Agile Methodology: For Developers

Session 2

Agenda

- ▶ Introduction to SCRUM

- ▶ The Agile Manifesto

- ▶ SCRUM Framework

- ▶ SCRUM Roles, Ceremonies, Artifacts

- ▶ Daily Standup Meeting Agenda

- ▶ In class Interactive Exercise

Introduction to SCRUM

- Is an agile, lightweight process
- Can manage and control software and product development
- Uses iterative, incremental practices
- Has a simple implementation
- Increases productivity
- Reduces time to benefits
- Embraces adaptive, empirical systems development
- Is not restricted to software development projects
- Embraces the opposite of the waterfall approach

The Agile Manifesto

Individuals and interactions over **Process and tools**

Working software over **Comprehensive documentation**
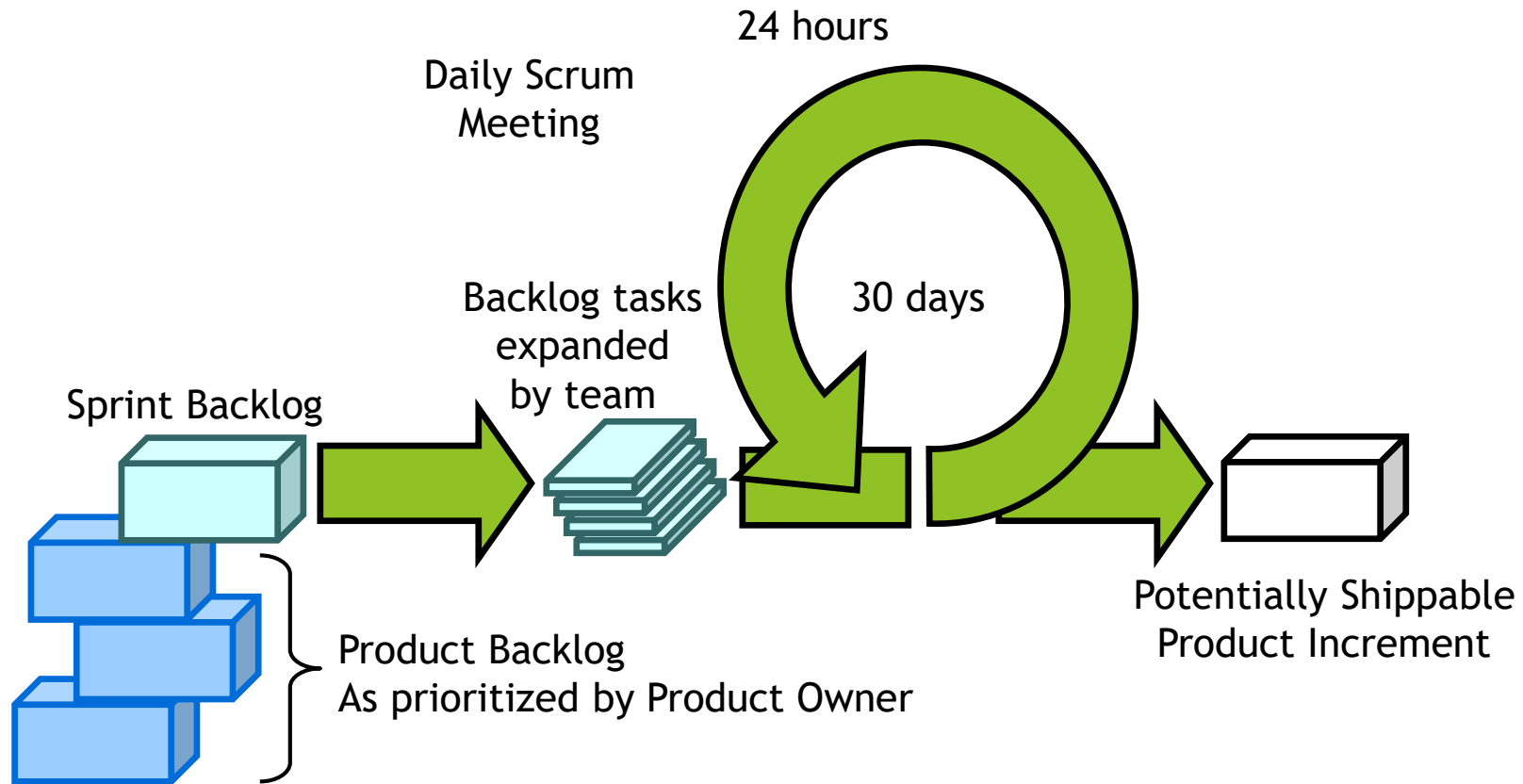
Customer collaboration over **Contract negotiation**

Responding to change over **Following a plan**

SCRUM Framework at a Glance

SCRUM Framework – Roles, Ceremonies, Artifacts

Roles
- Product owner
- Scrum Master
- Team

Ceremonies
- Sprint planning
- Sprint review
- Sprint retrospective
- Daily scrum meeting

Artifacts
- Product backlog
- Sprint backlog
- Burndown charts

SCRUM roles - Defined

- Product Owner
  - Possibly a Product Manager or Project Sponsor
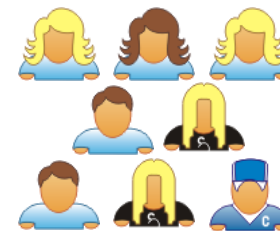 - Decides features, release date, prioritization, $$$

- Scrum Master
  - Typically a Project Manager or Team Leader
  - Responsible for enacting Scrum values and practices
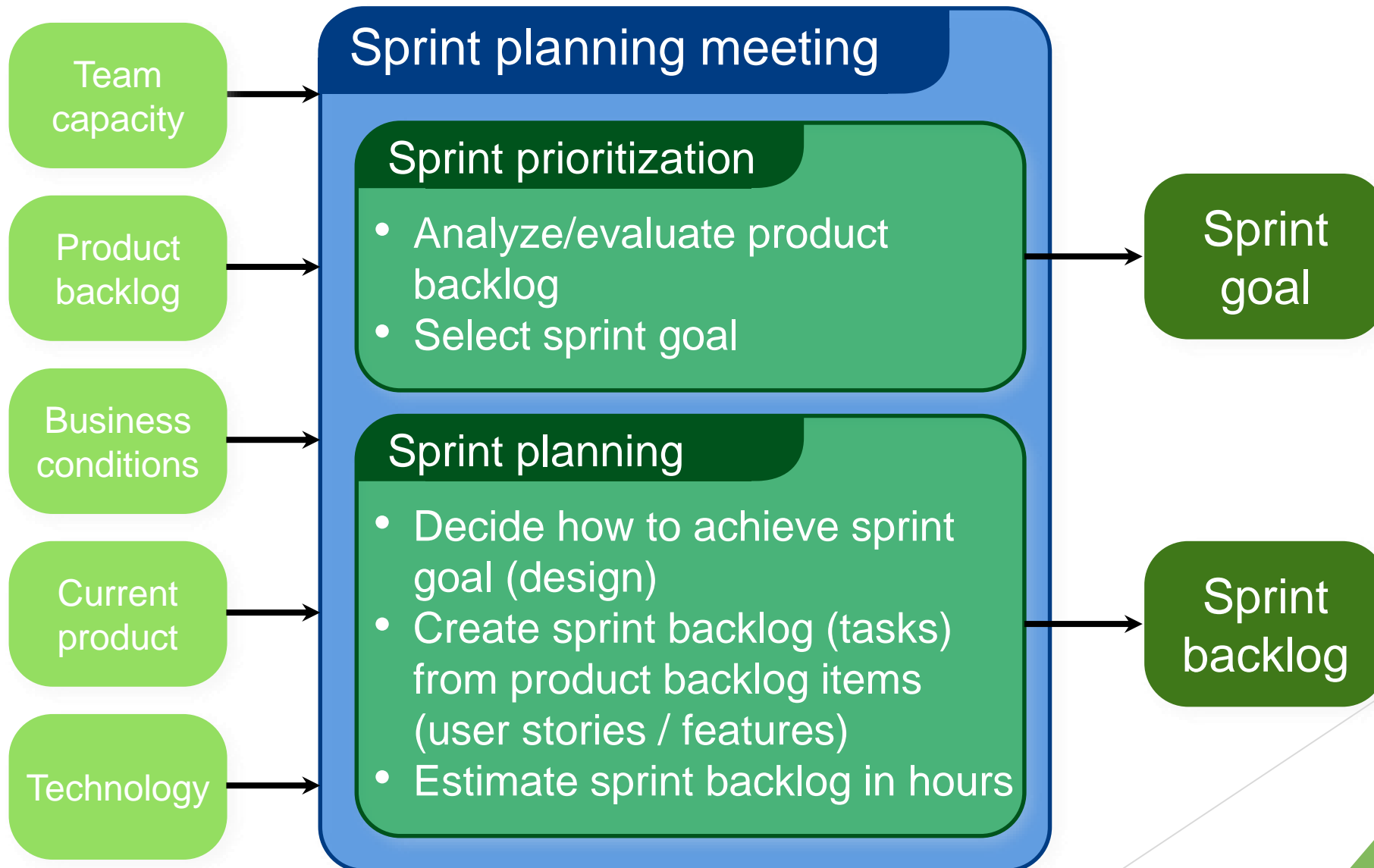 - Remove impediments / politics, keeps everyone productive

- Project Team
  - 5-10 members; Teams are self-organizing
  - Cross-functional: QA, Programmers, UI Designers, etc.
  - Membership should change only between sprints

SCRUM Ceremonies – Sprint Planning

Team capacity →

Product backlog →

Business conditions →

Current product →

Technology →

Sprint planning meeting

Sprint prioritization
- Analyze/evaluate product backlog
- Select sprint goal

→ **Sprint goal**

Sprint planning
- Decide how to achieve sprint goal (design)
- Create sprint backlog (tasks) from product backlog items (user stories / features)
- Estimate sprint backlog in hours

→ **Sprint backlog**

Daily Scrum/Standup Meeting

- Parameters
  - Daily, ~15 minutes, Stand-up
  - Anyone late pays a $1 fee

- Not for problem solving
  - Whole world is invited
  - Only team members, Scrum Master, product owner, can talk
  - Helps avoid other unnecessary meetings

- Three questions answered by each team member:
  1. What did you do yesterday?
  2. What will you do today?
  3. What obstacles are in your way?

In Class Interactive Exercise

- Students can split up into SCRUM team members
- Mini in-class project on library management system

Open for Questions

- Thank You