



**Professional training
in Project Engineering
for Scientists, Engineers and Managers**

Project Scheduling and Costing
▶ **Project Risk Management** ◀
Quality Assurance

www.classic.highware.info

SCOPE

▶ Competencies

- ▶ Achieving results
- ▶ Optimising resources
- ▶ Risk management

▶ Target audience

- ▶ Managers, engineers or scientists with budgetary and organizational responsibilities in a project.

▶ Prerequisite

- ▶ Prior education in project engineering or professional exposure to project management.

▶ Objectives

- ▶ To become familiar with the processes aimed at identifying, analysing and responding to project risks.

▶ Duration: two days

▶ Features

- ▶ Terminology used in this course complies with PM BoK (Project Management Body of Knowledge published by Project Management Institute).
- ▶ Methodologies presented in this course conform with large project (ESA, NASA, DoD, DoE).
- ▶ Practices presented in this course are consistent with PRINCE2 (Projects IN Controlled Environments) published by the OGC (Office of Government Commerce).

CONTENTS

▶ Project risks characterized

- ▶ Qualitatively: identification of undesirable events supposed not to occur.
- ▶ Quantitatively: potential over-cost multiplied by probability of occurrence.

▶ Risk analysis

- ▶ Identification and prioritisation of risks before
- ▶ determining adequate strategies: acceptance, avoidance, mitigation or transfer. Stakeholders requirements and related
- ▶ preventive or contingency mitigation. Negotiation for "who takes the risk"; subsequent
- ▶ determination of contingency and risk budgets. Application in large projects.

▶ Project Failure Mode Effect Analysis (FMEA)

- ▶ Project baseline plan failure mode analysis, and identification of severity of prospective failures. Engineering failure severity using Ishikawa
- ▶ methodologies.

▶ Risk management

- ▶ Monitoring risk factors.
- ▶ Triggering contingency plans or emergency action planning.
- ▶ Re-estimating periodically financial risk exposure and consolidation.
- ▶ Management of assumptions to document request for budget extension.