SCRUM AND SELF ORGANISING TEAMS

The rules of Scrum are simple and easy to communicate, which makes it a great starting point for many teams adopting Agile. Here's the basic pattern for a Scrum project:

- There are three main roles on a Scrum project: **Product Owner**, **Scrum Master**, and **team member**
- The Product Owner works with the rest of the team to maintain and prioritize a **product backlog** of features and requirements that need to be built.
- The software is built using time boxed iterations called **sprints**. At the start of each sprint, the team does **sprint planning** to determine which features from the backlog they will build. This is called the **sprint backlog**, and the team works throughout the sprint to build all of the features in it.

- Every day, the team holds a short face-to-face meeting called the **Daily Scrum** to update each other on the progress they've made, and to discuss the roadblocks.
- Each person answers three questions
- What have I done since the last Daily Scrum?
- What will I do until the next Daily Scrum?
- What roadblocks are in my way?

- One person, the Scrum Master, keeps the project rolling by working with the team to get past roadblocks that they've identified and asked for help with.
- At the end of the sprint, working software is demonstrated to the product owner and stakeholders in the **sprint review.**
- **T**he team holds a **retrospective** to figure out lessons they've learned, so they can improve the way they run their sprints and build software in the future.

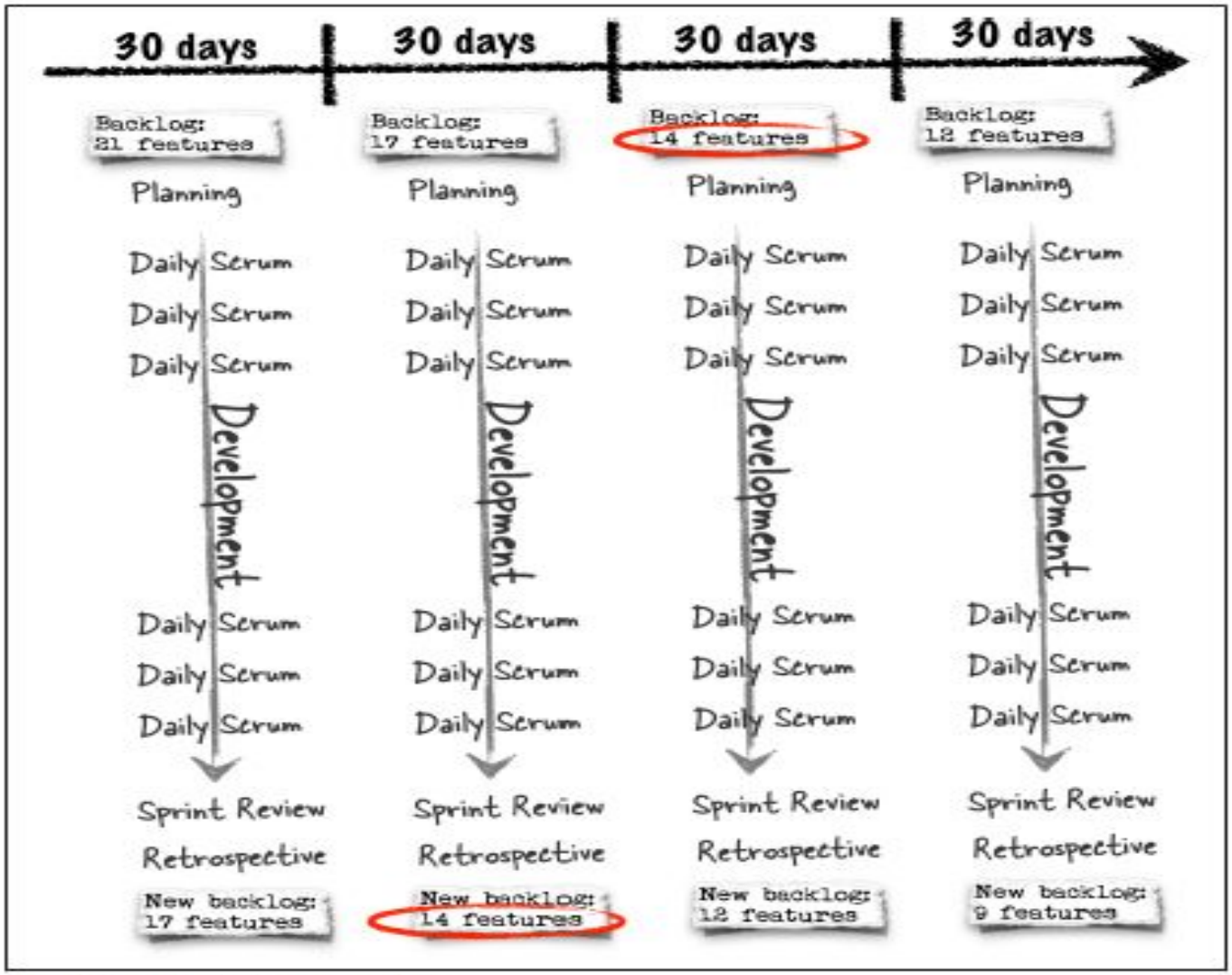

Figure 4-1. Basic Scrum pattern.

The Rules of Scrum(1)

- Each sprint starts with sprint planning done by the Scrum Master, Product Owner, and the rest of the team, consisting of a meeting divided into two parts, each time boxed to four hours.
- The Product Owner's homework prior to sprint planning is to come up with a prioritized backlog for the product that consists of a set of items that the users and stakeholders have bought into.
- In the first part of the meeting, the Product Owner works with the team to select items that will be delivered at the end of the sprint.
- The team agrees to give a demo of working software that includes those items at the end of the sprint.
- In the second part of the meeting, the team members (with the Product Owner's help) figure out the individual tasks they'll use to actually implement those items.
- At the end of sprint planning, the items they've selected become the sprint backlog.

The Rules of Scrum(2)

- The team holds a **Daily Scrum meeting** every day. All team members (including the Scrum Master and Product Owner) must attend, and interested stakeholders may attend as well (but must remain silent observers).
- The meeting is timeboxed to **15 minutes**, so all team members must show up on time.

The Rules of Scrum(3)

- Each sprint is timeboxed to a specific length decided during sprint planning: many teams use 30 calendar days, some teams choose two-week sprints and some choose one month.
- During the sprint, the team builds the items in the sprint backlog into working software.
- In *very abnormal cases and extreme circumstances*, the Product Owner can terminate the sprint early and initiate new sprint planning if the team discovers that they cannot deliver working software

The Rules of Scrum(4)

- At the end of the sprint, the team holds a sprint review meeting where they demonstrate working software to users and stakeholders.
- The team can **only present functional, working software**, not intermediate items like architecture diagrams, database schemas, functional specs, etc.
- Stakeholders can ask questions, which the team can answer.
- At the end of the demo, the stakeholders are asked for their opinions and feedback.
- After the sprint, the team holds a **sprint retrospective meeting** to find specific ways to improve how they work. The team and Scrum Master (and optionally the Product Owner) attend.

Everyone on a Scrum Team Owns the Project

- Every Scrum project has a **Product Owner, a Scrum Master, and a team**. But not every project that has those roles assigned to people is an effective Scrum project.
- A Product Owner in Scrum acts differently than a Product Owner on a typical "big requirements up front" waterfall project.
- A Scrum Master does not do the same things as a command-and-control project manager, or technical team lead. When the Scrum Master, Product Owner, and team start to work together instead of separately, the project begins to look more like Scrum.

Scrum Master Guides the Team's Decisions

- How the Scrum Master does his job makes the biggest difference between traditional command-and-control project management and an agile Scrum team.
- On a command-and-control project, the project manager is the owner and maintainer of the schedule and plan.
- Scrum doesn't have a separate role for a person who owns the plan. Scrum Master doesn't own the plan.
- He may help the team to create the plan. But more importantly, he guides the team's use of Scrum and its practices, and helps everyone feel like they own the plan together.

The Product Owner Helps the Team Understand the Value of the Software

- On a Scrum team, the Product Owner is the person who made the commitment to the company.
- He's the person who has to stand up and promise something specific that will be delivered at the end of the project.
- The Product Owner doesn't just sit around and wait for the sprint to finish.
- The Product Owner's job is to own and prioritize the backlog, to be the voice of the business to the team, to help them understand what stories and backlog items are most important and most valuable

Everyone Owns the Project

Scrum teams like to use the fable of the pig and the chicken to help understand how commitments work:

A Pig and a Chicken are walking down the road.

The Chicken says: "Hey Pig, I was thinking we should open a restaurant!"

Pig replies: "Hm, maybe; what would we call it?"

The Chicken responds: "How about 'ham-n-eggs'?"

The Pig thinks for a moment and says: "No, thanks. I'd be committed, but you'd only be involved!"

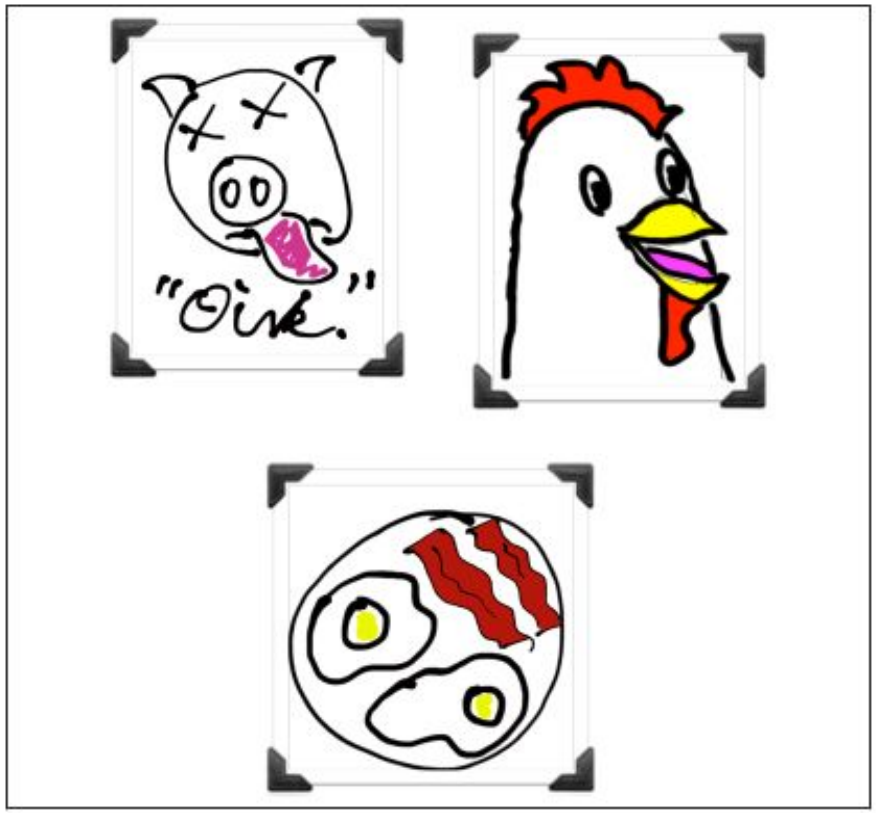

Figure 4-2. In the story of the pig and the chicken, the pig is committed to breakfast, while the chicken is merely involved.

- So on a Scrum project, who's an involved "chicken" and who's a committed "pig"?
- How is that different than an ineffective waterfall project? It all boils down to how the team members, project manager, and Product Owner act.
- Scrum teams often talk about roles in terms of pigs and chickens. That's shorthand for whether an individual person in that role is simply assigned to the project (a chicken), or if he or she is truly committed to its success (a pig).

How Product Owners, Scrum Masters, and team members can be better pigs

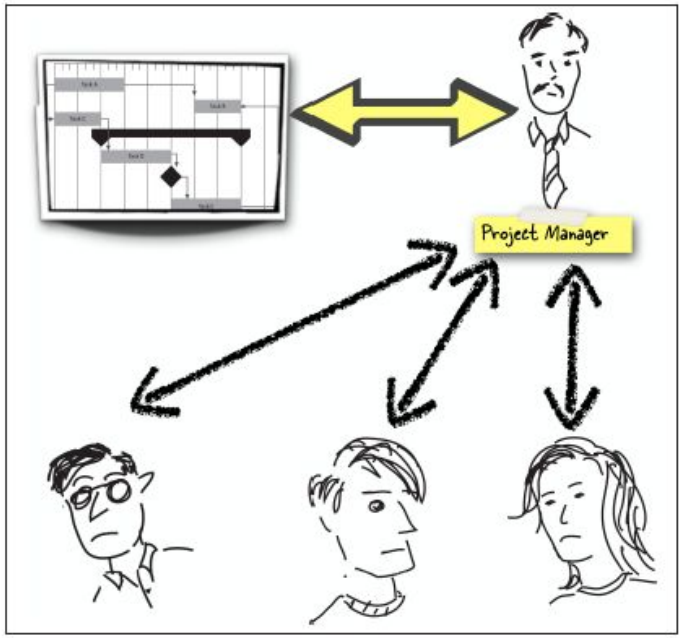

Figure 4-3. When the command-and-control project manager acts as the "keeper" of the plan, he encourages the team to be chickens.

- The sad truth is that many companies expect team members to act like chickens, and not pigs.

- In fact, programmers often find that when they try to get involved with planning the project they're pushed away from the process, because planning and decision making is a privilege reserved for managers, not rank-and-file programmers.

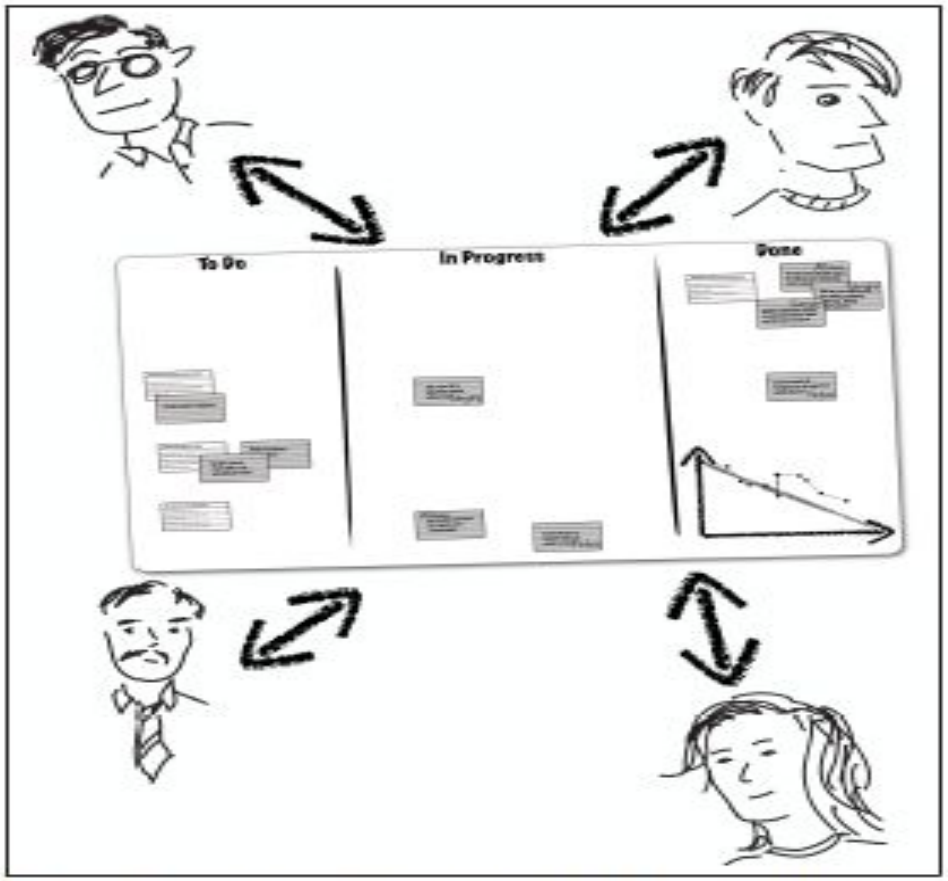

Figure 4–4. Self-organizing teams treat estimates and plans as facts that can be uncovered, not commitments that need to be wrung from the team.

- *Agile Project Management with Scrum*, Ken Schwaber discusses the five Scrum values: **courage**, **commitment**, **respect**, **focus**, **openness**.
- *Each person is **committed** to the project's goals*
- *Team members **respect** each other*
- *Everyone is **focused** on the work*
- *The teams value **openness***
- *Team members have the **courage** to stand up for the project*

No room for chickens

- There is no room for a chicken on a Scrum team. Product Owners are part of the team, which means they need to be pigs, too.

- This does not always come easy to Product Owners, especially if they feel like they "drew the short straw" to end up assigned to a Scrum team. Most stakeholders naturally want to be chickens, because more distance is more comfortable.

Scrum has Its Own Set of Values

- Every company has its own culture that includes specific values.
- For example, some companies value separation of duties, where each person has a specific role to play, and is protected from having to be accountable for things that he or she can't easily influence or control.
- Other companies value transparency, where information is shared freely and even low-level employees can influence management decisions.
- Self-organizing teams work differently than command-and-control teams because they have different values.

Act II: Status Updates Are for Social Networks!

The Whole Team Uses the Daily Scrum

- The Daily Scrum is one of the most effective tools that a Scrum team has at its disposal.

- Two very important things for the team.
- **Inspection** of the work
- **last responsible moment** - giving them the flexibility to have the right person do the right work at the right time.

Feedback and the Visibility-Inspection-Adaptation Cycle

- On typical BRUF ("big requirements up front") waterfall project, planning works something like this:

- The project manager needs to scope out the work, often in some sort of business requirements or scope and objectives document.

- Managers need to sign off on the scope.

- A business analyst needs to review the scope, then talk to the users and other stakeholders to understand their jobs.

- The business analyst comes up with use cases, functional requirements, etc.
- The programmer takes the requirements and generates an estimate.
- The project manager takes the requirements and estimates, builds out a schedule, and reviews it with stakeholders and managers.

Three people took 15 minutes out of every day to sit down and ask each other three questions:

- What have I done since our last meeting?
- What am I planning on doing between now and our next meeting?
- What roadblocks are in my way?

How to Hold an Effective Daily Scrum

- *Act like a "pig"*
- *Take detailed conversations offline*
- *Take turns going first*
- *Don't treat it like a ritual*
- *Everyone participates*
- *Don't treat it like a status meeting*
- *Inspect every task*
- *Change the plan if it needs to be changed*

Sprints, Planning, and Retrospectives

Product Owner's job to:

- Understand what the company needs most, and bring that knowledge back to the team.
- Understand what software features the team can potentially deliver.
- Figure out which features are more valuable to the company, and which are less valuable.

- Work with the team to figure out which features are easier to build, and which are harder
- Use that knowledge of value, difficulty, uncertainty, complexity, etc. to help the team choose the right features to build in each sprint
- Bring that knowledge back to the rest of the company, so they can do what they need to do to prepare for the next release of the software

The Product Owner Makes or Breaks the Sprint

- The Product Owner has a very specific job to do for the project.
- product backlog
- sprint planning

Visibility and Value

Think about what motivates you when you're working.

- "Working with this technology will look great on my resume" (if you're a developer)
- "If I prove myself on this project, I'll get to grow my team" (if you're a team lead)
- "Meeting this big deadline will get me that promotion" (if you're a project manager)
- "If I land that big client, I'll get a huge bonus" (if you're an account manager, Product Owner, stakeholder, etc.)

Elevating goals motivate everyone on the team

- Determine or frame the activity in such a way that people can understand what the value is.

- Our highest priority is to satisfy the customer through early and continuous delivery of *valuable software*.

How to Plan and Run an Effective Scrum Sprint

- *Starting with the backlog—which means starting with the users*
- *Be realistic about what you can deliver*
- *Change the plan if it needs to change*
- *Get everyone talking about value*

- Scrum is both **incremental** and **iterative** - it's incremental because it's broken down into consecutive sprints, but it's iterative because the team adapts each new sprint to changes that occur during the project development.

- The Product Owner's job is to *keep the team motivated around value* by helping them understand their users, what they do, and what they need the software for.

What are the different main roles in agile scrum methodology?

- Scrum master
- Product owner
- Scrum team

Agile and Scrum

- Agile and scrum are two similar project management systems with a few key differences.

- Agile is more flexible and promotes leadership teams, while scrum is more rigid and promotes cross-functional teams.

Cross-functional Team

- A cross-functional team is **a group of people with a variety of expertise who come together to achieve a common goal**

What are the differences between scrum and agile?

- Scrum values rigidity, whereas agile is more flexible.
- Agile leaders play a vital role, while scrum promotes a cross-functional team that is self-functioning.
- Agile involves face-to-face interactions between cross-functional team members, while scrum involves daily stand-up meetings.

- Agile is meant to be kept simple, while scrum can be innovative and experimental.

- Scrum delivers shorter, separate projects, while agile delivers everything at the end of the process.

How does agile scrum work?

- Agile scrum methodology is the combination of the agile philosophy and the scrum framework.
- Agile means "incremental, allowing teams to develop projects in small increments.
- Scrum is one of the type of agile methodology, known for breaking projects down into sizable chunks called "sprints."

- Agile scrum methodology is good for businesses that need to finish specific projects quickly.
- Agile scrum methodology is a project management system that depend on incremental development.
- Each iteration consists of two- to four-week sprints

What are the benefits of agile scrum methodology?

- Flexibility and adaptability
- Creativity and innovation
- Lower costs
- Quality improvement
- Organizational collaboration
- Employee satisfaction
- Customer satisfaction