



EUROPEAN AVIATION GROUP FOR OCCUPATIONAL SAFETY AND HEALTH

# Risk management

Principles and guidelines based on ISO 31000

Presented by Josef Hess

15 Nov 2017

# INTRODUCTION

---

- Who are you?
- What do you do?
- What is your experience regarding risk management?
- What do you know about Risk?
- What are your expectations for this briefing?

# BRIEFING OBJECTIVES

---

- Gain a **comprehensive understanding** of Risk Management
- Gain knowledge on the Risk Management **philosophy**, the **vocabulary**, the **framework**, the **principles** and the **process**

# CONTENT

---

- REFERENCES
- RISK – RISK MANAGEMENT
- VOCABULARY
- PRINCIPLES
- FRAMEWORK
- PROCESS

# REFERENCE

---

ISO 31000, 2009-11: Risk management –  
Principles and guidelines

*Revision has started  
in May 2015*

The norm is intended for people who create and protect value in an organization by

- managing risks,
- making decisions,
- setting and achieving objectives, and
- improving performance.

RISK?

---

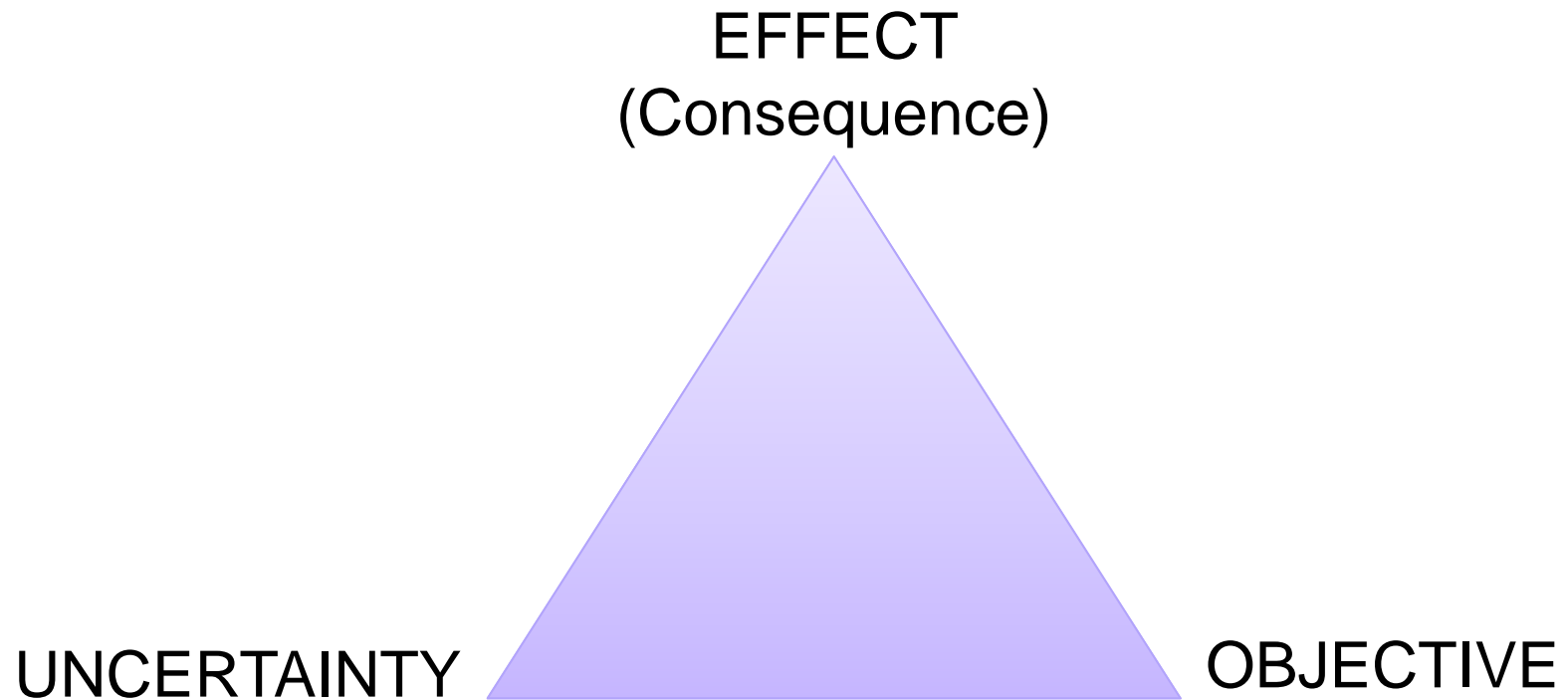
## **DEFINITION**

**RISK IS THE EFFECT  
OF UNCERTAINTY  
ON OBJECTIVES**

# RISK

---

RISK REQUIRES THREE FACTORS  
→ NO RISK, IF ONE IS MISSING



# KEY MESSAGES

---

- RISK MANAGEMENT IS INVOLVED IN ANY DECISION MAKING.
- A STRUCTURED RISK MANAGEMENT APPROACH HELPS TO TAKE INFORMED DECISIONS.
- A KEY CHALLENGE IS TO IDENTIFY AND ADDRESS THE FACTORS THAT MAY AFFECT OBJECTIVES.
- RISK IS NOT TO BE (ONLY) ASSOCIATED WITH A NEGATIVE MEANING.
- THREATS AND OPPORTUNITIES – ALSO LOOK AT THE BRIGHT SIDE OF THE UNCERTAINTY.
- PRINCIPLES, FRAMEWORK AND PROCESS.



# VOCABULARY

<b>Risk</b>	<b>the effect of uncertainty on objectives</b>
<b>Risk Management</b>	coordinated activities to direct and control an organization with regard to <b>risk</b>
<b>Risk Attitude</b>	organization's approach to assess and eventually pursue, retain, take or turn away from <b>risk</b> (" <b>RISK APPETITE</b> ")
<b>Risk Owner</b>	person or entity with the accountability and authority to manage a <b>risk</b>
<b>Risk Manager</b>	person which is responsible to conduct/work the risk management process
<b>Stakeholder</b>	person or organization that <i>can</i> affect, <i>be</i> affected by, or <i>perceive</i> themselves to be affected by a decision or activity
<b>Risk Source</b>	element which alone or in combination has the intrinsic potential to give rise to <b>risk</b>
<b>Event</b>	occurrence or change of a particular set of circumstances
<b>Risk Assessment</b>	overall process of <b>risk identification, risk analysis, risk evaluation</b>
<b>Risk Identification</b>	process of finding, recognizing and describing <b>risks</b>

# VOCABULARY

<b>Consequence</b>	outcome of an <b>event</b> affecting objectives
<b>Likelihood</b>	chance of something happening
<b>Risk Analysis</b>	process to comprehend the nature of <b>risk</b> and to determine the <b>level of risk</b>
<b>Risk Criteria</b>	terms of reference against which the significance of a <b>risk</b> is evaluated
<b>Level of Risk</b>	Magnitude of a <b>risk</b> , expressed in terms of the combination of <b>consequences</b> and their <b>likelihood</b>
<b>Control</b>	measure that is modifying <b>risk</b>
<b>Risk Evaluation</b>	process of comparing the results of <b>risk analysis</b> with <b>risk criteria</b> to determine whether the <b>risk</b> and/or its magnitude is acceptable or tolerable
<b>Risk Treatment</b>	process to modify <b>risk</b>
<b>Residual Risk</b>	<b>risk</b> remaining after <b>risk treatment</b>

# VOCABULARY

**Level of risk (RAC)** = combination of  
Consequences (severity)  
likelihood



Combination, not only multiplication...  
Likelihood of the event for a given consequence

**Consequence** ⇒ outcome of an event affecting objectives  
**Likelihood** ⇒ better than probability (mathematics)

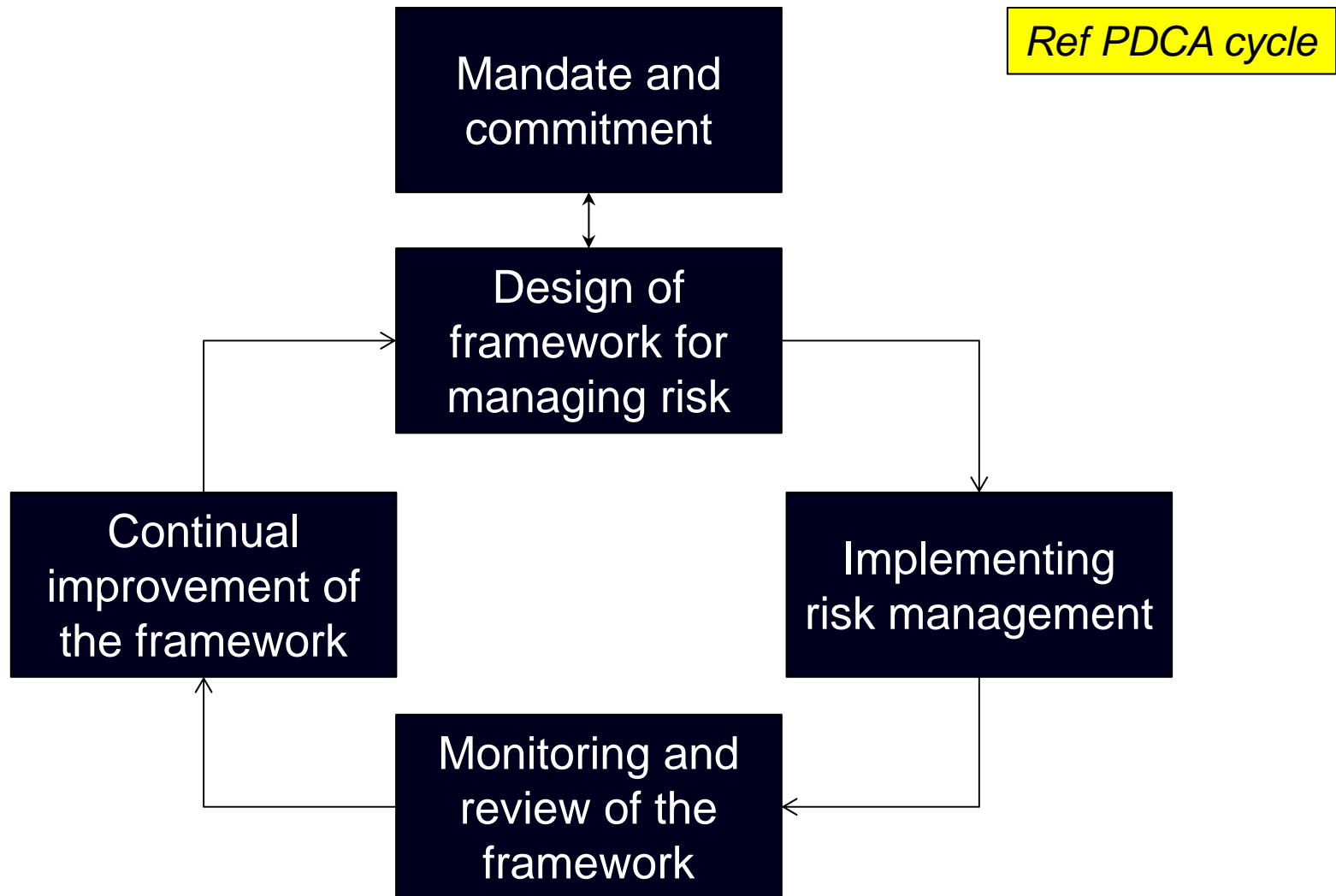
		Consequence		
		Slightly Harmful	Harmful	Extremely Harmful
Likelihood	Highly Unlikely	Low (3)	Low (3)	Moderate (2)
	Unlikely	Low (3)	Moderate (2)	High (1)
	Likely	Moderate (2)	High (1)	High (1)

# 11 PRINCIPLES

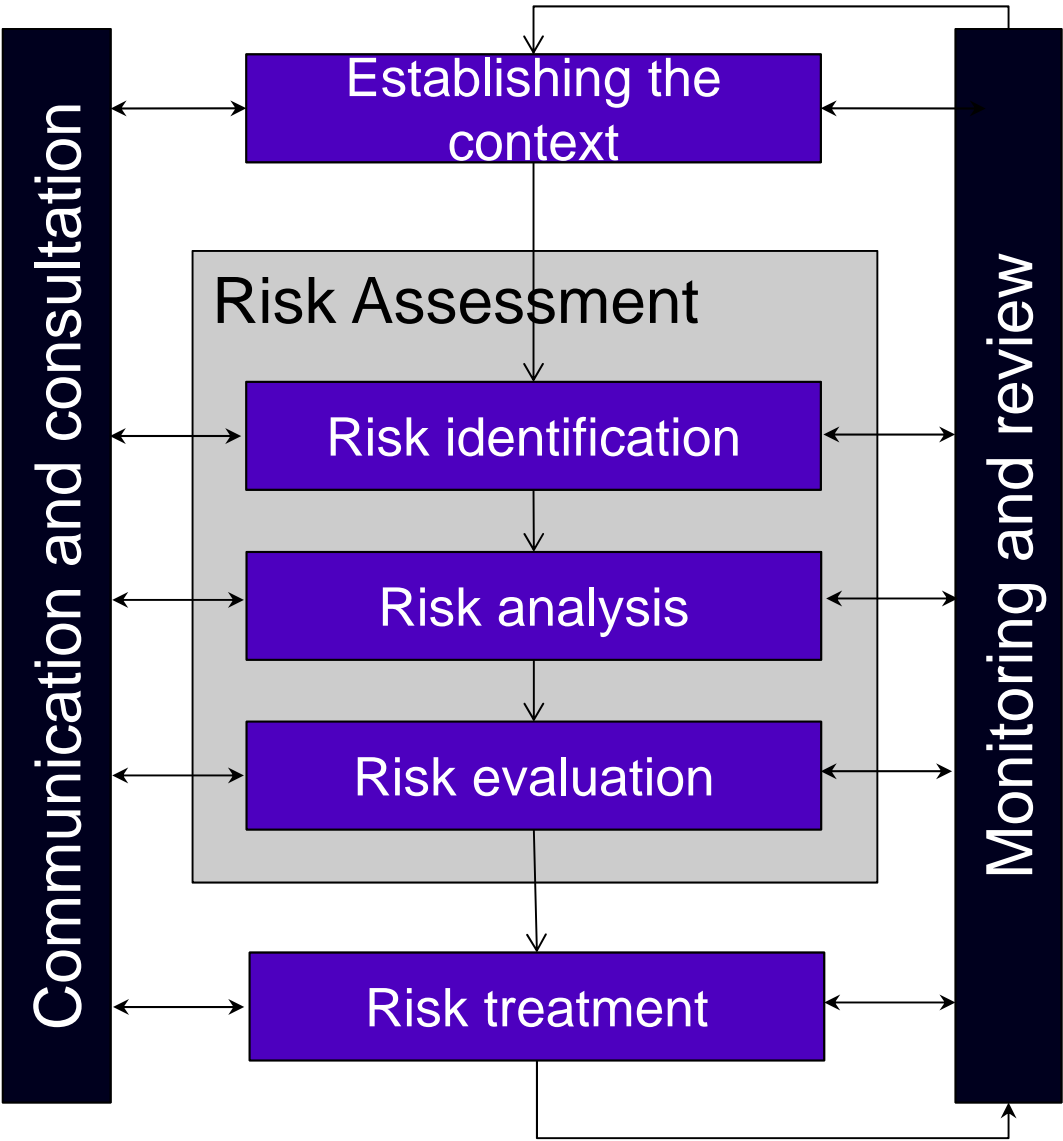
---

- a) **CREATES VALUE**
- b) INTEGRAL PART OF ORGANIZATIONAL PROCESSES
- c) **PART OF DECISION MAKING**
- d) EXPLICITLY ADDRESSES UNCERTAINTY
- e) SYSTEMATIC, STRUCTURED AND TIMELY
- f) BASED ON THE BEST AVAILABLE INFORMATION
- g) **TAILORED**
- h) TAKES HUMAN AND CULTURAL FACTORS INTO ACCOUNT
- i) TRANSPARENT AND INCLUSIVE
- j) DYNAMIC, ITERATIVE AND RESPONSIVE TO CHANGE
- k) FACILITATES CONTINUAL IMPROVEMENT AND ENHANCEMENT OF THE ORGANIZATION

# FRAMEWORK



# RM PROCESS



# ESTABLISH CONTEXT

## External:

- PESTEL
- KEY DRIVERS AND TRENDS IMPACTING OUR OBJECTIVES
- OUR STAKEHOLDERS (REQUIREMENTS, EXPECTATIONS, PERCEPTIONS AND SO ON)

MISSING ANYTHING, IN YOUR OPINION?. WHICH ARE THE MOST RELEVANT ONES?

## Internal:

- ORGANIZATIONAL POLICIES AND OBJECTIVES
- ORGANIZATION AS A WHOLE (INTERFACES)
- GOVERNANCE, ORGANIZATIONAL STRUCTURE, ROLES, ETC
- CAPABILITIES
- INFORMATION SYSTEMS, INFORMATION FLOWS, DECISION MAKING PROCESSES, ETC
- STANDARDS, REGULATORY FRAMEWORK, ETC

# RISK ASSESSMENT

---

- ESTABLISH RISK CRITERIA
- RISK REGISTER
- DO NOT FORGET THE RISK OWNER AND MANAGER  
(KEY TO GET SOMETHING ACHIEVED)
- LIKELIHOOD AND CONSEQUENCES (IMPACT)
- RISK ASSESSMENT CODE (RAC) – HELPING YOU TO  
FOCUS AND PRIORITIZE



# RISK TREATMENT (NOT ONLY MITIGATION)

---

- REMEMBER: POSITIVE AND NEGATIVE EFFECTS OF UNCERTAINTY
  
- POSSIBILITIES:
  - AVOID THE RISK
  - TAKING OR INCREASING IT
  - REMOVING THE RISK SOURCE
  - CHANGING THE LIKELIHOOD
  - CHANGING THE CONSEQUENCES
  - SHARING THE RISK WITH ANOTHER PARTY
  - RETAINING THE RISK BY INFORMED DECISION (Do Nothing)

# RESIDUAL RISK

---

- REMAINING AFTER INITIAL RISK TREATMENT
- DO NOT NEGLECT IT
- INCORPORATE IT INTO THE ITERATIVE RISK MANAGEMENT PROCESS

# RM vs. Safety

---

- OSH experts need to understand that Risk Management goes **far beyond Risk Assessment** (DEU: Gefaehrdungsbeurteilung)
- Risk can be a **threat** (the legacy OSH thinking) or an **opportunity**
- RM can be utilized as a vehicle to **integrate OSH topics** in established organizational processes
- Similar to PDCA in SMS OHSAS 18001, RM is a repetitive four-stage model for **continuous improvement**

# Take-aways

---

- Get management on-board
- Understanding terminology is key to successful RM
- Integrate RM in your business processes

---

Questions?