Scrum Overview

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AMOS C03

Principles of the Agile Manifesto [A01]

1. **Individuals and Interactions**
   (over Processes and Tools)
2. **Working Software**
   (over Comprehensive Documentation)
3. **Customer Collaboration**
   (over Contract Negotiation)
4. **Responding to Change**
   (over Following a Plan)

Process and Technical Practices

Scrum
(for process practices)

XP
(for technical practices)

Scrum Definition 1 / 2

- An agile method, invented around 1993, 1995
- A rugby situation requiring intense collaboration

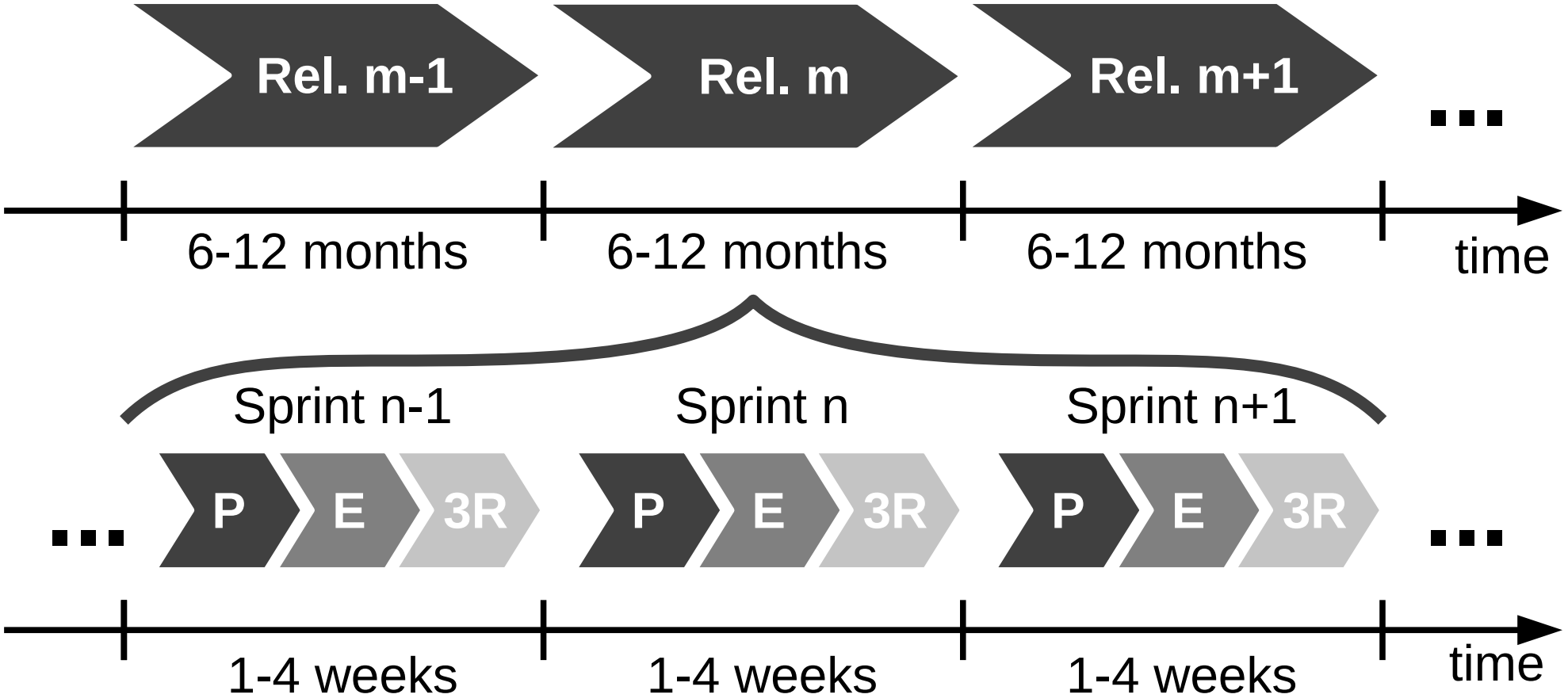
Scrum Definition 2 / 2 [S04] [C06]

- A (minimal) agile process model
- Independent of software development
- Where definitions sometimes vary (two fathers)

Scrum Process Scope

1. Portfolio
2. **Product**
3. **Release**
4. **Sprint**
5. **Day**

Scrum Process Overview



P: Planning
E: Execution
3R: Review, release, and retrospective

Scrum Roles, Practices, and Artifacts

Roles

- Product owner
- Software developer [1]
- Scrum master

Practices

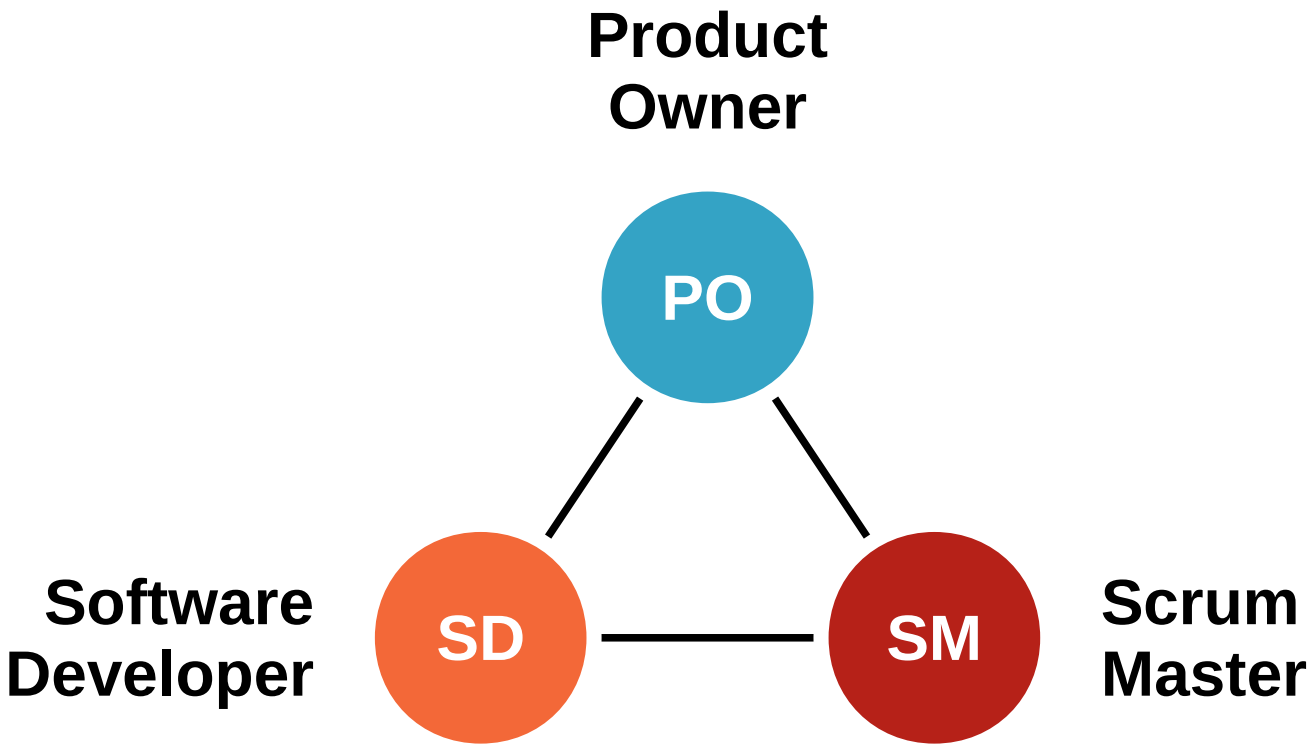
- Sprint planning
- Daily Scrum
- Sprint review
- Release planning
- …

Artifacts

- Product backlog
- Sprint backlog
- Burndown chart
- ...

[1] Originally “team members”

Scrum Roles and Responsibilities



Committed vs. Involved (Scrum Lore)

- **Committed**
  - Product owner
  - Software developer
  - Scrum master
- **Involved**
  - Customer
  - Marketing manager
  - Sponsor / funder
  - Others ...

Product Owner

- **Product owner**
  - Holds **overall responsibility** for the product being developed
  - Provides
    - **product vision,**
    - **product requirements**
  - **Plans** and helps plan **development**
  - **Tracks progress**

Product Owner Responsibilities

1. Opportunity Assessment
2. Product Specification

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3. Development Planning

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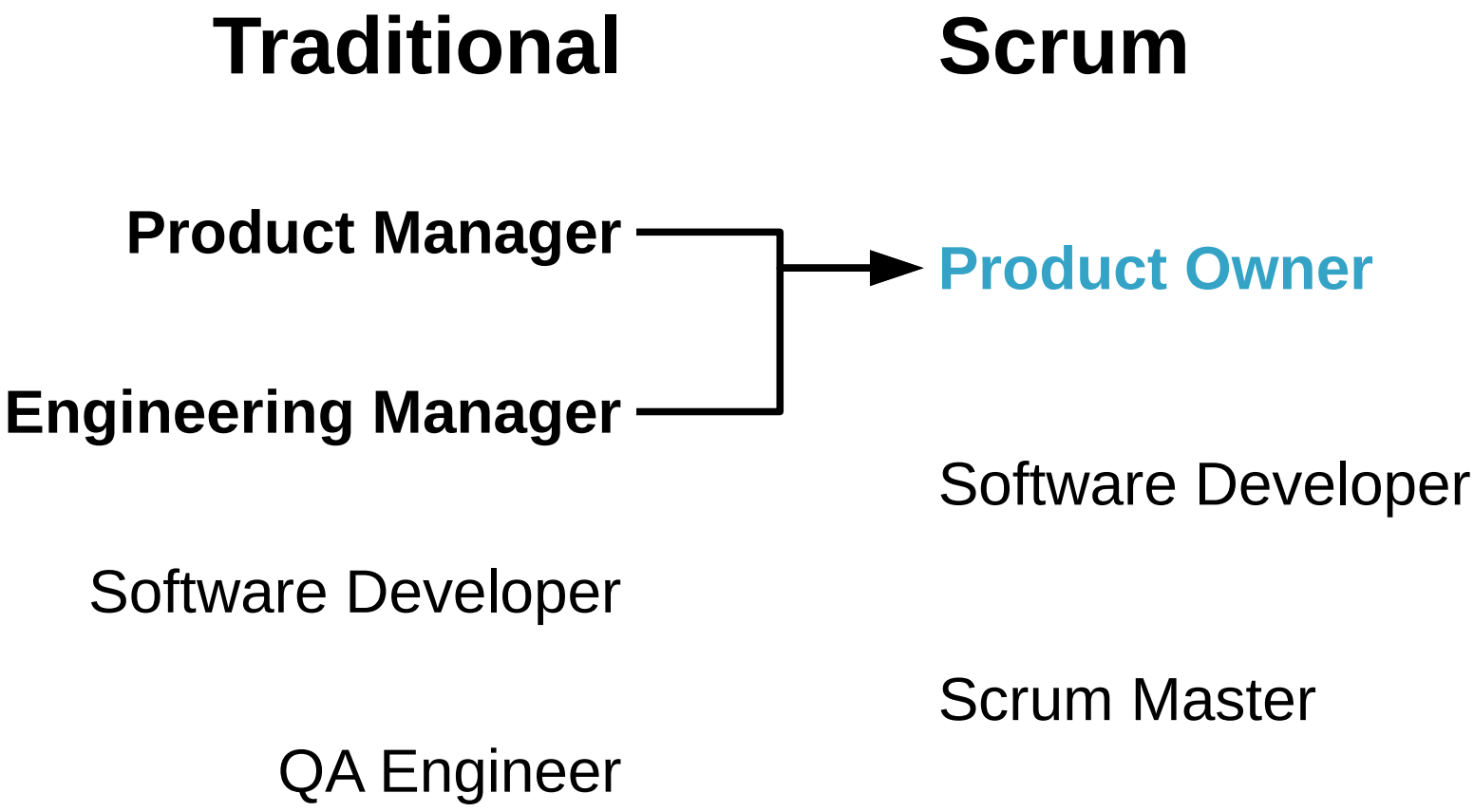
4. Progress Tracking

Traditional to Scrum Role Mapping (Recap)



Product Owner Processes and Artifacts

Processes	Artifacts
Opportunity Assessment	Product Vision
Product Specification	Product Glossary Product Backlog Feature Archive
Product Planning	Sprint Backlog Release Plan
Progress Tracking	Burndown Charts Feature Archive

Traditional vs. Scrum Product Management

- **Traditional Product Manager**
  - Product manager is responsible for product strategy and specification
  - Product manager does not interfere with detail development planning
  - Product Manager is frequently high-level, delegates product decisions to engineering
- **Scrum Product Owner**
  - Product owner is also responsible for product strategy and specification
  - Product owner shoulders some of the engineering manager role
  - Product owner is very much in the details of planning and tracking development

Scrum is a framework and thus typically enhanced with other roles and responsibilities

Software Development Team

- The **software development team**
  - Holds **overall responsibility** for **delivering working software**
    - That provides the **features** the **team committed to delivering**

Software Developer Responsibilities

1. Architecture Definition
2. Feature Implemention

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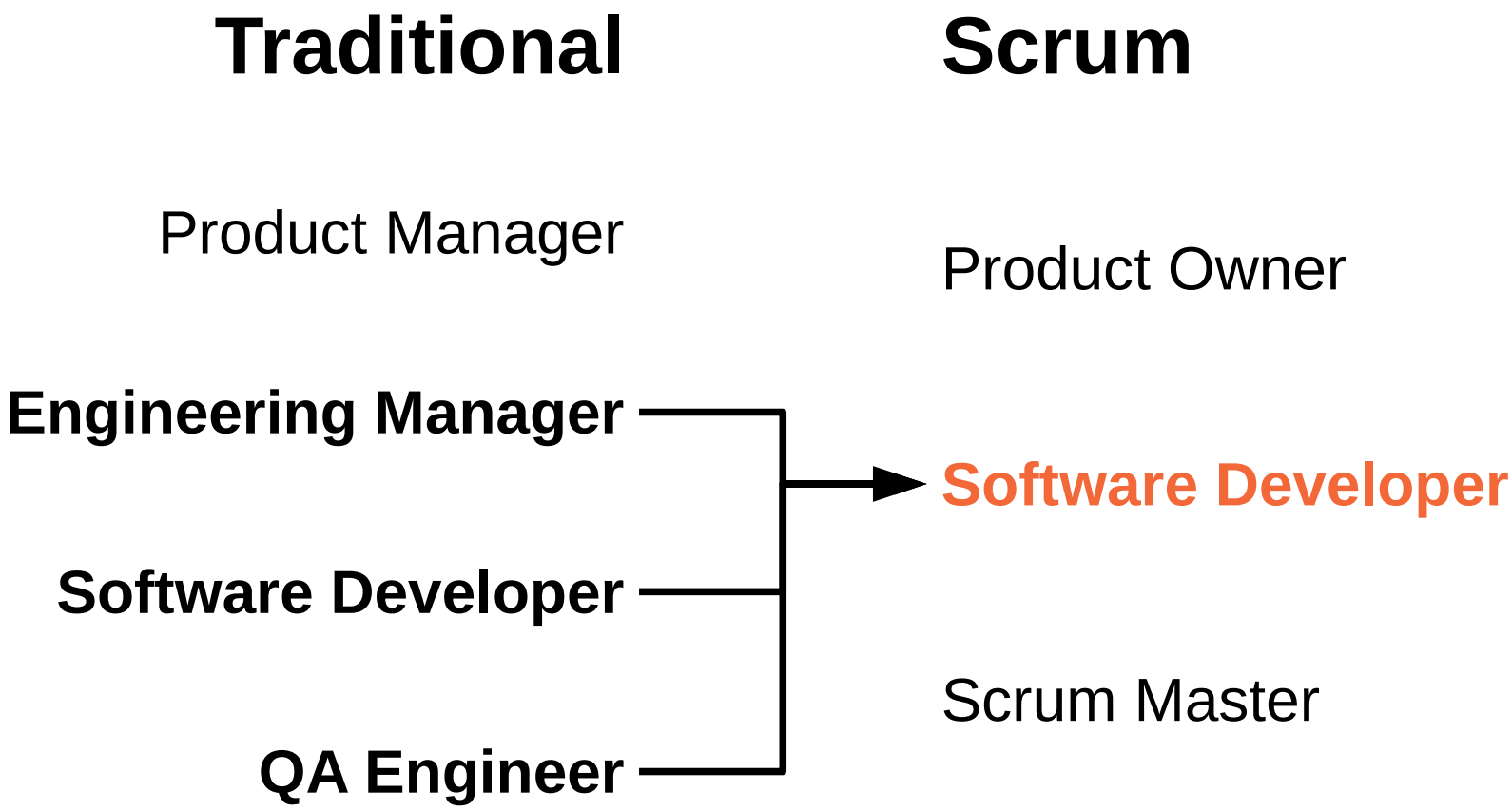
3. Size Estimation
4. Sprint Committment

Traditional to Scrum Role Mapping (Recap)



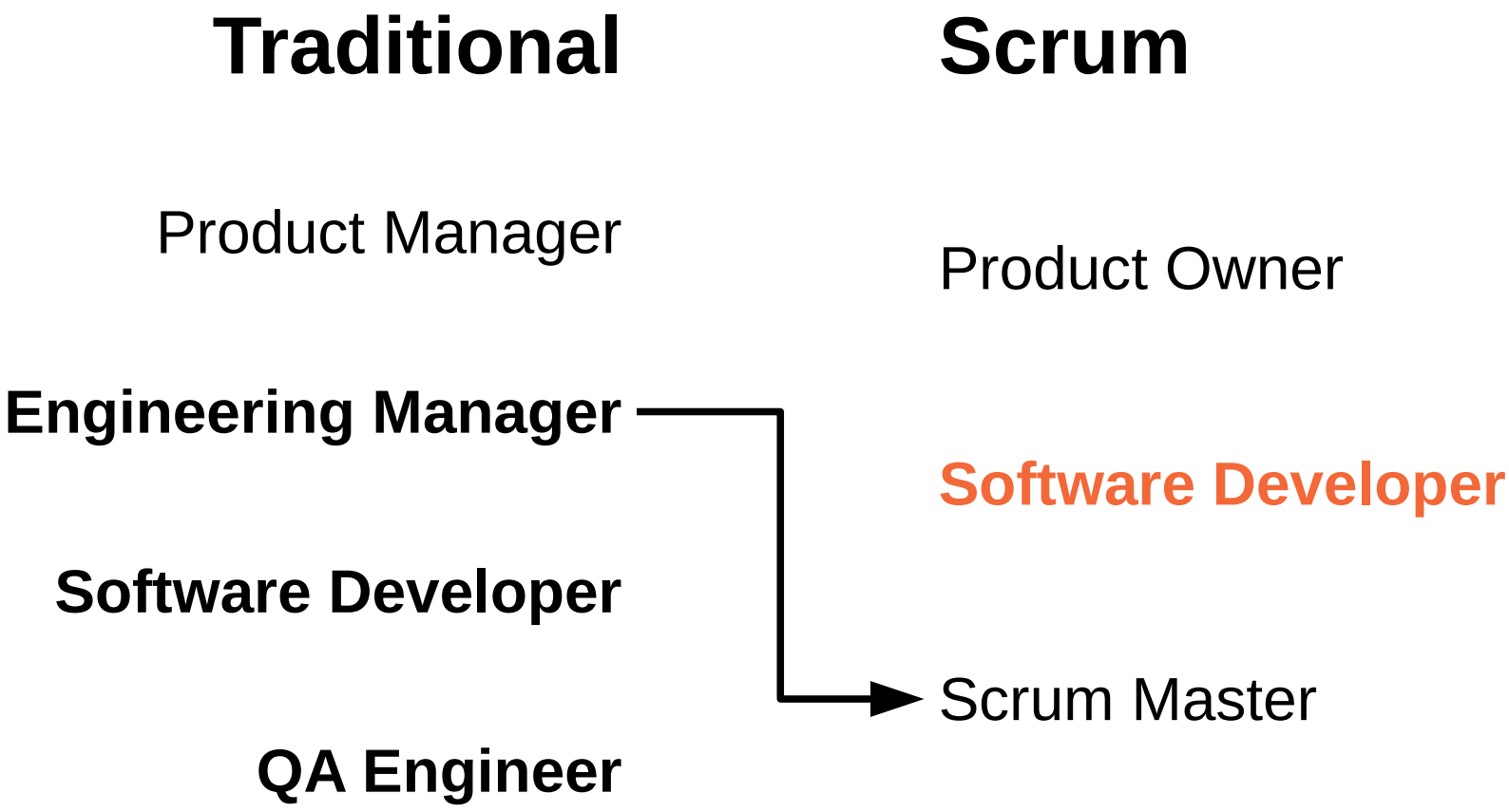
Software Developer Processes and Artifacts

Processes	Artifacts
Development Planning	Sprint Backlog
Software Development	Software
Quality Assurance	Software

Scrum Master

- **Scrum master**
  - Holds **overall responsibility** for
    - **Removing non-technical obstacles** from the project's path

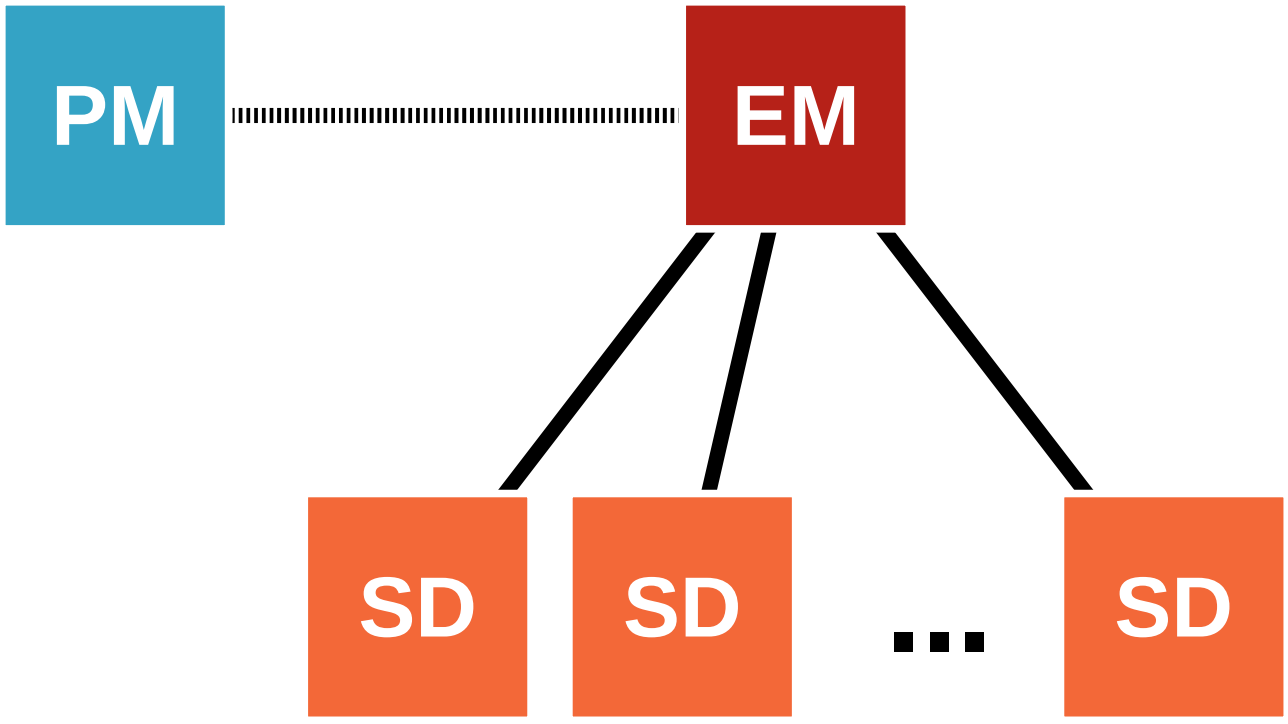
Traditional to Scrum Role Mapping (Recap)



Scrum Master Processes and Artifacts

Processes	Artifacts
Process Facilitiation	Impediment Backlog
Process Improvement	Impediment Backlog

Line Reporting (vs. Roles)



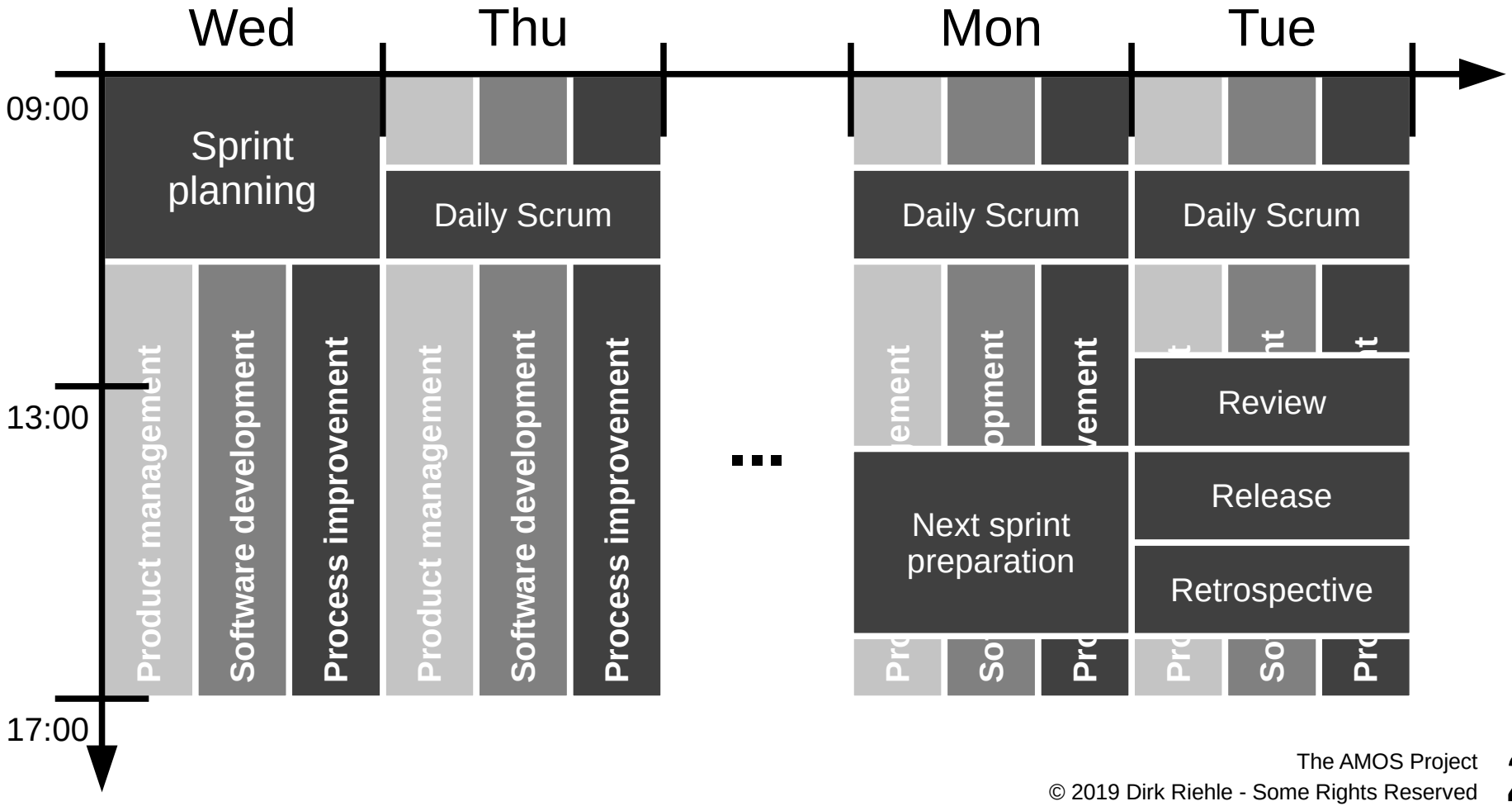
PM Product Manager
EM Engineering Manager
SD Software Developer

Scrum Sprints (Iteration)

- A sprint is Scrum's iteration; it is an equal-length time-box
- It is a highly structured process with defined feedback points

P: Planning
E: Execution
3R: Review, release, and retrospective

Sprint Structure



Main Work Streams of Sprints

1. **Product management**
   (Product owner)
2. **Software development**
   (Software developer)
3. **Process improvement**
   (Scrum master)

Sprint Planning

- Definition
  - Serves to plan the upcoming sprint's work
  - Involves product owner, software developers, and Scrum master
  - Results in sprint backlog containing the upcoming sprint's work
- Activities
  - Product owner
    - The product owner provides the prioritized list of features
  - Software developer
    - The software developers estimate feature size using planning poker
    - Features keep being added to sprint backlog until there is enough work
    - Software developers breakdown features into tasks, distribute them
  - Scrum master
    - Observes team dynamics

Sprint Execution

- Definition
  - Serves to evolve product
- Activities
  - Product owner
    - Answers developer questions about features
    - Evolves product backlog, updates release plan
  - Software developer
    - Implement features from sprint backlog
    - Interact with product owner to refine feature specifications
  - Scrum master
    - Learns about process impediments
    - Tries to fix those impediments

Next Sprint Preparation

- Definition
  - Serves to prepare the upcoming sprint planing meeting
  - Involves product owner and at least one software developer
  - Results in sufficiently comprehensive product backlog
- Activities
  - Product owner
    - The product owner provides the prioritized list of features
    - Includes high-priority bug reports as backlog entries
  - Software developer
    - Provides size estimates for highly prioritzed features
    - Adds refactorings for planning consideration

Sprint Review, Release, and Retrospective

- Definition
  - Sprint review
    - Product owner reviews results
    - Team signs off on finished features
  - Sprint release
    - Stakeholders sign off
    - If so, product is released
  - Sprint retrospective
    - Team reviews process
    - Developers commit to improvements

Review / Summary of Session

- Scrum defined
  - Scrum process overview and scope
  - Scrum roles, activities, and artifacts
  - When compared with traditional definitions

Thank you! Questions?

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