

Agile Project Management



Managing Projects under Uncertainty

Session 12

Nariman Dorafshan, 2023

Part 2.4

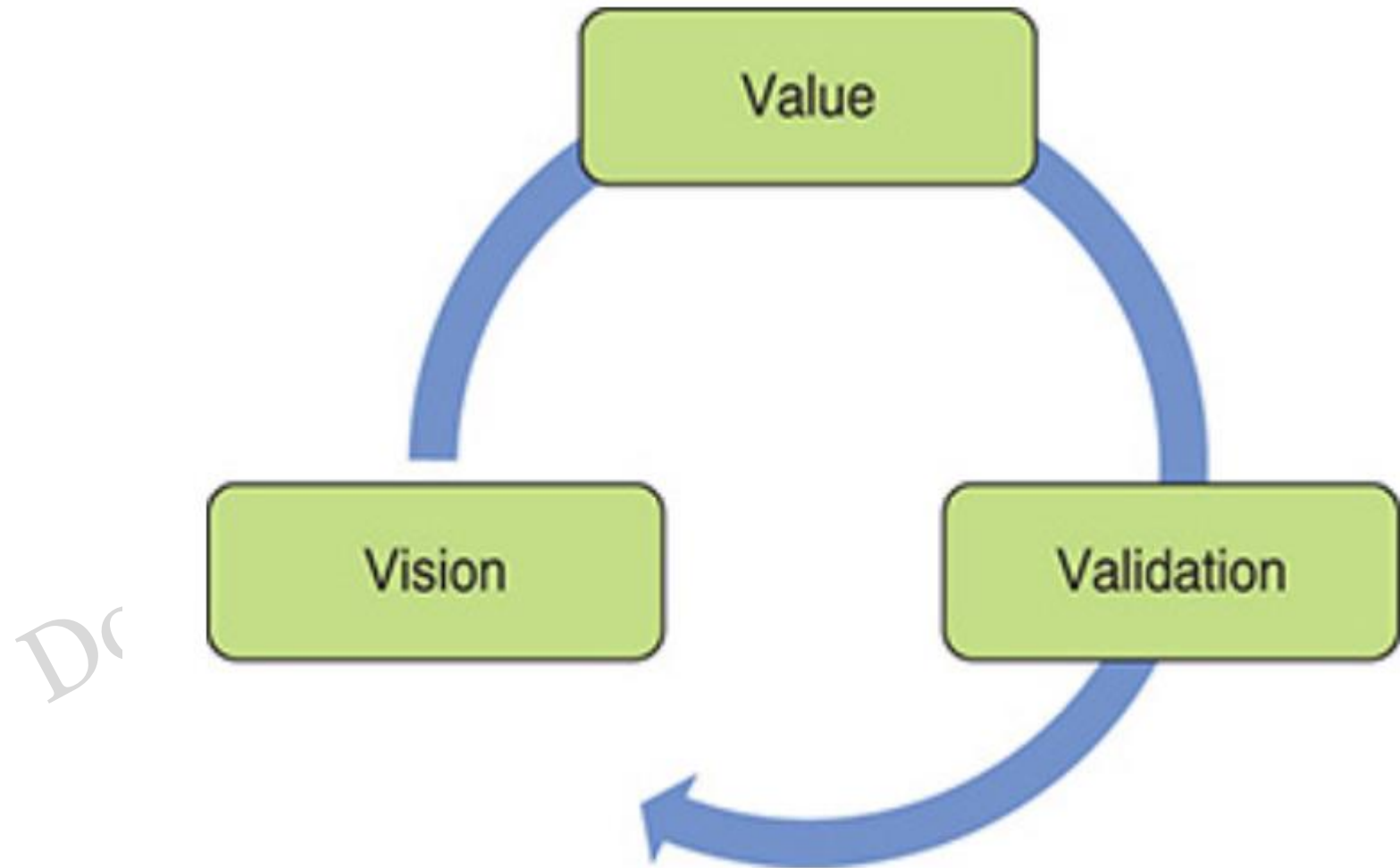
Agile

PRODUCT PLANNING

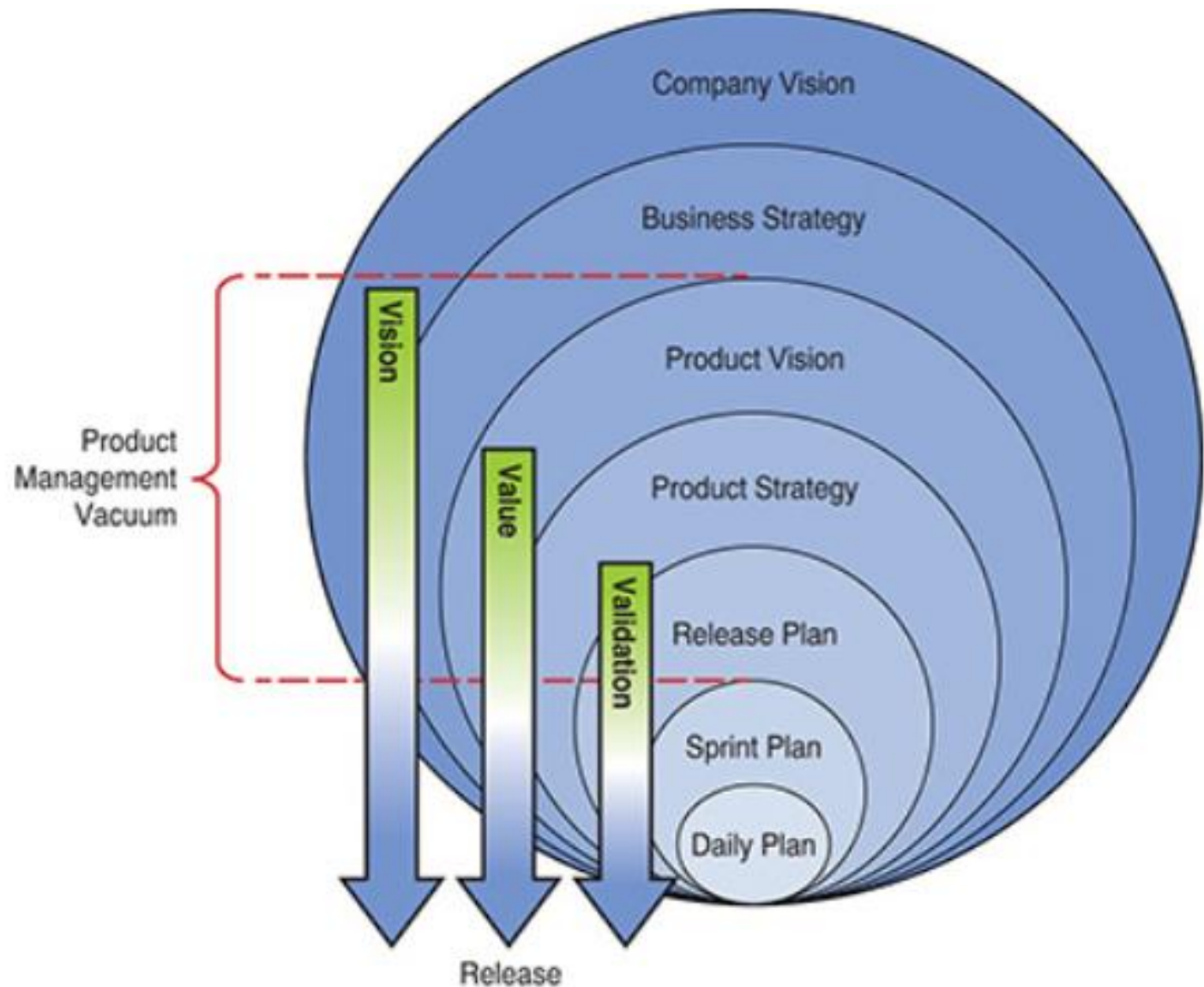
Do not Distribute

Three Vs

From the
Business-side



How Three Vs fill the Product Management Vacuum



Vision

- Vision creates *Transparency*
- The successful business representative establishes a clear product vision for her team, much like a military commander establishes clear intent for his subordinates.
- Doing so allows subordinates to act without direct orders in necessary to carry out the customers intent.

Product vision

- The product vision anchors everything in the process.
- This vision creates transparency because it forms the basis for all following conversations, leading to a common understanding for why you are building the product and what your customers' needs are.

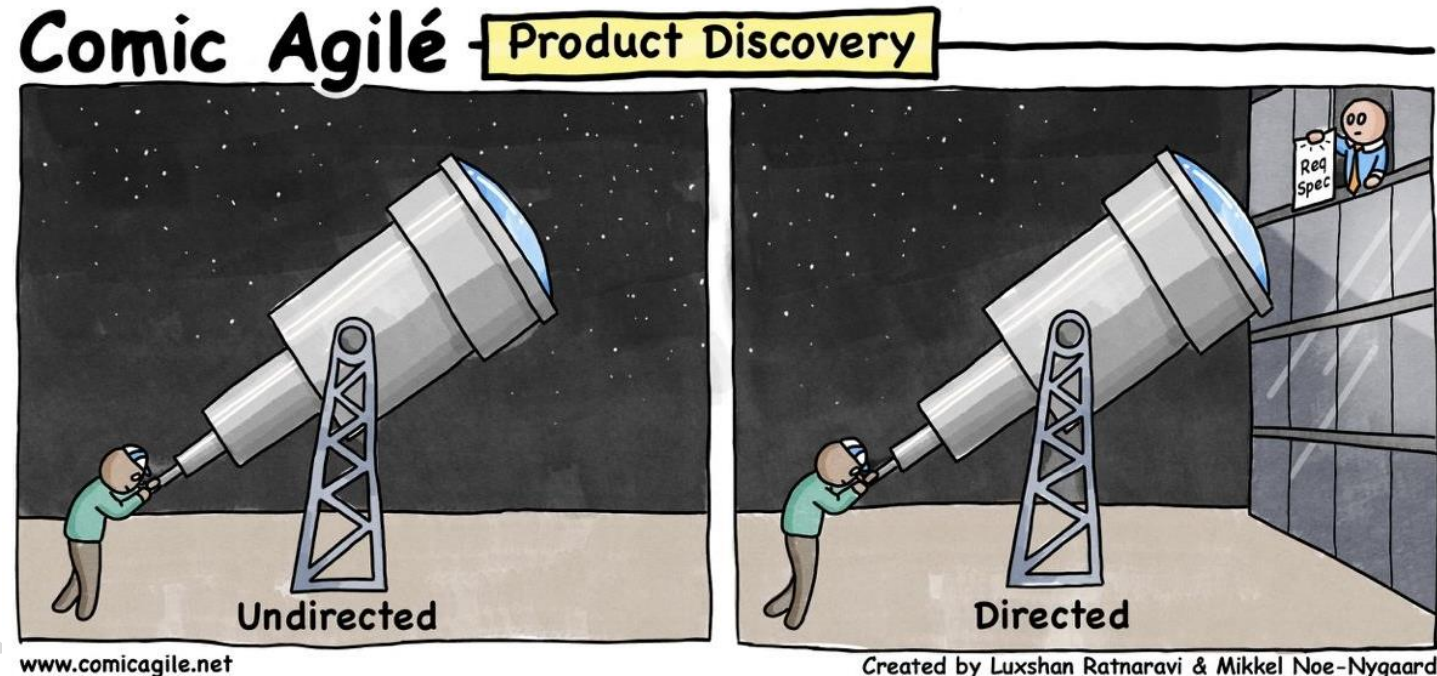
Do not Distribute

Well-communicated vision

- A great and well communicated vision is paramount for a successful launch.
- You need to communicate the product vision again and again to keep everyone on board and honest.
- Never forget that this vision represents the voice of the customer.
- If you stop listening to your customers, the resulting product will be of less value or even alienate them.

Product Discovery

- There needs to be a direction in which the process of discovering new products or features happens. This direction is typically set by the Product Vision.



- If there's no direction, the PO will have a very hard job prioritizing customer needs. Conversely, if someone has already decided what needs to be implemented, there's no need for discovery (besides, perhaps, the technical type of discovery).

Value

- Defining **value** provides you with something to **Inspect**.
- Imagine the vision as a long thread.
- Value is the individual pearls you attach as you progress. Vision provides a foundation and direction, but without the pearls attached to it, there is no value.
- A Team's job is to identify and then attach pearls (value) to the thread (vision).

So how do you measure value?

Do not Distribute

Prioritize

- “If you could have only one thing, what would it be?” is often a good opening question when identifying the most valuable.

- If everything is important, then nothing is.

~ *Patrick Lencioni*

Powerful Questions: importance and priority (1/5)

If we were paying for this Sprint with our own money, what work would give us the highest chance to get that money back?

**BETTER SPRINT GOALS
& SPRINT BACKLOGS**

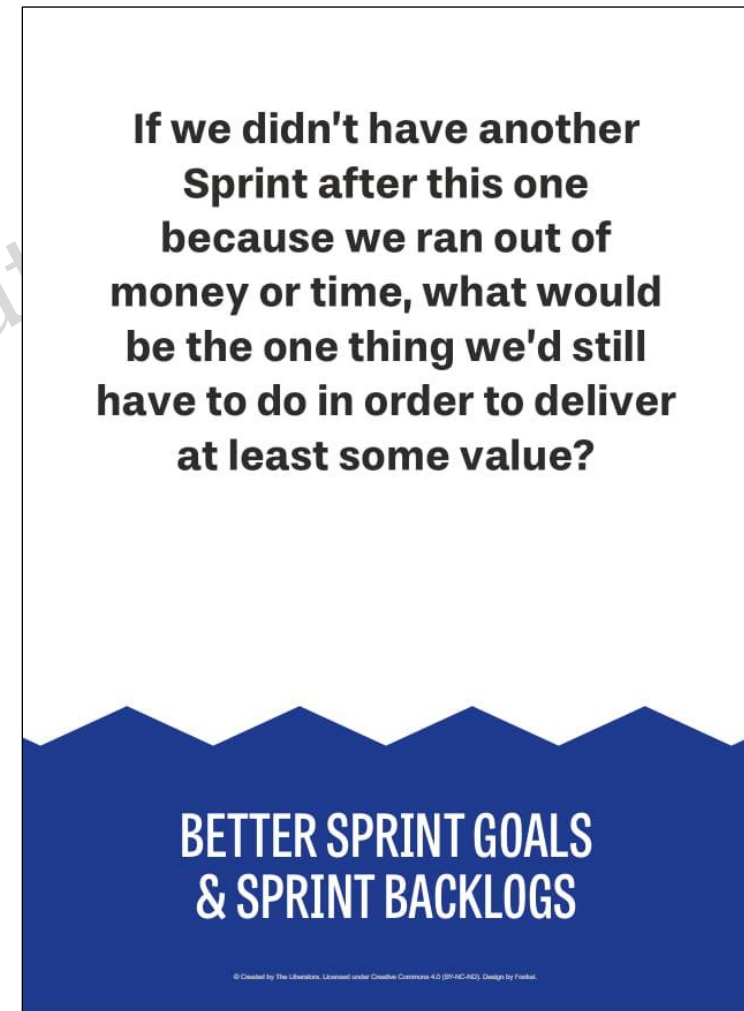
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If we suddenly had half the team available and we could only do half the work required for the Sprint Goal, what should absolutely be on our Sprint Backlog to still be okay with the outcome? What could we let go of for now and return to later?

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& SPRINT BACKLOGS**

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Powerful Questions: importance and priority (2/5)



Powerful Questions: importance and priority (3/5)

If we just canceled the next Sprint and went on vacation, what would be inevitably lost or become much harder later?

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& SPRINT BACKLOGS**

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**Which steps are required to achieve this Sprint Goal?
Which are the least required or could we do without if we really had to?**

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Powerful Questions: importance and priority (4/5)

If there's an 'AND' in the Sprint Goal: Which would you naturally do first if you had to choose? What is irrevocably lost if we do that thing first, and the second thing in another Sprint?

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& SPRINT BACKLOGS**

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What would need to happen while working on this Sprint Goal that would be cause for celebration?

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Powerful Questions: importance and priority (5/5)

What worry about our product is keeping you up at night? What can we build or test this Sprint to make you sleep a bit better?

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In terms of value and learning about what else is needed from us as a team, what is the worst way to spend the upcoming Sprint? What should we focus on this Sprint to prevent that?

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Validation

- Validation causes **adaptation**
- Most business assumptions are plainly wrong.
- They look good on paper but do not hold up in the real world.
- Each valuable idea has to be validated as soon as possible.
-

Reviewing the current state

- Our way of work needs chances for all stakeholders to review the current state of the product and to get an insight into next steps.
- The closer the reviewers are to actual customers and the closer the Increment is to being released, the more realistic the feedback and subsequent adaptations

Do not Distribute

Two Types of Validation

1. Process Validation

is about inspecting and adapting **how** the team is working

2. Product Validation

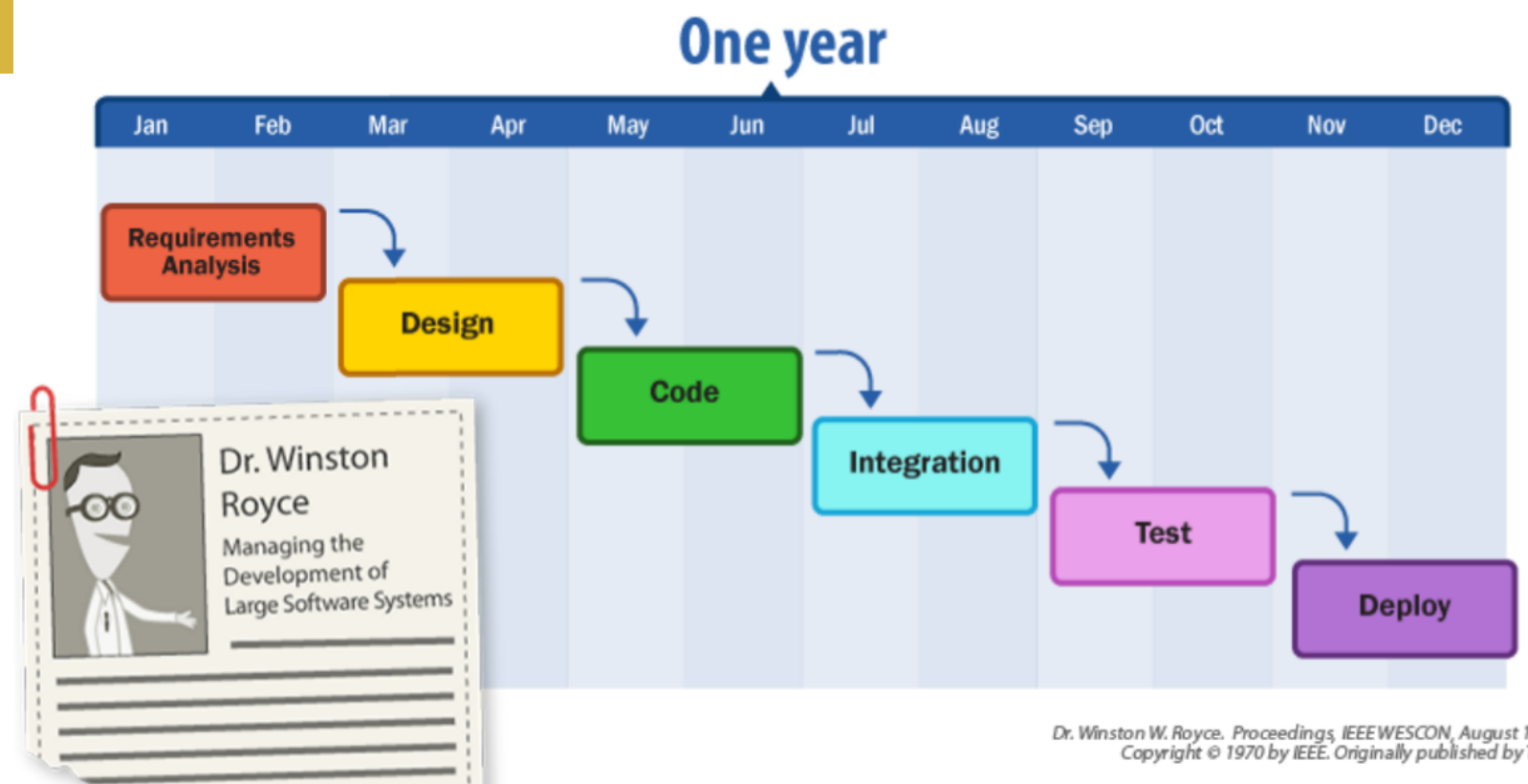
is about inspecting and adapting **what** the team is building.

What feedback loops we have in
Kanban Method for these two validations?

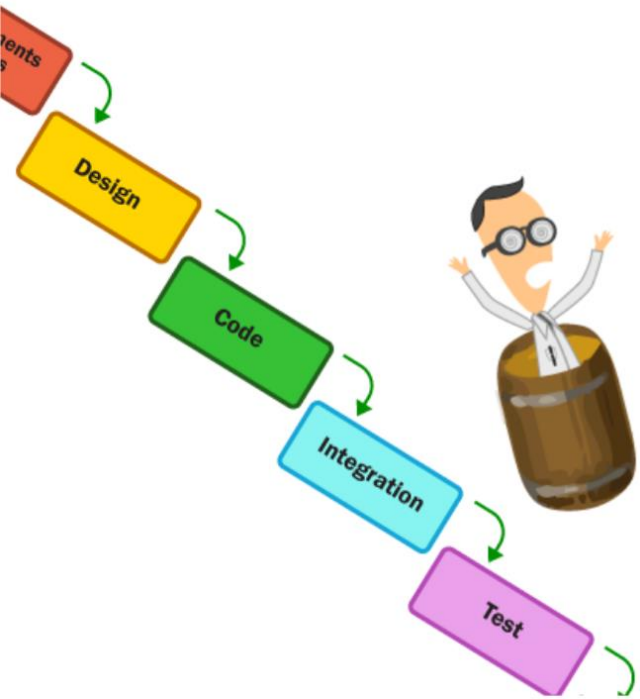
Development Approach

Do not Distribute

In 1970, Winston Royce publishes an article...



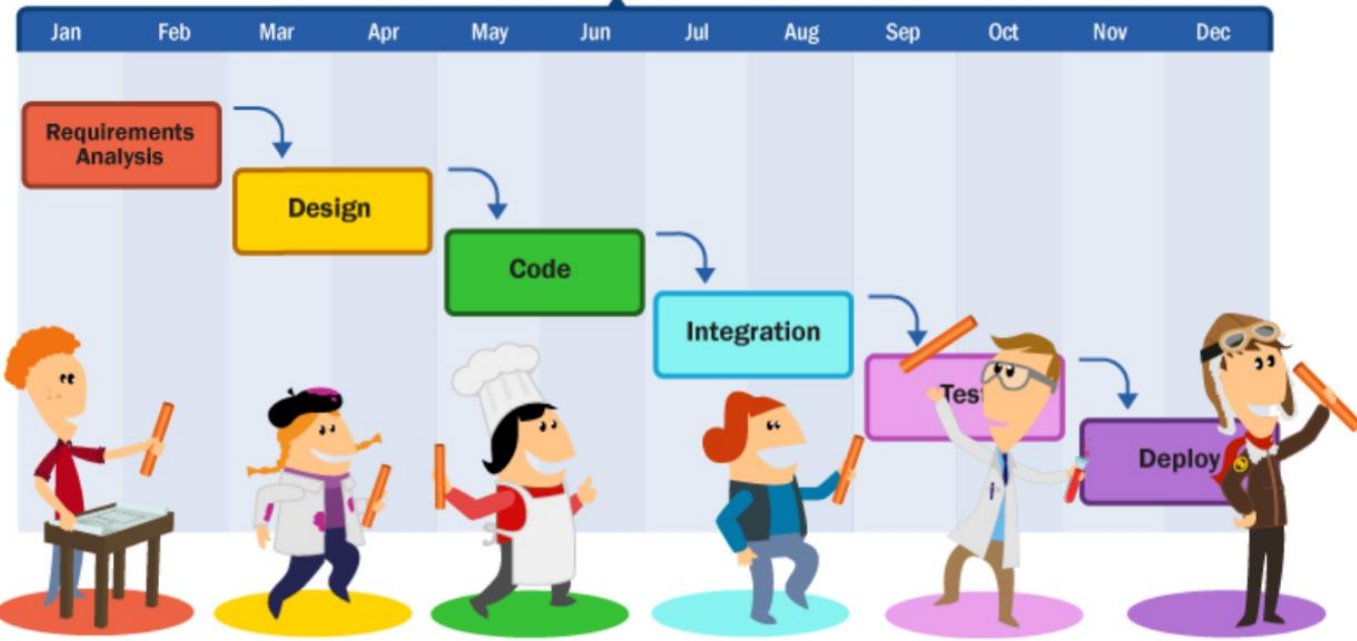
Dr. Winston W. Royce. Proceedings, IEEE WESCON, August 1970.
Copyright © 1970 by IEEE. Originally published by TRW.



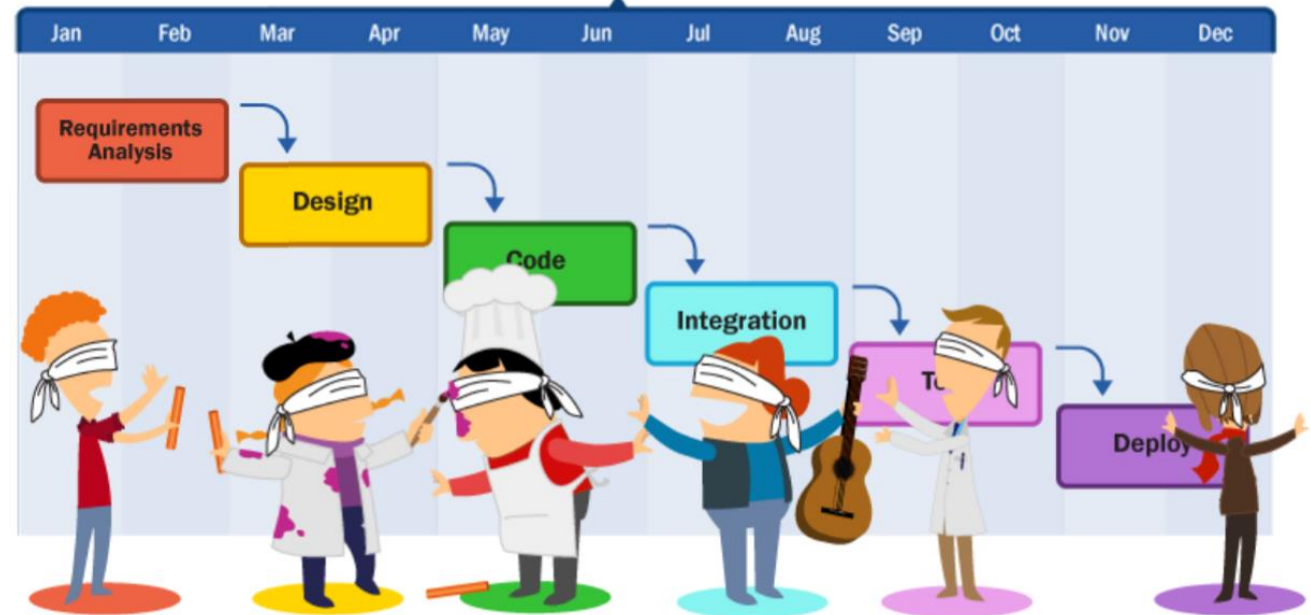
"I believe in this concept but, the implementation described above is **risky and invites failure.**"

Dr. Winston W. Royce. Proceedings, IEEE WESCON, August 1970.
Copyright © 1970 by IEEE. Originally published by TRW.

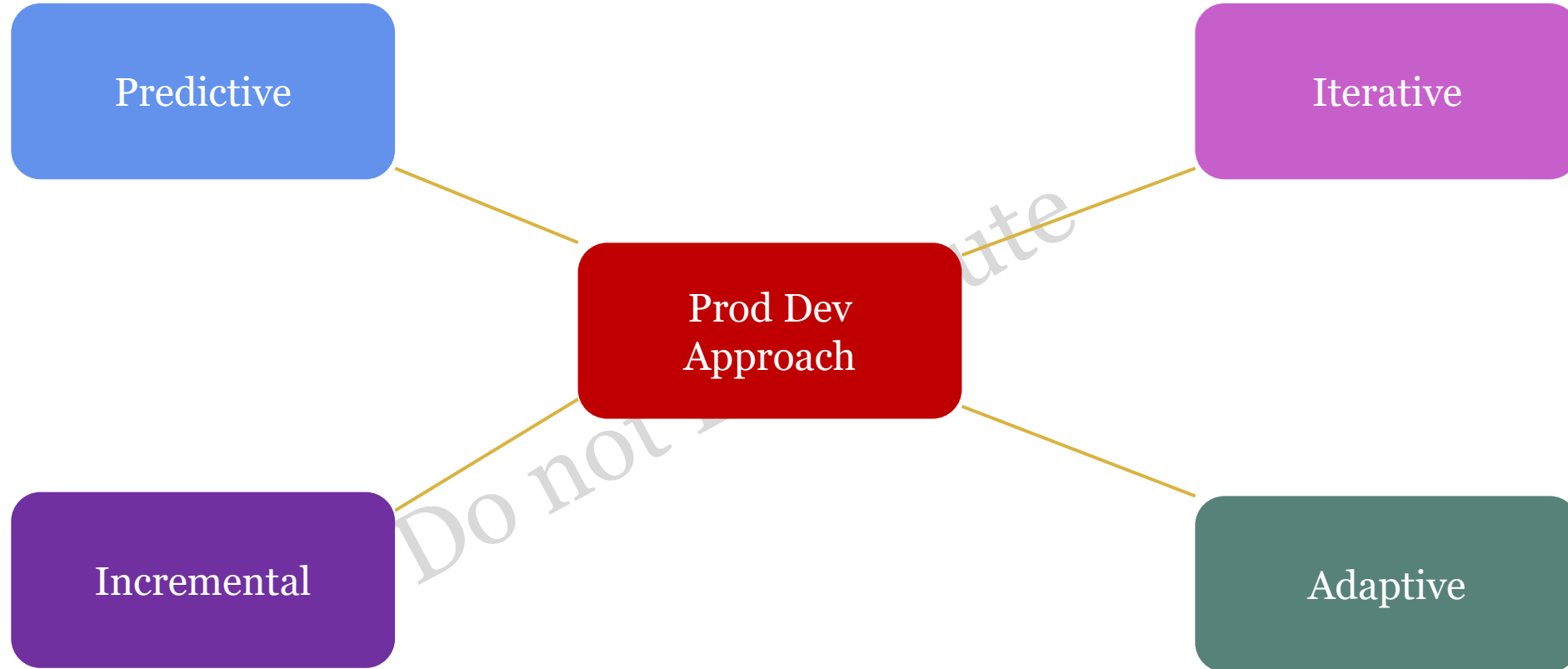
One year



One year



Product Development Approaches



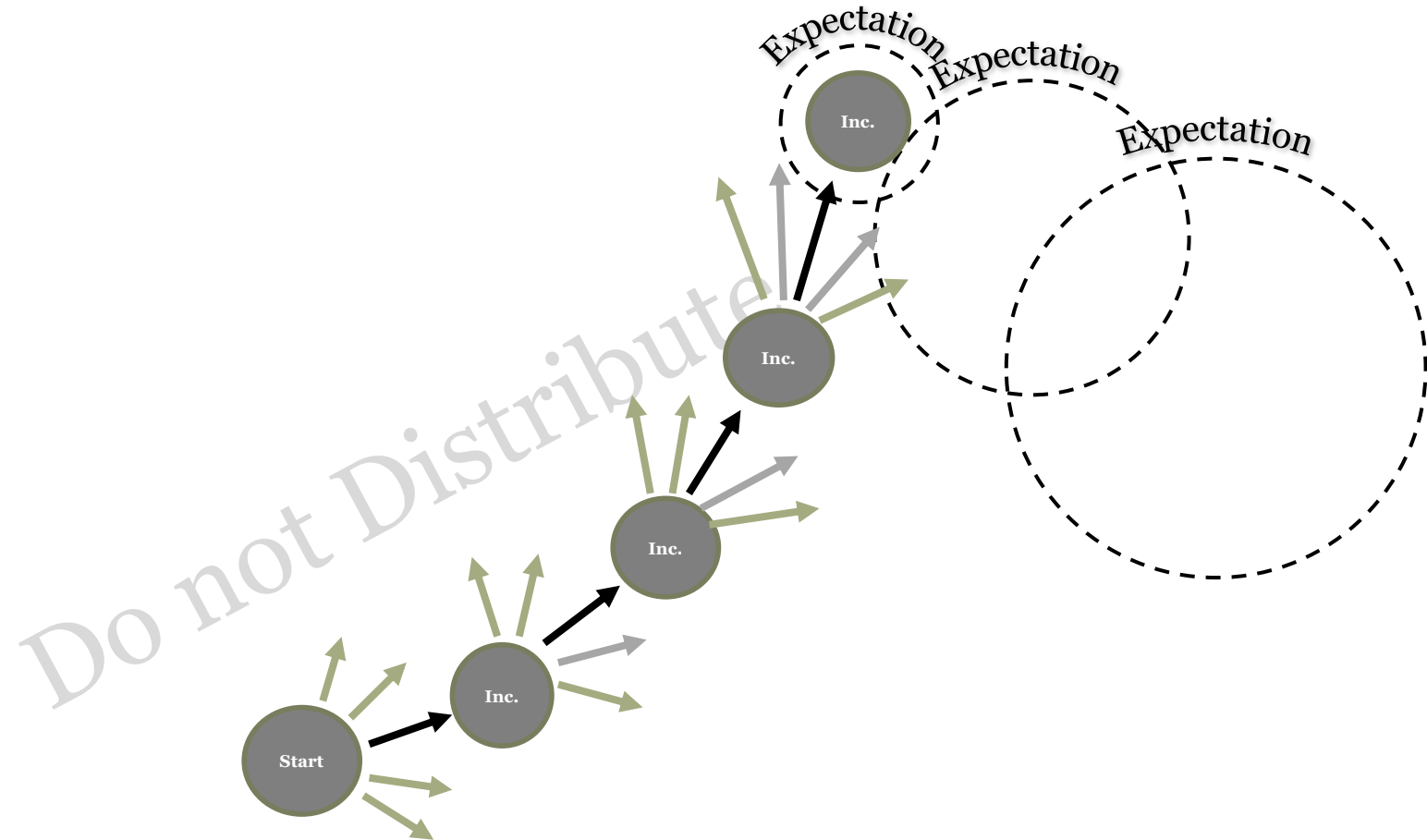
Wykowski, "Agile Software Development", 2006

Characteristics of Product Development Approaches

Characteristics				
Approach	Requirements	Activities	Delivery	Goal
Predictive	Fixed	Performed once for the entire project	Single delivery	Manage cost
Iterative	Dynamic	Repeated until correct	Single delivery	Correctness of solution
Incremental	Dynamic	Performed once for a given increment	Frequent smaller deliveries	Speed
Agile	Dynamic	Repeated until correct	Frequent small deliveries	Customer value via frequent deliveries and feedback

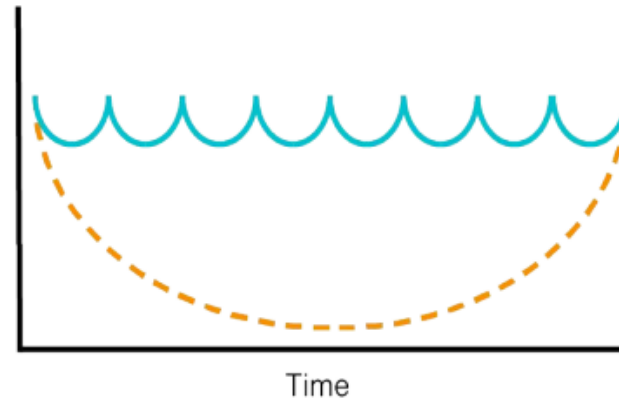
PMI, “PMBOK”, 6th edition

Adaptive Approach

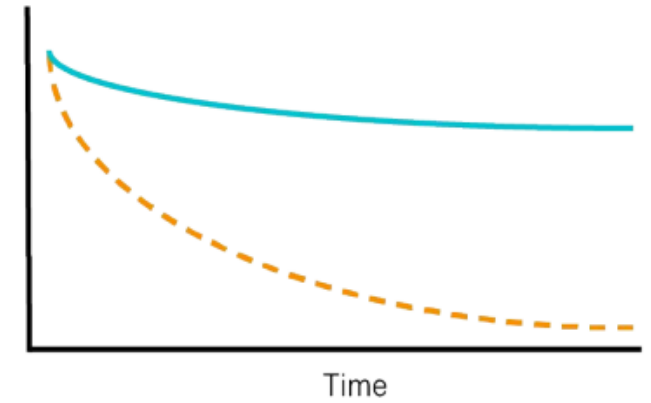


Comparing Evolution

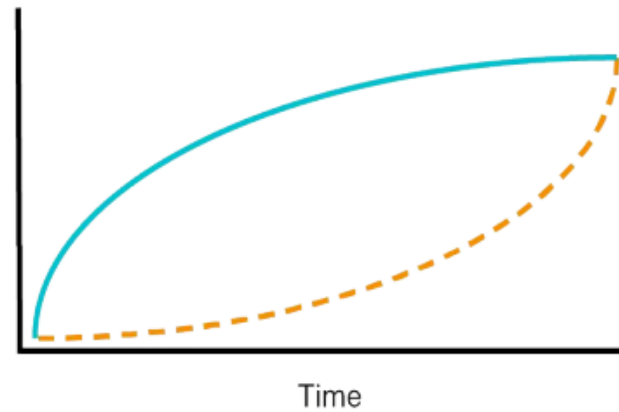
Visibility



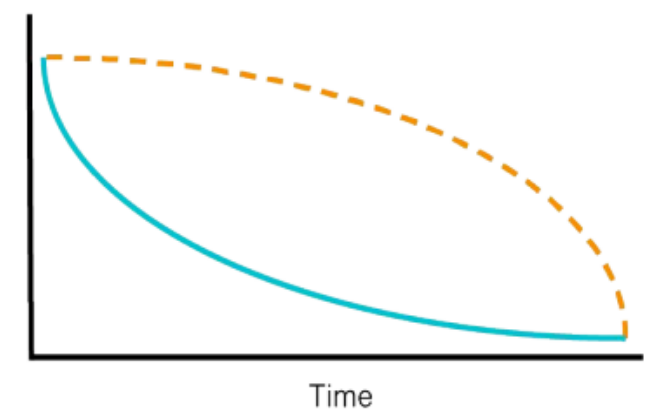
Ability to Change



Business Value

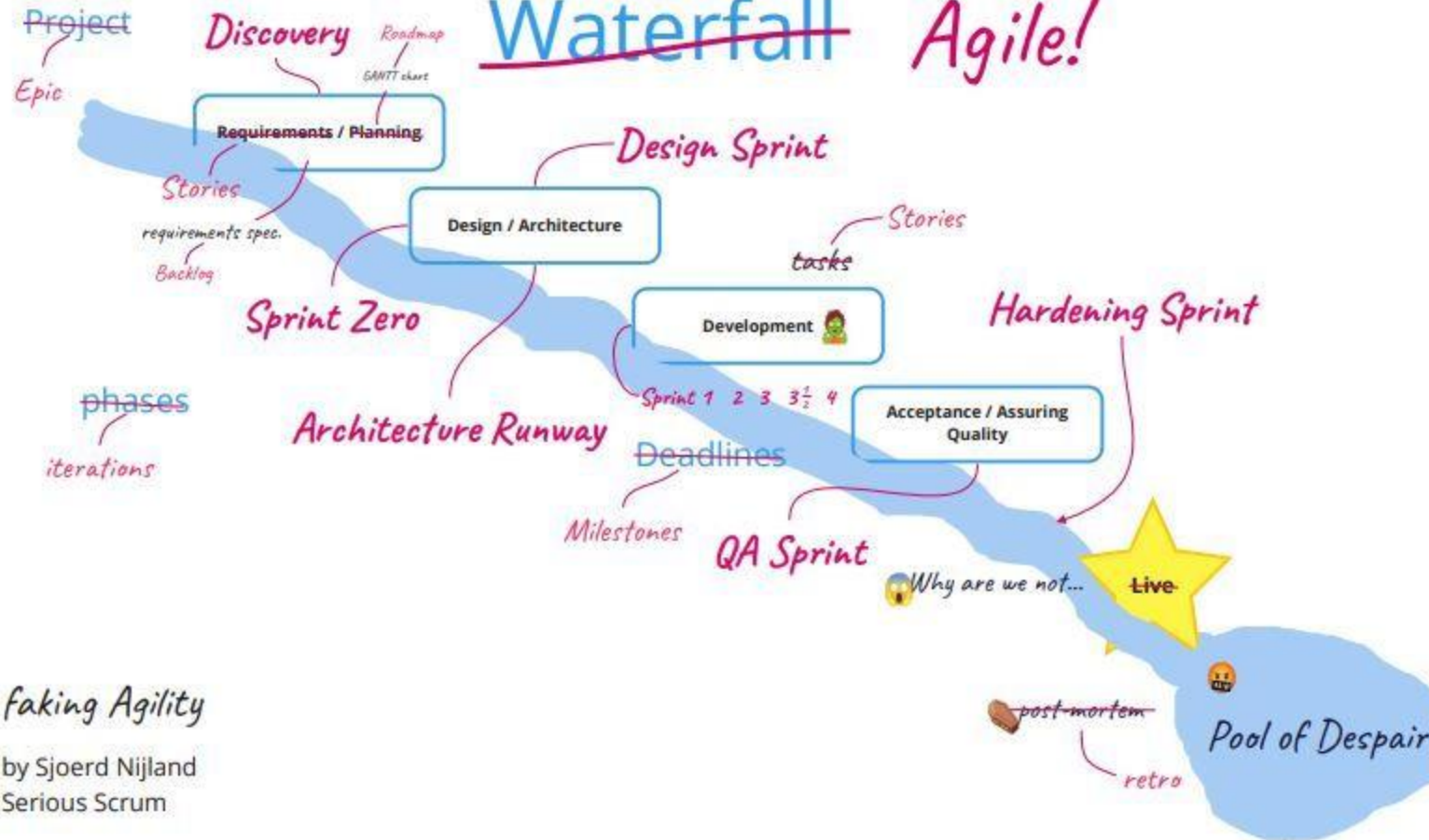


Risk



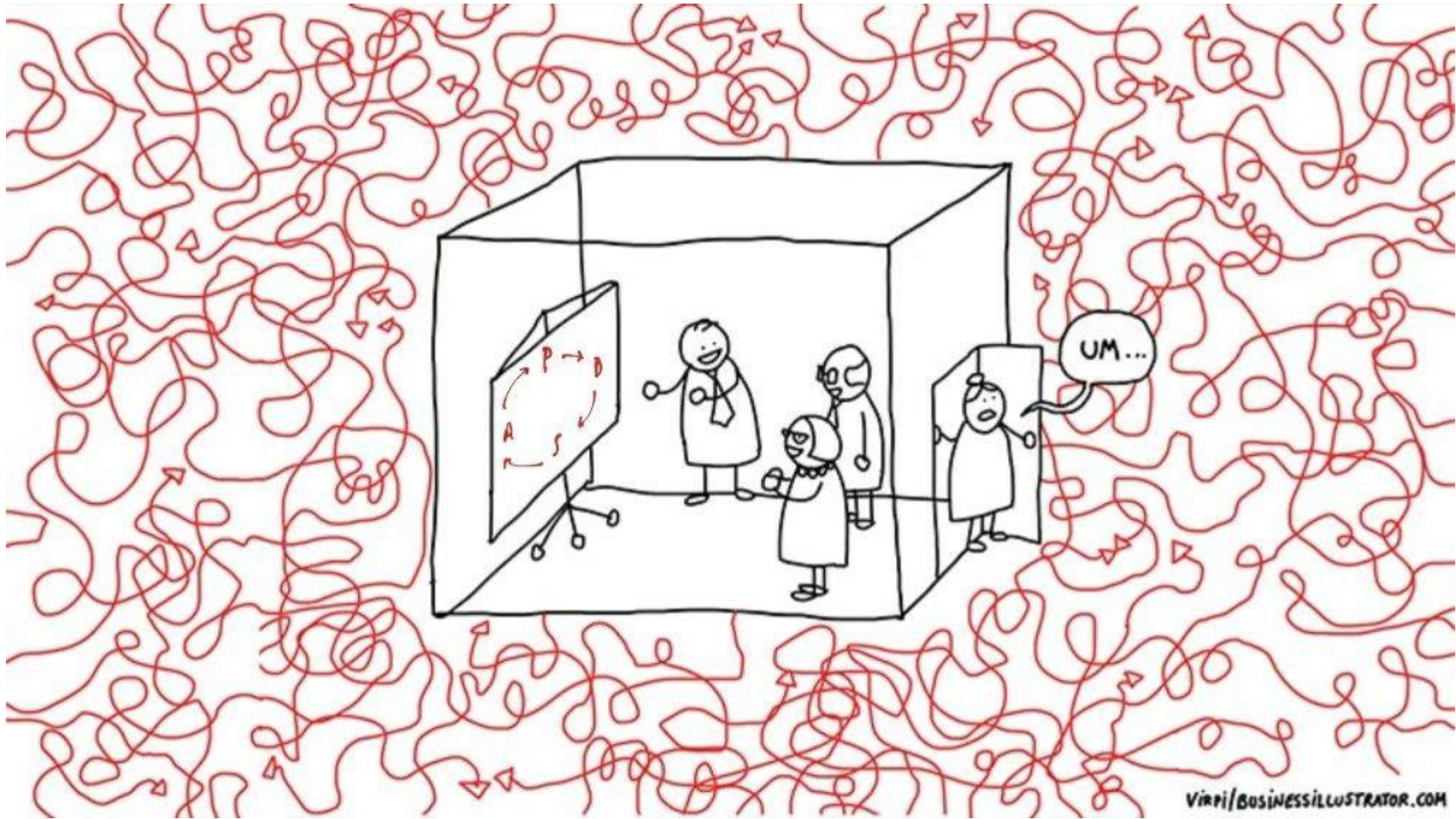
Agile Terminology Hacking
obscures rigid behavior

~~Waterfall~~ Agile!



Faking Agility

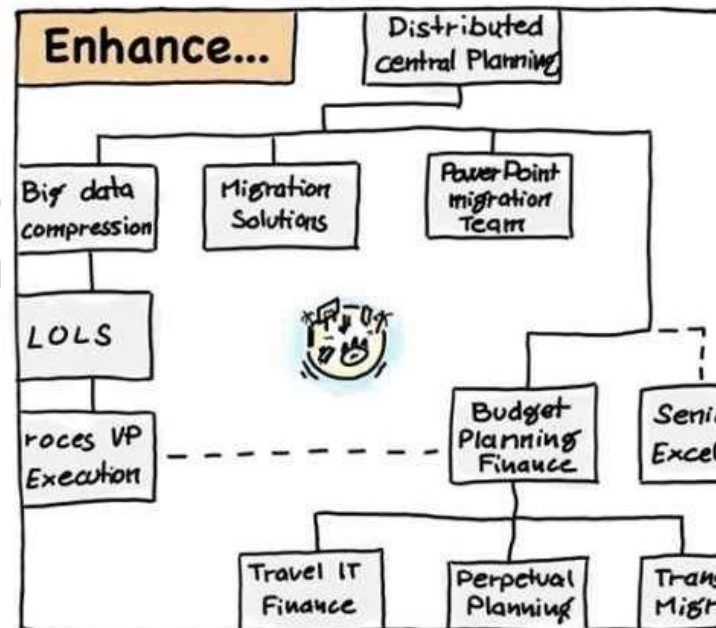
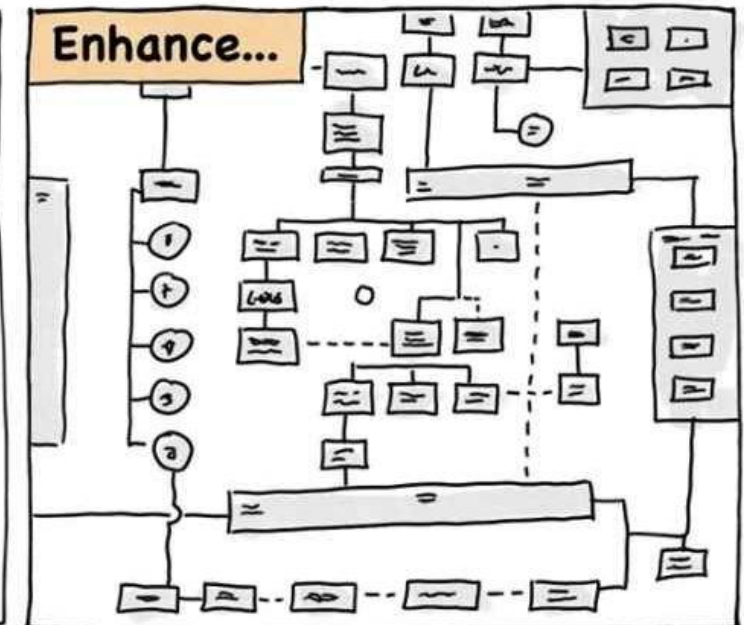
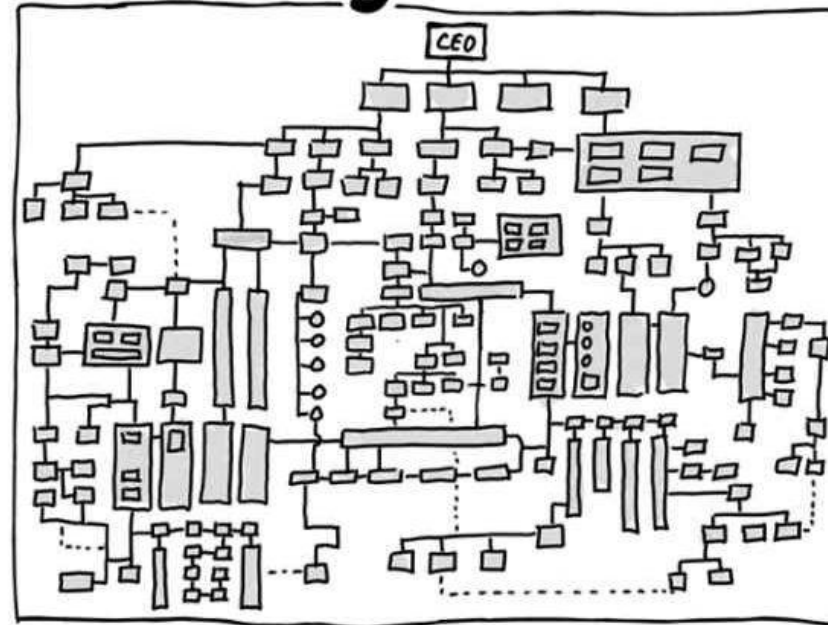
by Sjoerd Nijland
Serious Scrum



VIRPI/BUSINESSILLUSTRATOR.COM

Comic Agilé

An Agile island
In organization!



Part 2.5

Scrum Framework

Scrum doesn't solve your problems.

People do.



Agile Socks
Nimble. Resilient. Creative.

Comic Agilé

Using Scrum to become agile...



...is like using a scale to lose weight



Created by Luxshan Ratnaravi & Mikkel Noe-Nygaard

Scrum: what's in a name?

“...as in Rugby, the ball gets passed within the team as it moves as a unit up the field.”

- Takeuchi-Nonaka – *The New New Product Development Game* (1986)



Scrum, the Heart of Lean

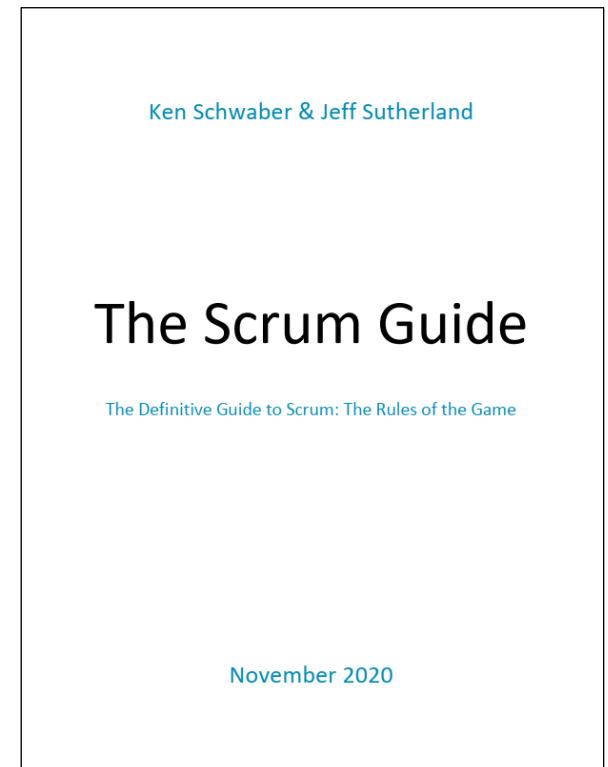
Definition of Scrum

Scrum /noun/

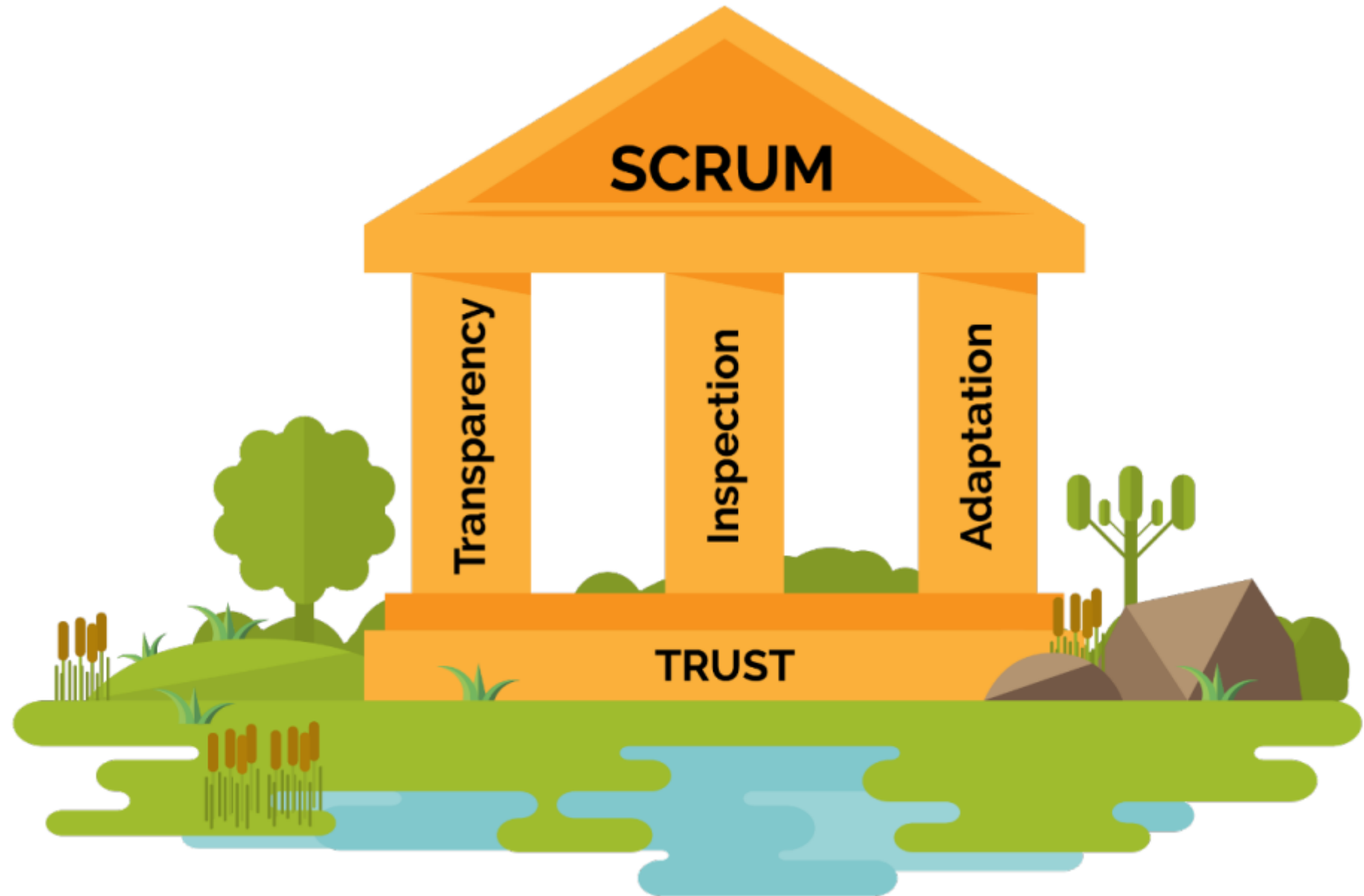
A lightweight framework that helps people, teams, and organizations generate value through adaptive solutions for complex problems

Scrum is:

- Lightweight tool for enabling business agility
- Simple and purposefully incomplete



Three Pillars of Empiricism



Transparency

From “the Scrum Guide” (2020)

- Significant aspects of the process must be visible to those responsible for the outcome.
- Transparency requires those aspects be defined by a common standard so observers share a common understanding of what is being seen.
- For example:
 - A common language referring to the process must be shared by all participants; and,
 - Those performing the work and those inspecting the resulting increment must share a common definition of “Done.”

Inspection

From “the Scrum Guide” (2020)

- Scrum users must frequently inspect Scrum artifacts and progress toward a Sprint Goal to detect undesirable variances.
- Their inspection should not be so frequent that inspection gets in the way of the work.
- Inspections are most beneficial when diligently performed by skilled inspectors at the point of work.

Adaptation

From “the Scrum Guide” (2020)

- If an inspector determines that one or more aspects of a process deviate outside acceptable limits, and that the resulting product will be unacceptable, the process or the material being processed must be adjusted.
- An adjustment must be made as soon as possible to minimize further deviation.
- Scrum prescribes four formal events for inspection and adaptation...

Scrum Values

The Scrum values



(Gunther Verheyen – Ullizee-Inc)

Do not Distribute

Scrum Values

- Scrum is more about behavior than it is about process.
- The framework of Scrum is based upon five core values.

Although these values were not invented as a part of Scrum, and are not exclusive to Scrum, they do give direction to the work, behavior and actions in Scrum (when understood appropriately against the background of complexity and empiricism).

- Values drive behavior.

Scrum Values



Courage

- The players show courage by **not building stuff that nobody wants**. Courage in admitting that requirements **will never be perfect** and that **no plan can capture reality and complexity**.
- They show the courage to **consider change as a source of inspiration and innovation**. Courage to **not deliver undone versions of product**. Courage in **sharing all possible information** that might help the team and the organization. Courage in admitting that nobody is perfect. Courage to **change direction**. Courage to **share risks and benefits**. Courage to let go of the faint certainties of the past.
- The players show courage in promoting Scrum and empiricism to deal with complexity.
- They show courage to **take a decision, act and make progress, not grind**. And even more **courage to change that decision**.
- They show the courage to support the Scrum Values.

Comic Agilé – The Scrum Values

Courage

Therefore, let's accept that the Iron Triangle won't hold, and let's embrace change instead of dreading it. Value added is our measurement of progress, not hours burned. We want self-managing teams who work directly with the customers, so let's cut the excess fat like Project Managers and Line Managers.



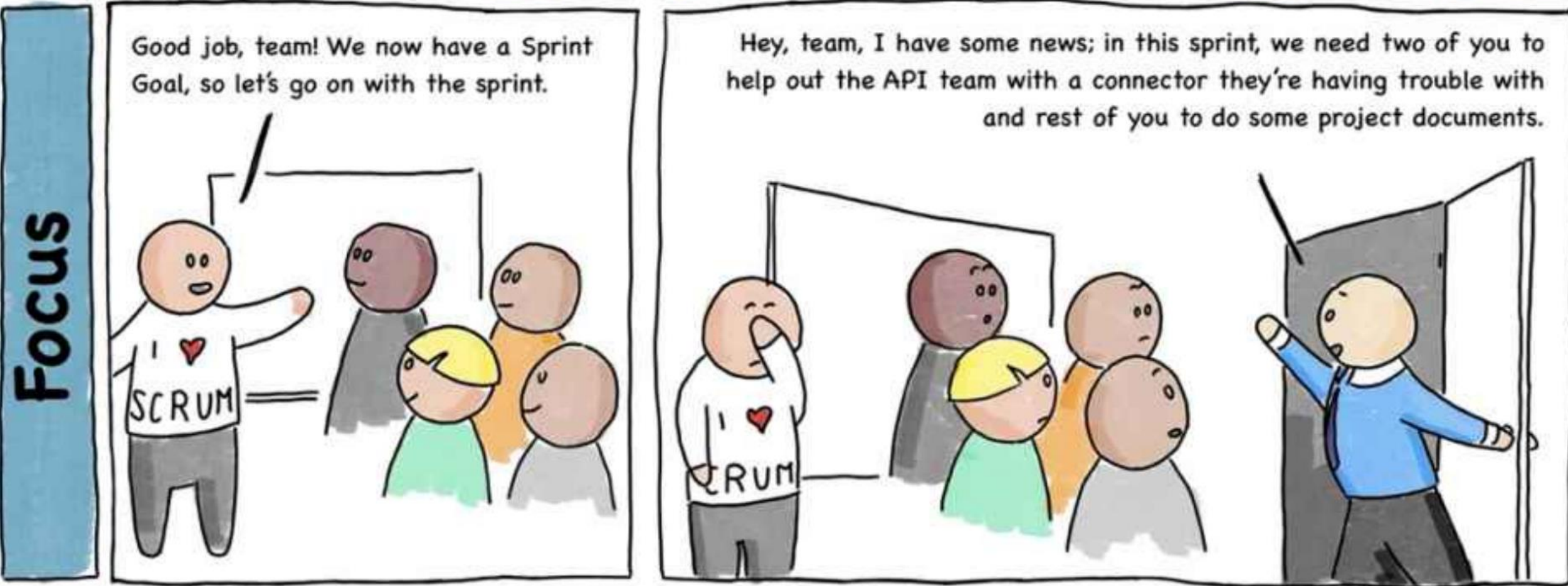
Pack your things.



Focus

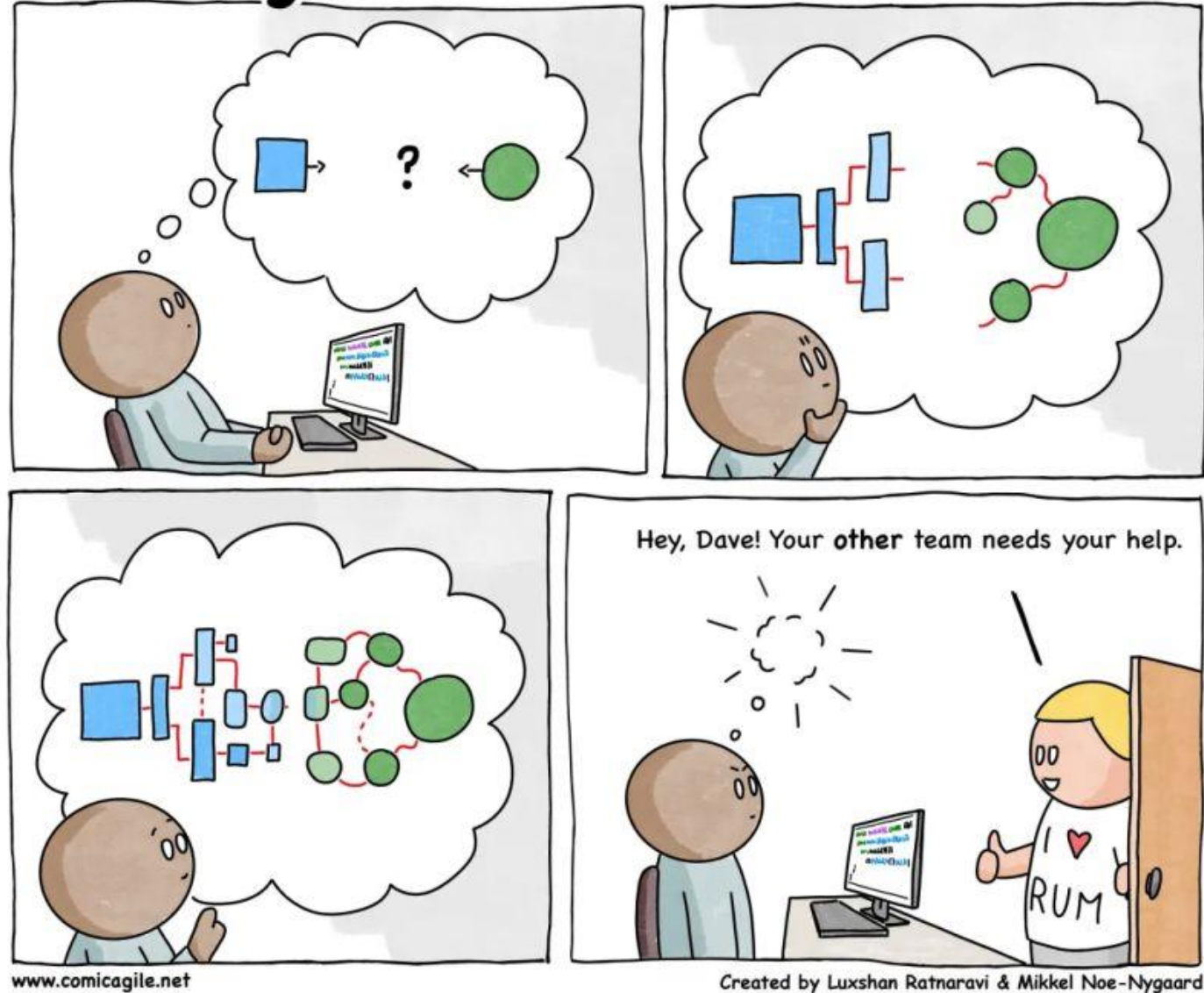
- The balanced but distinct accountabilities of Scrum enable all players to focus on their expertise.
- The **time-boxing** of Scrum encourages the players to focus on **what's most important now** without being bothered by considerations of **what might stand a chance of becoming important** at some point in the future. They focus on what they know now.
- YAGNI (**'You Ain't Gonna Need It'**), a principle from eXtreme Programming, helps in retaining that focus.
- The players focus on **what's imminent** as the future is highly uncertain and they want to learn from the present in order to gain experience for future work. They focus on the work needed to get things done. They focus on the **simplest thing that might possibly work**.

Comic Agilé – The Scrum Values



The need for concentration

Comic Agilé

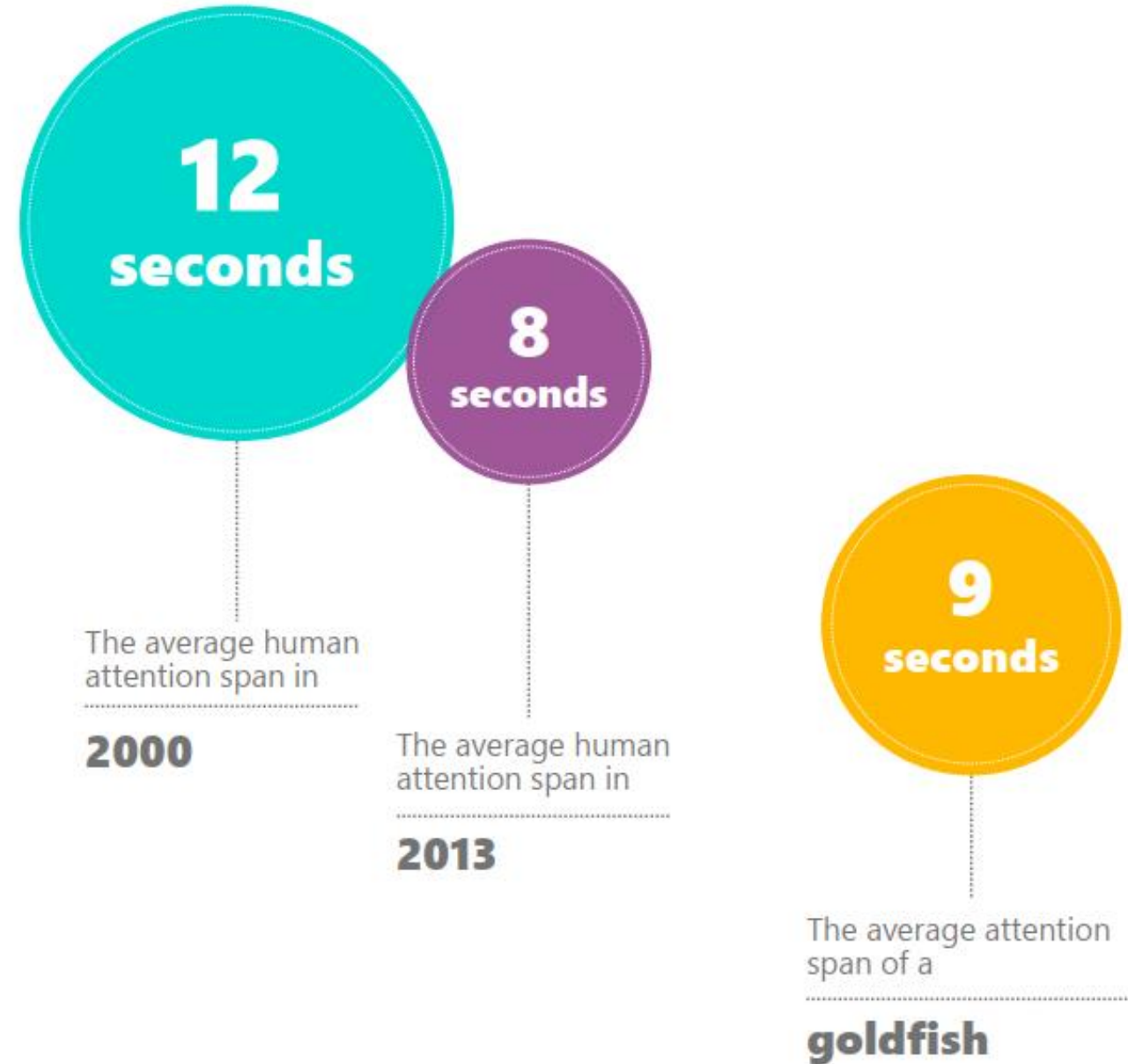


Human attention is dwindling



Microsoft Research
(2015)

Do not Disturb



Commitment

- The general definition of ‘commitment’ is
“the state or quality of being dedicated to a cause, activity, etc.”.
- It can be illustrated by a team’s trainer stating,
“I could not fault my players for commitment” (although they might have just lost a game).
- This describes exactly how commitment is intended in Scrum.
- Commitment is about **dedication** and applies to the **actions and the intensity of the effort**.
- It is **not about the final result**, as this in itself is often **uncertain and unpredictable** for complex challenges in complex circumstances.

Misinterpretation of commitment

- Yet, there was a widely spread misinterpretation of the word commitment in a context of Scrum.

This originates mainly from the past expectation expressed in the Scrum framework saying that teams should 'commit' to a Sprint.

- Through the lens of the traditional, industrial paradigm this was wrongly translated into an expectation that all scope selected at the Sprint Planning would be completed by the end of the Sprint, no matter what would happen.
- 'Commitment' was wrongly converted into a hard-coded contract.

Commitment

- In the complex, creative and highly unpredictable worlds that Scrum helps us navigate,
 - a promise to deliver an exact output or scope against time and budget is not possible.
 - **Too many variables** influencing the outcome are unknown or may behave in unpredictable ways.
- To better reflect the original intent and connect more effectively to empiricism, 'commitment' in the context of scope for a Sprint was replaced with '**forecast**'.

Do not Distribute

Commitment as a Core Value:

The players commit to the team. Commit to quality. Commit to collaborate. Commit to learn. Commit to do the best they can, every day again. Commit to the Sprint Goal. Commit to act as professionals. Commit to self-organize. Commit to excellence. Commit to the Agile values and principles. Commit to create working versions of product. Commit to look for improvements. Commit to the definition of Done. Commit to the Scrum framework. Commit to deliver value. Commit to finish work. Commit to inspect and adapt. Commit to transparency. Commit to challenge the status-quo

Comic Agilé – The Scrum Values



Respect

- The broader Scrum ecosystem thrives on respect for people, their experience and their personal background.

The players respect diversity. They respect different opinions. They respect each other's skills, expertise and insights.

- They respect the wider environment by not behaving as an isolated entity in the world.

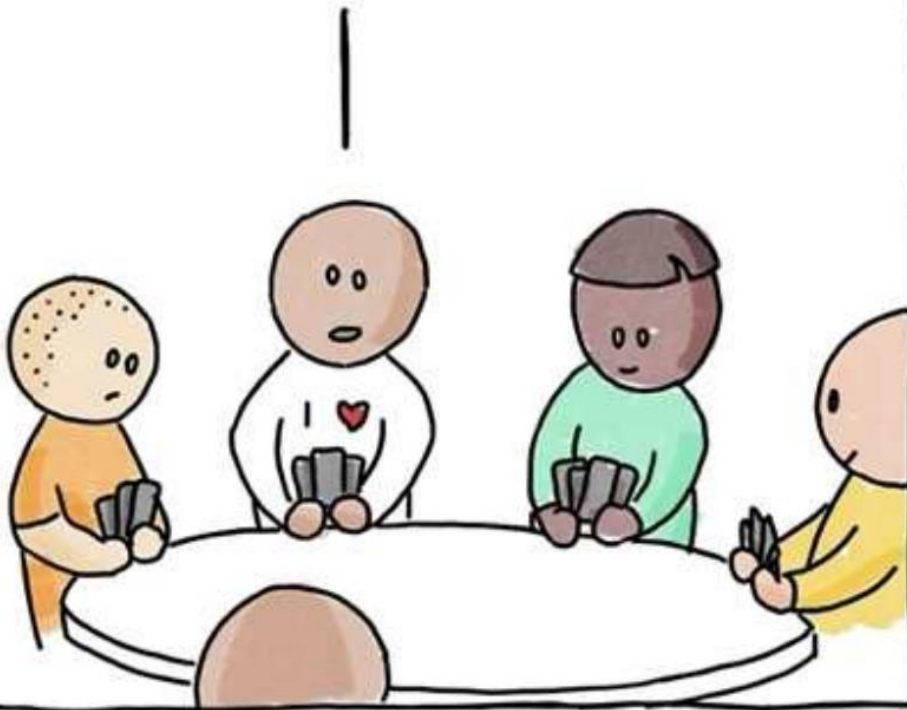
They respect the fact that customers change their mind. They show respect for the sponsors by not building or keeping functions that are never used and that increase the cost of the product. They show respect by not wasting money on things that are not valuable, not appreciated or might never be implemented or used anyhow. They show respect for users by fixing their problems.

- All players respect the Scrum framework. They respect the accountabilities of Scrum.

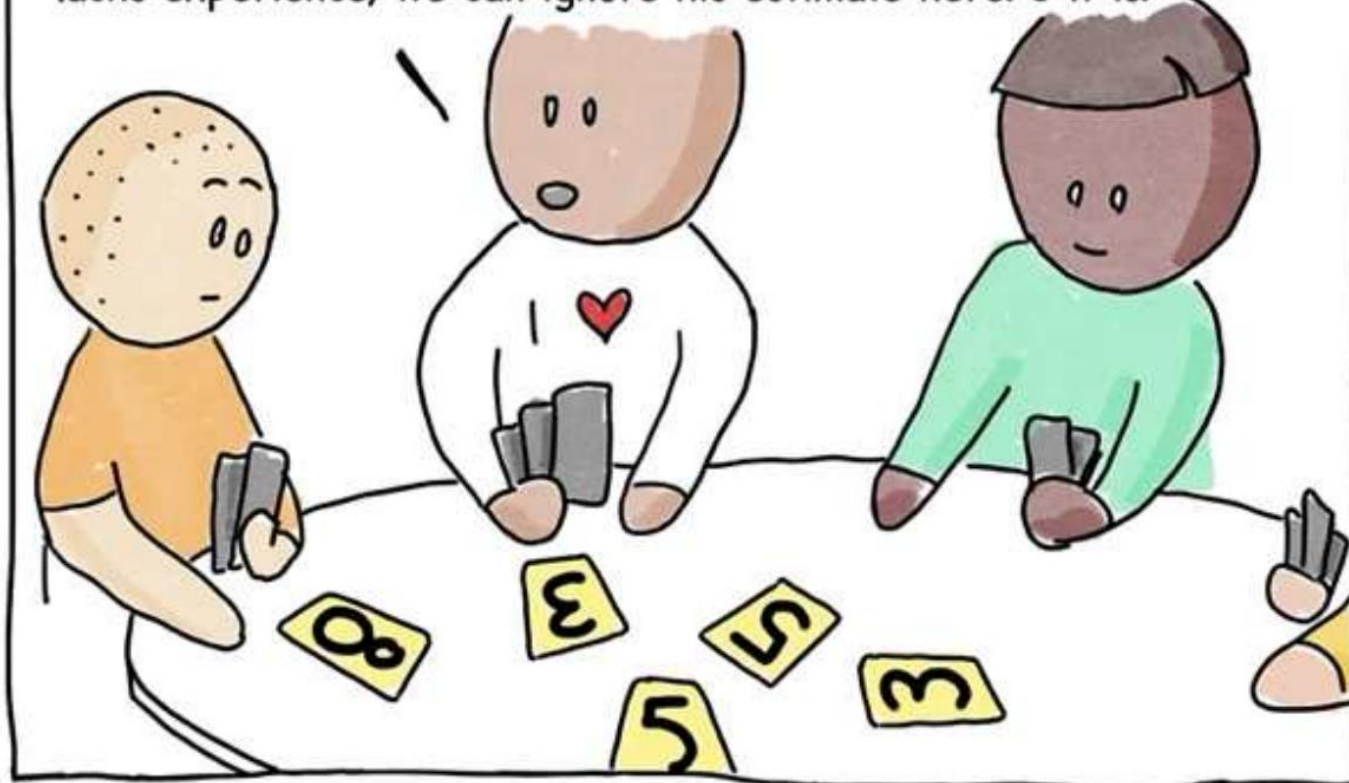
Comic Agilé – The Scrum Values

Respect

So, now that the details are clarified, let's estimate. 3, 2, 1, go.



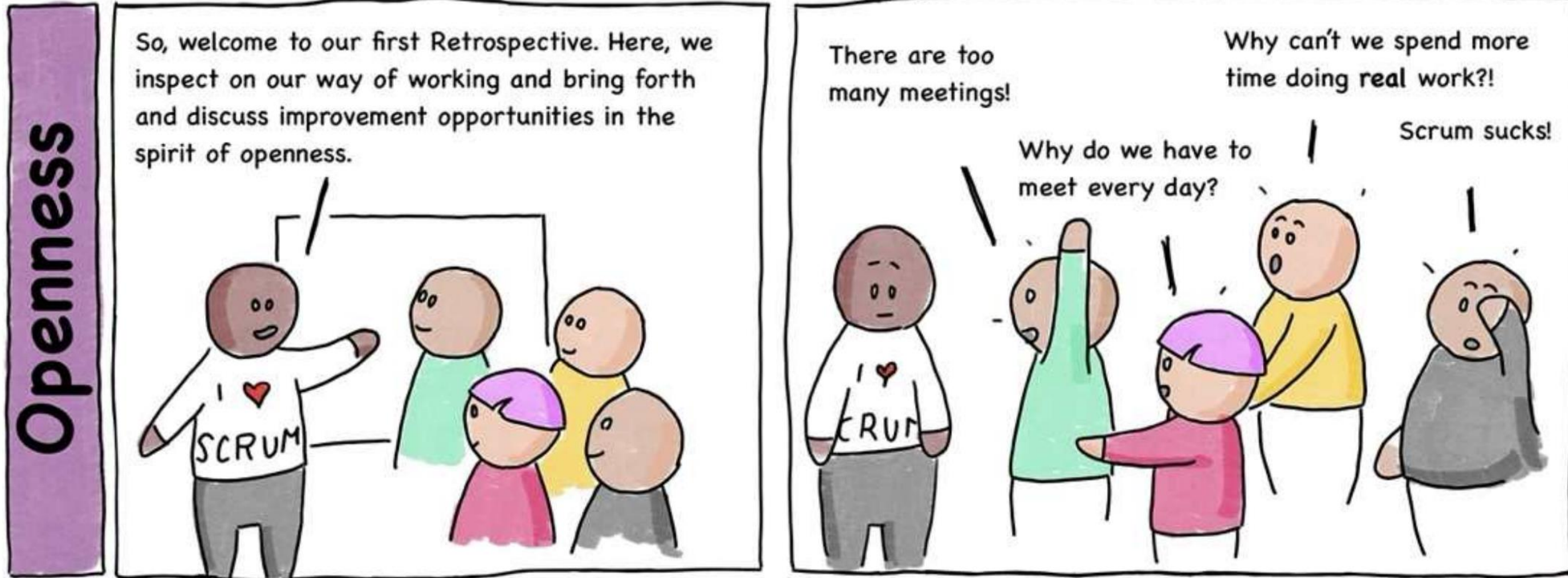
I see Sam estimating an 8, but since he is pretty new and lacks experience, we can ignore his estimate here. 5 it is.



Openness

- The empiricism of Scrum requires transparency, openness, and honesty.
 - The player-inspectors want to check on the current situation in order to make sensible adaptations. The players are open about their work, progress, learnings and problems.
 - But they are also open for people, and working with people; acknowledging people to be people, and not 'resources', robots, cogs or replaceable pieces of machinery.
- The players are **open to collaborate across disciplines, skills and job descriptions**.
 - They are open to collaborate with stakeholders and the wider environment. Open in sharing feedback and learning from one another.
- They are **open for change** as the organization and the world in which they operate change; unpredictably, unexpectedly and constantly.

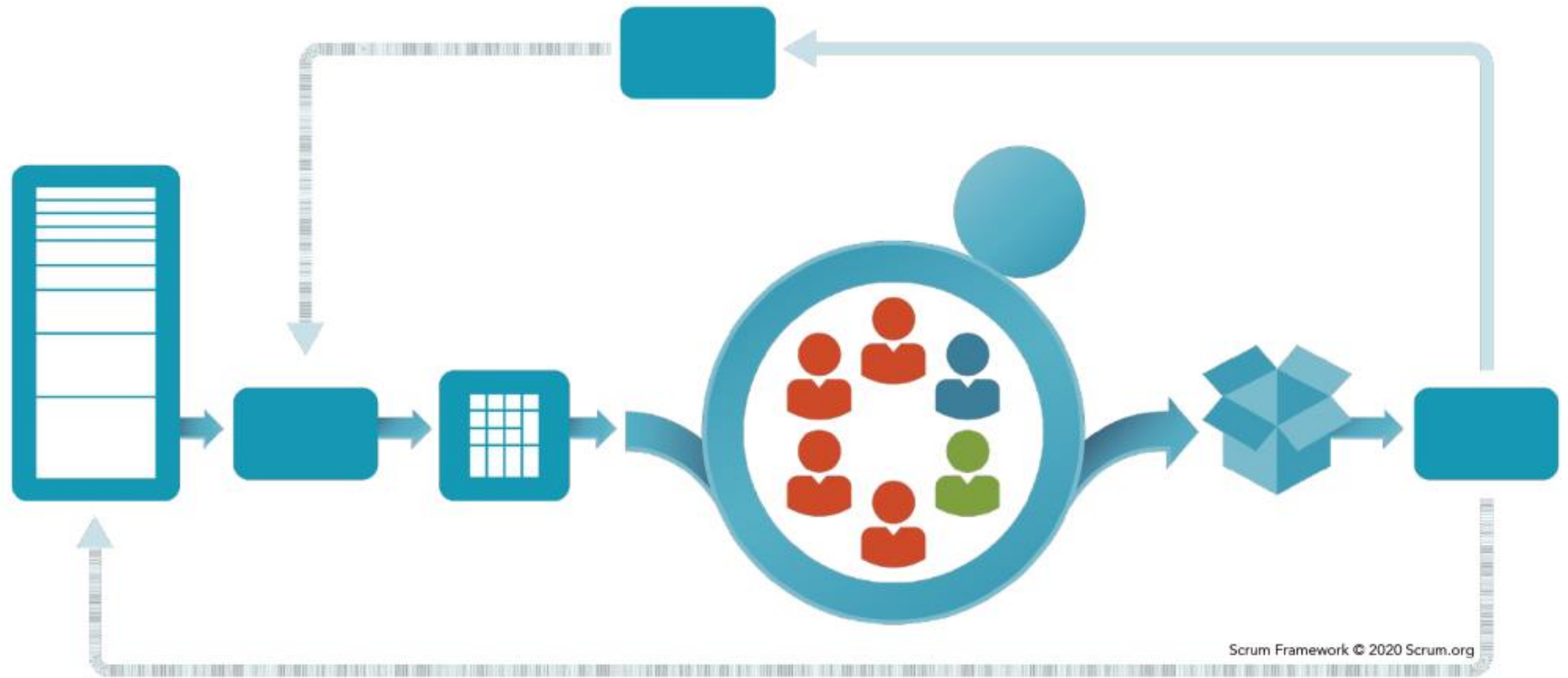
Comic Agilé – The Scrum Values



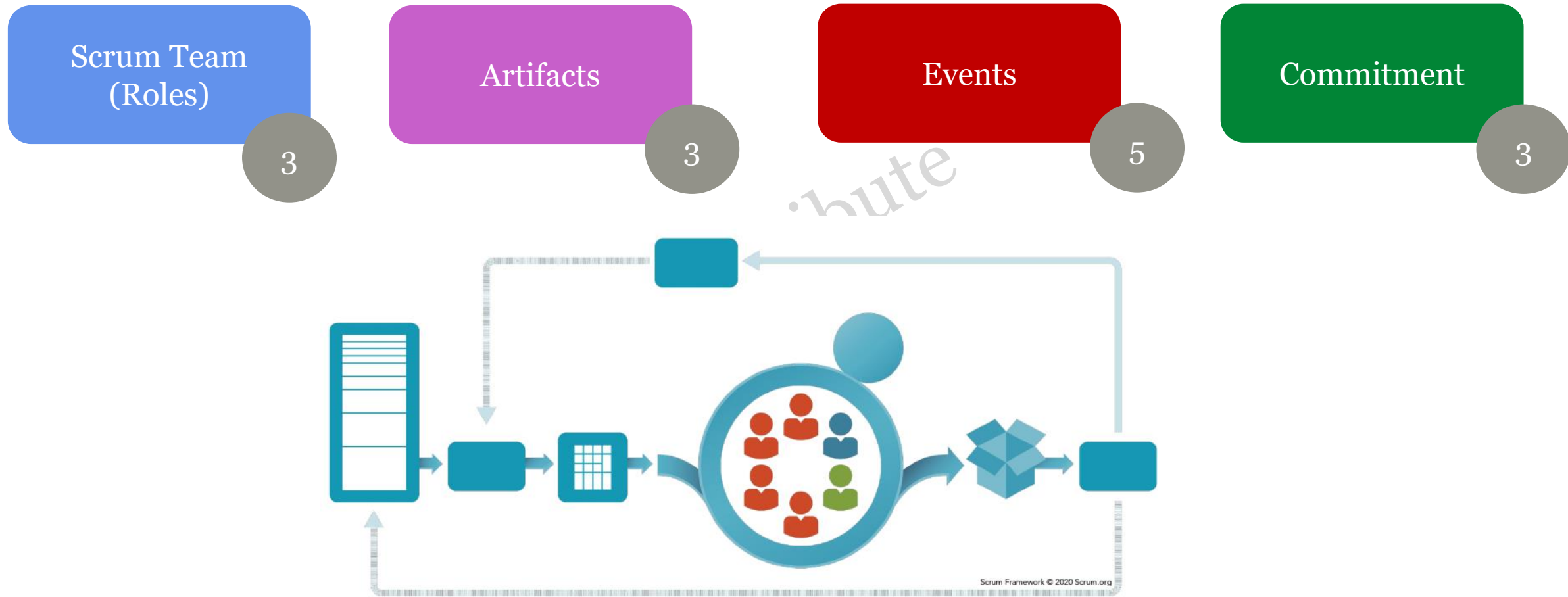
The Scrum Framework

Do not Distribute

Scrum Framework Overview



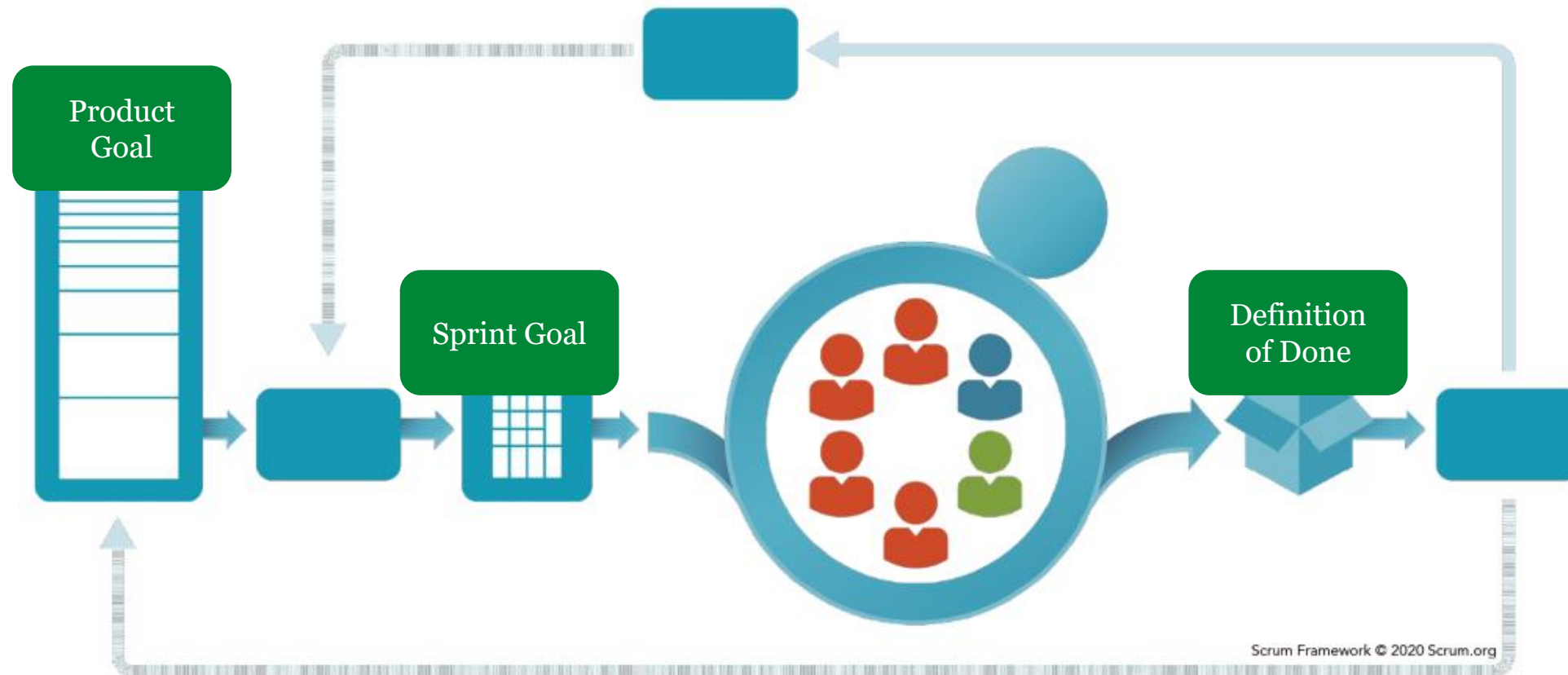
Scrum Team, Artifacts, Events, Commitment



Scrum Team, Artifacts, Events, Commitment

Commitment

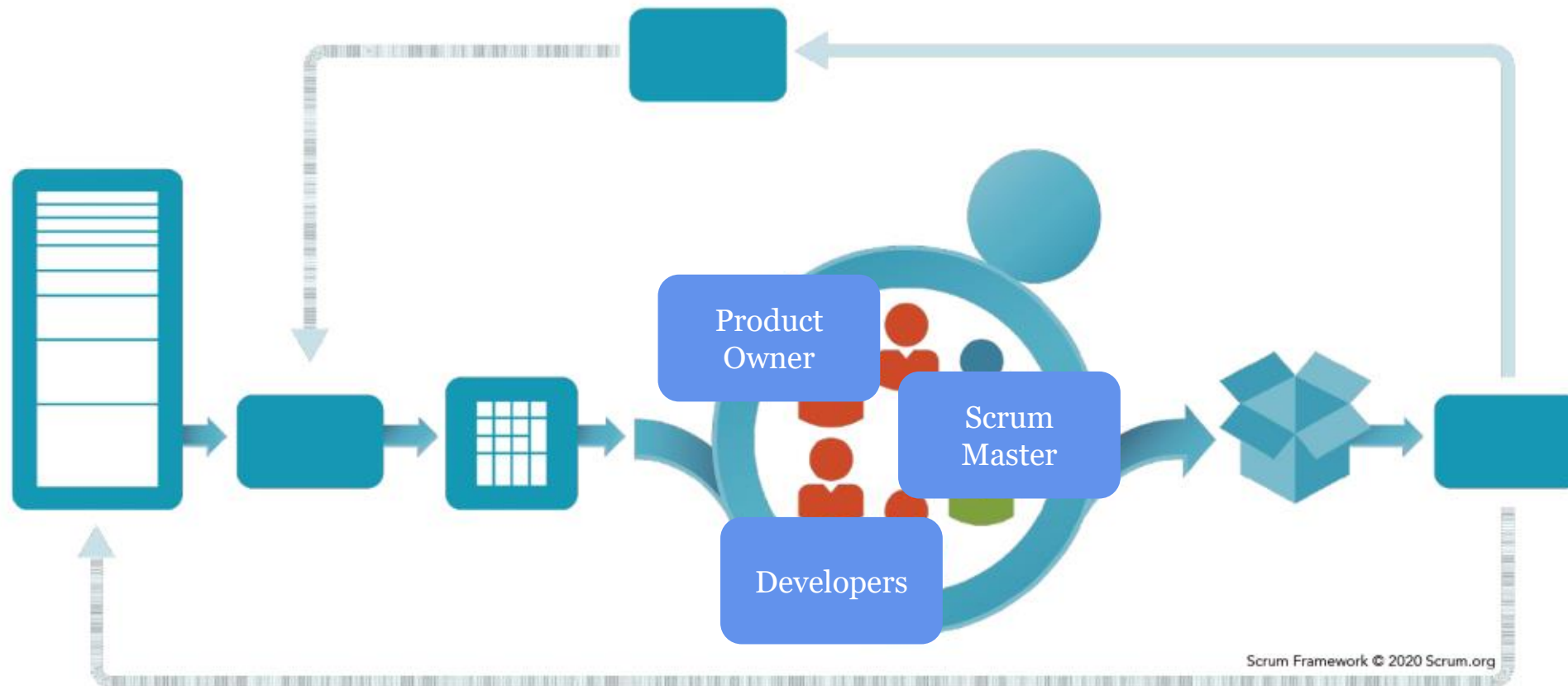
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Scrum Team, Artifacts, Events, Commitment

Scrum Team
(Roles)

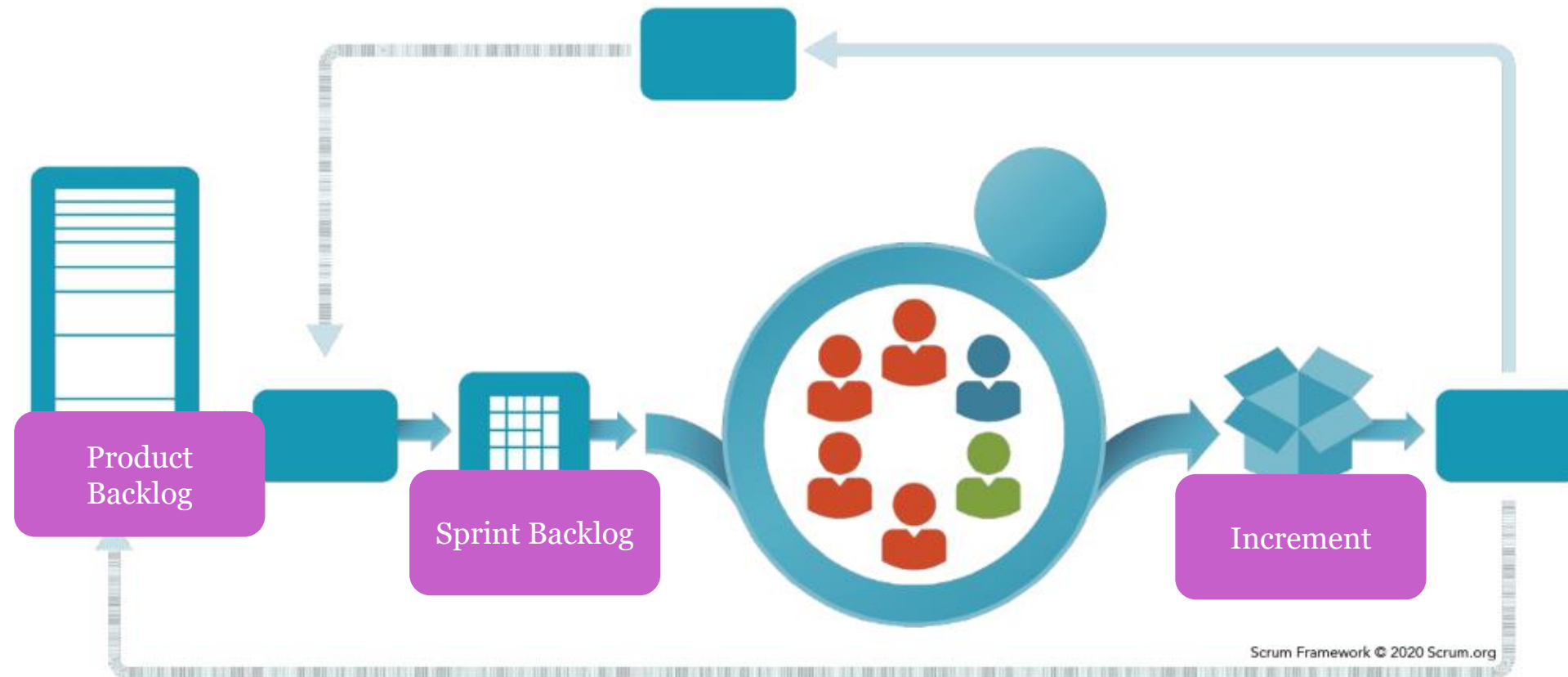
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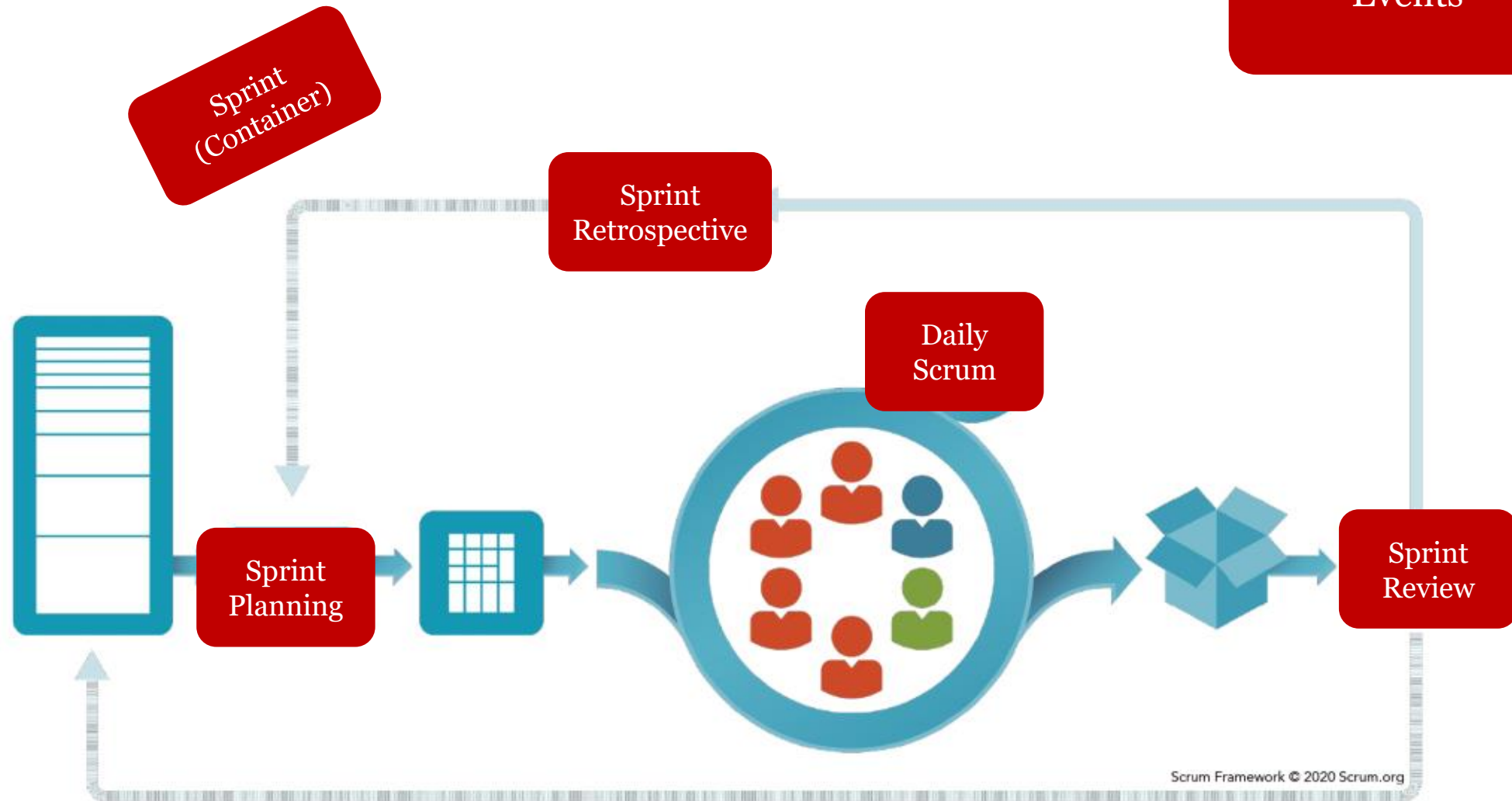
Scrum Team, Artifacts, Events, Commitment

Artifacts

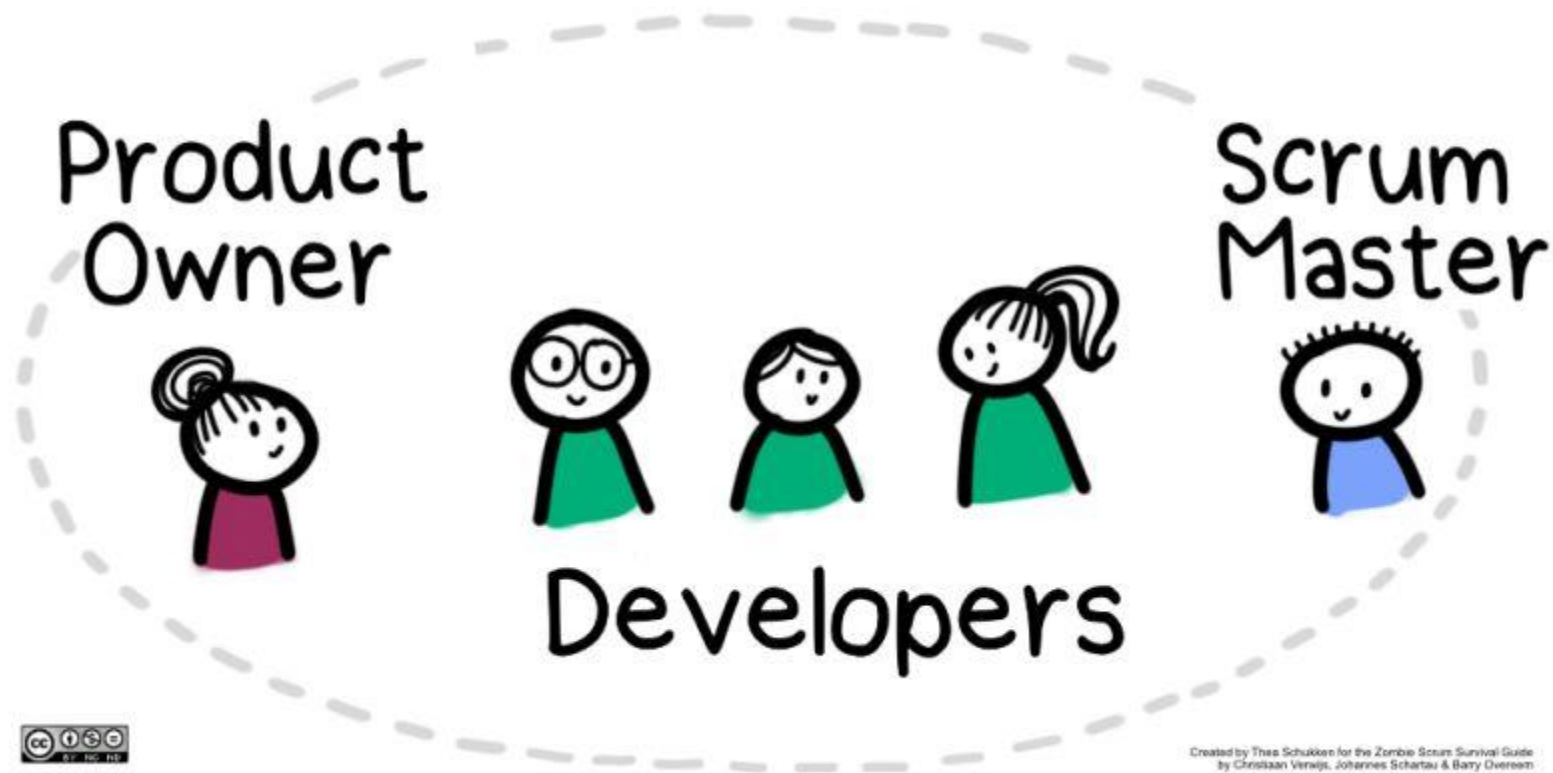
3



Scrum Team, Artifacts, Events, Commitment



MEET THE SCRUM TEAM!



Scrum Team – Specific Accountabilities



Product Owner

- Optimizes value of the product
- Manages the Product Backlog



+ Developers

- Instills quality
- Manages the Sprint Backlog



+ Scrum Master

- Enables Scrum Team effectiveness
- Manages the Scrum framework



= **SCRUM
TEAM**

- Creates Increments every Sprint
- Is self-managing & cross-functional

A Sprint is an Agreement

Scrum Team

“Every Sprint you can have us do something new as you see fit.”

FLEXIBILITY

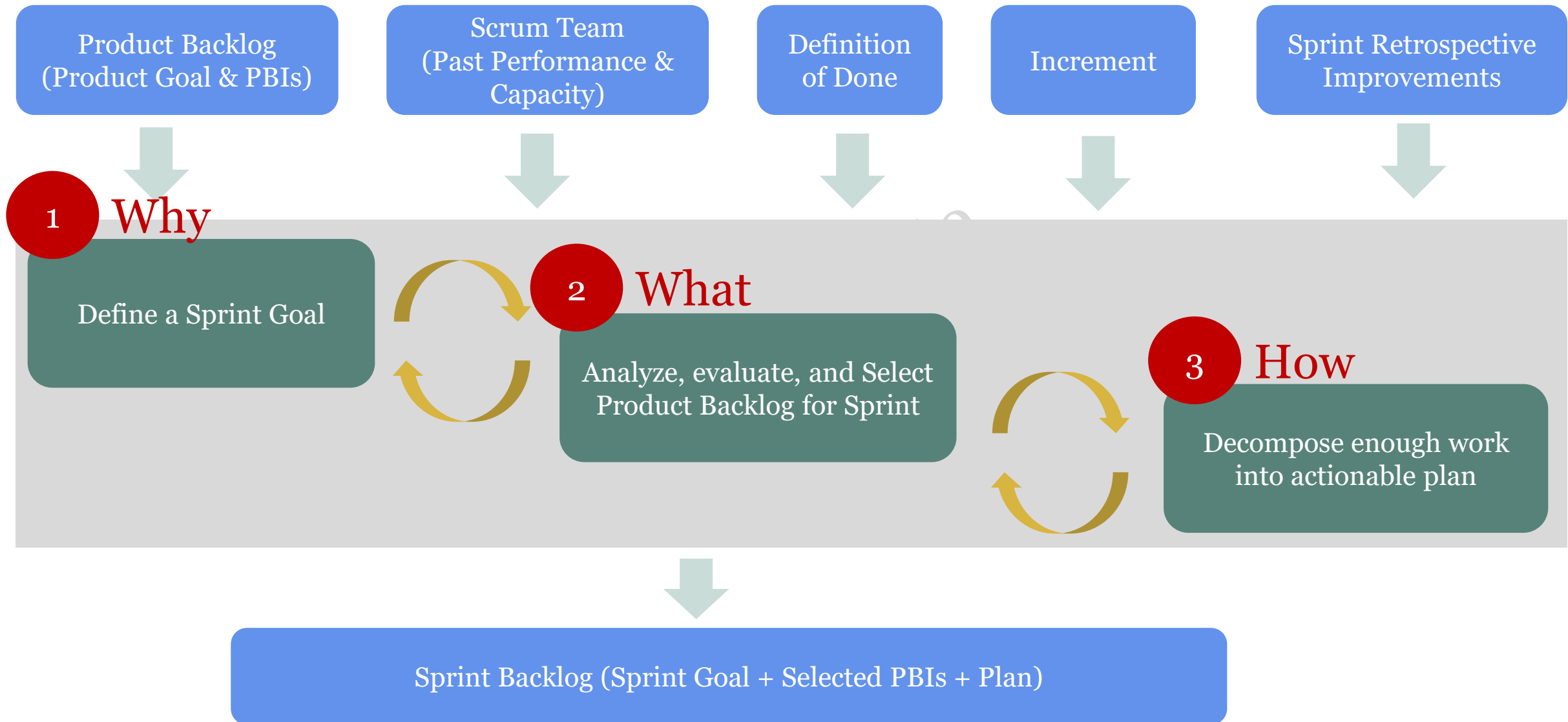
Stakeholders

“We leave you alone to let you work on what we need most.”

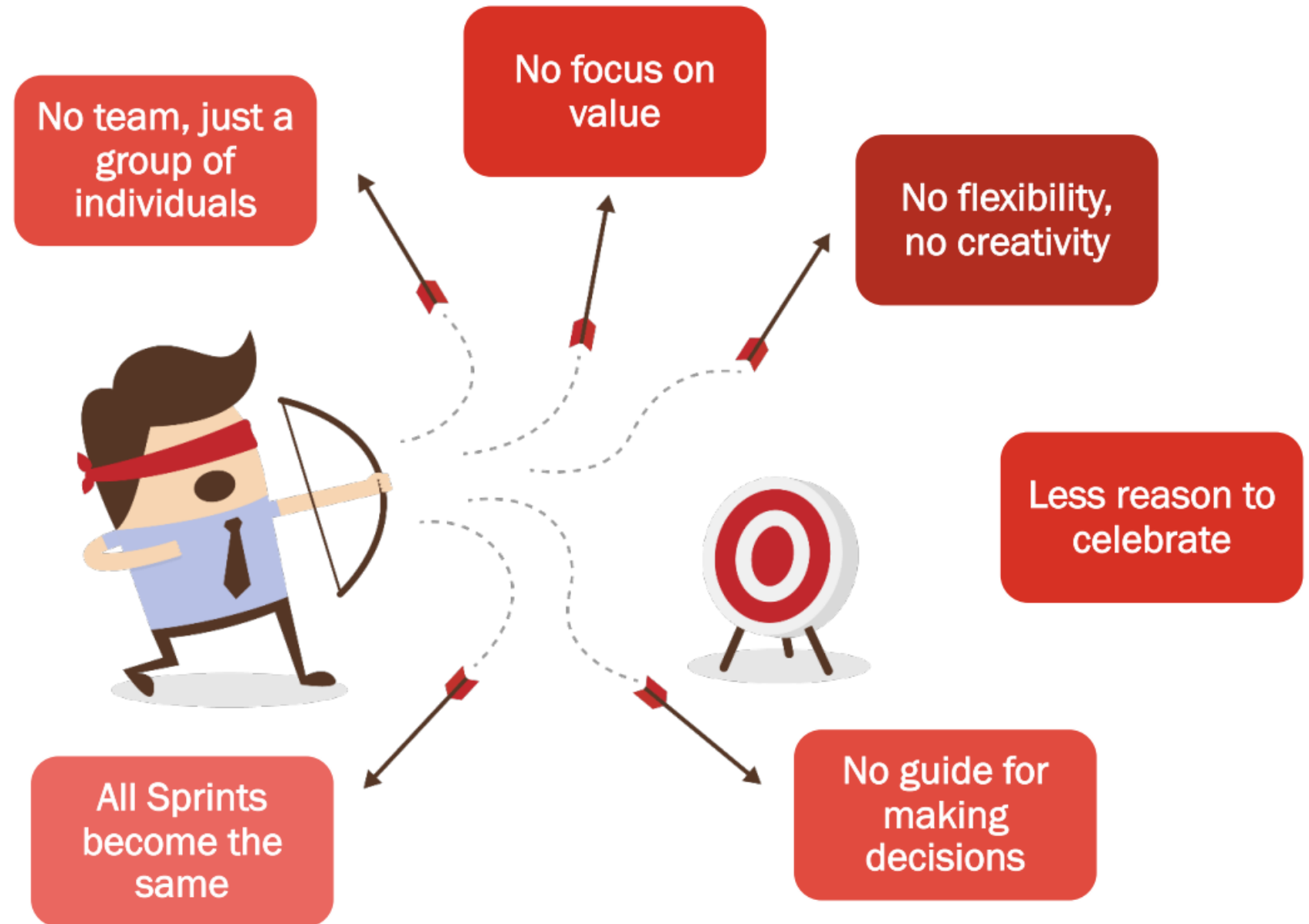
STABILITY

The Entire Point of Scrum is to create a Done Increment.

Sprint Planning Flow

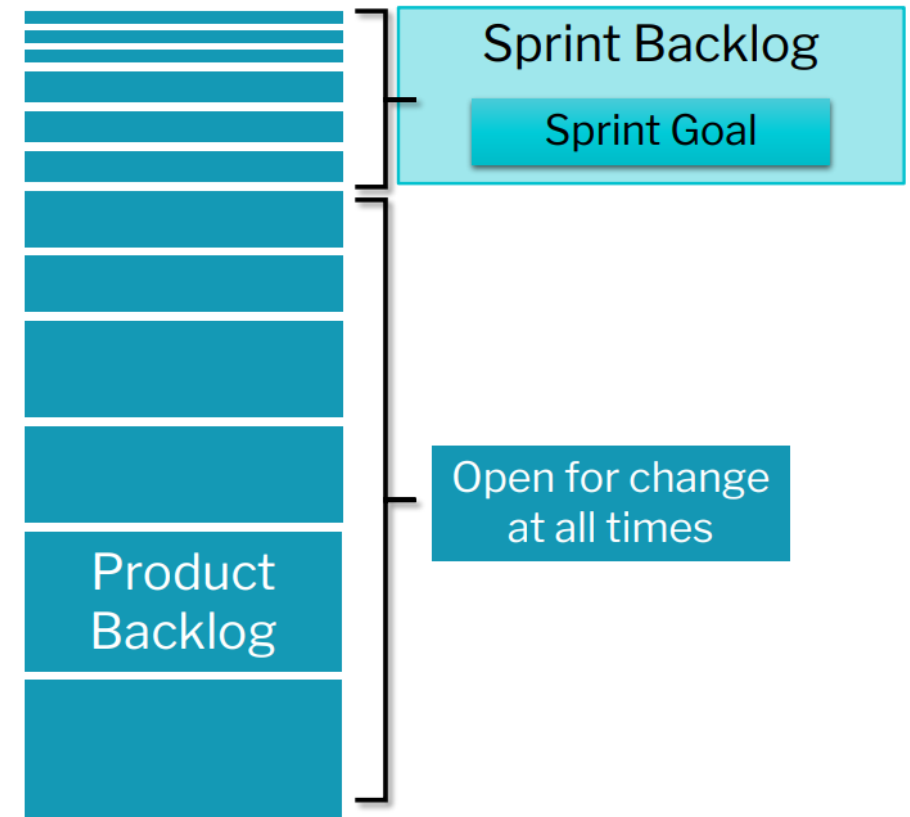


Without Sprint Goals



Sprint Goal is a Commitment

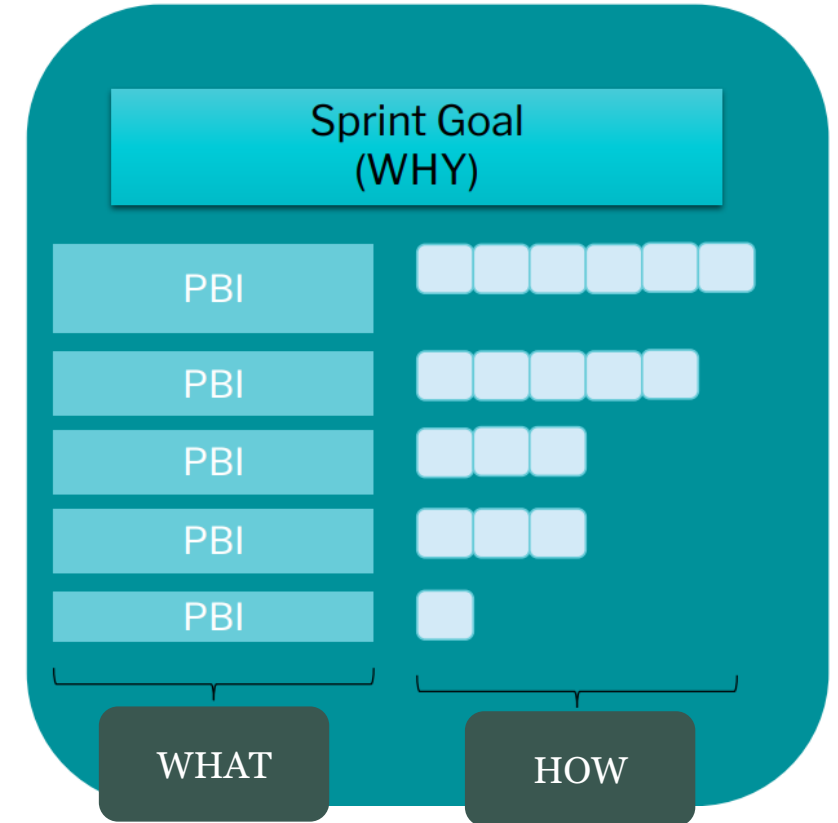
- Sprint Goal is the **single objective** for the sprint (the **Why**)
- It provides **guidance, focus, and flexibility** on **how the functionality is implemented**.
- Sprint Scope may be **re-negotiated** upon Sprint learning, without affecting the Sprint Goal.



- After items are selected to be in the Sprint (the **What**), the remaining Product Backlog will continue to change, evolve, and be refined.

Sprint Backlog

- Sprint Backlog consists of the Sprint Goal, selected Product Backlog items and a plan for delivering the Increment.
- It is a highly visible, real-time picture of the work planned in order to achieve the Sprint Goal.
- Developers create and update the Sprint Backlog as they see fit and as more is learned.
- To monitor Sprint progress Developers often use complementary practices (e.g., burndown chart or cumulative flow diagram)



Daily Scrum

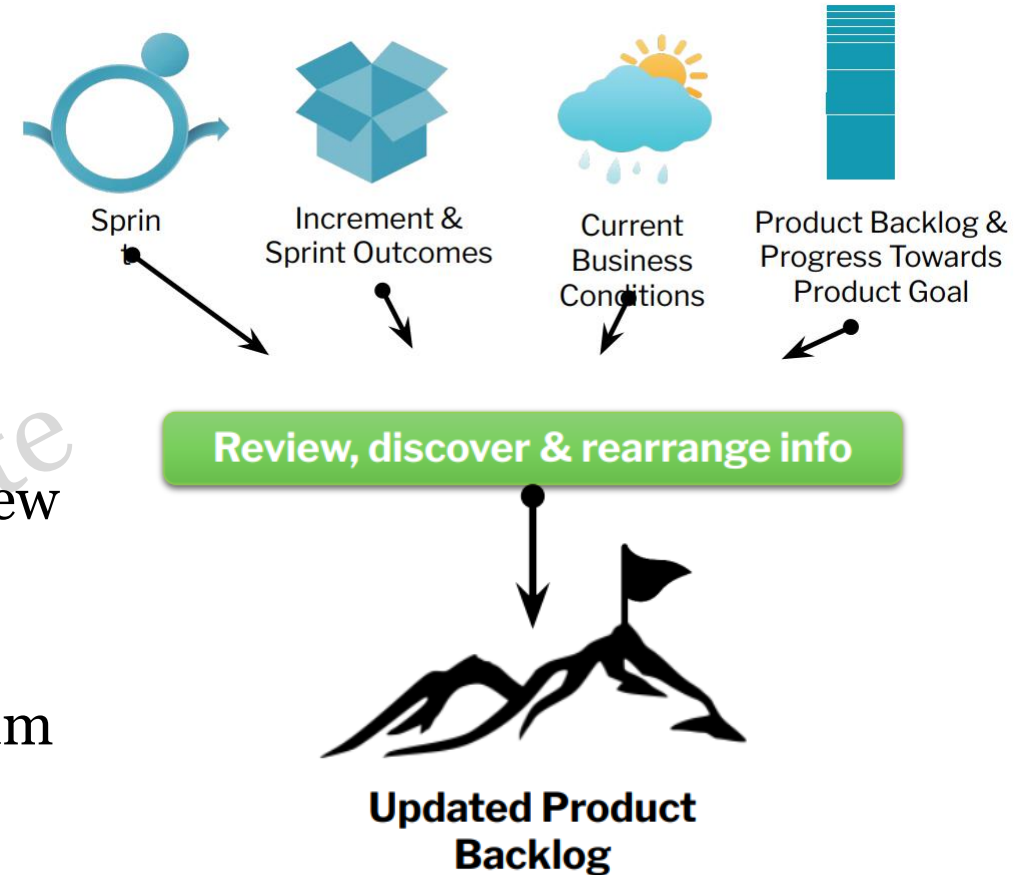
- 15-minute timebox daily event.
- Consistent place and time.
- Not a problem-solving meeting.
- Not a status meeting.
- Developers inspect their progress toward the Sprint Goal.
- Developers create a plan for the next working day

Sprint Review (1/2)

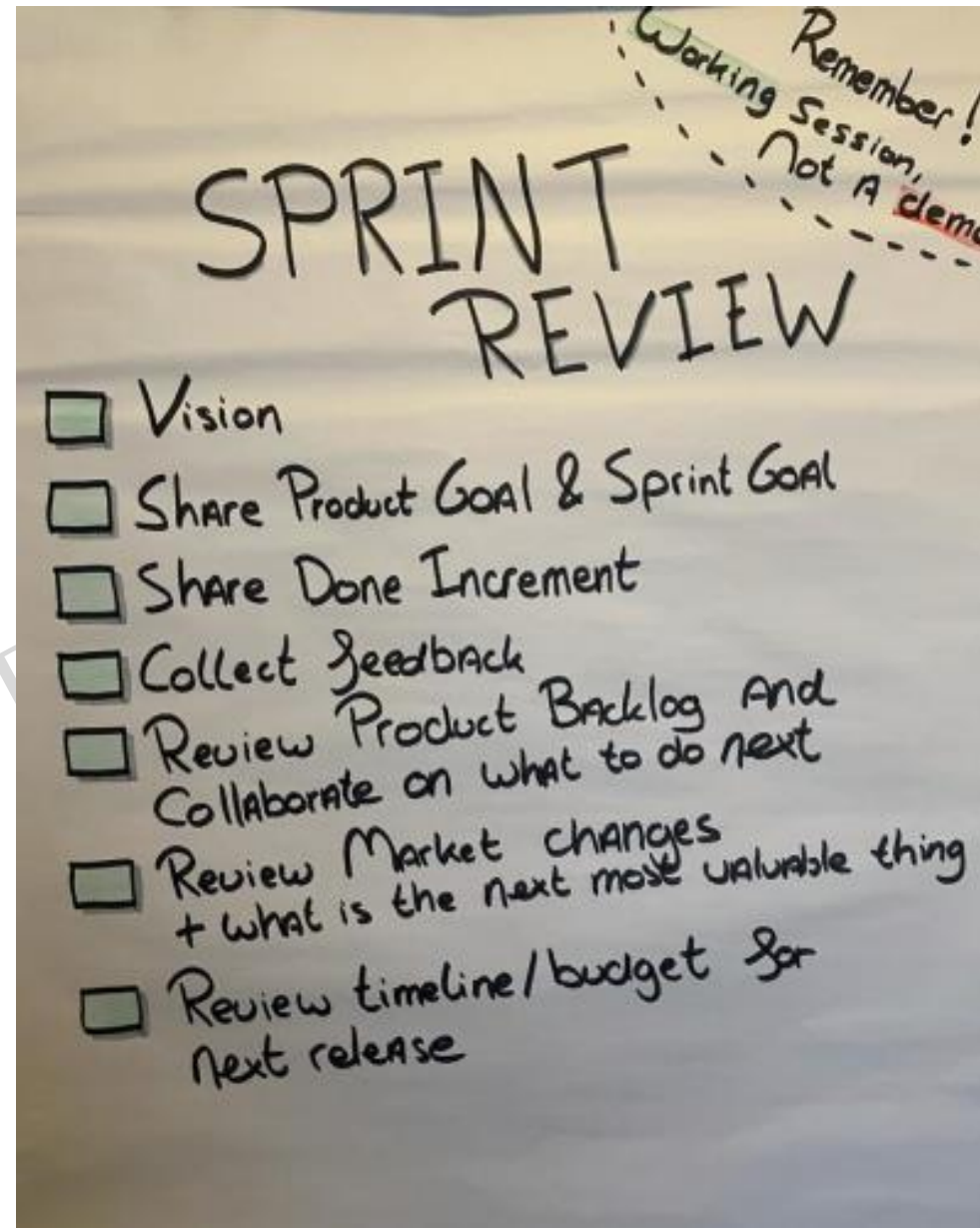
- The purpose of the Sprint Review is to inspect the outcome of the Sprint and determine future adaptations.
- The Scrum Team presents the results of their work to key stakeholders and progress toward the Product Goal is discussed.
- During the event, the Scrum Team and stakeholders review what was accomplished in the Sprint and what has changed in their environment.

Sprint Review (2/2)

- Based on this information, attendees collaborate on what to do next.
- The Product Backlog may also be adjusted to meet new opportunities.
- The Sprint Review is a working session, and the Scrum Team should avoid limiting it to a presentation.
- The Sprint Review is the second to last event of the Sprint and is timeboxed to a maximum of four hours for a one-month Sprint. For shorter Sprints, the event is usually shorter.



Remember!
Working Session,
Not a demo!



Sprint Retrospective

- Scrum Team inspects how the last Sprint went.
 - Individuals, interactions, process, tools
 - Definition of Done
- Scrum Team adapts by identifying the most helpful changes to improve its effectiveness.

Do not Distribute

Scrum Events Quick Reference

Event	Inspection	Adaptation	Who Attends	Timebox for 1 Month
Sprint Planning	Product Backlog, Product Goal	Sprint Backlog, Sprint Goal	Scrum Team	8 hours
Daily Scrum	Progress toward Sprint Goal	Sprint Backlog	Developers	15 minutes (always)
Sprint Review	Increment, Sprint, Product Backlog, Progress toward Product Goal	Product Backlog	Scrum Team Stakeholders	4 hours
Sprint Retrospective	Sprint, Definition of Done	Actionable improvements	Scrum Team	3 hours

Every element of Scrum serves empiricism.

Summary

- Scrum implements empiricism in complex environments.
- Scrum Team includes specific accountabilities.
- The Scrum artifacts provide transparent information.
- The Scrum events serve transparency, inspection and adaptation

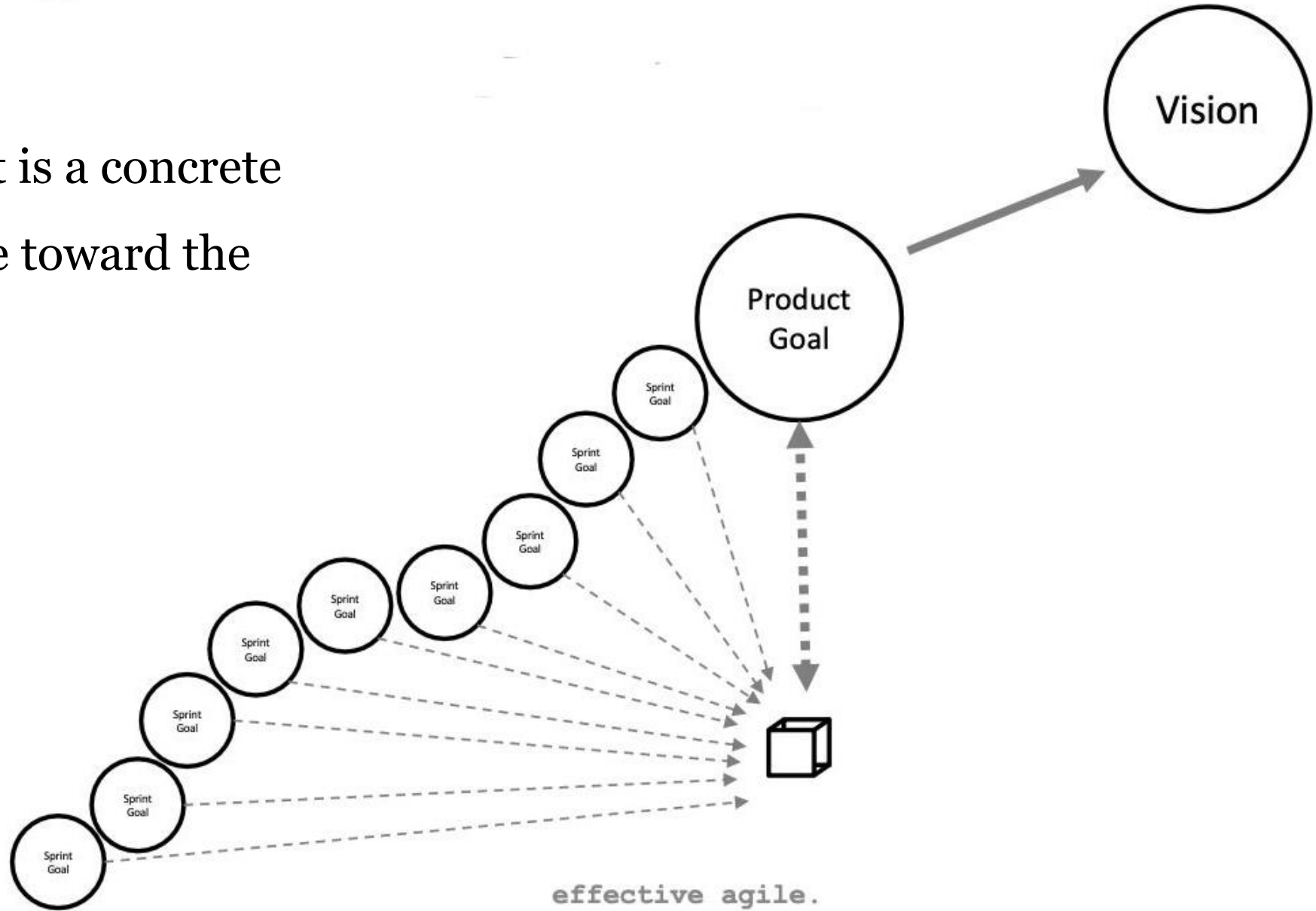
Do not Distribute

Done

Do not Distribute

Increment

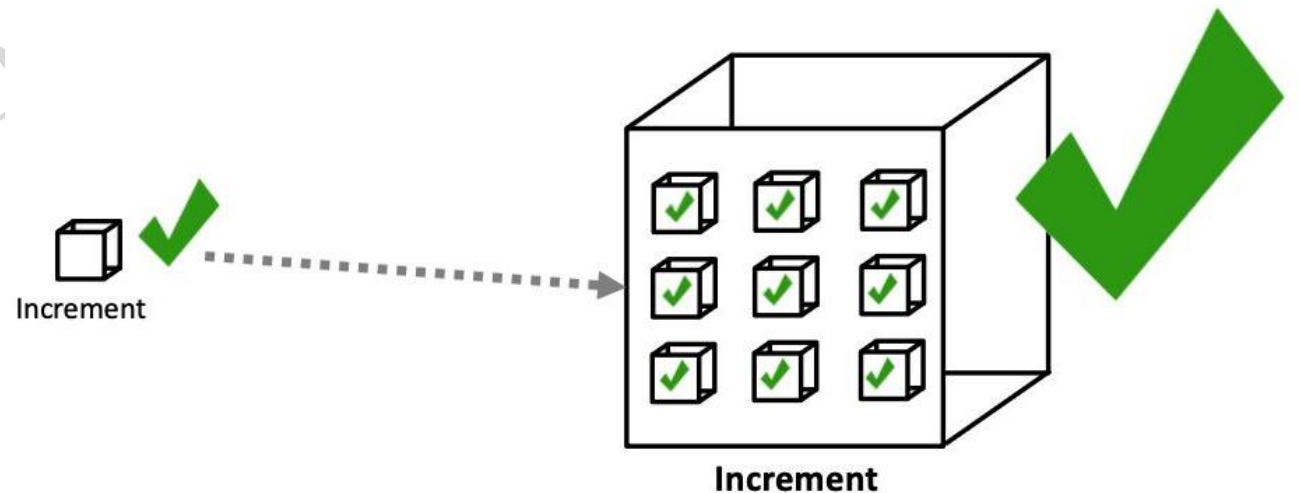
- An Increment is a concrete steppingstone toward the Product Goal



- If Scrum was to be reduced to one purpose only, it would be the creation of Done Increments.
- Done Increments are essential for Scrum's empiricism and agility.
- A robust Definition of Done is a commitment to the Increment's quality and transparency.
- Definition of Done reflects usable.

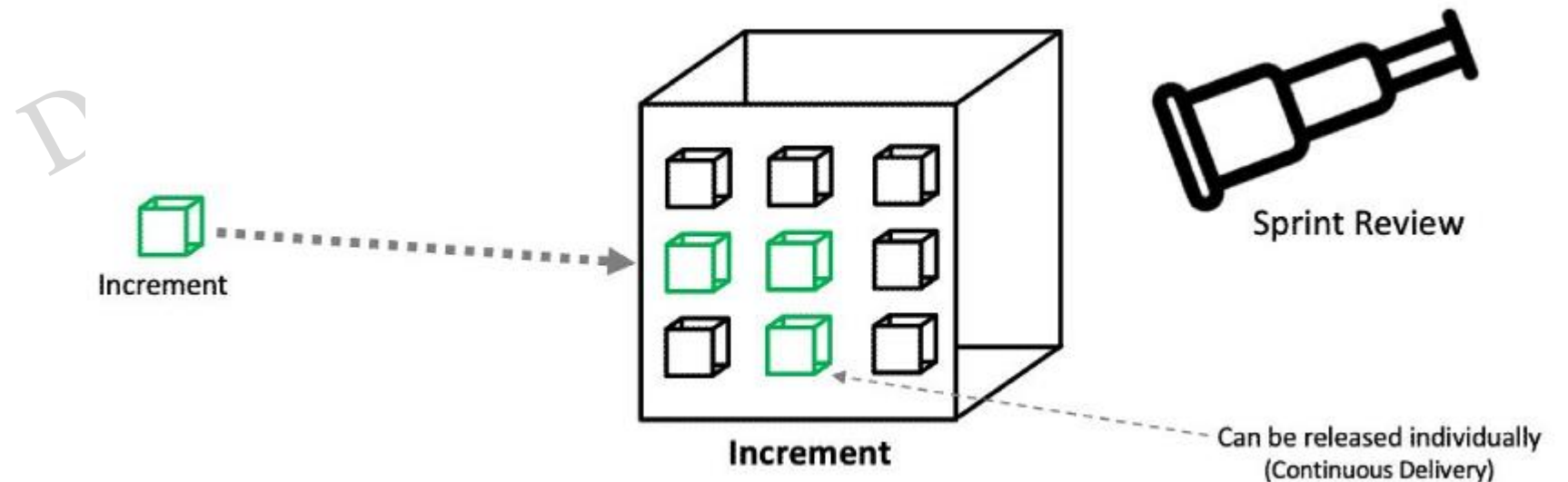
Increment

- Each Increment is additive to all prior increments and thoroughly verified, ensuring that all Increments work together,
- In order to provide value, the increment must be usable.



Increment

- Multiple increments may be created within a Sprint.
- The sum of the increment is presented at the Sprint Review thus supporting empiricism
- The Sprint Review should never be considered a gate to releasing value



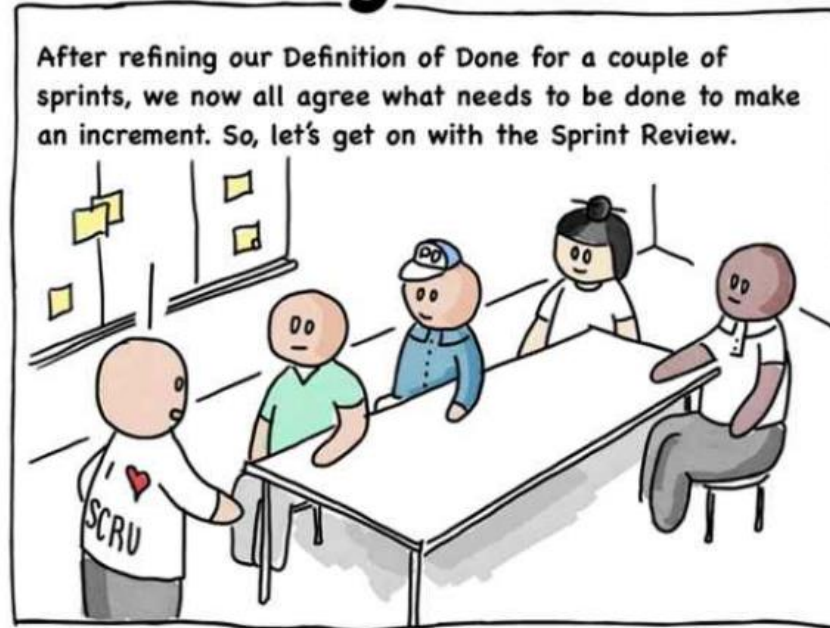
Definition of Done (DoD)

- If a team cannot deliver end-to-end value (why is that?), their Definition of Done should be aligned with whoever takes the increment and further develops it or releases it.
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- As the team matures, the scope of their competencies should become more cross-functional and “end-to-end”, and their DoD should be extended accordingly. Remember that the DoD is not static, but a dynamic one that grows together with the team.

Comic Agilé

Done

What about release?



Created by Luxshan Ratnaravi & Mikkel Noe-Nygaard

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