Scrum Overview

Prof. Dr. Dirk Riehle

Friedrich-Alexander University Erlangen-Nürnberg

AMOS C03

Agenda

1. Scrum overview
2. Product owner
3. Software developer
4. Scrum master
5. Core activities

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)

Scrum

(for process practices)

XP

(for technical practices)

1. Scrum Overview

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

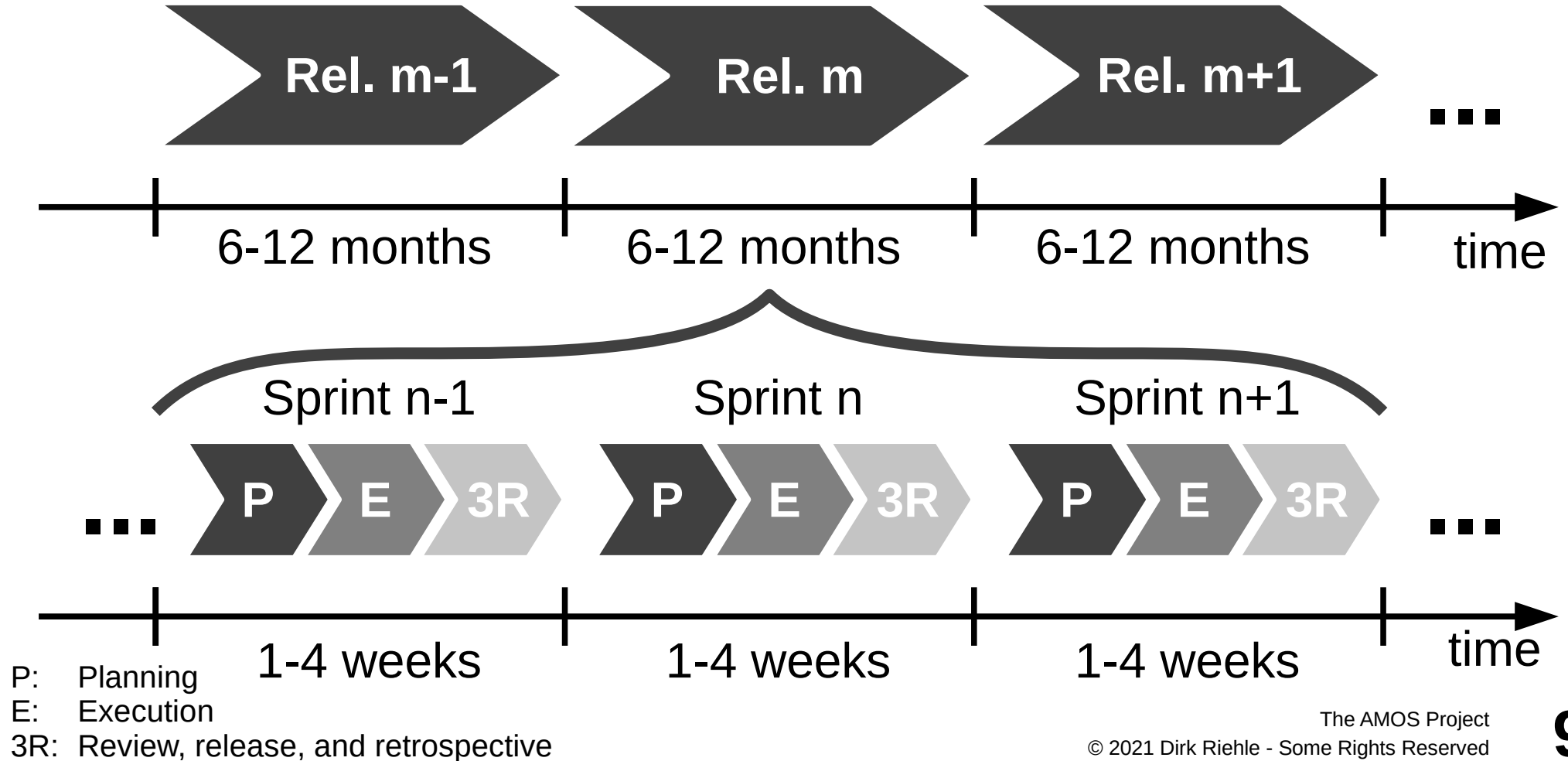- A (minimal) agile process model
- Independent of software development
- Where definitions sometimes vary (two fathers)

1. **Portfolio**
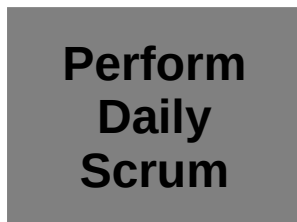
2. **Product**

3. **Release**

4. **Sprint**

5. **Day**

Scrum Process Overview

Rel. m-1   Rel. m   Rel. m+1   ...

6-12 months   6-12 months   6-12 months   time

Sprint n-1   Sprint n   Sprint n+1

... P E 3R   P E 3R   P E 3R ...

1-4 weeks   1-4 weeks   1-4 weeks   time

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

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Scrum Roles, Practices, and Artifacts

Roles

PO

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

Practices

Perform Daily Scrum

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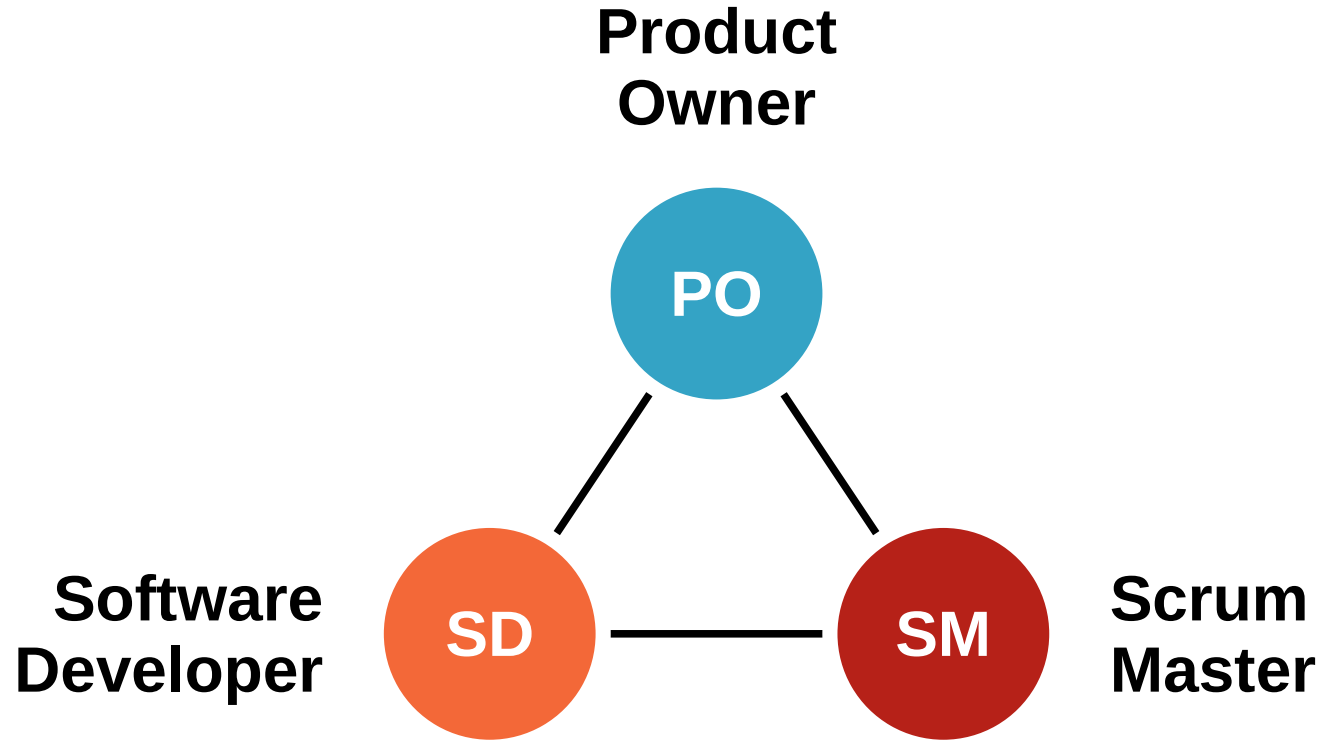- Sprint review
- Release planning
- …

Artifacts

Product Backlog

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

[1] Originally "team members"

Scrum Roles and Responsibilities

Product Owner

Software Developer

Scrum Master

Committed vs. Involved (Scrum Lore)

- **Committed**
  - Product owner
  - Software developer
  - Scrum master

- **Involved**
  - Customer
 - Marketing manager
  - Sponsor / funder
  - Others ...

2. 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)

Traditional

Scrum

Product Manager ─┐
                     ├──→ **Product Owner**
Engineering Manager ─┘

Software Developer

Software Developer

Scrum Master

QA Engineer
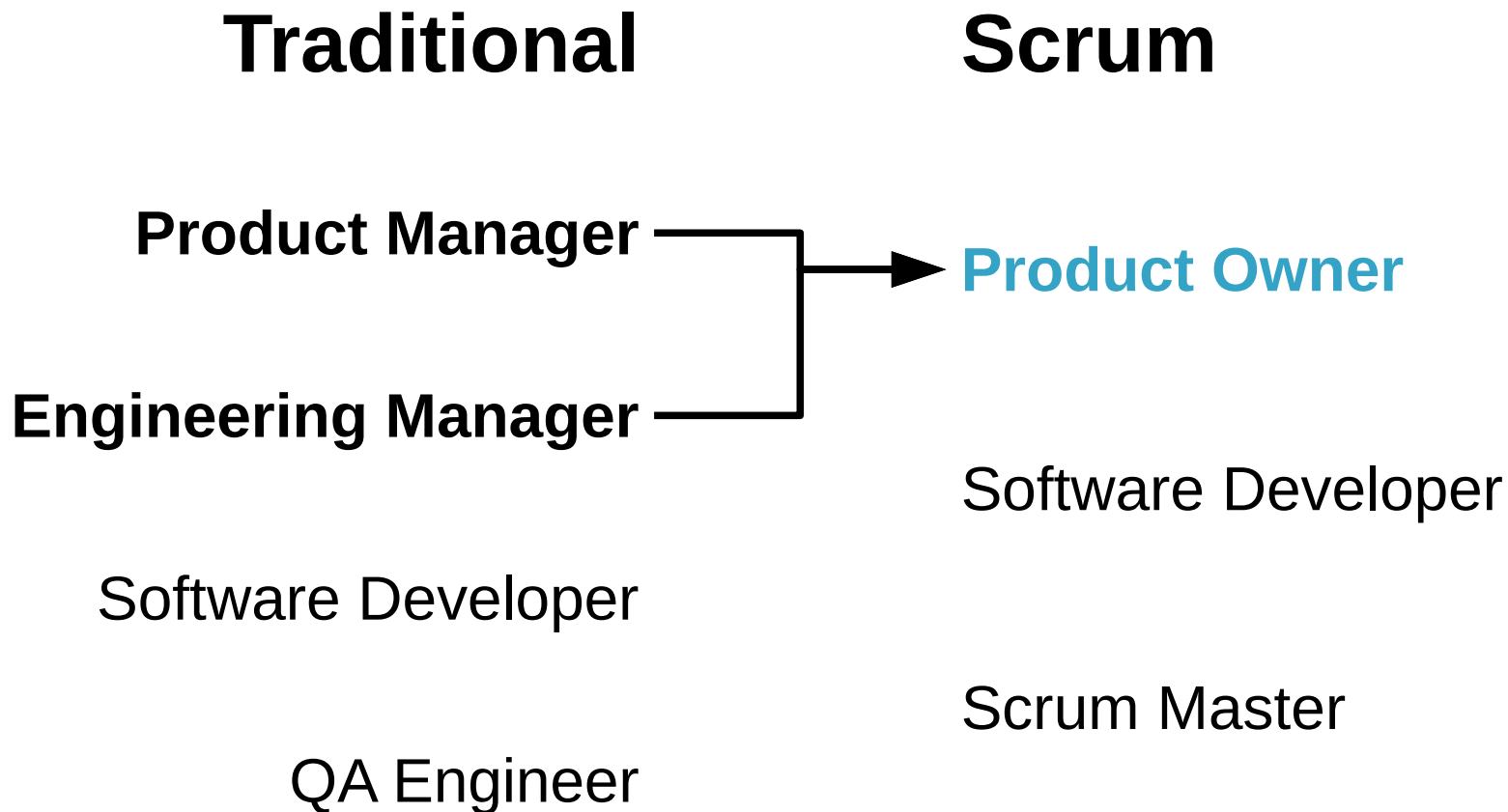
Product Owner Processes and Artifacts

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

3. Software Developer

Software Development Team

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

1. **Architecture Definition**

2. **Feature Implementation**

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3. **Size Estimation**

4. **Sprint Commitment**

Traditional

Scrum

Product Manager

Product Owner

Engineering Manager

Software Developer → **Software Developer**

QA Engineer

Scrum Master
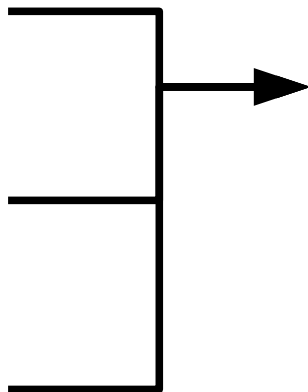
Software Developer Processes and Artifacts

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

4. Scrum Master

Scrum Master

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

Traditional

Scrum

Product Manager

Product Owner

Engineering Manager

Software Developer

Software Developer

Scrum Master
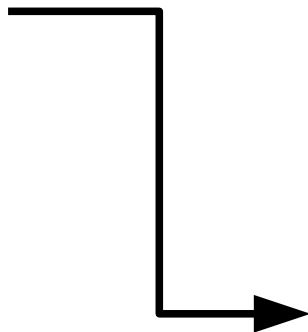
QA Engineer

Scrum Master Processes and Artifacts

Processes	Artifacts
Process Facilitiation	Impediment Backlog
Process Improvement	Impediment Backlog

Line Reporting (vs. Roles)
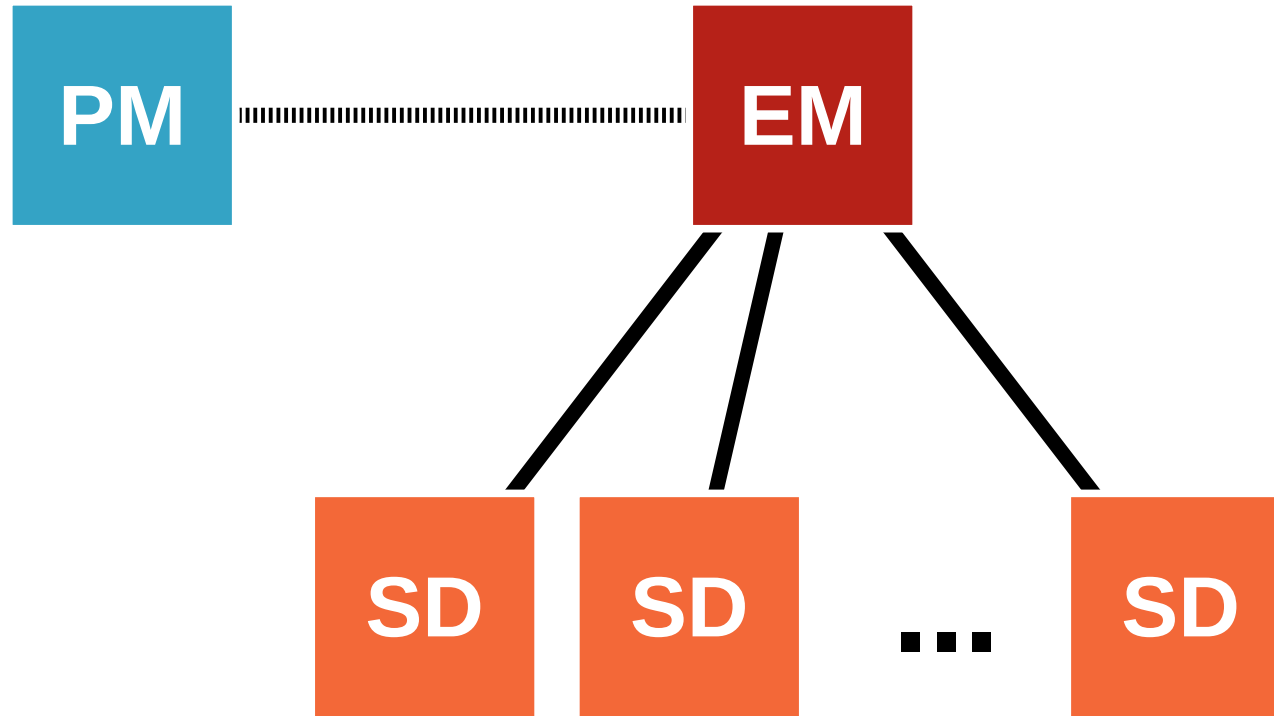
PM   Product Manager
EM   Engineering Manager
SD   Software Developer

5. Core Activities

Scrum Sprints (Iteration)

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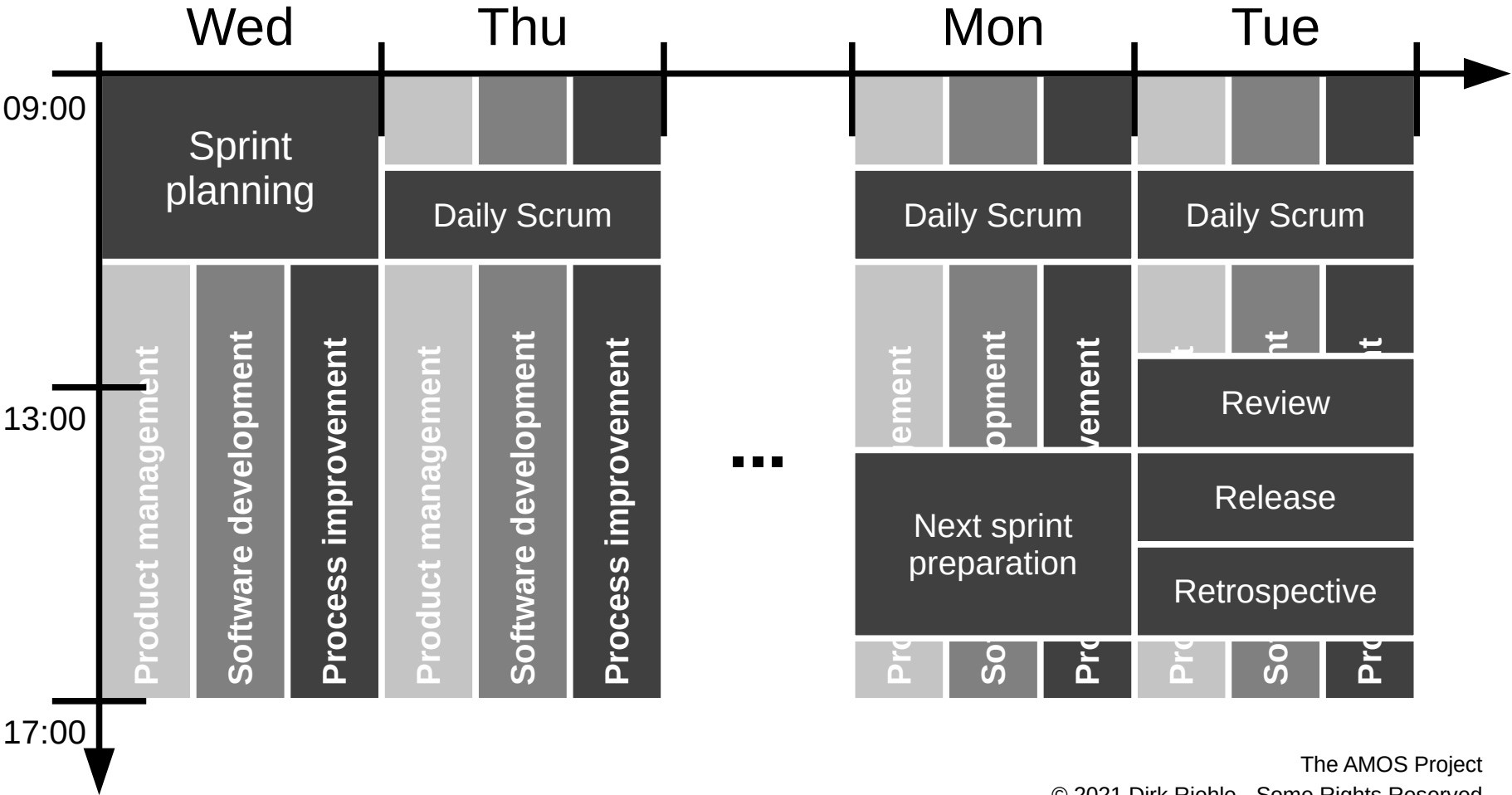- It is a highly structured process with defined feedback points

... **P** **E** **3R** ...

time

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

Sprint Structure

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 planning 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 prioritized 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?

dirk.riehle@fau.de – **http://osr.cs.fau.de**

dirk@riehle.org – http://dirkriehle.com – @dirkriehle

DR

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- Contributions
  - None yet