



SIP/2008-WP/14
Business case

Risk Management

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**Workshop on the Development of Business Case
for the Implementation of CNS/ATM Systems
(Lima, 10 – 14 November 2008)**



Outline

- **Risk management**
 - **Definition**
 - **Objectives**
- **Risk analysis**
- **Risk evaluation**
- **Development of mitigation plans**



Risk Management



What is risk?

- Risk can be defined as the likelihood of occurrence of an undesirable event combined to the magnitude of its impact



What is risk management?

- **Risk analysis**
 - **Identification of risks**
 - **Estimation of their likelihood of occurrence**
 - **Estimation of their causes and the magnitude of their potential impact**
- **Risk evaluation**
- **Development of risk mitigation plans**



Objectives of risk management

- **Not to eliminate risks**
- **But, to identify them and minimize their effects through:**
 - **improved awareness of their likelihood of occurrence and potential impact and;**
 - **development and implementation of appropriate mitigation plans**



Risk Analysis



Risks for the implementation of CNS/ATM systems ...

- **technical**
- **operational**
- **political**
- **economic**
- **financial**
- **managerial**



Risks for the implementation of CNS/ATM systems

- **Exchange rates**
- **Schedule, extended transition**
- **Traffic growth**
- **Rate of return**
- **Efficiency rates**
- **Systems integration failure**
- **Resistance to change**



Estimation of the likelihood of occurrence

- **Expert interview**
- **Analogy**
- **Review of implementation plans**
- **Delphi technique**



Estimation of the potential impact

- **Expert interview**
- **Analogy**
- **Review of implementation plans**
- **Delphi technique**



Risk Evaluation



Risk evaluation

- **Assign a risk score to each risk**
- **Assign a weight to each risk**
- **Determine a risk score for each implementation option**



Development of mitigation plans



Development of mitigation plans

- **Identification of potential causes**
- **Development of mitigation plans**

