

€ TRAINING

Megaproject Management in Traffic
Engineering





Megaproject Management in Traffic Engineering

Introduction:

This Megaproject Management in Traffic Engineering training course will present the next step in solving challenges in megaprojects related to traffic and transportation planning and management of mobility within the urban areas as well as between the urban areas. This will emphasize the unprecedented planning and engineering involved in mega projects related to traffic engineering.

Program Objectives:

At the end of this program the participants will be able to:

- Understand the issues related to the high number of stakeholders in megaprojects.
- Use adequate techniques of time and money management in megaprojects.
- Create a risk management adaptive planning approach for the megaprojects.
- Evaluate complex dynamics of traffic management in a modern environment.
- Plan and prioritize the traffic engineering activities in megaprojects.
- Identify possible improvement options while the megaproject is ongoing.
- Remove the problems of over or under design.

Targeted Audience:

- Project Managers.
- Highway and Road Engineers.
- Traffic and Transportation Planners.
- Incident Response Team Members.
- Application Designers.
- Law Enforcement Professionals.
- IT Professionals.

Program Outline:

Unit 1:

What are Megaprojects?

- Megaproject Definition.
- Megaproject Framework.
- Characteristics of Megaprojects.
- Collaborative Partnerships in Megaprojects.
- What can Constitute a Megaproject?

Unit 2:

Traffic Management Complexity:

- Standard Traffic Theories and their Failure in Real World Applications.
- The New Paradigms.
- Three-Phase Traffic Theory.
- Empirical Nature of Traffic Breakdown.
- Congested Pattern Control Approach.
- Importance of Traffic Demand Planning in Megaprojects.

Unit 3:

Megaproject Risk Management:

- Cost / Benefit Analysis of Wider Issues of Megaprojects.
- Risk Management Framework for Megaprojects.
- Risk Management Optimization.
- Under-design and Overdesign Risks.
- Change and Integration as a Constant in Megaprojects.
- Mitigation of Stakeholder Concerns.

Unit 4:

Megaproject Cost Management:

- Megaproject Governance Framework - Incorporation of Multiple Governance Frameworks.
- Scope Management of Megaprojects.
- Triple Constraint.
- The Megaproject Budget Process and Cost History.
- Cost Centers and Cost Management Teams.
- Strategies to Avoid Scope Creep and Cost Escalation.
- Structured Change Process through the Time of Project Delivery.

Unit 5:

Dynamic Schedules in Megaprojects:

- Impact of Design Development on Schedule.
- Parallel Schedules.
- Impact of Simultaneous Operations.
- Scope Evolution and Scope Creep Planning.
- Lessons from Different Megaprojects: EU, Asia, USA, Africa.