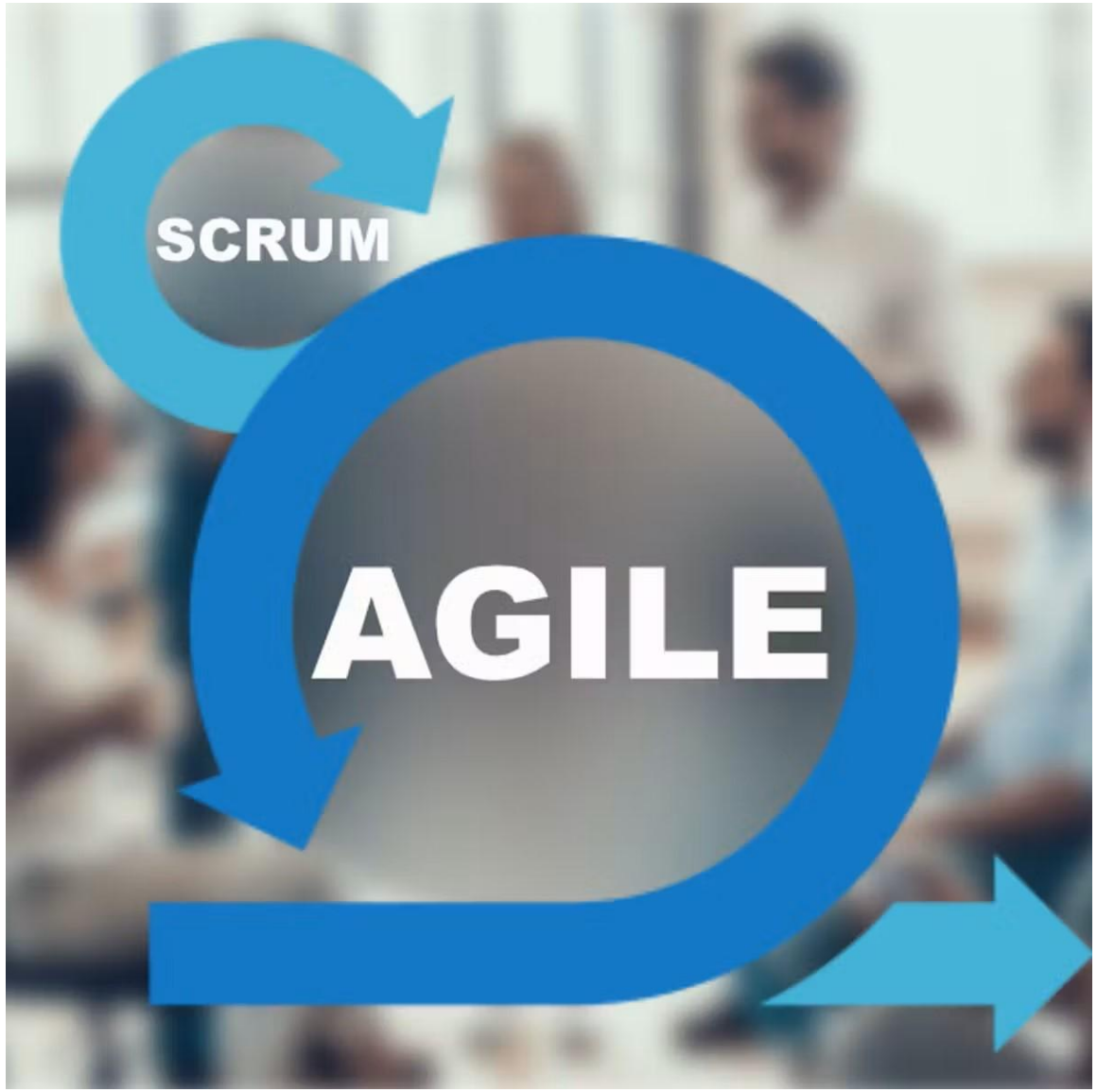
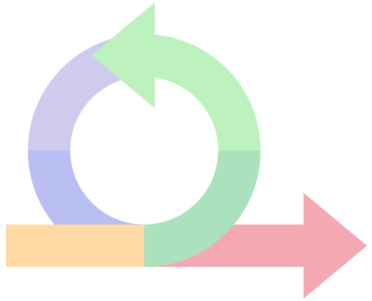
Agile - Scrum



What is Agile



Agile: Incremental + Iterative

Agile is an iterative way of managing projects and developing software that makes it easier for teams to deliver value to their customers more quickly and effectively. An agile team is to deliver small but consumable increments of work rather than wagering everything on a "big bang" launch.

Agile methodology is a project management approach that prioritizes cross-functional collaboration and continuous improvement. It divides projects into smaller phases and guides teams through cycles of planning, execution, and evaluation.

Some of the Agile methodologies are as follows

- **Extreme Programming**
- **Kanban**
- **Lean**
- **Scrum** (Scrum is the most popular Agile framework because of its simplicity, flexibility, teamwork focus, empirical process control, and widespread adoption.)
- **Crystal**

Agile Manifesto

Individuals and Interactions	Over Processes and Tools
Working Software	Over Comprehensive Documentation
Customer Collaboration	Over Contract Negotiation
Responding to Change	Over Following a Plan

Definition of Scrum

Scrum (n): A framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value.

Scrum is:

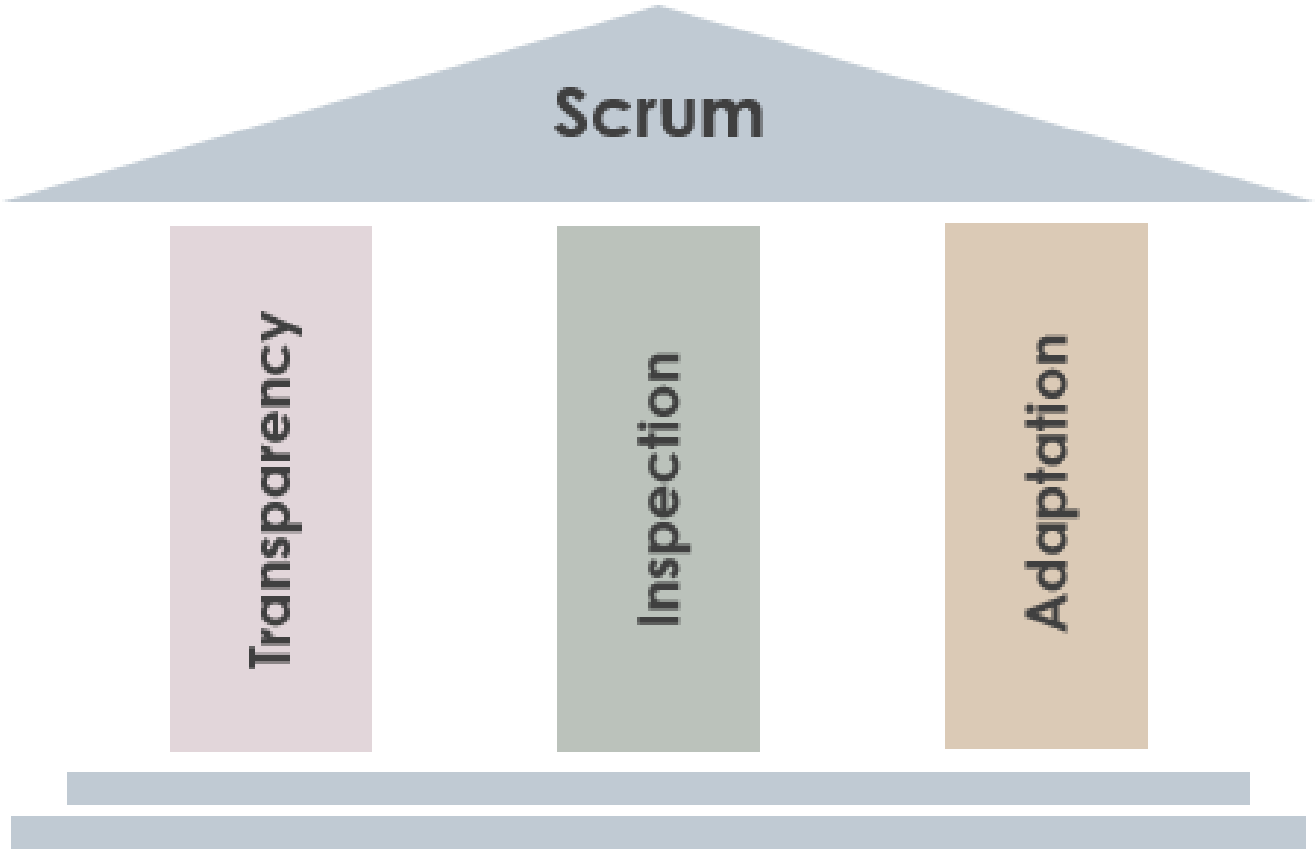
- Lightweight
- Simple to understand
- Difficult to master

Scrum Theory

Scrum is founded on empirical process control theory, or empiricism. Empiricism asserts that knowledge comes from experience and making decisions based on what is known.

Scrum employs an iterative, incremental approach to optimize predictability and control risk.

Scrum Pillars



Transparency

Giving visibility to the significant aspects of the process to those responsible for the outcome.

Inspection

Timely checks on the progress toward a sprint goal to detect undesirable variances.

Adaptation

Adjusting a process as soon as possible to minimize any further deviation or issues.

Scrum Values

COURAGE
Scrum Team members have courage to do the right thing and work on tough problems

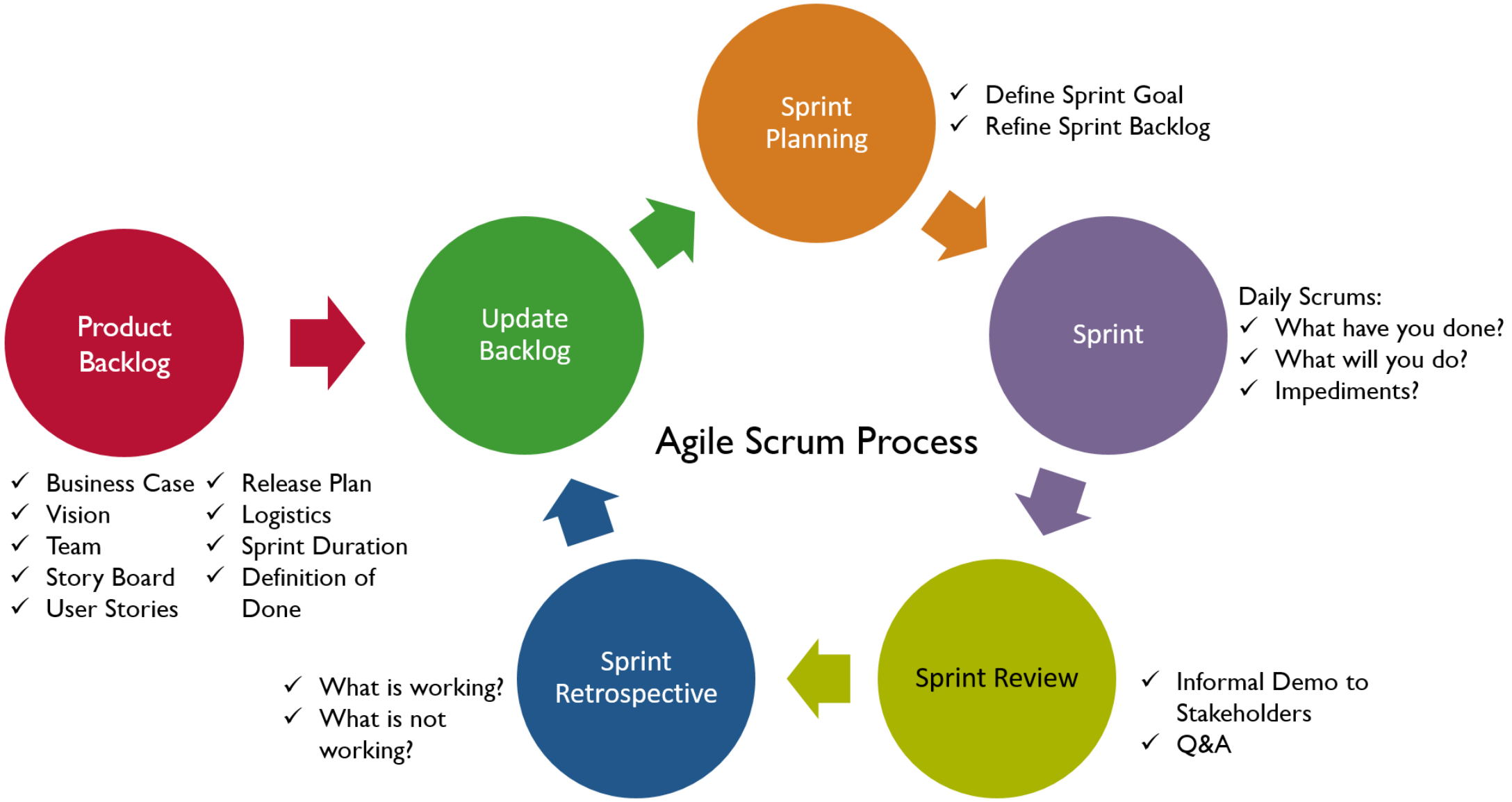
FOCUS
Everyone focuses on the work of the Sprint and the goals of the Scrum Team

COMMITMENT
People personally commit to achieving the goals of the Scrum Team

RESPECT
Scrum Team members respect each other to be capable, independent people

OPENNESS
The Scrum Team and its stakeholders agree to be open about all the work and the challenges with performing the work

Scrum Lifecycle



Scrum Team & Roles

The Product Owner (PO)

The Product Owner is responsible for maximizing the value of the product resulting from work of the Development Team and is the sole person responsible for managing the Product Backlog.

Responsibilities

- Clearly expressing Product Backlog items
- Ordering the items in the Product Backlog to best achieve goals and missions
- Optimizing the value of the work the Development Team performs
- Ensuring that the Product Backlog is visible, transparent, and clear to all, and shows what the Scrum Team will work on next
- Ensuring the Development Team understands items in the Product Backlog to the level needed.

The Dev Team (DT)

The Development Team consists of professionals who do the work of delivering a potentially releasable Increment of "Done" product at the end of each Sprint.

Characteristics

- They are self-organizing. No one tells the Development Team how to turn Product Backlog into Increments of potentially releasable functionality.
- Development Teams are cross-functional, with all the skills as a team necessary to create a product Increment.
- Scrum recognizes no titles and no sub-teams for Development Team members regardless of work and domains that need to be addressed.
- Accountability belongs to the Development Team as a whole.

The Scrum Master (SM)

The Scrum Master is responsible for promoting and supporting Scrum as defined in the Scrum Guide.

Scrum Masters do this by helping everyone understand Scrum theory, practices, rules, and values.

The Scrum Master is a servant-leader for the Scrum Team.

Service to PO

- Ensuring that goals, scope, and product domain are understood by everyone on the Scrum Team as well as possible;
- Helping the Scrum Team understand the need for clear and concise Product Backlog items;
- Understanding product planning in an empirical environment;
- Ensuring the Product Owner knows how to arrange the Product Backlog to maximize value;
- Understanding and practicing agility; and,
- Facilitating Scrum events as requested or needed.

Service to DT

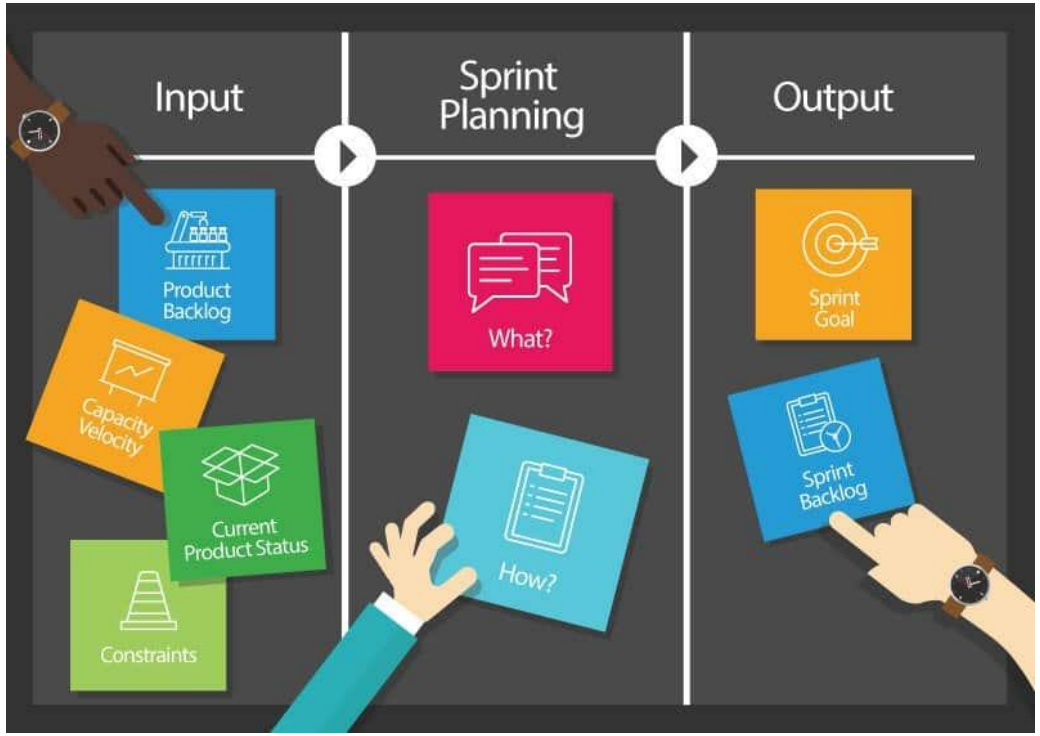
- Coaching the Development Team in self-organization and cross-functionality
- Helping the Development Team to create high-value products
- Removing impediments to the Development Team's progress
- Facilitating Scrum events as requested or needed
- Coaching the Development Team in organizational environments in which Scrum is not yet fully adopted and understood.

Service to Org

- Leading and coaching the organization in its Scrum adoption
- Planning Scrum implementations within the organization
- 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 the application of Scrum in the organization.

Scrum Events (Ceremonies)

Sprint Planning



Time box: 4 hours for 2 weeks sprint or 8 hours for 4 weeks sprint

Attendees:
Scrum Master (facilitates the meeting),

Product Owner (clarifies the details of the product backlog items),

Development Team (defines the work and effort necessary to meet the sprint commitment)

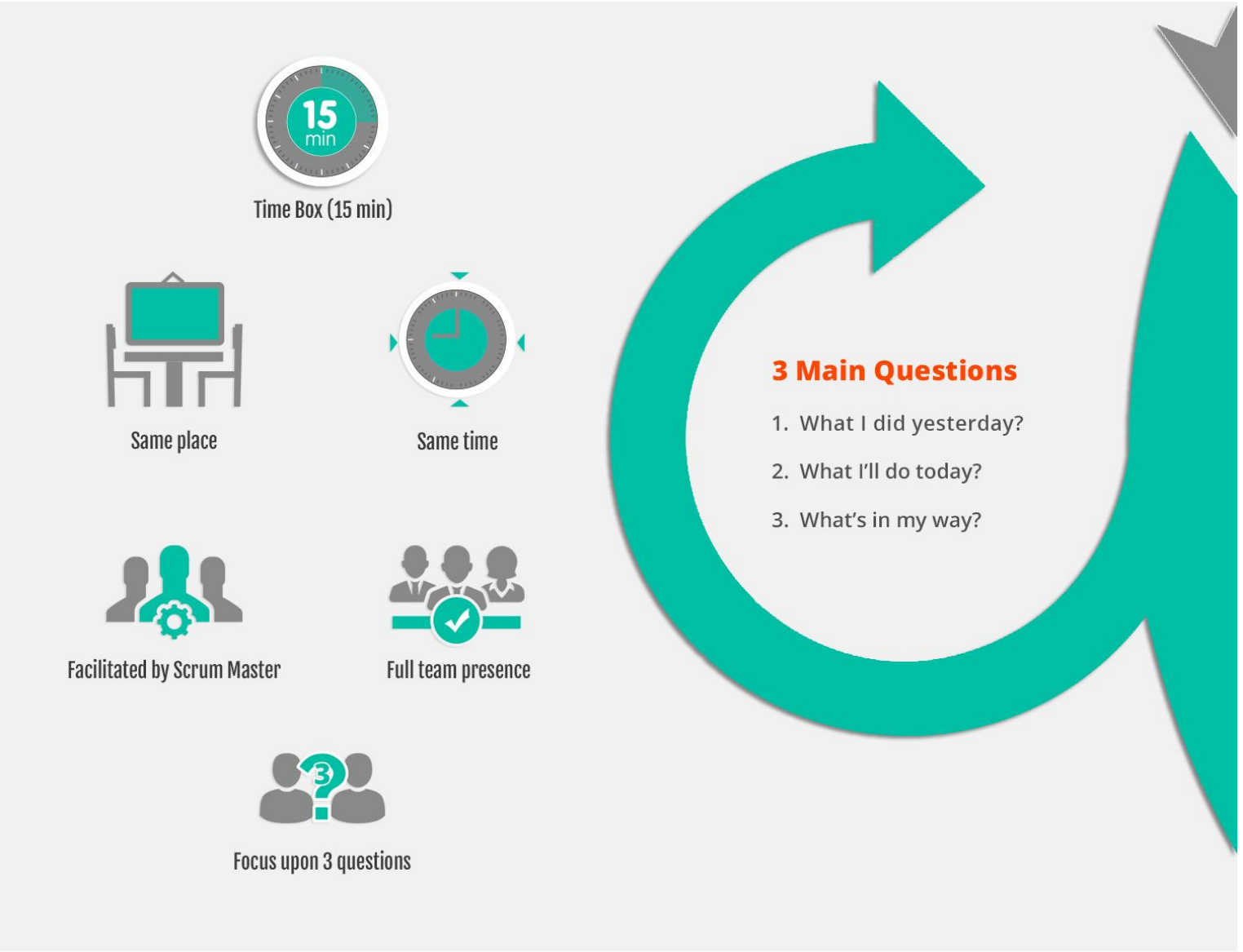
When: Before starting with a new sprint

Sprint Goal: A sprint goal is a short, one- or two-sentence, description of what the team plans to achieve during the sprint. It is written collaboratively by the team and the product owner.

Sprint Backlog: A sprint backlog is a list of the product backlog items the team commits to delivering plus the list of tasks necessary to delivering those product backlog items

Daily Standup

A daily stand-up meeting is a short organizational meeting that is held each day. The meeting, generally limited to between five and 15 minutes long, is sometimes referred to as a stand-up, a morning roll-call or a daily Scrum.



Sprint Review

Time box: 1.5 hours (2 weeks sprint) / 3 hours (4 weeks sprint)

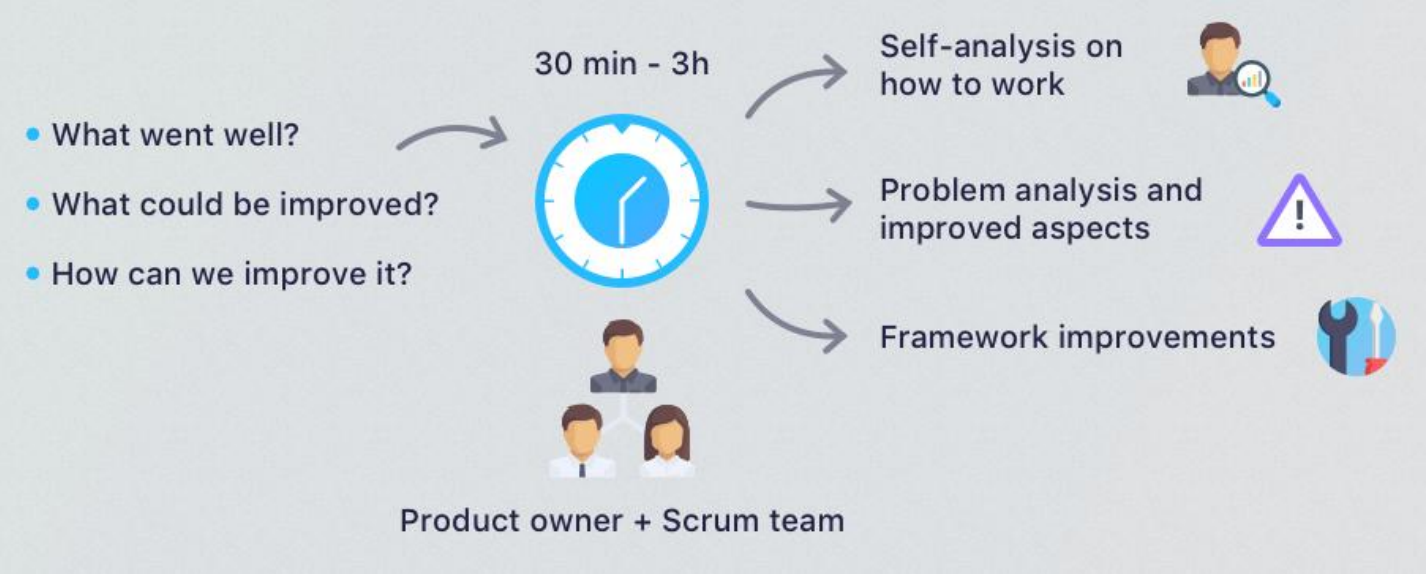
Attendees: Scrum Master, Product Owner, Scrum Team, Stakeholder and Sponsors, Customer

When: At the end of sprint

Objectives

- The work committed and the actual work completed by the team
- Key decisions made during the iteration/sprint
- Project metrics (code coverage, etc.)
- Demo of the work itself
- Priority review (for the next iteration/sprint)

Sprint Retrospective



Time box: 2 hours (2 weeks sprint) / 4 hours (4 weeks sprint)

Attendees: Scrum Master, Product Owner, Scrum Team

When: At the end of sprint

Sprint Retrospective meetings can be facilitated by asking each person in the team to answer the following questions

- What went well during the sprint?
- What would we like to change?
- How can we implement that change?

Alternatively, instead of asking what went well and what didn't go well, the following questions may be asked

- What should we start doing?
- What should we stop doing?
- What should we continue to do?

Scrum Artifacts

Glossary


Sprint
Backlog
Scrum
Items
Release
Stakeholders
Team
Owner
Product
Team's
ScrumMaster
work
process
needs
wants
Goal
Planning
Members
Strategy
Roadmap
Releases
Teams
Results
Products
Review
works
usually
Often
short
responsibility
throughout
amount
fundamental
agile
satisfies
produce
accountable
seen
get
use
gives
many
also
allows
three
starts
may
important
requirements
agreeing
negotiate
order
Business
direction
business
thing
called
simple
people
Grooming
performance
contains
must
described
Sprints
release
Section
outside
new
collectively
request
provides
either
Visioning
requests
fixed-length
feedback
agrees
working
discussion
discussed
practices
Vision
project
support
Stakeholder
next
done
Goals
ScrumMaster's
small
anything
influence
begins
understanding
thus
first
book
changes
phase
existing
impediments
Project
part
relatively
merely
thought
priorities
ones
planning
Figure
manages
list
developing
value
defines
account
Sprint's
including
provide
necessary
rest
software
agree
help
goals
role
within
ready
desires
analysis
often
without
marketing
Success
idea
continuously
result
right
agreed
Daily
wishes
set
Charter
Done
critically
purpose
Members


Thank you