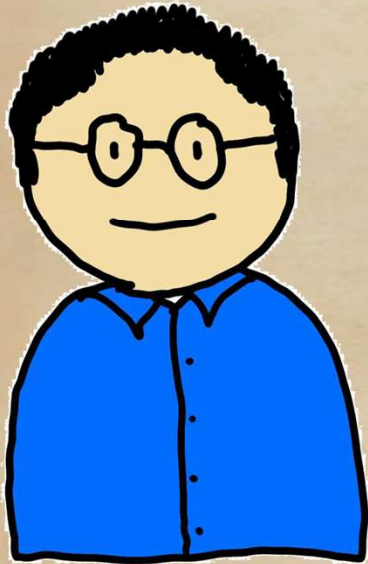
Retrospective

1 hour

2 hours

3 hours

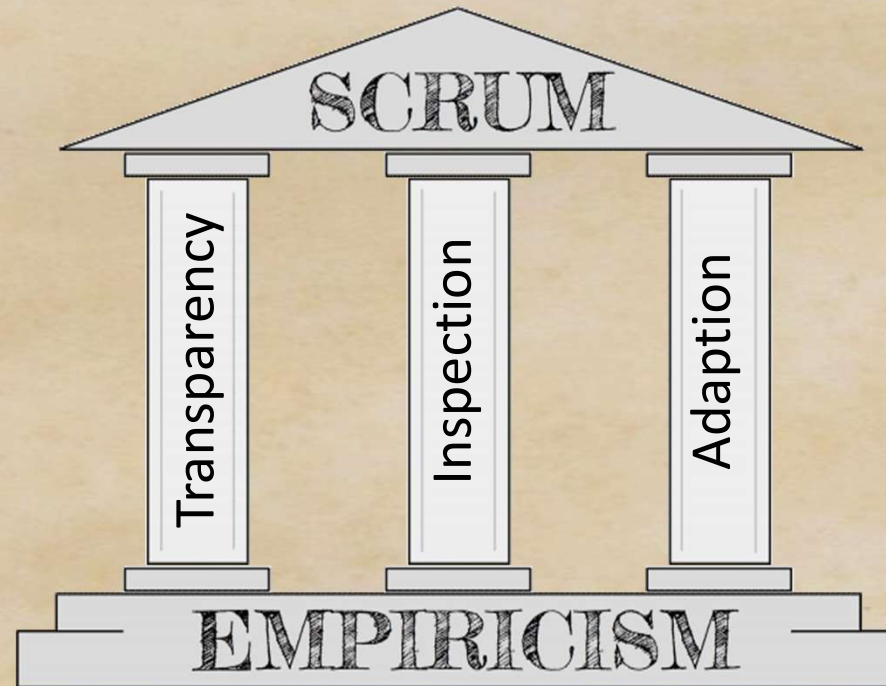
Responsibilities of the Scrum Master at the Retrospective



- Ensure the retrospective happens
- Facilitate as necessary
- Act as a mirror to the team
- Maintain the time box

Daily
Scrum

Sprint
Planning



Sprint
Review

Sprint
Retrospective

O P E N N E S S

F O C U S

R E S P E C T

C O U R A G E

C O M M I T M E N T

The Scrum Team rehearses to make the Sprint Review a perfect show.

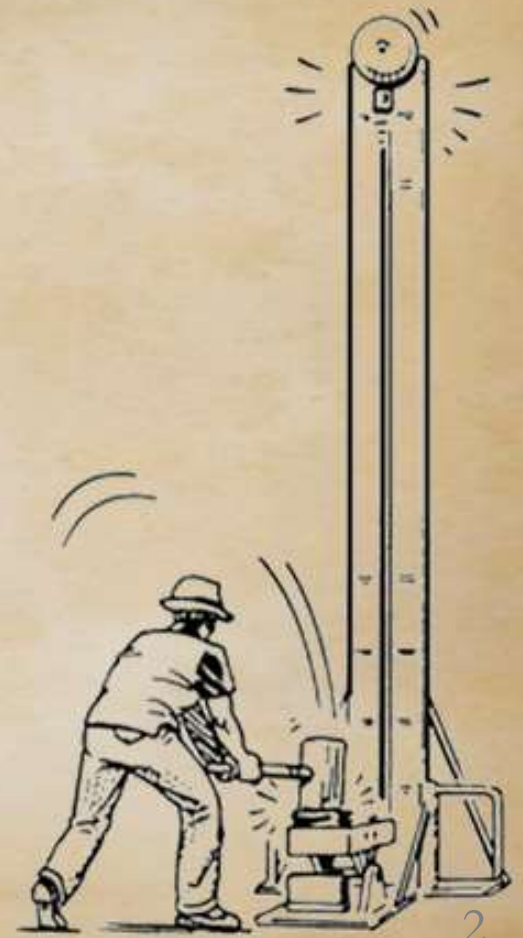
The Sprint Review is informal and needs only minimal preparation.

DING!! or Dud...



Anyone in the org may attend the Sprint Review and provide feedback.

DING!! *or Dud...*



Anyone in the org may attend the Sprint Retrospective and provide feedback.

The Retrospective is open only to the Scrum team.

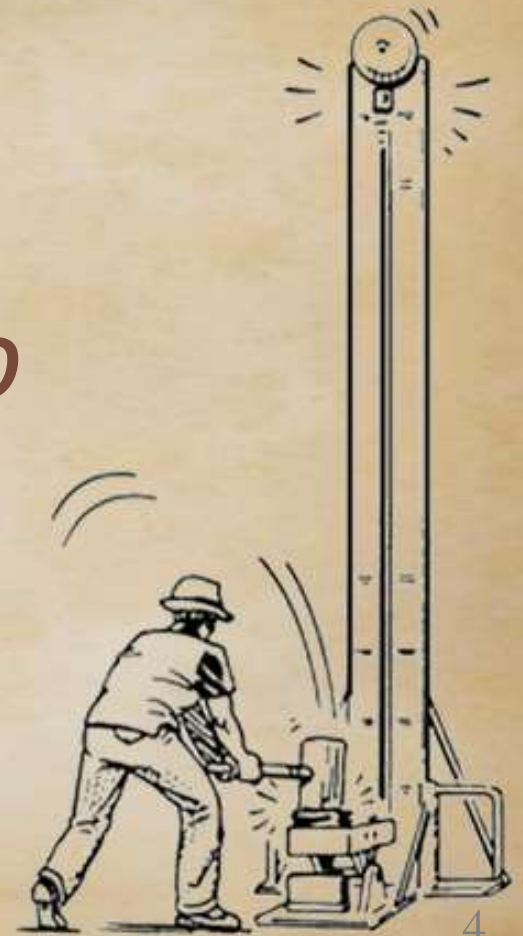
DING!! or Dud...



The Retrospective occurs after the Sprint Review and prior to the next Sprint Planning.

The team may find ways to improve the Sprint Review.

DING!! *or Dud...*



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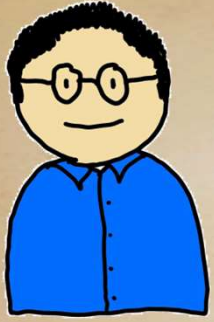
Service to the
Developers

Scrum Events

The Breakout Bunch

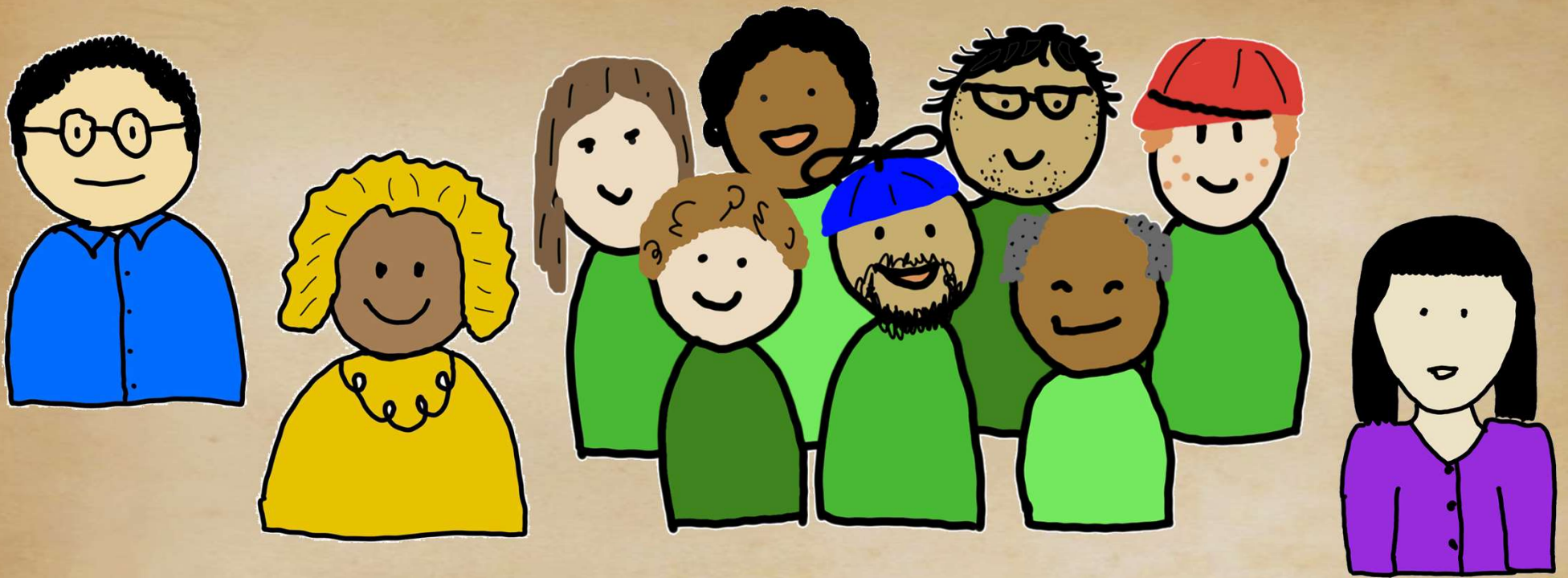
What are a few common organizational impediments outside the scope of a team that can affect the effectiveness of Scrum Teams?

(Remember to Stretch)



Serving the Organization

- **Leading** the organization in its Scrum adoption
- **Planning** Scrum implementations within the org
- **Helping** employees and stakeholders understand and enact Scrum and empirical product development
- **Causing change** that increases the productivity of the Scrum Team
- **Working with other Scrum Masters** to increase the effectiveness of Scrum in the organization



What are some examples of major organizational design changes implied by implementing Scrum?

What are some stakeholder behaviors that do not support the Scrum Team's success?





What are some stakeholder behaviors that DO support the Scrum Team's success?

Test Details

- Test must be completed within 90 days.
- Answers are saved as you go, so no need to worry if you lose connection.
- Test is based on the Scrum Guide ([scrumguides.org](https://www.scrumguides.org)) and the 2020 Learning Objectives covered in this CSM class.
- Test is “open book”.
- You will receive your score immediately upon completing the test.

If You Don't Pass...

- If you do not pass on your first attempt, you have one more attempt with no additional fee within the original 90-day window.
- If you do not pass on your second attempt, you may take the test again for \$25 fee.

When You Pass

- Once you pass the test, return to [ScrumAlliance.org](https://www.scrumalliance.org) to create your profile and accept the Scrum Alliance licensing agreement (Settings > Certification Dashboard).
- To renew your certification, there is a \$100 fee every two years. There are continuing education requirements for the CSM. You'll receive an email from the Scrum Alliance when your certification is due to renew.