How Scrum works

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How Scrum works

Chapters:

Waterfall Model

Common Issues

- Vague requirements not tied down
- Unrealistic expectations (deadlines, estimates, scope)
- Changing requirements too often / Scope creep
- Defects/Issues hamper progress
- Disappearing Resources ('people pinching')
- Support issues impact project work

Introducing Scrum

Founders of Scrum

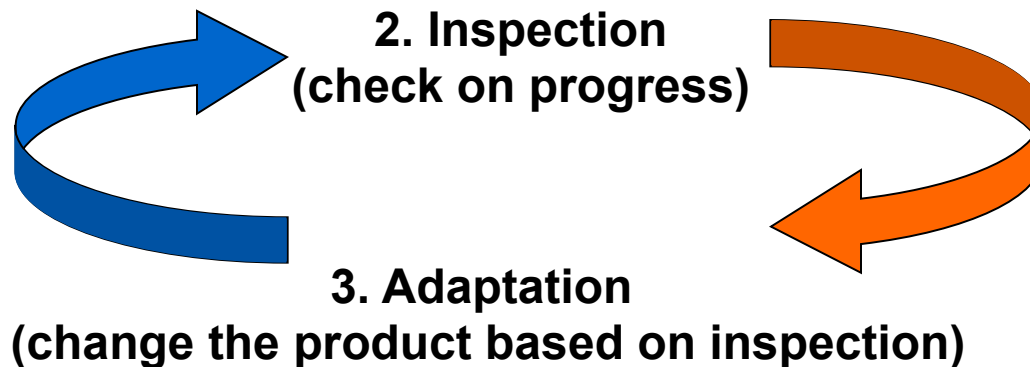- Developed by Ken Schwaber and Jeff Sutherland

What is Scrum

- "an Agile process that can be used to manage and control complex software and product development using iterative, incremental practices"

- Self organizing cross functional teams

- Working in Iterations:
  - Allows business flexibility to change requirements
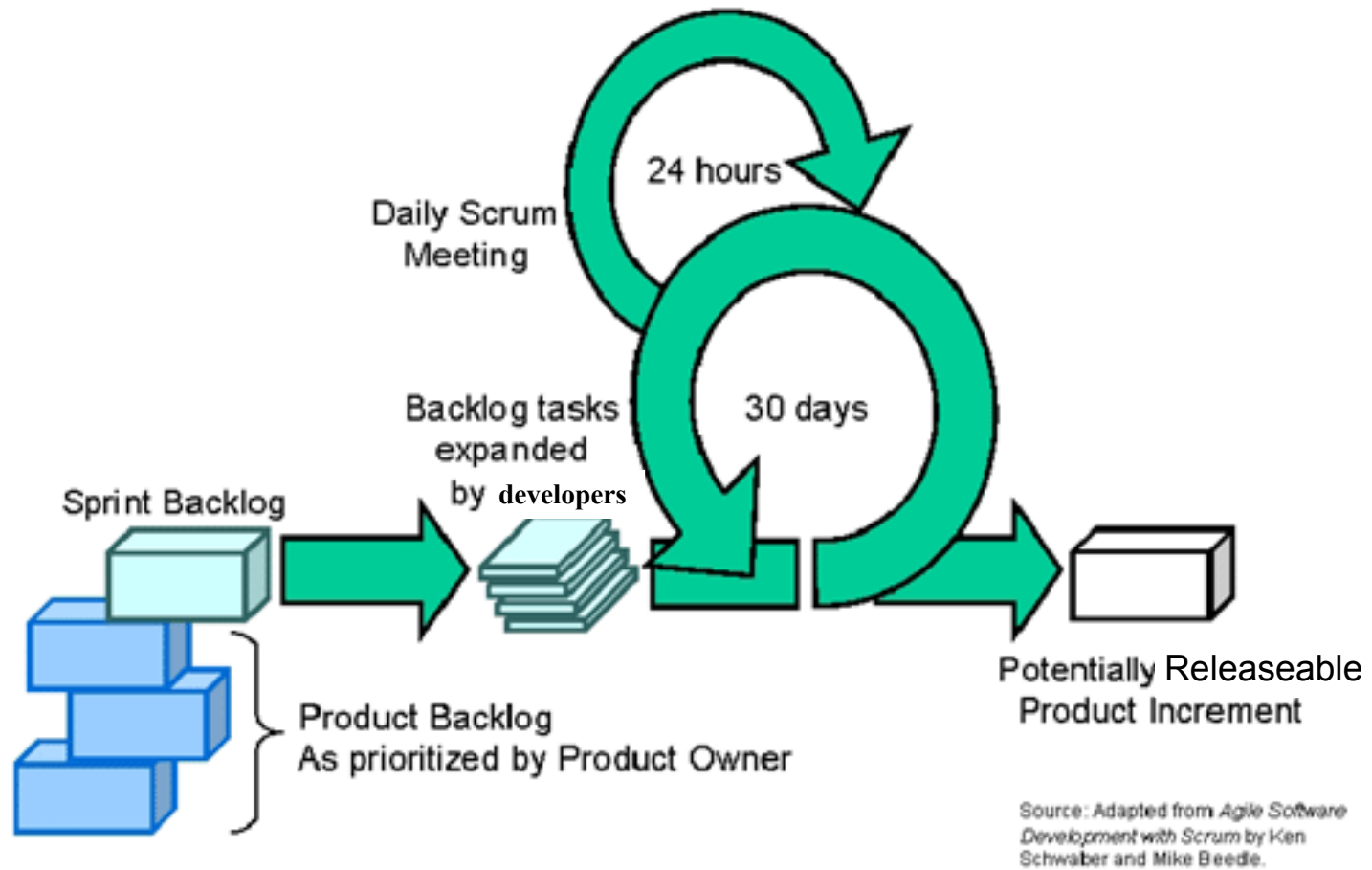 - Gives developers certainty within iteration

Scrum Theory

- Based on Empirical Process Control Theory
  - iterative
  - incremental
- Consists of 3 principles

1. Transparency (done means done)

2. Inspection (check on progress)

3. Adaptation (change the product based on inspection)

The Scrum Skeleton

24 hours

Daily Scrum Meeting

30 days

Backlog tasks expanded by **developers**

Sprint Backlog

Product Backlog
As prioritized by Product Owner

Potentially Releaseable Product Increment

Source: Adapted from *Agile Software Development with Scrum* by Ken Schwaber and Mike Beedle.

Scrum Roles, Rules, Timeboxes and Artifacts

Roles

- Scrum Master
- Product Owner
- Developers

Scrum Events

- Sprint
- Sprint Planning Meeting
- Sprint Review
- Sprint Retrospective
- Daily Scrum

Artifacts

- Product Backlog
- Sprint Backlog
- Increment of Releasable Product

Establish Scrum Master, Product Owner and Team

Scrum Master

- Understands scrum rules and practices.
- Responsible for removing impediments to delivery and
- Helps team understand how to self manage and work in a Scrum manner.

Product Owner

- Creates requirements on behalf of business
- Prioritizes as per business needs
- Responsible for managing product backlog

Developers

- Create each increment of shippable product
- Self managing
- Collaborative
- Skilled in whatever is needed for project eg. design, Java, sql, information architecture

Build Initial Product Backlog

- Feature from a User's perspective
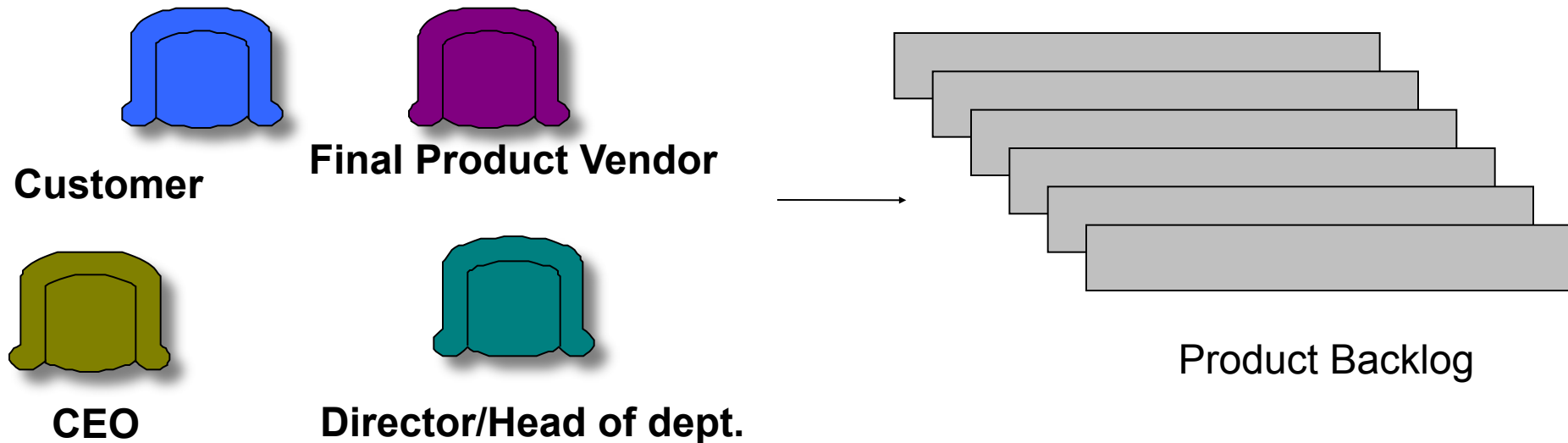
As a User

I want a News Page

So that I can see the top 10 news stories

User Story

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Build Initial Product Backlog

- Organise Stakeholder meetings
- Negotiate between stakeholders
- Find common ground
- Manage Changing requirements as needed

Customer

Final Product Vendor

CEO

**Director/Head of dept.**

Product Backlog

Release Planning Meeting

Note: Release Planning is not an official event in scrum but still recommended for complex projects.

- select items from product backlog prioritised for first release
- give high level estimates for each item (eg. story points or ideal days)
- Release backlog is created

Product Backlog

Release Backlog
(subset of product backlog)
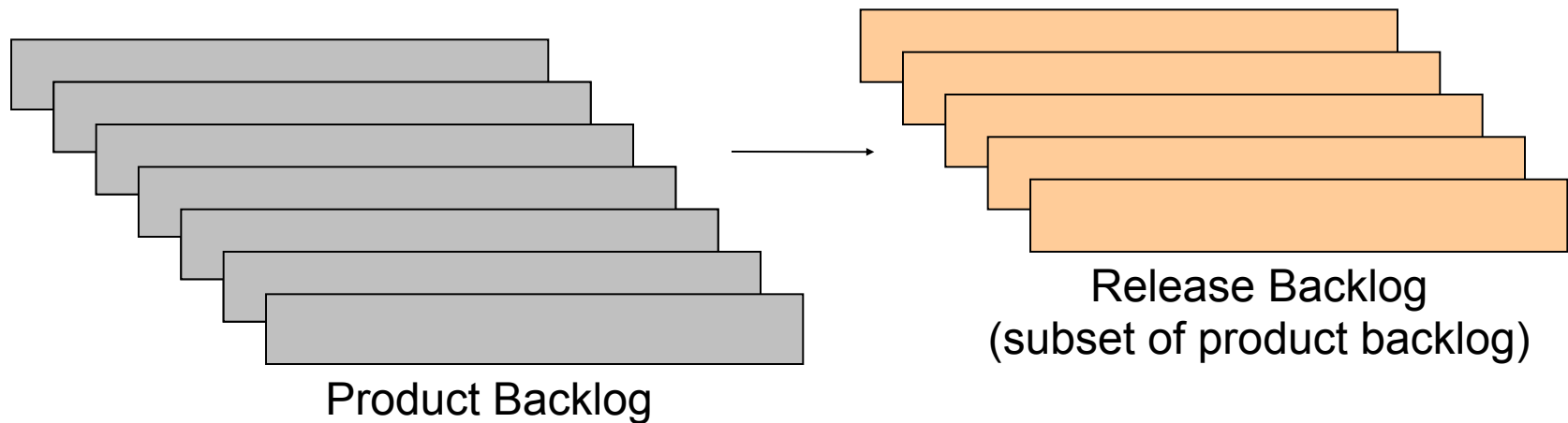
Release Burn Down
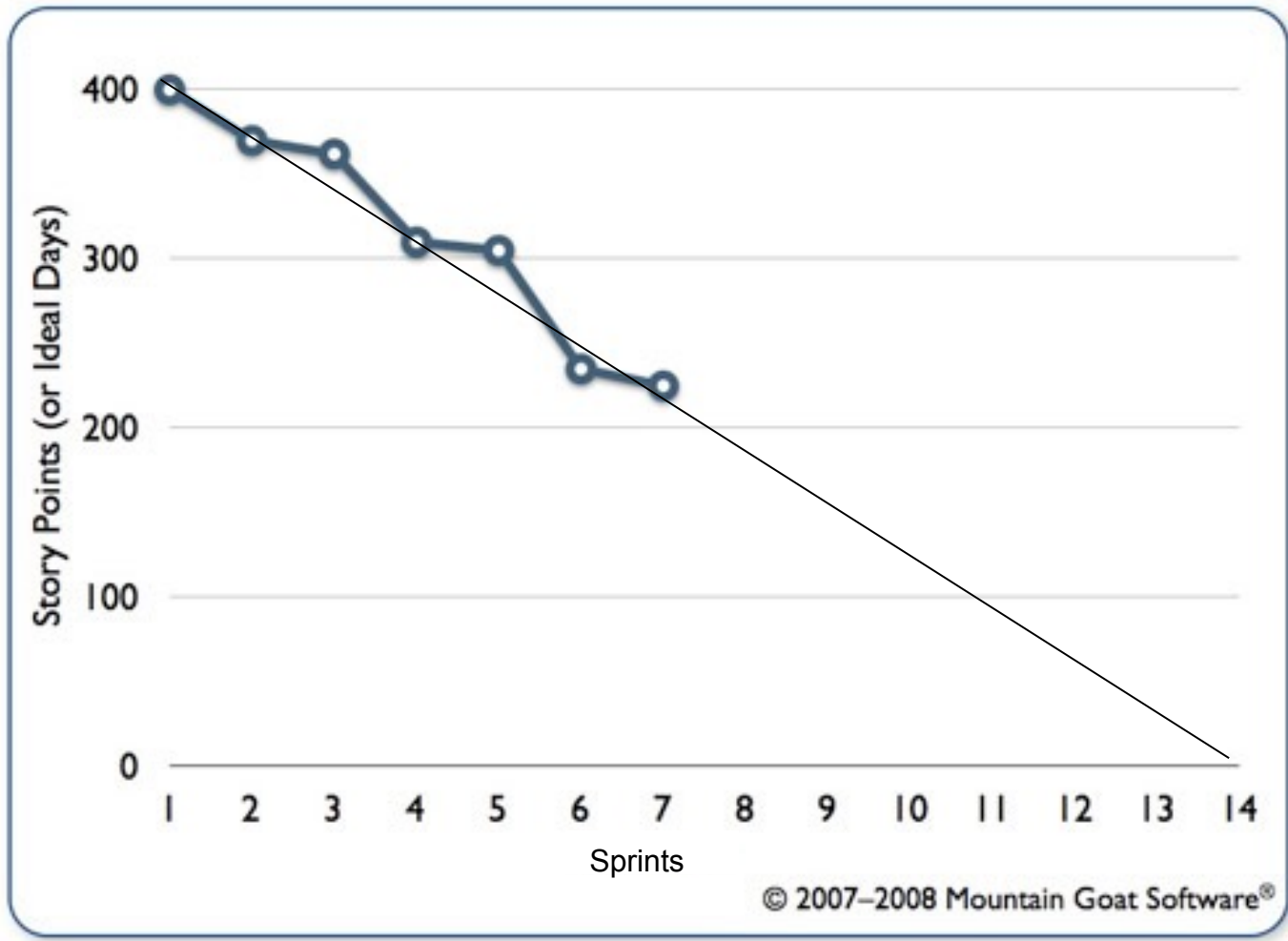
Sprint Planning Meeting

- Prioritised selection of items chosen from release backlog
- The team break the items (stories) into sub tasks
- Sub tasks are given estimates (hours) and stories also given estimates (complexity points/ideal days)
- Agree velocity
- Pick stories that fit into velocity
- Estimates and stories form Sprint backlog

Release Backlog
(subset of product backlog)

Sprint Backlog
(subset of release backlog with sub tasks)
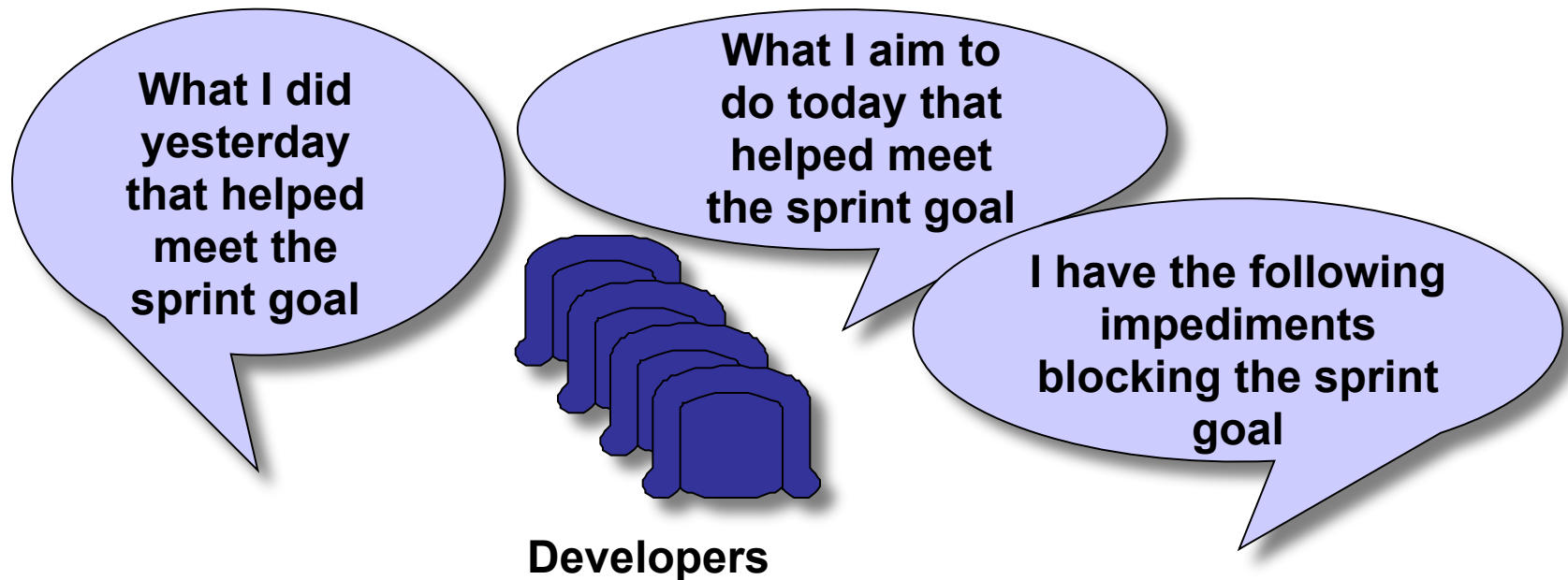
Subtasks

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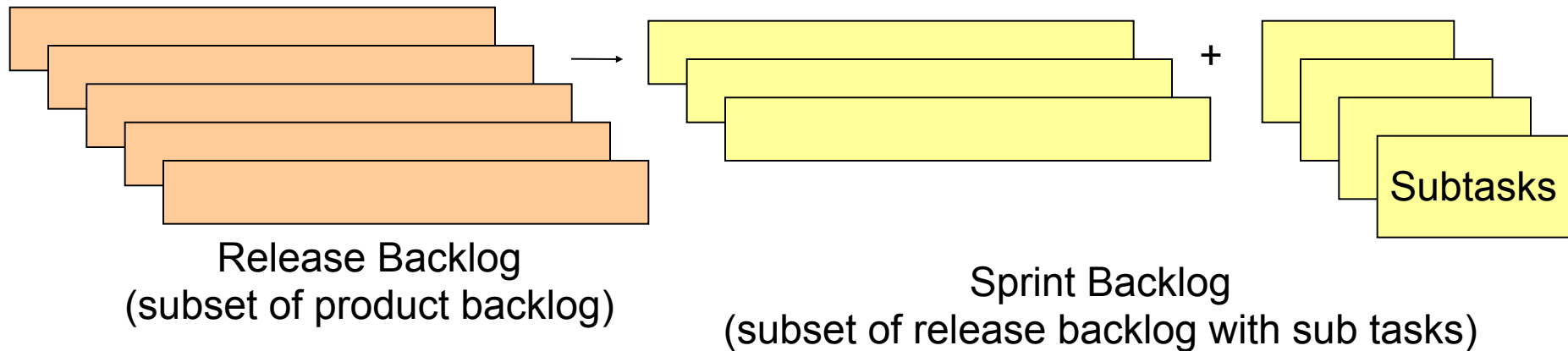
Sprint

- 1 month or less
- Cannot change items in sprint backlog
- Developers work on tasks from Sprint Planning meeting
- Aim to complete all tasks (and therefore items in backlog)
- Any items not completed are assessed for roll over to next sprint

+

Subtasks

Sprint Backlog
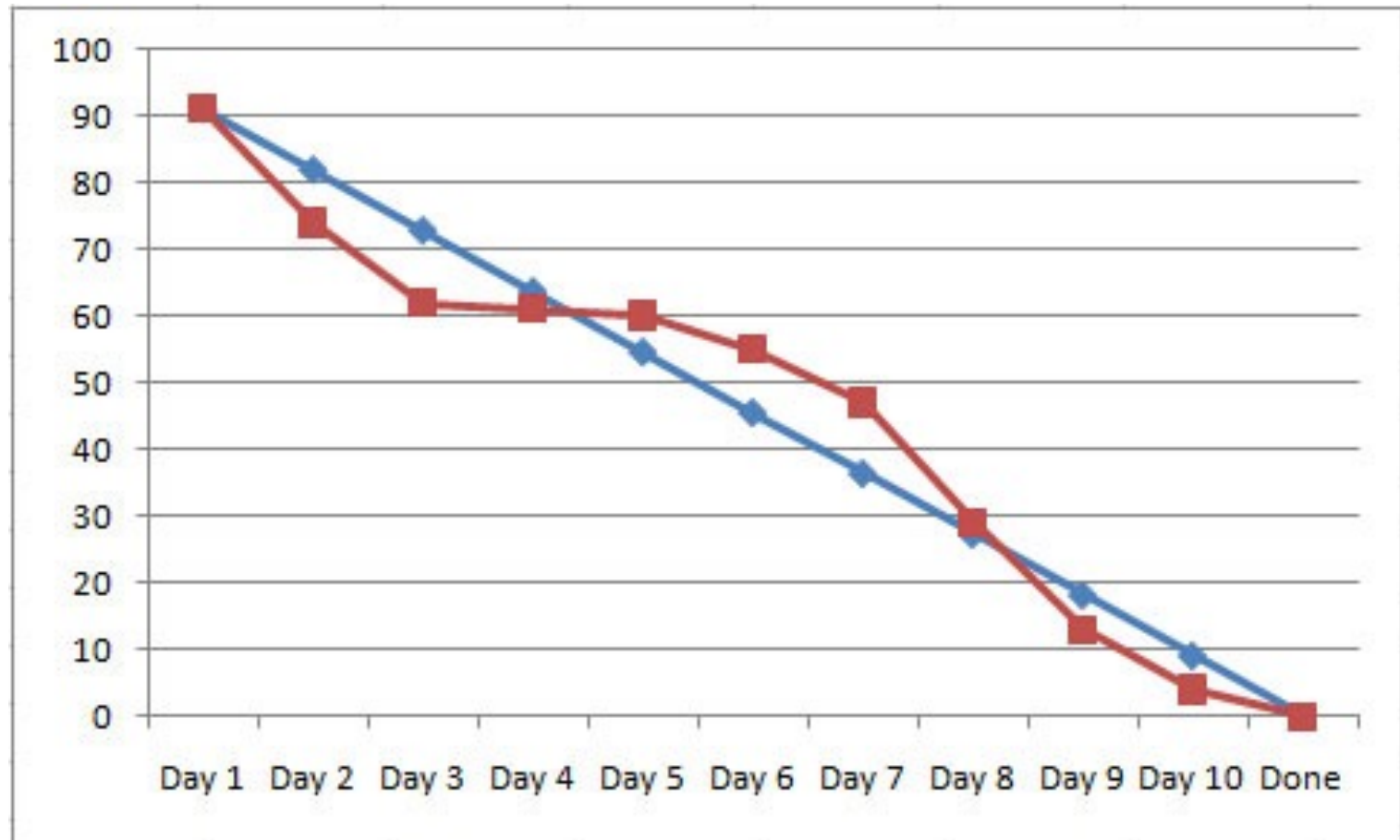(subset of release backlog with sub tasks)
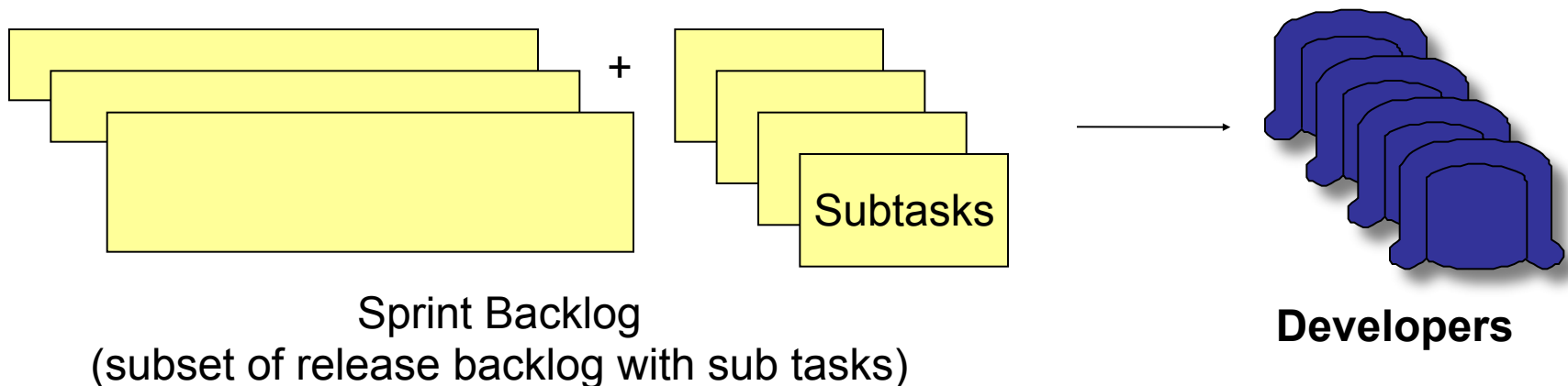
Developers

Daily Scrum

- Developers must attend
- Meeting held in same spot daily
- Scrum master facilitates but does not have to be present
- One person speaks at a time
- Burndown and sprint backlog are visible
- Typical (not prescribed) questions below…

What I did yesterday that helped meet the sprint goal

What I aim to do today that helped meet the sprint goal

I have the following impediments blocking the sprint goal

Developers
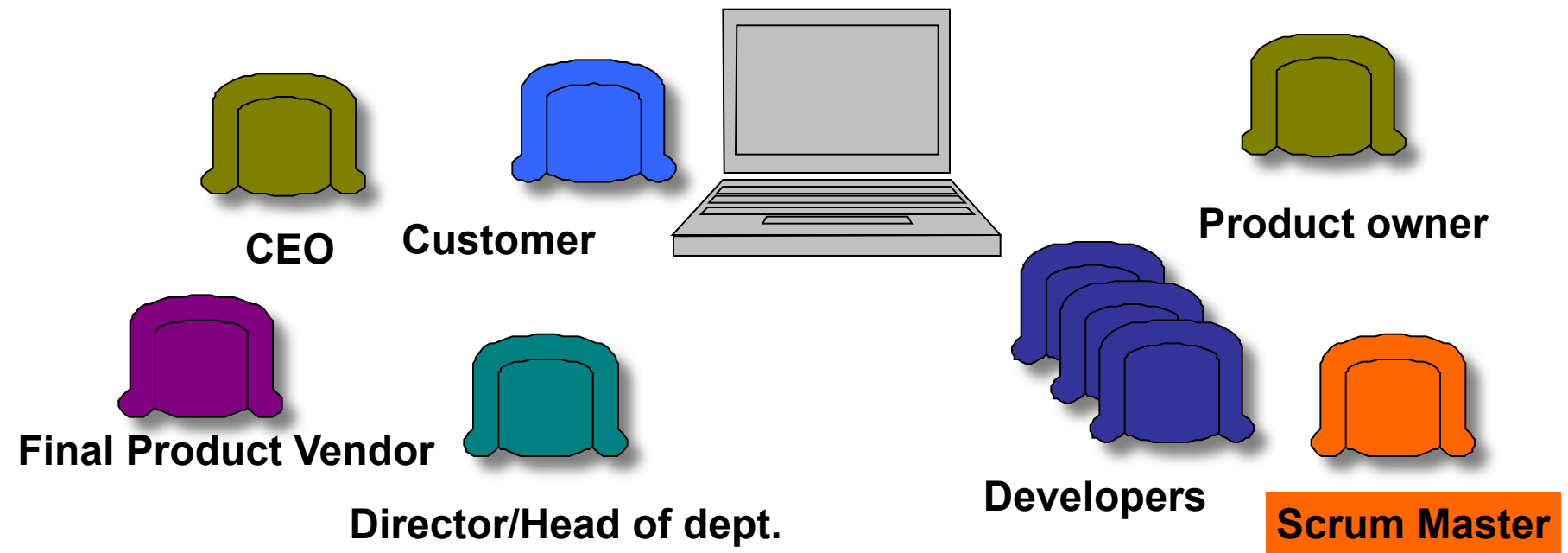
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Sprint Burn Down

Sprint Review

- Demo of the sprint's functionality
- Stakeholders present
- Product owner and Stakeholders discuss backlog
- Stakeholders ask questions and suggest product backlog items

CEO

Customer

Product owner

Final Product Vendor

Director/Head of dept.

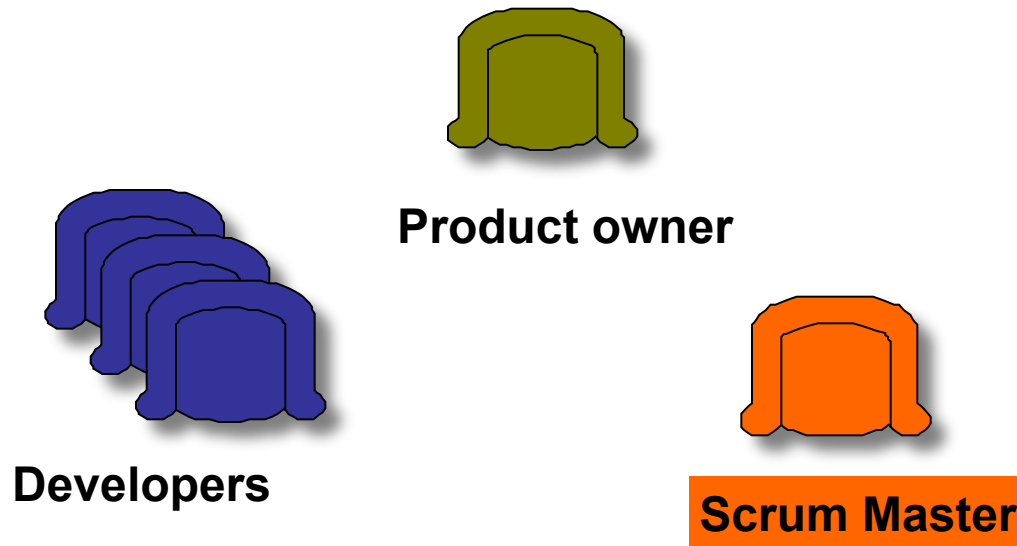**Developers**

Scrum Master

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Increment

- Deployable to the live system (potentially releasable)
- Collection of all features from the sprint plus all previous features
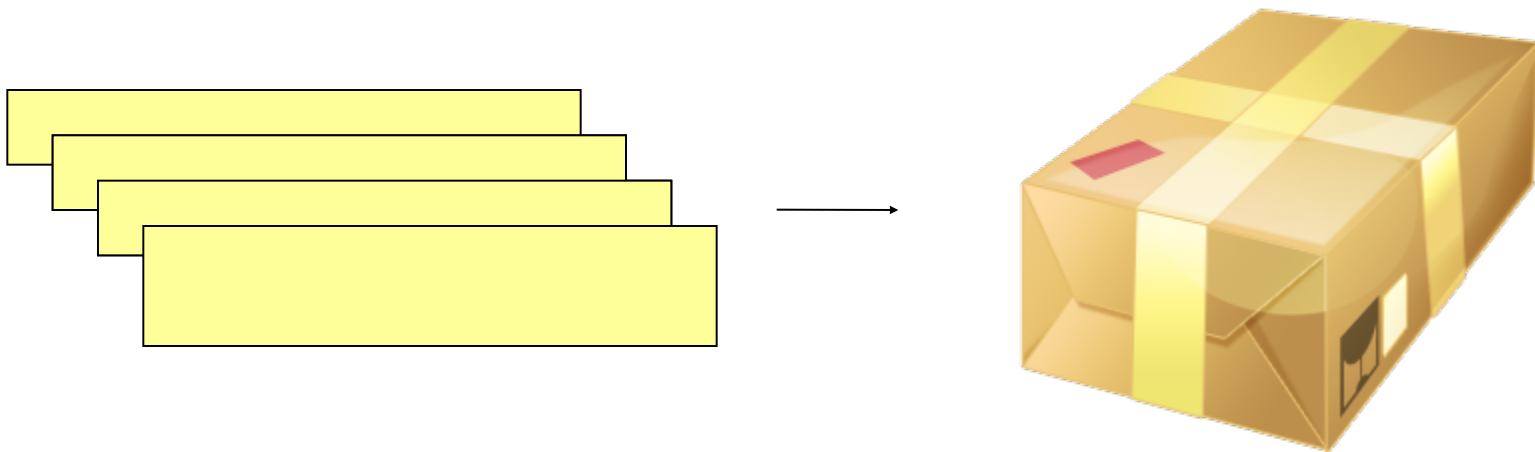
Sprint Retrospective

- What went well this sprint?
- What could we improve next sprint?
- E.g. Dev Environment, working practices, communication

Product owner

Developers

Scrum Master

How Scrum works

Thanks for your time

Any Questions ?