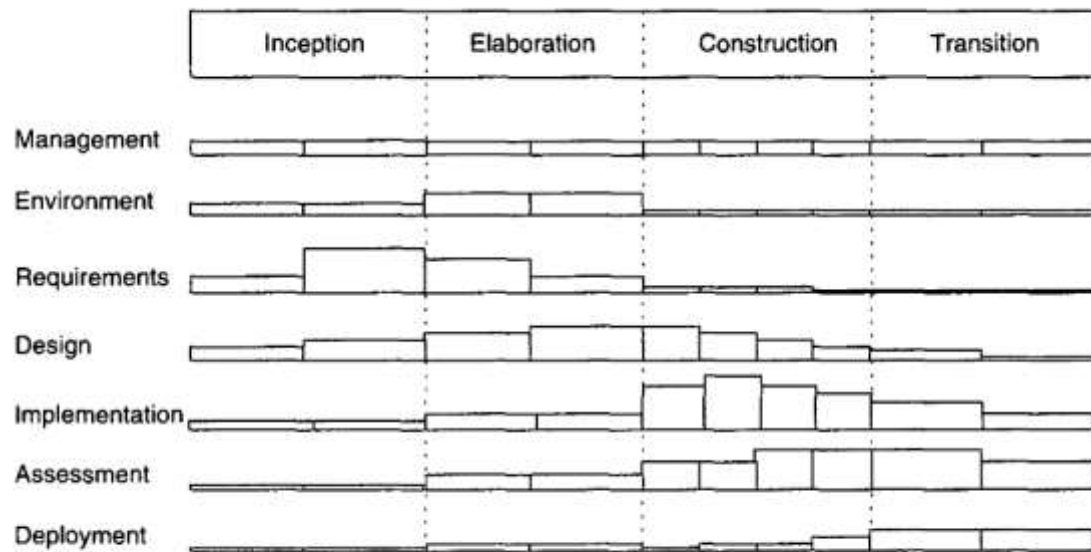## Software process workflows

FIGURE 8-1. *Activity levels across the life-cycle phases*

- Architecture first approach
- Iterative lifecycle process
- Round-trip engineering
- Demonstration-based approach

TABLE 8-1. *The artifacts and life-cycle emphases associated with each workflow*

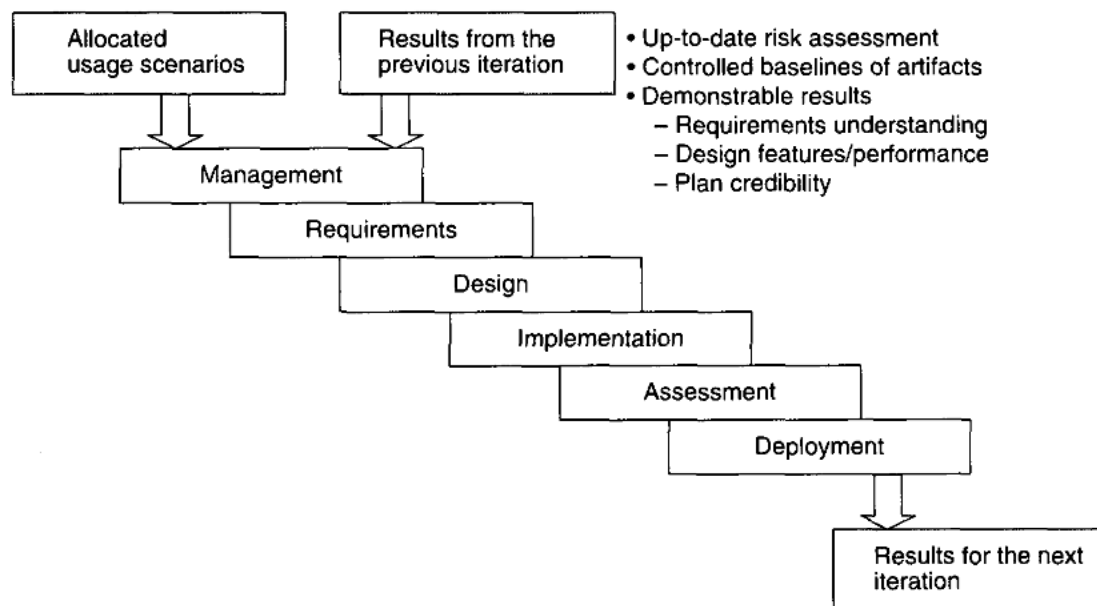| WORKFLOW	ARTIFACTS	LIFE-CYCLE PHASE EMPHASIS
Management	Business case Software development plan Status assessments Vision Work breakdown structure	Inception: Prepare business case and vision Elaboration: Plan development Construction: Monitor and control development Transition: Monitor and control deployment
Environment	Environment Software change order database	Inception: Define development environment and change management infrastructure Elaboration: Install development environment and establish change management database Construction: Maintain development environment and software change order database Transition: Transition maintenance environment and software change order database
Requirements	Requirements set Release specifications Vision	Inception: Define operational concept Elaboration: Define architecture objectives Construction: Define iteration objectives Transition: Refine release objectives
Design	Design set Architecture description	Inception: Formulate architecture concept Elaboration: Achieve architecture baseline Construction: Design components Transition: Refine architecture and components
Implementation	Implementation set Deployment set	Inception: Support architecture prototypes Elaboration: Produce architecture baseline Construction: Produce complete componentry Transition: Maintain components
Assessment	Release specifications Release descriptions User manual Deployment set	Inception: Assess plans, vision, prototypes Elaboration: Assess architecture Construction: Assess interim releases Transition: Assess product releases
Deployment	Deployment set	Inception: Analyze user community Elaboration: Define user manual Construction: Prepare transition materials Transition: Transition product to user

Iteration workflows

FIGURE 8-2. *The workflow of an iteration*

Inception and Elaboration Phases

- Management
- Requirements
- Design
- Implementation
- Assessment
- Deployment

Construction Phase

- Management
- Requirements
- Design
- Implementation
- Assessment
- Deployment

Transition Phase

- Management
- Requirements
- Design
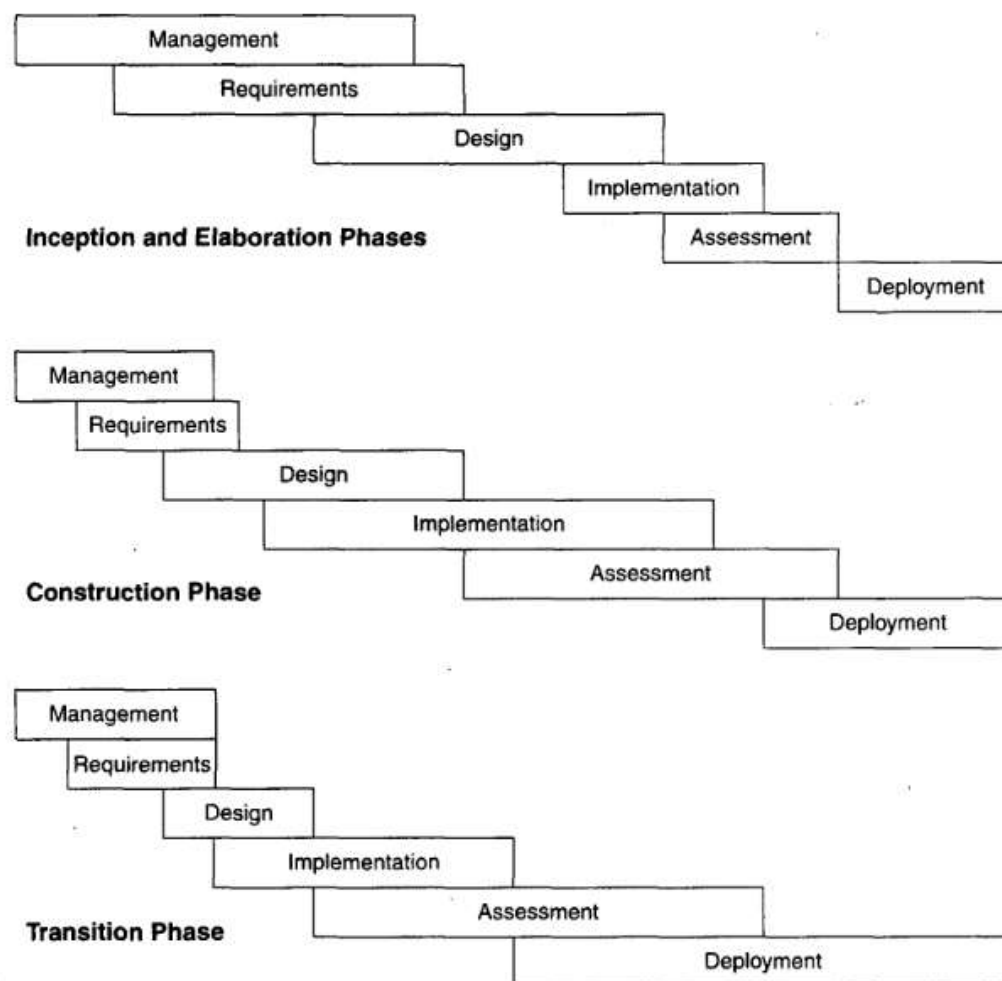- Implementation
- Assessment
- Deployment
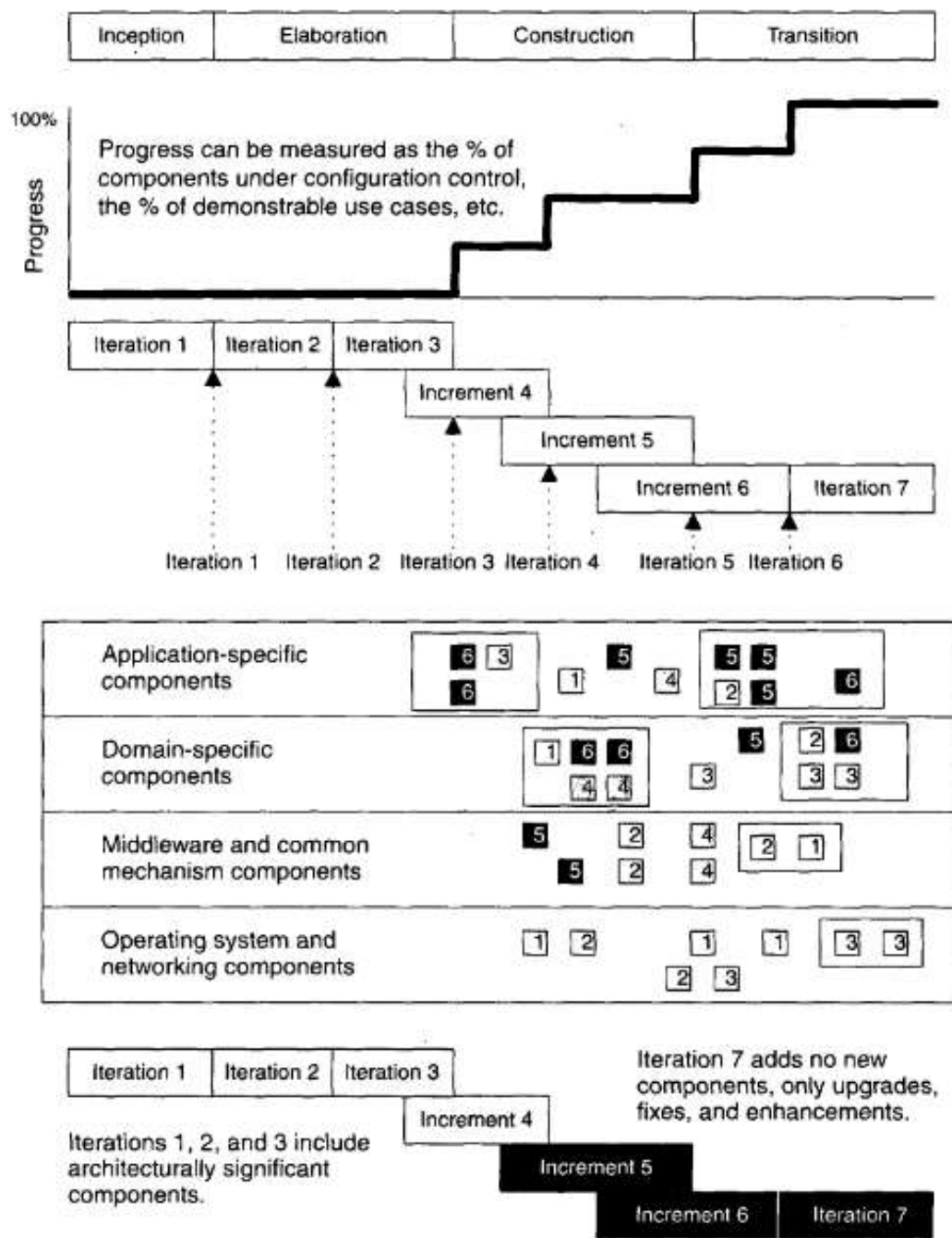
FIGURE 8-3. *Iteration emphasis across the life cycle*

FIGURE 8-4. *A typical build sequence associated with a layered architecture*