

AI in Project Management: Tools, Automation and Predictive Delivery

12 – 16 April 2027
Madrid

AGILE LEADERS
Training Center

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Ref: 35_262409 **Date:** 12 – 16 April 2027 **Location:** Madrid **Fees:** 5700 Euro

Overview

Project environments face compressed delivery timelines, complex resource constraints, and unpredicted schedule slippage. The AI in Project Management Training Course equips project leaders with practical skills to integrate artificial intelligence across each phase of project delivery. Participants explore practical use cases for generative AI, machine learning forecasting, and intelligent workflow automation to improve estimation accuracy, streamline status reporting, and manage delivery risks. The curriculum addresses data readiness, prompt design, and practical governance models so organisations can deploy AI responsibly. This course is delivered by Agile Leaders Training Center.

Who Should Attend

- Project Managers and Project Coordinators seeking to automate documentation and improve control.
- Program and Portfolio Managers aligning multi-project data for predictive decision-making.
- PMO Heads and PMO Analysts standardising automated reporting and performance metrics.
- Scrum Masters and Agile Team Leads integrating AI tools into sprint planning and backlog refinement.
- Project Controls, Planning and Scheduling Specialists forecasting variance and schedule risks.
- Digital Transformation and Innovation Leads guiding AI adoption across delivery units.
- Senior Managers sponsoring AI adoption in projects to enhance operational efficiency.

Departments and Industries

This programme benefits project delivery teams and strategic units across multiple sectors.

- Project Management Offices and Program Delivery Units
- IT and Digital Transformation Departments
- Engineering and Infrastructure Delivery Teams
- Strategy, Planning, and Business Excellence Divisions
- Public Sector and Government Agencies
- Energy, Utilities, and Construction Organizations
- Financial Services, Healthcare, and Professional Consulting Firms

Learning Objectives

By the end of this course, participants will be able to:

- Identify high-impact AI use cases across project initiation, planning, execution, and closure.
- Apply prompt engineering for project professionals to produce charters, work breakdown structures, and risk registers.
- Use predictive analytics for schedule slippage and cost overrun forecasting.
- Implement automated PMO reporting and digital meeting assistants to eliminate routine manual tasks.
- Establish clear AI governance frameworks covering data privacy, bias mitigation, and stakeholder accountability.
- Construct a phased AI adoption roadmap to scale intelligent tools within a team or enterprise PMO.

Course Agenda

Day 1: Foundations of AI in Project Management

- Machine Learning, Generative AI, and Intelligent Automation in Delivery Contexts
- The Evolving Responsibilities of Project Leaders in Data-Driven Environments
- Lifecycle Use-Case Mapping across Initiation, Planning, Monitoring, and Closeout
- Current Landscape of Project Management Software with Embedded AI
- Prompt Engineering Principles for Scope Statements and Work Breakdown Structures
- Data Quality, Project Records Readiness, and Information Architecture

Day 2: AI for Project Initiation and Planning

- Drafting Project Charters and Feasibility Analyses Using Generative AI
- Scope Decomposition and Work Breakdown Structure Refinement
- Effort and Duration Estimation Using Historical Baseline Data
- Schedule Modeling, Critical Path Evaluation, and Scenario Simulations
- Stakeholder Identification and Tailored Communication Matrix Design
- Techniques for Fact-Checking and Validating AI-Generated Planning Artifacts

Day 3: AI for Execution, Monitoring and Control

- Predictive Analytics for Early Identification of Schedule Variance and Cost Overruns
- Risk Register Analysis and Pattern Detection for Proactive Issue Mitigation
- Workload Balancing, Resource Capacity Forecasting, and Allocation Adjustments
- Automated PMO Reporting, Milestone Summaries, and Real-Time Performance Dashboards
- Meeting Intelligence Tools for Action Tracking, Summaries, and Decision Logs
- Change Control Impact Analysis Supported by Natural Language Processing

Day 4: AI in Agile, PMO and Portfolio Management

- User Story Generation, Acceptance Criteria Drafting, and Backlog Grooming
- AI-Assisted Sprint Planning, Velocity Forecasting, and Retrospective Pattern Analysis
- Workflow Automation for PMO Intake, Stage-Gate Approvals, and Compliance Tracking
- Multi-Project Portfolio Prioritization and Strategic Alignment Scoring
- Lessons Learned Repositories and Semantic Search for Institutional Knowledge
- Measuring Productivity Returns and Business Value from AI Tool Deployments

Day 5: Responsible AI Adoption and Implementation Roadmap

- Ethics, Transparency, and Algorithmic Accountability in Project Decisions
- Data Confidentiality, Proprietary Information Protection, and Security Standards
- Developing Organizational Policies for AI Usage and Vendor Selection
- Change Management Strategies to Foster Team Adoption and Digital Literacy
- Structuring a Phased AI Adoption Roadmap with Defined Pilot Projects
- Capstone Workshop: Designing and Presenting an AI-Enabled Delivery Strategy

Practical Exercises

Participants apply tools to realistic scenarios throughout the week to reinforce skills.

- Suggested activity: Create structured prompts to generate a project charter and work breakdown structure.
- Suggested activity: Analyze a distressed project dataset using predictive models to forecast schedule slippage.
- Suggested activity: Configure an automated PMO status dashboard and meeting summary workflow.
- Suggested activity: Formulate an AI risk assessment checklist addressing data privacy and validation protocols.
- Suggested activity: Develop a multi-stage AI adoption roadmap tailored to an organizational delivery unit.

FAQs

Do participants need technical or programming knowledge to attend this course?

No. The course is designed for project professionals, not data scientists. A working knowledge of project management principles is sufficient, and all digital tools are introduced through practical, non-coding interfaces.

Should participants bring a laptop?

Yes. A laptop with web access is recommended so participants can complete hands-on activities, practice prompt construction, and test project management templates during the workshop sessions.

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Conclusion

Equipping project professionals with intelligent tools transforms administrative overhead into strategic delivery advantage. By mastering generative prompts, predictive delivery analytics, and responsible governance, participants leave prepared to accelerate workflows, anticipate project risks, and drive consistent outcomes across their project portfolios.