

Agile Software Requirements

Software Requirements Engineering – 40688

Computer Engineering department

Sharif university of technology

Fall 402

Chapter 14:

Role of the Product Manager

Product manager, Business analyst?

In product-oriented companies, **product manager** is a common role and a title that usually has a fairly clear set of responsibilities for defining and positioning the product in the marketplace.

However, we've also seen other titles carry that same responsibility within product companies.

Titles as **solutions manager** and even **program manager**.

In information systems/information technology (IS/IT) departments, the title is most typically **business analyst**.

Responsibilities of the PM (Product Company)

Three lifecycle phases:

➤ **Discovery Phase**

- Discovery covers the process of searching for and identifying opportunities.
- whether market-based or technology-based
- All of the planning and strategy to accomplish this

➤ **Development Phase**

- Primarily about realization.
- The process of converting specifications into designs.
- It ends when the products or services achieve their first commercial availability.

➤ **Commercialization Phase**

- Primarily about fulfillment
- It ends when the products or services have reached the end of their useful life cycle

Six knowledge areas (1)

1) Customer and Market Research

- Bringing external insight into product innovation.
- Insight about customers(buyers and end users)
- Information about channels, competitors, markets, alternatives

2) Technology and Intellectual Property

- The invention, development, acquisition, licensing, and management of technologies
- Intellectual property that enable and become part of products

Six knowledge areas (2)

3) Strategy, Planning, and Decision Making

- Strategies, plans, and decision-making around product innovation, development, and growth.
- These would include strategies, plans, and decision making at the business level.
- As well as for platforms, product lines or product families, and products

4) People, Teams, and Culture

- The people side of product development across the life cycle.
- Including organization/team structures, people management, skills development, culture, organization change management, human interaction.

Six knowledge areas (3)

5) Co-development and Alliances

- Innovation, development, and growth activities that take place in unison with external partners.
- Including customers, suppliers, service providers, and channels.
- This would include co-development or development chain strategy, partner management, co-development execution processes, o-development team.

Six knowledge areas (4)

6) **Process, Execution, and Metrics (including Financial)**

- Pricing, positioning, promotion, channel management, financial management, the customer support operational dimension of product innovation, development.
- Growth including: processes and tools for requirements development and management, design, manufacturing, supply chain (engineering), and change management.

Six knowledge areas in the IT/IS shop

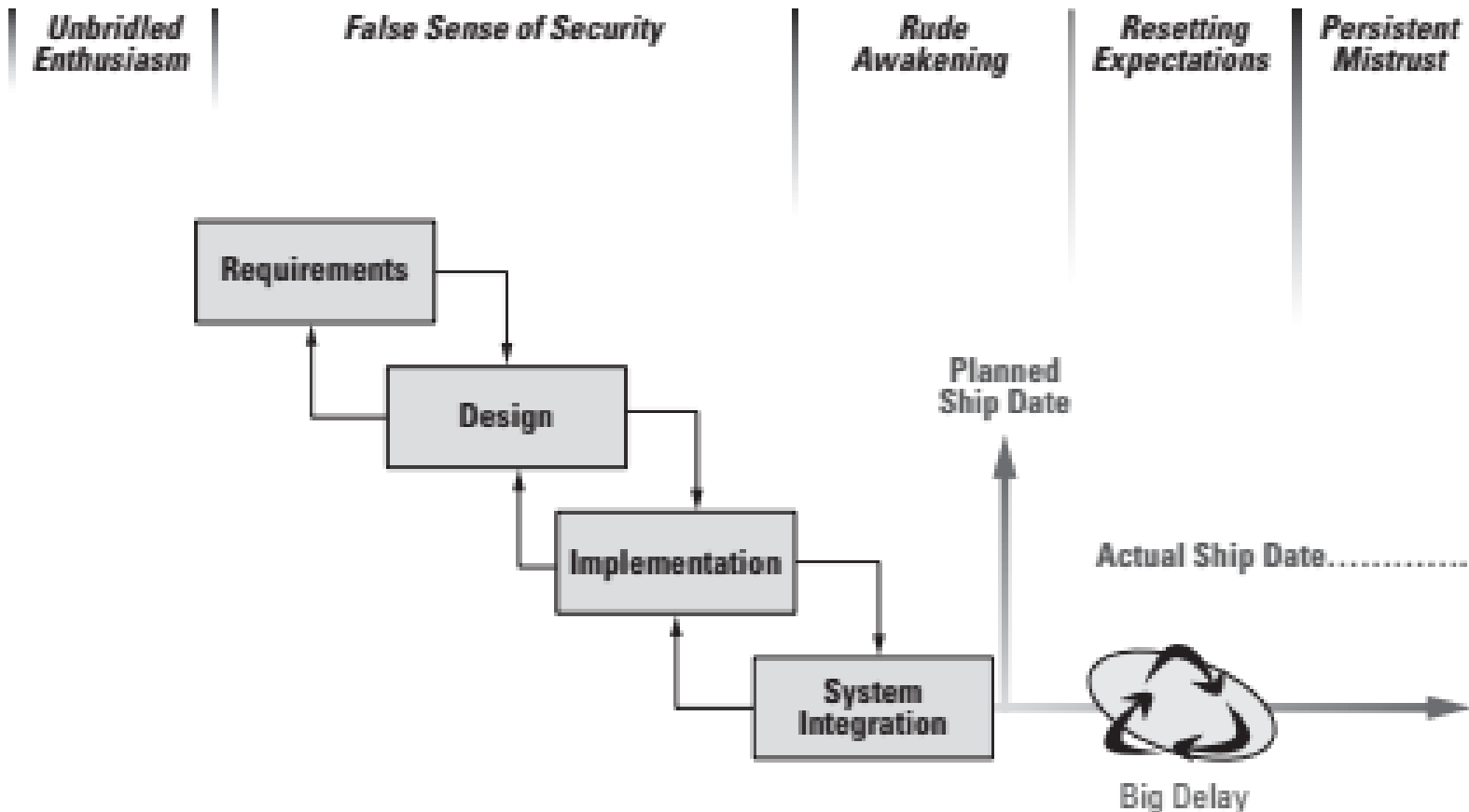
- 1) Business Analysis Planning and Monitoring
- 2) Elicitation (requirements discovery techniques)
- 3) Requirements Management and Communication.
- 4) Enterprise Analysis
- 5) Requirements Analysis
- 6) Solution Assessment and Validation

Responsibility summary

The business analyst/product managers have the primary organizational responsibility to do the following:

- 1) Understand solution needs, gaps, and opportunities
- 2) Define products and solutions to address those needs
- 3) Work within the organization to address all the other issues (internal and external) that are necessary for successful deployment.
- 4) Work with the development team to define requirements and help assure the solution evolves to meet the real needs of the stakeholders.

Phases of Product management in the Pre-agile enterprise



Phase 1:

Unbridled Enthusiasm

- The product manager spent time with customers, interviewing, running workshops, and using whatever other tools were available.
- Define and document the requirements for the prospective new system.
- These requirements were typically captured in a marketing requirements document (MRD).
- Product requirements document (PRD)
- The development team typically responded with a software requirements specification or system design specification (SDS).
- Could take from three to six months to document, review, and gain the requisite approvals
- The development effort was launched, and there was a handoff to engineering.

Phase 2: False Sense of Security

- During this phase, development proceeded apace.
- The product manager was likely uninvolved or perhaps attended periodic milestone reviews.
- Models, documents, and project plans were reviewed and inspected.
- At the end of this period, which typically lasted from 8 to 12 months, the software was declared to be 90% complete.
- Launch plans were put into place.
- Customers were notified that the release was impending.
- External and internal release commitments were solidified.

Phase 3: Rude Awakening

- This phase is a painful one.
- During system integration, many defects were discovered.
- Some design-related and the dreaded defect triage process began.
- Now it became obvious that the schedule would not be met.
- Customers discovered that it was not exactly what they currently needed.
- This was a period of *substantial* pain for product managers and for *all* key stakeholders, including development.

Phase 4: Resetting Expectations

- A period of rework and recovery inevitably followed.
- The scope was typically slashed dramatically, and commitments for schedule and functionality were renegotiated.
- Credibility was lost throughout the enterprise.
- The development team to its stakeholders.
- The product managers to their external stakeholders.

Phase 5:

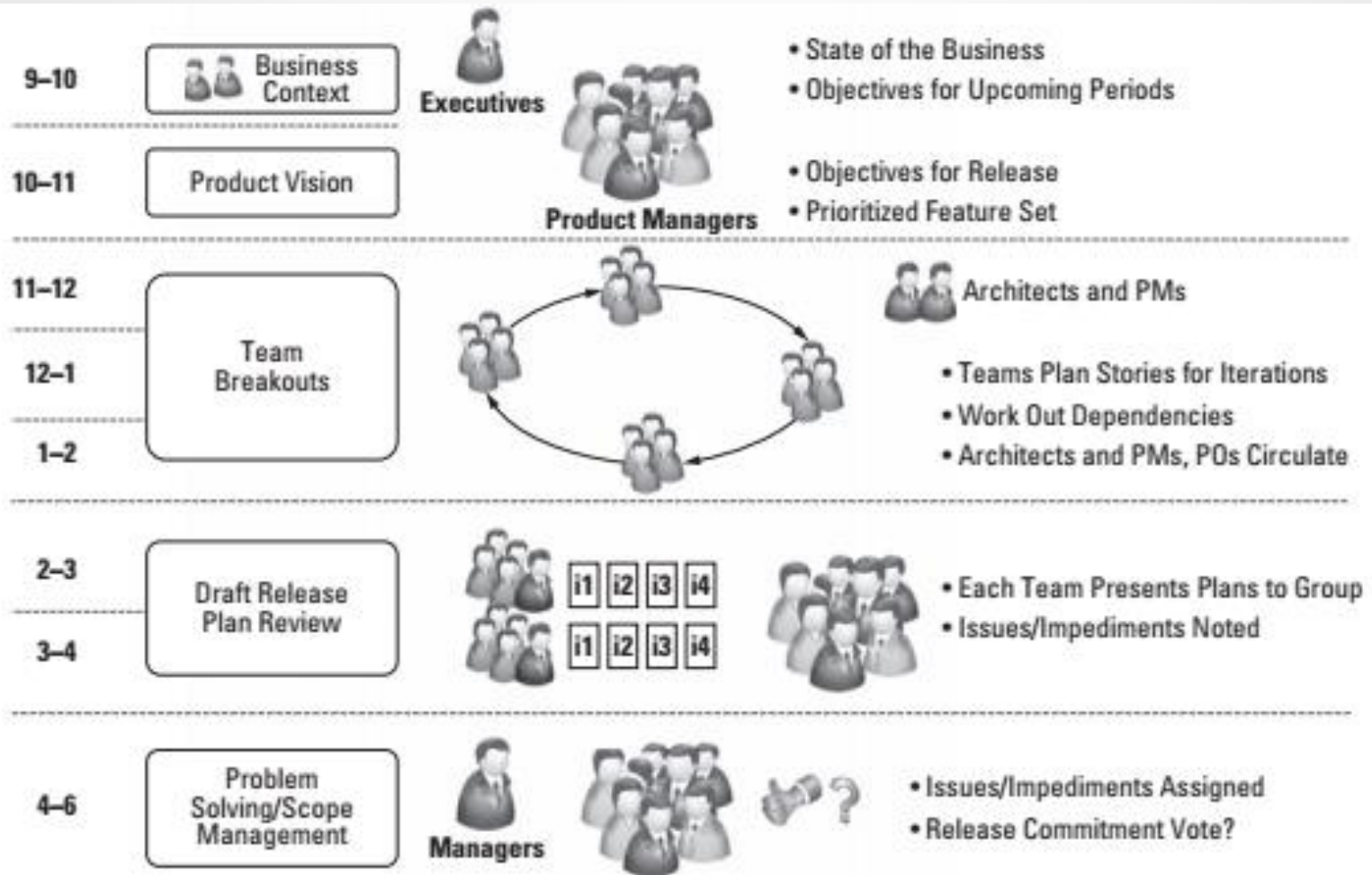
The Season of Perpetual Mistrust

- This is a mistrust between the development and product management organizations.
- The product managers learn that they get only about half what they ask for in the each delivery.
- They often resolve to ask for twice as much in the next go-around.
- So, the vicious cycle feeds on itself.

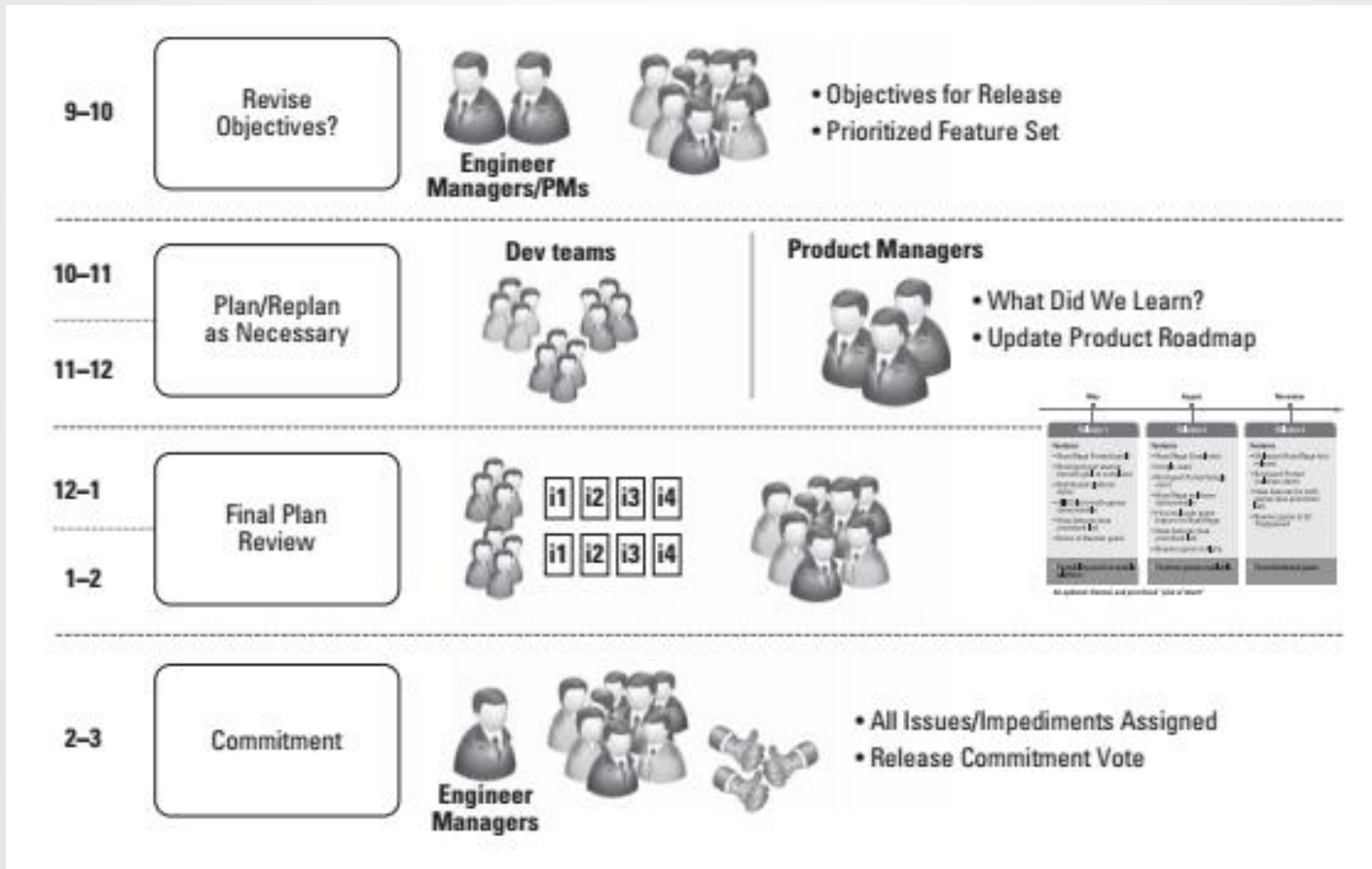
The Product Manager's Changing Role in the Agile Enterprise

PM Responsibility	Traditional		Agile
Understand customer need	Up-front and discontinuous	→	Constant interaction
Document requirements	Fully elaborated in documents	→	Constant communication with team
Scheduling	Plan a one-time delivery, way later	→	Continuous near-term roadmap
Prioritize requirements	Not at all or one time only in PRD	→	Reprioritize every release and iteration
Validate requirements	Not applicable; QA responsibility	→	Involved with iterations and each release; smaller, more frequent releases
Manage change	Prohibit change; weekly CCB meetings	→	Adjust at every release and iteration boundary
Assess likelihood of release date	Milestone document review	→	Release dates are fixed, reliable; manage scope expectations

The Release Planning Day (1)



The Release Planning Day (2)



Tracking the Release

- Constant informal communication with the product owners.
- Participation in the release management team
- Attendance at iteration demos.
- Status via agile project management tooling.