PROJECTS, LOGISTICS, QUALITY & AUDIT

PL35 Delivering at Scale: Giga Project Management

Giga projects — those exceeding USD 1 billion in value and spanning multiple years of delivery — represent some of the most complex and consequential undertakings in modern society. From NEOM and the Grand Paris Express to national energy grids and major airport expansions, these programmes push the boundaries of engineering, logistics, governance, and human coordination. Traditional project management approaches are frequently insufficient at this scale: giga projects demand a different mindset, a distinct set of tools, and an acute awareness of risk, stakeholder dynamics, and geopolitical context. This intensive five-day programme provides a comprehensive and practical grounding in the principles, frameworks, and real-world practices of project management at the giga scale. Drawing on international case studies, participants will develop both the strategic perspective and the operational rigour required to deliver at this level. Through lectures, facilitated discussion, group workshops, and a structured capstone simulation, participants will leave equipped to lead effectively within complex, multi-billion-dollar programme environments.

Course Information

Duration: 5 days

London (£4950): 29th June 2026, 7th December 2026, 24th May 2027, 18th October 2027, 27th March 2028

Companies nominating 3 or more delegates to attend the same programme will enjoy a special discount on the course fees.

Upon completion of one of our CPD certified courses, delegates will be awarded both an LMC certificate and a CPD certificate. No examination required.

Who is the course suitable for?

This programme is designed for project and programme professionals working on, or preparing to work on, giga-scale capital programmes. It is particularly suited to project and programme managers working on major infrastructure, energy, or urban development programmes, PMO leads and project controls professionals seeking to deepen their expertise in mega-scale delivery, senior engineers, architects, and technical leads transitioning into programme leadership roles, government officials and public sector representatives overseeing national infrastructure programmes, and consultants and advisors supporting large-scale capital programme delivery. Participants should have a minimum of three to five years of project management experience. Familiarity with construction, infrastructure, or engineering project environments is assumed. A PMP, PRINCE2, or equivalent qualification is beneficial but not required.

Course profile

Foundations of Giga Projects

- Defining giga projects: scale thresholds, typologies, and the global landscape
- Why giga projects are different: exponential interdependencies, extended durations, and political exposure
- The giga project lifecycle: from strategic intent and feasibility through to commissioning and handover
- Programme governance models: PMOs, owner's representative structures, and authority matrices
- Case study deep dive: NEOM, Grand Paris Express, and Riyadh Metro — lessons from global delivery
- Workshop: governance structure analysis and group case study presentation

Planning and Scheduling at Scale

- Work Breakdown Structure (WBS) design at programme scale: from programme to work package
- Integrated Master Schedule (IMS) architecture: tier structures and vertical/horizontal integration
- Critical Path Method (CPM): float management, schedule compression, and delay analysis
- Baseline management and Earned Value Management (EVM): CPI, SPI, and forecasting completion
- Schedule health checks: density, logic gaps, open ends, and negative float
- Workshop: constructing and stress-testing a simplified IMS for a hypothetical airport expansion

Risk, Procurement and Contracts

- Risk categorisation: technical, financial, political, environmental, and force majeure risk
- Quantitative risk analysis: Monte Carlo simulation, schedule risk analysis, and cost risk analysis
- Systemic and geopolitical risk in major programmes
- Contract strategy for giga projects: NEC4, FIDIC, EPC, EPCM, and alliance contracting
- Supply chain and procurement strategy: packaging, market engagement, and supply chain resilience
- Claims and dispute resolution: EOT entitlement, loss and expense, adjudication, and arbitration
- Workshop: risk register analysis and simulated contractor EOT claims response

People, Stakeholders and Leadership

- Programme team structures: owner, PMC, designers, contractors, and sub-contractors
- Cross-cultural leadership: cultural intelligence, high-context vs. low-context communication, and conflict resolution
- Stakeholder identification and engagement planning: power-interest mapping at programme scale
- Managing government, community, and media stakeholders in high-profile programmes
- Programme communications frameworks: reporting cadences, executive dashboards, and crisis communications
- Workshop: role-play stakeholder engagement simulation — navigating a high-stakes ministerial meeting

Digital Delivery, Sustainability and Capstone Simulation

- BIM maturity levels and Common Data Environments in mega-scale construction
- Digital twins: integrating design, schedule, cost, and site data for programme management
- AI and data analytics in project controls: anomaly detection and delay prediction
- Sustainability and ESG in giga projects: net zero targets, circular economy, and social value frameworks
- ESG reporting: GRI, TCFD, and investor expectations for major infrastructure programmes
- Capstone simulation: 'Operation Recovery' — responding to a multi-workstream programme crisis
- Capstone debrief, closing presentations, and certificate ceremony

Competencies

At the end of this programme, delegates will be able to:

- Understand the defining characteristics, challenges, and governance structures of giga projects
- Apply advanced project management frameworks in mega-scale, multi-contractor environments
- Design and implement robust programme governance models, including PMO structures
- Develop integrated master schedules and manage complex cross-programme dependencies
- Identify, quantify, and mitigate systemic risk — including geopolitical, supply chain, and environmental risk
- Lead and coordinate diverse, international, and multi-disciplinary project teams
- Manage stakeholder ecosystems spanning governments, sovereign wealth funds, contractors, and communities
- Apply digital tools including BIM, digital twins, and data analytics to programme management challenges
- Understand the role of sustainability, ESG, and social value in modern giga project delivery
- Navigate contract management, claims, and dispute resolution at scale

Course Booking

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