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COURSE BROCHURE

# Project Systems Thinking for Complexity and Risk Training Course

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**jupiterprime.uk**

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

# Project Systems Thinking for Complexity and Risk Training Course

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Project Systems Thinking for Complexity and Risk is a 1-week training course for project managers, project sponsors and risk leads who steer large, interdependent projects, and participants build a Project Causal Risk Map that shows where delay, rework and interface failures reinforce each other. Projects now combine more contractors, digital interfaces and shifting stakeholder demands than any single schedule can show. Jupiter Prime Training runs this course for leaders who need to see the whole project system before they act on a single part.

## Why Project Systems Thinking Matters Now

Three forces shape project systems thinking today. Supply chains and contractor networks have grown longer, so one late interface ripples across several work packages. Sponsors and boards expect early warning, not explanations after the overrun. An organisation that maps these loops spots compounding rework before it consumes contingency; one that treats each problem in isolation keeps fixing symptoms. The course rests on established thinking about feedback, delays and emergent behaviour.

## Who Gains Most from Project Systems Thinking

- People who sponsor a project and answer to a board for its outcome and exposure
- People who run a project day to day and balance scope, sequence and resources
- People who own the project risk register and set escalation thresholds
- People who coordinate interfaces between design, procurement, construction or integration packages
- People who assure project controls and report forecast changes to senior leaders

Leadership teams gain most when sponsor, manager and risk lead attend together.

## Project Systems Thinking Capabilities

Participants move from listing isolated risks to tracing how causes connect, accumulate and return as new problems.

- Map causal loops linking scope change, staffing pressure and rework — sponsor contingency decisions
- Assess interface risk between work packages and contractors — integration sequencing choices
- Identify leverage points where small changes shift project behaviour — steering committee priorities
- Test how time delays distort progress signals — forecast and reporting accuracy
- Design decision rules that stop reinforcing loops early — escalation and recovery thresholds
- Communicate system-level exposure in plain language — board and client confidence

## Key Project Systems Thinking Terms

- Reinforcing loop — a chain of causes where each change pushes the next in the same direction, amplifying growth or decline.
- Balancing loop — a chain of causes that counters change and pulls a project variable back toward a target or limit.
- Rework cycle — the hidden pool of flawed work that is discovered late and must be redone, consuming capacity.
- Interface risk — exposure that arises where two work packages, teams or contractors hand over information, materials or responsibility.
- Leverage point — a place in the project system where a modest intervention produces a large, lasting change in behaviour.
- Emergent behaviour — a project outcome produced by interactions between parts that no single part or plan intended.

## Project Systems Thinking Day by Day

### Day 1: Seeing the Project as a System

- System Boundary Definition — What Sits Inside and Outside Project Control
- Stock and Flow Thinking — How Work, Defects and Staff Accumulate
- Stakeholder Influence Webs — Which Actors Shape Project Behaviour Most
- Complexity Profiling — Separating Complicated Tasks From Genuinely Complex Ones
- Event, Pattern and Structure Lens — Moving Beyond Firefighting Explanations

### Day 2: Causal Mapping of Project Risk

- Causal Loop Diagrams — Tracing How Risks Feed One Another
- Reinforcing and Balancing Loops — Spotting Escalation Versus Self-Correction
- Risk Register Restructuring — Linking Isolated Entries Into Causal Chains
- Delay Mapping — Where Information Arrives Too Late to Act
- Mental Model Surfacing — Exposing Hidden Assumptions Within Leadership Teams

### Day 3: Rework, Delay and Interface Dynamics

- Rework Cycle Analysis — Estimating Undiscovered Errors Behind Reported Progress
- Schedule Pressure Loops — How Overtime and Fatigue Erode Quality
- Interface Matrices — Locating Handover Points With Highest Exposure
- Contractor Coupling Assessment — Tight Versus Loose Dependencies Between Packages
- Change Ripple Tracing — Following One Variation Across Design and Delivery

### Day 4: Leverage Points and Steering Decisions

- Leverage Point Ranking — Choosing Interventions With Lasting System Effect
- Decision Rules and Triggers — Pre-Agreed Responses to Early Signals
- Policy Resistance Diagnosis — Why Obvious Fixes Make Projects Worse
- Scenario Probing — Testing Map Behaviour Under Alternative Assumptions
- Leading Indicator Selection — Signals That Reveal Loops Before Overruns

## Day 5: Practising the Project Causal Risk Map

- Case Project Boundary and Stakeholder Web — Applying Day One Lenses
- Loop Mapping of Live Exposures — Applying Causal Diagrams to Cases
- Rework and Interface Hotspot Review — Applying Day Three Diagnostics
- Steering Rule Set — Applying Leverage and Trigger Choices
- Project Causal Risk Map — Completing and Presenting the Final Map

## Applying Project Systems Thinking After the Course

- Lead a causal mapping session with your project team that converts the top ten register entries into linked loops.
- Agree three decision rules with the sponsor that trigger action when rework or interface indicators cross a threshold.

## Project Systems Thinking Questions FAQ

### What is project systems thinking and why does it matter now?

Project systems thinking treats a project as connected causes rather than separate tasks. It matters now because longer contractor chains and faster change mean one hidden loop can turn a minor slip into a major overrun before reports show it.

### Which roles gain most from project systems thinking?

Sponsors, project managers and risk leads on large, interdependent projects gain most. You benefit if registers miss how problems compound across packages.

### How does project systems thinking differ from a standard project risk course?

Project systems thinking focuses on how risks interact over time. A standard project risk course lists, scores and treats risks one by one; this one maps loops, delays and leverage points so you can steer the structure producing those risks.

### What do you bring back from project systems thinking training?

You bring back a causal map of your own project. It links risks into loops and sets decision rules for the next review.

## Project Systems Thinking: The Way Forward

The Project Causal Risk Map gives a leadership team one shared picture of how its project behaves. Its first use is deciding where to place contingency and attention before the next stage gate. Sponsors, managers and risk leads use it together, and it is worth redrawing after the first major change order, when the loops that matter most often shift.