

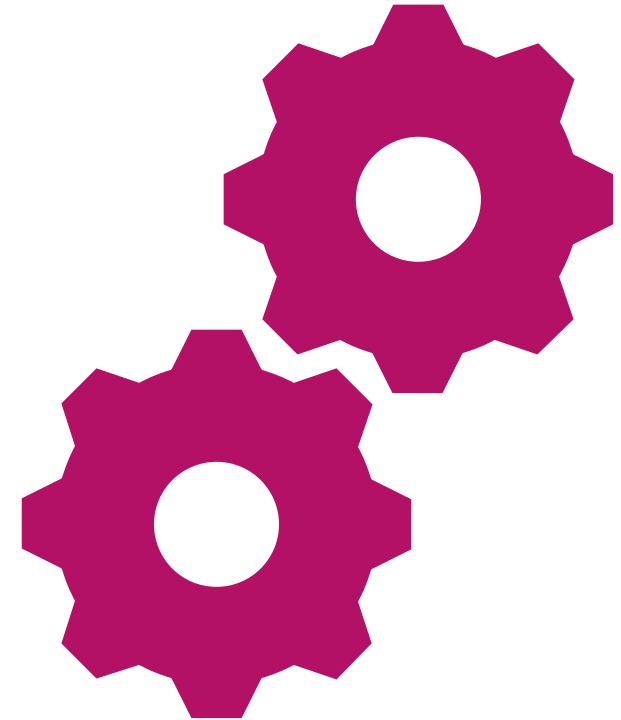
# IIE ROSEBANK COLLEGE



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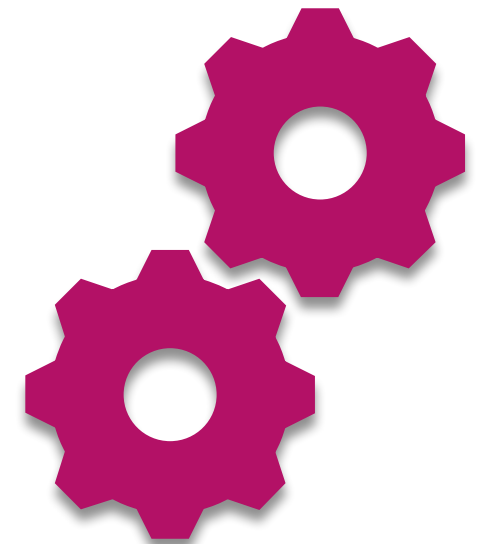
# Introduction to Project Management Guides, Frameworks, and Methodologies

- ▶ Project management frameworks: flexible guidelines shaping project approach
- ▶ Methodologies: detailed systems of practices and rules within frameworks
- ▶ Frameworks offer adaptability; methodologies provide structured processes
- ▶ Choosing depends on project scope, complexity, flexibility, and team size



# Popular Project Management Methodologies & When to Use Them

- ▶ Agile: iterative, collaborative, ideal for dynamic projects; includes Scrum, Kanban
- ▶ Waterfall: linear, sequential phases; best for projects with fixed, clear requirements
- ▶ Scrum: Agile-based, uses sprints and defined roles; suits small, cross-functional teams
- ▶ Lean: focuses on waste elimination and efficiency; useful for tight budgets and timelines
- ▶ Hybrid approaches combine methods to fit specific project needs and industries



# Learning Outcomes

- ▶ Define the concept of project standard, project guide and project methodology;
- ▶ Differentiate between project management methodologies and standards;
- ▶ Explain the role and benefits of agile project management in an IT project;
- ▶ Discuss agile project management in the context of technology projects;
- ▶ Apply different project management approaches and methodologies in managing an IT project.



# Project Integration Management

PROJECT MANAGEMENT KNOWLEDGE AREAS FROM  
PMBOK® GUIDE



# Defining Project Standard, Project Guide, and Project Methodology in IT Projects



Project Standard: Mandatory criteria and processes ensuring consistent, compliant IT project execution (e.g., ODU and UMW IT standards, updated 2024-2025)



Project Guide: Practical instructions and best practices supporting project managers in applying standards and methodologies effectively



Project Methodology: Structured framework of principles and practices guiding project planning, execution, and control (e.g., Agile, Waterfall, Scrum)

# Key Differences and Roles in IT Project Management

## Project Standard:

Sets required processes, documentation, and compliance rules.

Ensures uniformity across projects and alignment with organizational policies.

Examples: IT project lifecycle phases, risk management, reporting requirements.

# Key Differences and Roles in IT Project Management

## Project Guide:

Provides detailed steps, templates, and tools to implement standards

Helps teams tailor practices to project size, complexity, and risk

Often includes checklists, workflows, and communication plans



# Key Differences and Roles in IT Project Management

## Project Methodology:

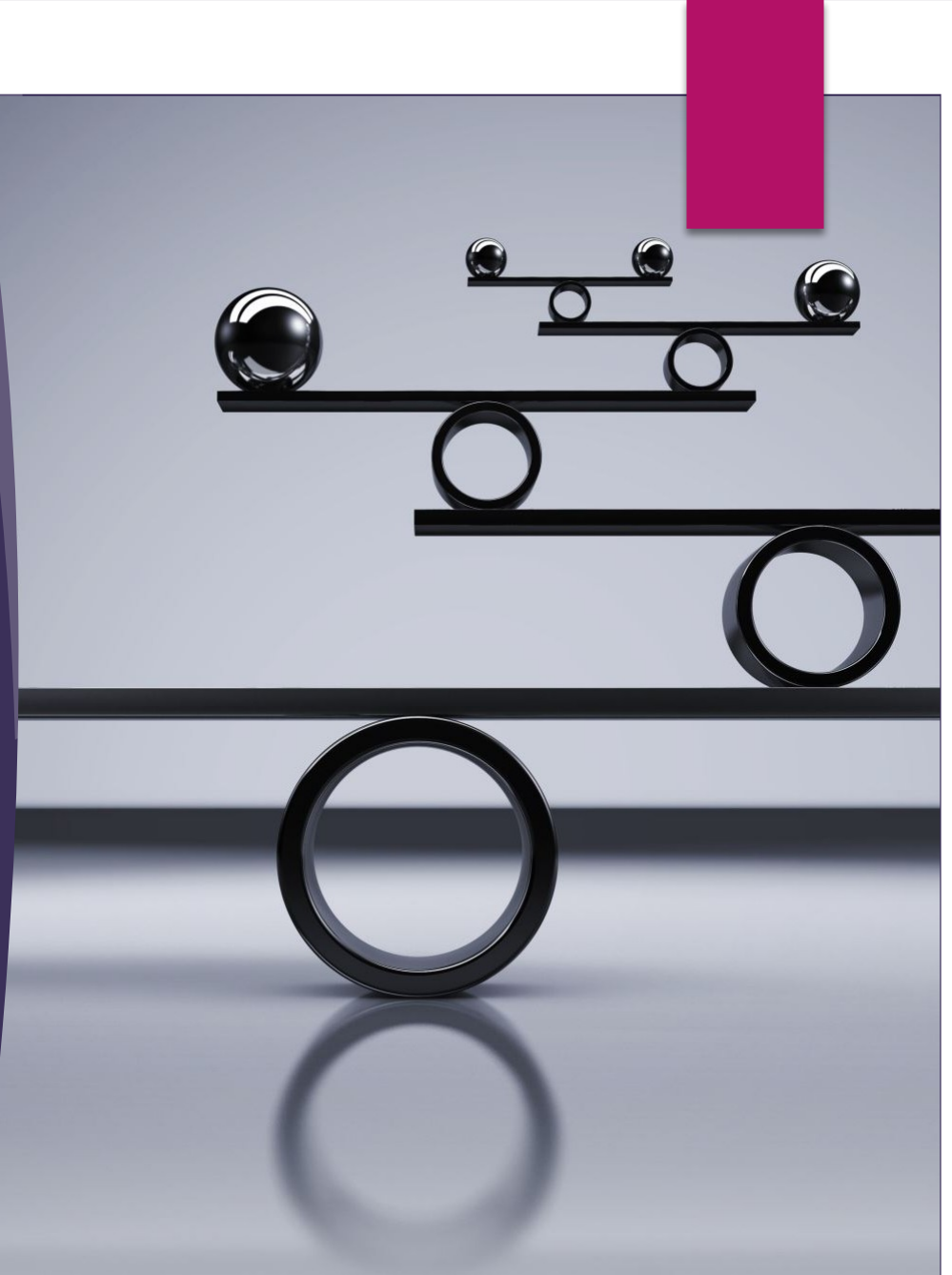
Defines how to manage project tasks and team collaboration

Examples: Waterfall (linear, fixed scope), Agile (iterative, flexible), Scrum (team-focused sprints)

Selection depends on project type, team, and goals for best outcomes

# Differentiate between project management methodologies and standards;

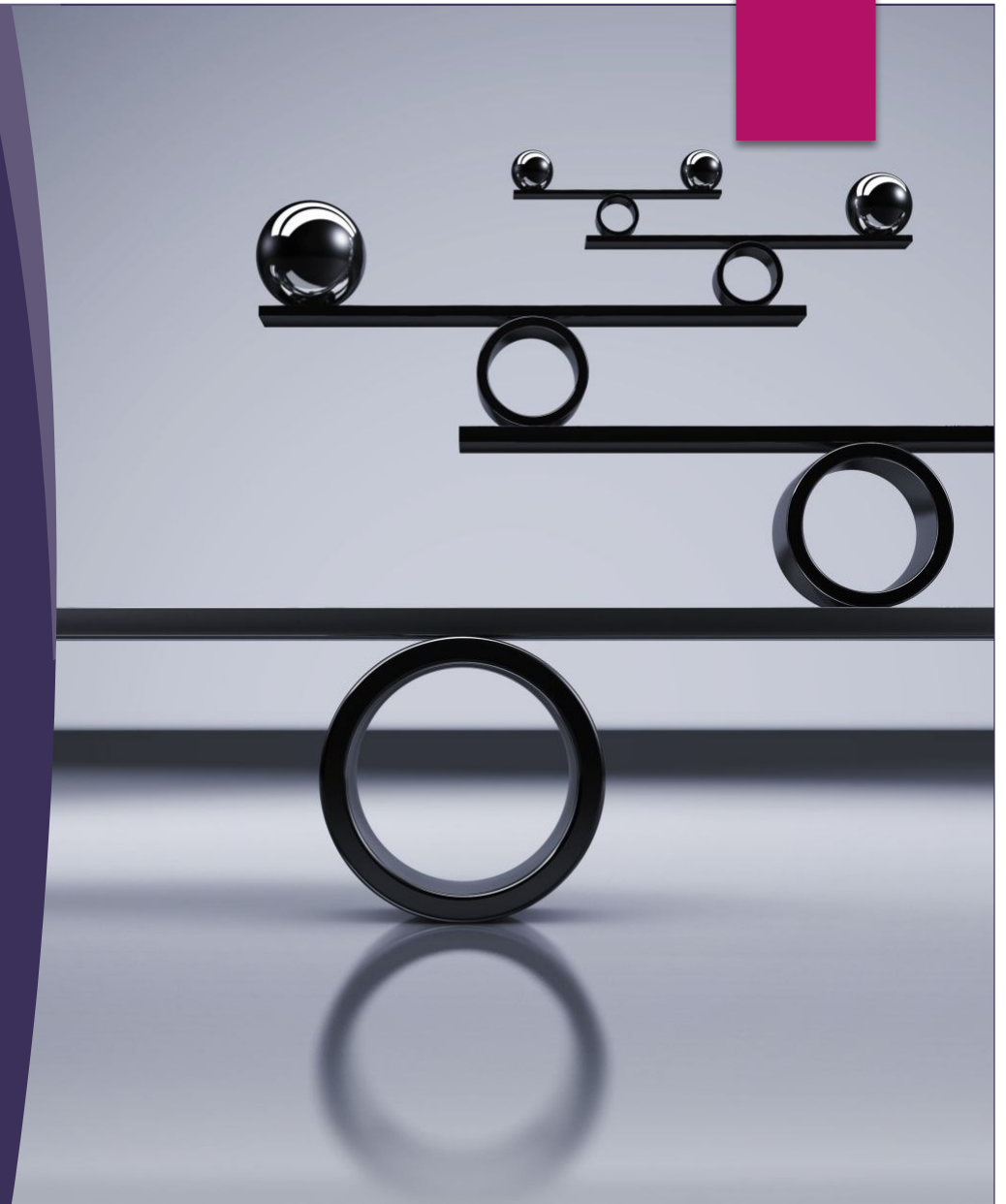
- ▶ Methodologies: Structured approaches with principles, processes, and techniques guiding project execution
- ▶ Standards: Established frameworks defining best practices and common terminology for consistent project management
- ▶ Methodologies focus on "how" to manage projects; standards provide "what" to follow for quality and consistency
- ▶ Methodologies vary by project type and flexibility needs; standards ensure alignment across teams and organizations



# Key Examples and Characteristics

## ▶ Methodologies:

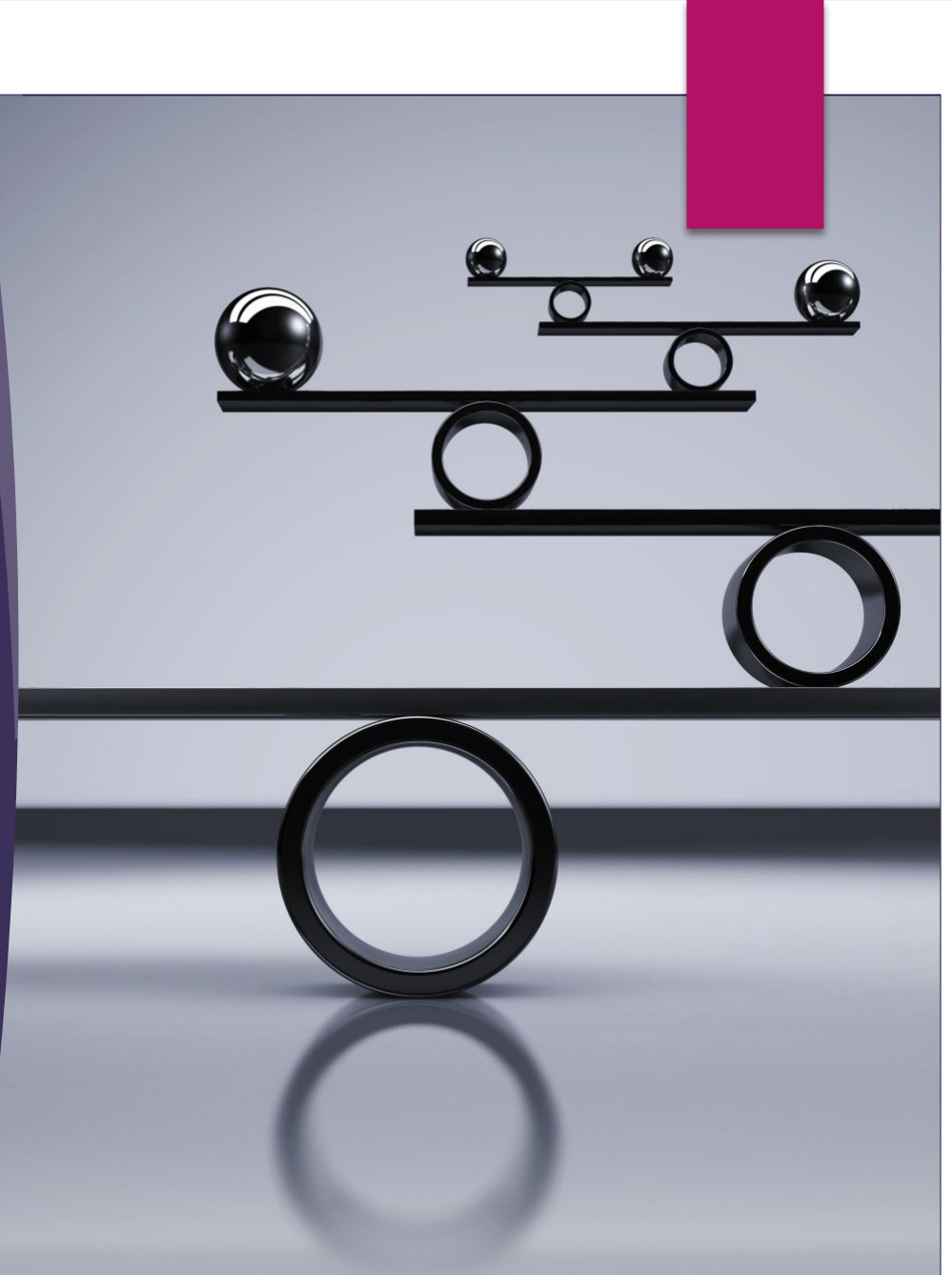
- ▶ Waterfall: Linear, sequential phases; best for fixed-scope, regulated projects (construction, manufacturing)
- ▶ Agile: Iterative, flexible, customer-focused; ideal for software and innovation-driven projects
- ▶ Scrum & Kanban: Agile subsets emphasizing sprints and visual workflow management



# Key Examples and Characteristics

## Standards:

- . PMI/PMBOK: Global, process-based, scalable; emphasizes performance metrics and monetary values
- . PRINCE2: UK-origin, role-defined, process-driven; strict governance, suited for regulated environments
- . IPMA: Competence-based, people-focused; adaptable decision-making, popular in German-speaking regions
- . Hybrid approaches increasingly combine methodologies and standards for flexibility and control

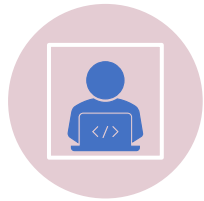


# Role of Agile Project Management in IT Projects

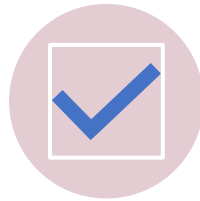
- ▶ Agile enables iterative development via short sprints (2-4 weeks)
- ▶ Emphasizes collaboration among Product Owner, Scrum Master, and Development Team
- ▶ Facilitates adaptability to changing requirements throughout project lifecycle
- ▶ Promotes continuous customer involvement and real-time feedback
- ▶ Supports self-organizing teams with autonomy on task execution



# Benefits of Agile Project Management in IT



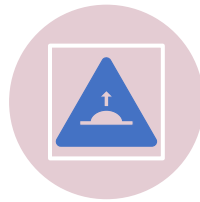
Adaptability: 71% of organizations use Agile to respond quickly to change



Higher quality: Continuous testing and feedback improve final product



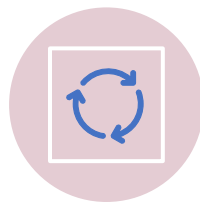
Customer satisfaction: Ongoing involvement aligns deliverables with needs



Faster delivery: Frequent increments reduce risk and speed time-to-market



Improved team morale and collaboration through transparency and feedback



Studies show Agile projects have ~55% success rate vs. 29% for traditional methods

# Agile Project Management in Technology Projects



Iterative approach breaking work into sprints (2-4 weeks) for continuous delivery and feedback



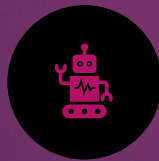
Key frameworks: Scrum (fixed-length sprints, roles: Product Owner, Scrum Master, Team), Kanban (continuous flow)



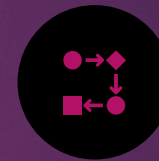
Enables rapid adaptation to changing requirements, improving flexibility and risk management



Enhances collaboration across cross-functional teams, increasing transparency and customer satisfaction



Proven success in software development, IT infrastructure, and digital services with tools like Jira and Trello



Drives faster results, higher quality products, and continuous improvement through regular retrospectives



Ideal for complex, novel, and urgent tech projects where requirements evolve rapidly

# Project Management Approaches & Methodologies in IT Projects

Waterfall: linear, sequential phases; best for well-defined, stable requirements; common in large-scale IT infrastructure and software with fixed scope

Agile: iterative, flexible, adaptive; emphasizes collaboration and continuous delivery; ideal for software development with evolving requirements

Scrum: Agile subset using short sprints (1-4 weeks), daily stand-ups, and roles like Scrum Master; popular in IT teams for rapid feedback and incremental releases

Kanban: visual workflow management with continuous delivery focus; suits teams needing flexibility and real-time task tracking

Lean & Six Sigma: focus on efficiency, waste reduction, and quality; applied in IT process improvements and operational projects

# Applying Project Management Methodologies in IT Projects



Assess project complexity, scope stability, and team size to select methodology (e.g., Waterfall for fixed scope, Agile/Scrum for dynamic projects)



Combine methodologies if needed (e.g., Agile principles with Kanban boards for flexible task management)



Use iterative cycles (sprints) in Agile/Scrum to deliver shippable software increments every 2-4 weeks



Employ tools like Gantt charts for Waterfall to track sequential phases and milestones



Engage stakeholders continuously in Agile for feedback; maintain clear documentation in Waterfall for compliance



Example: A software development project with unclear requirements uses Scrum to adapt scope; a data center upgrade with fixed specs uses Waterfall for predictability



**ANY QUESTIONS?**



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