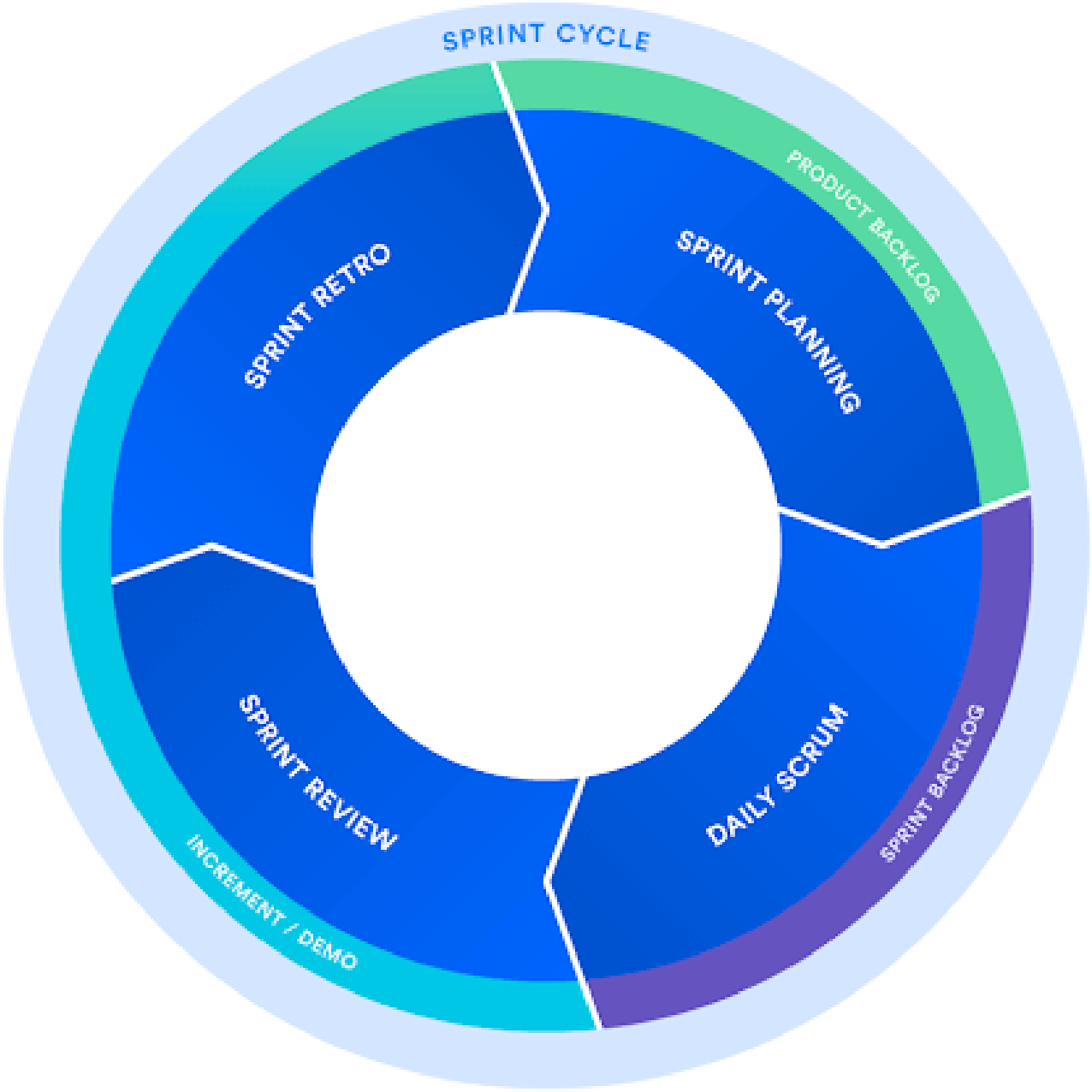
Agile in ICT

Agile – the ability to move quickly and easily

Terms

- **Agile Methodology** – The software development style for continual short phased development, focused on product and close stakeholder interaction.
- **Scrum** - A framework of agile, includes some of the core structures that necessitate an agile development cycle. The complete approach
- **The (Product) Backlog** – The list of tasks that aim to make up the project
- **Product Owner** - Typically the leader of the scrum, liaising with stakeholder and creating acceptance criteria and managing the backlog of tasks. Makes the real-time decisions.
- **Sprint** – The cycle of actual development time spent on tasks, can be 1-4 weeks typically.
- **Demo/Review** - End of a sprint cycle, show off and discuss the product and discuss the product.
- **Retrospective** - Discussion on process, team and other elements.

The Scrum Sprint Cycle



Atlassain

Why Scrum?

- Scrum and agile development promotes a responsive and continually moving development process.
- Takes the important aspects of planning and development in waterfall and condenses it into shorter revisited cycles of development.
- Allows reflection on progress, features and the product overall to more accurately meet the goals of the project. Better quality.
- Higher guarantee of client satisfaction
  - Also tends to lead to team/development satisfaction – incremental progress.

Why not Scrum?

- Scrum isn't the perfect solution for all
- Scope Creep
  - Common for tasks to be added to backlog.
  - Projects can grow in scope if not managed correctly.
  - Ensure they are still within the original scope or clearly outline these to client.
- Overall detachment from project deadline
  - As the project has no clear progress towards to final deadline it's easy for the project to overshoot the clients expected completion date.
  - There are ways to manage this which we'll look at like Burn-down Charts.
- Difficult to scale to larger teams/development
  - The process lends itself to small teams

Sprint Planning – What is it?

- This phase of the scrum allows preparation for the upcoming sprint.
- It is conducted by the team product owner.
- Used to define what is going to be worked on and how
- Outcomes:
  - Understanding of outcomes for sprint
  - (re)Prioritisation of the backlog tasks
  - Define tasks, resources and allocations of resources.
  - Discuss tasks and decompose into smaller tasks (discuss approach and implementation)
  - User Acceptance criteria – What defines this task as completed?

Sprint Planning – How?

- Prepare for the meeting:
  - Have tasks ready to be discussed and known focus for the sprint.
  - Allocate roughly 1 hour for every week in the sprint.
- Product owner must be present to ask questions and support team.
- Focus on high priority items on the backlog
- Discuss tasks:
  - Avoid overcommitment on task work
  - Agree upon expected timelines as a group.
  - Adjust as needed, discuss with product owner.
- **Document the plan**

Sprint Execution

- Performing the tasks at hand set out by the planning.
- Perform daily stand-up meetings. (What is a stand up?)
- Collaborate and communicate to ensure productivity.
- Continuous Integration (CI) - Ensure codebase remains stable and functional by making small commits and changes.
- Take ownership of task and have accountability for work. (See review)
- Implement quality assurance practices for code.
- Do only what is necessary, avoid adding features or "Gold Plating".
- Don't overwork or rush tasks that have been inappropriately defined in terms of timeline.

Sprint Review

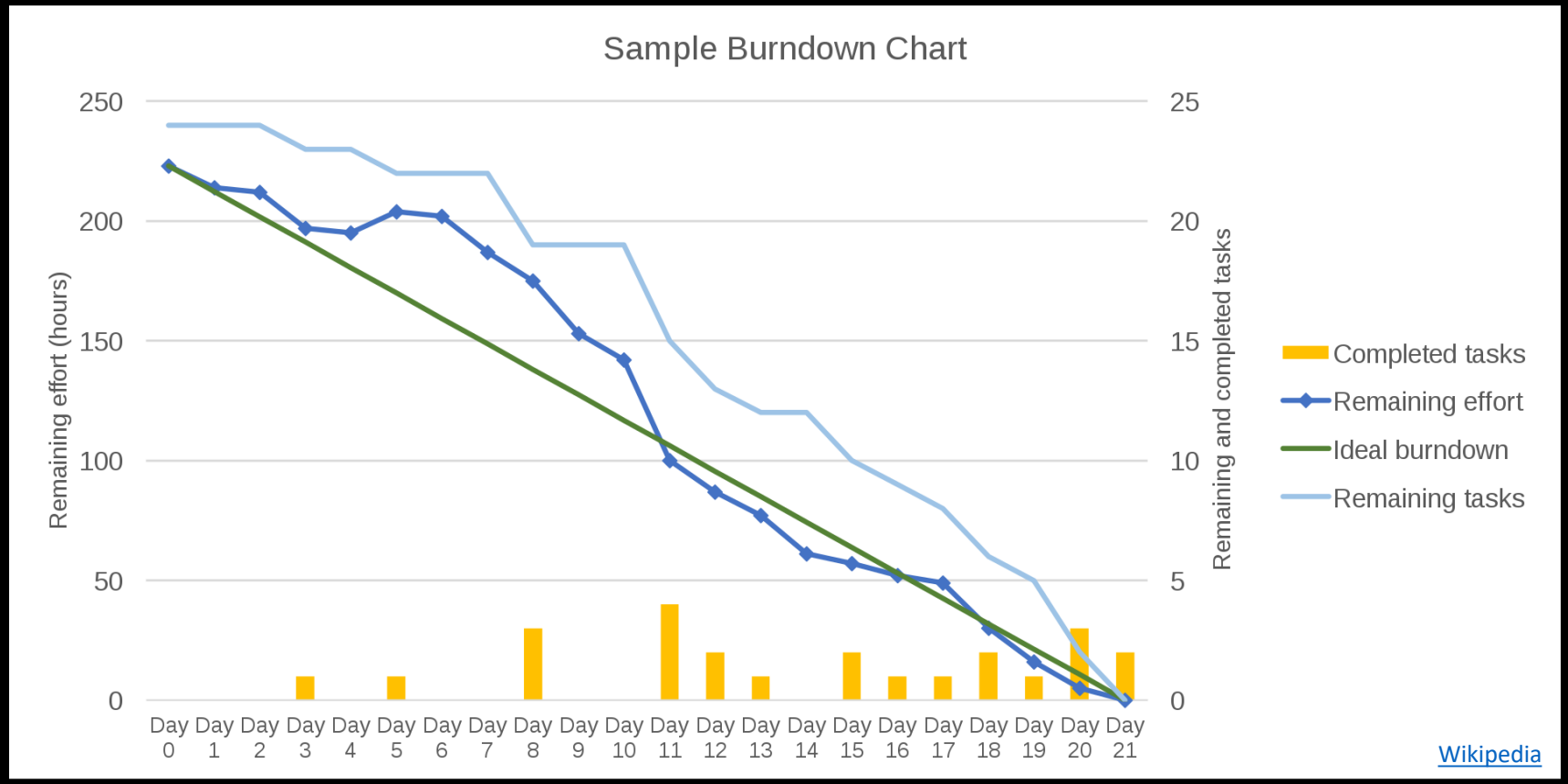
Product Focus

- Demo work – prepare for this for the meeting.
- Inspect and review the progress made by team.
- Involve relevant stakeholders where possible.
- Interactive? Have a product read to literally demonstrate and use.
- Promote honesty and transparency between stakeholders, product owner and team.
- Actively listen and acknowledge feedback and address it. Make notes for any adjustments to tasks or product.
- Document for future sprint cycles.

Sprint Retrospective

Team/Process Focus

- Reflect on the sprint process
- Discuss team performance with respect to team.
- Empower and provide a safe environment to share thoughts without blame or criticism.
- Root Cause analysis – Discuss challenges and help to identify solutions or preventions.
- Actionable items for follow up.
- Appreciation and recognition to celebrate achievements



Burn-down Chart

- This is a way to look at the task vs timeline.
- Similar visually to a Gantt Chart in what data it includes.
- Live and continually updated as project develops.
- Reflects **actual** progress over projected progress.

Translation to Assessments

- We will closely emulate this process through our assessments.
- Each assessment forms a section of the Scrum Framework.
- Evidence will be gathered through these to ensure you lead and facilitate your teams.
- Acting as a product owner to support the team, while also liaising with stakeholders to ensure product quality.
- Make sure all meetings are documented and recorded where possible (according to simulated work environment policies and procedures).
- Evidence must be submitted or observed to be resulted.

Assessment Structure