

# **Asian Nuclear Safety Network (ANSN)**

## **Regulatory Infrastructure Topical Group (RITG)**

**Regional Workshop on the Development of Integrated Management  
System based on GSR Part 2**

***Module 4 – Ensuring Successful Development for Management for  
Safety by implementing GSR Part 2***

**Hosted by the Office of Atom for Peace  
Government Thailand, Chiang Rai, Thailand**

**Abida KHATOON, IAEA Expert – Pakistan**  
**21 – 23 November 2016**



**IAEA**

International Atomic Energy Agency

# **Ensuring Successful Development for Management for Safety by implementing GSR Part 2**

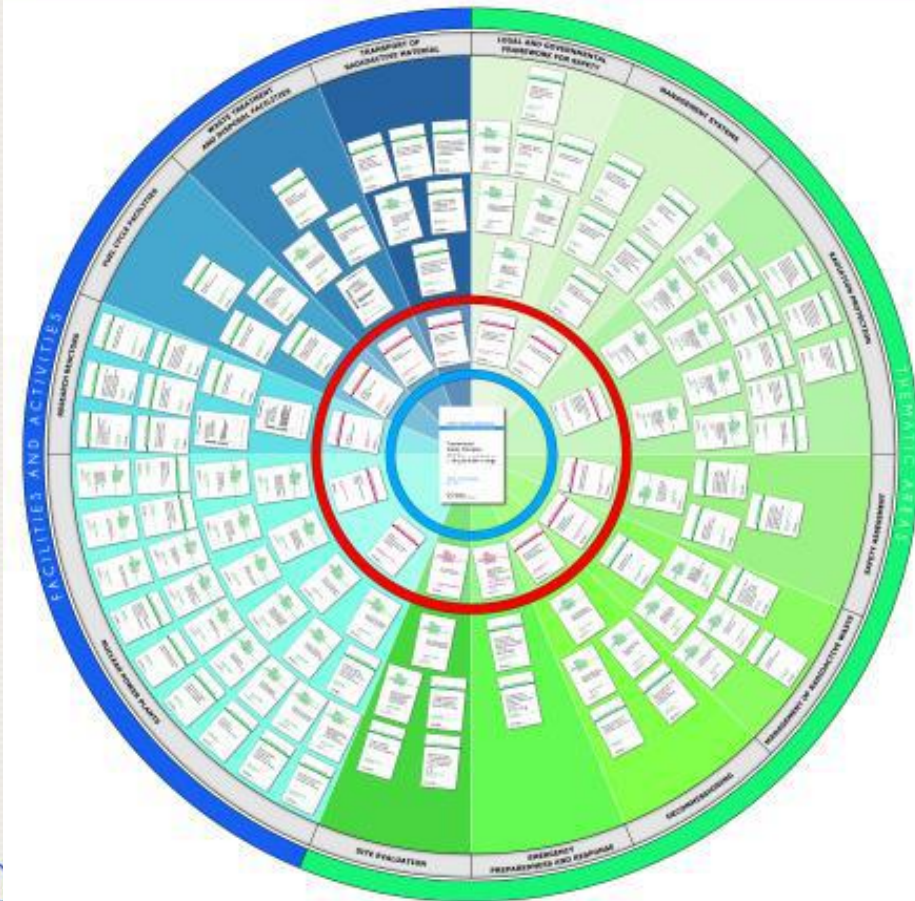


**IAEA**

International Atomic Energy Agency

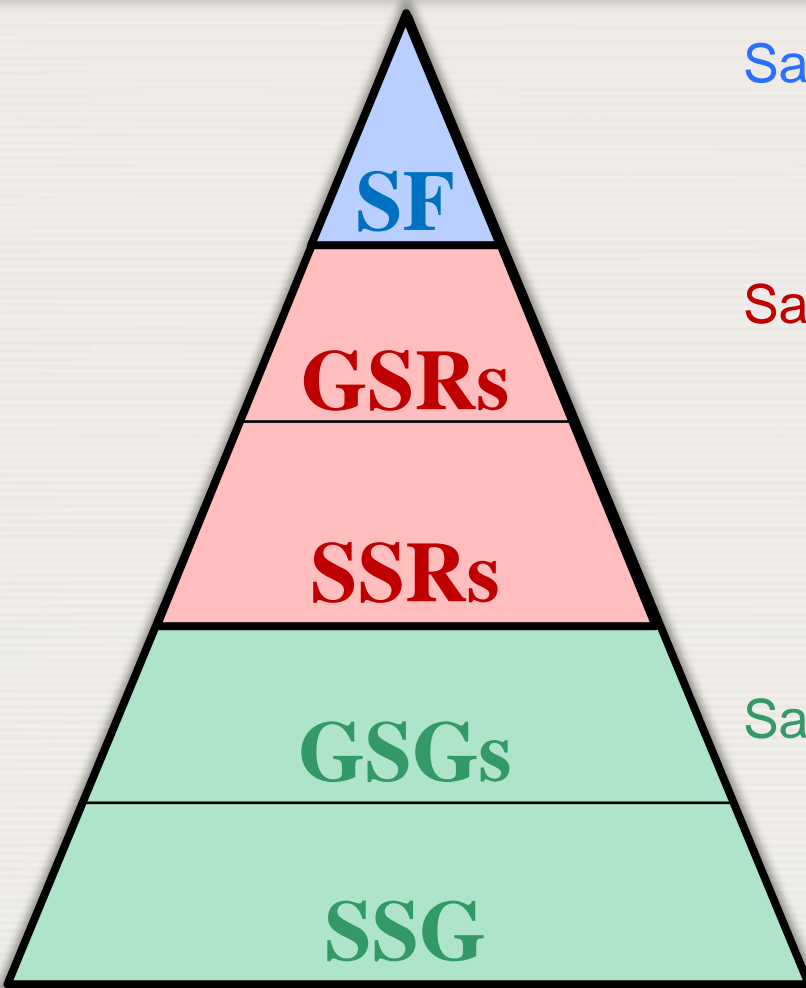
# Building Nuclear Infrastructure Using SSG-16

## IAEA Safety Standards protecting people and the environment



**IAEA safety standards need to be complemented by industry standards and must be implemented within appropriate national regulatory infrastructures to be fully effective**

# IAEA Safety Standards



## Safety fundamentals

- The structure of the safety standards reflects the ten Fundamental Safety Principles and the “Roadmap on the long-term structure of the safety standards”

## Safety requirements

- Requirements address what must be done while the Guides will address how this may be achieved
- General Safety Requirements: Applicable to all facilities and activities
- Specific Safety Requirements: Applicable to specified facilities or activities

## Safety guides

- Provide guidance on how to implement safety requirements
- General Safety Guides: Applicable to all facilities and activities
- Specific Safety Guides: Applicable to specified facilities or activities

# IAEA Safety Standards

**Responsibility  
for  
Safety**

**Role of  
Government**

**Leadership and  
Management  
for Safety**

**Justification of  
Facilities and  
Activities**

**Optimization  
of Protection**

**Limitation of  
Risks to  
Individuals**

**Protective  
Actions to  
Reduce Existing  
Or Unregulated  
Radiation Risks**

**Emergency  
Preparedness  
and Response**

**Prevention  
of Accidents**

**Protection of  
Present and  
Future  
Generations**



# IAEA Safety Standards

## Fundamental Safety Principles

To protect people and the environment from harmful effects of ionizing radiation

### Principle 1

Prime responsibility for safety rests with the person or organisation responsible for facilities and activities that give rise to radiation risks

### Principle 2

An effective Legal and Governmental framework for safety including independent regulatory body must be established

### Principle 3

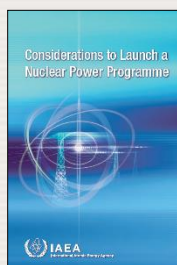
**Effective leadership and management for Safety must be established and sustained in organisations concerned with, and facilities and activities that give rise to, radiation risks**

Principles 4 to 10

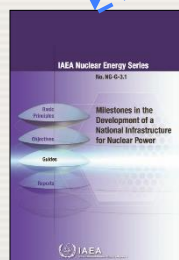
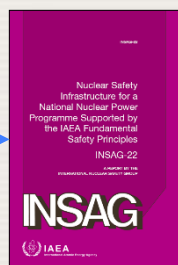


# IAEA Safety Standards

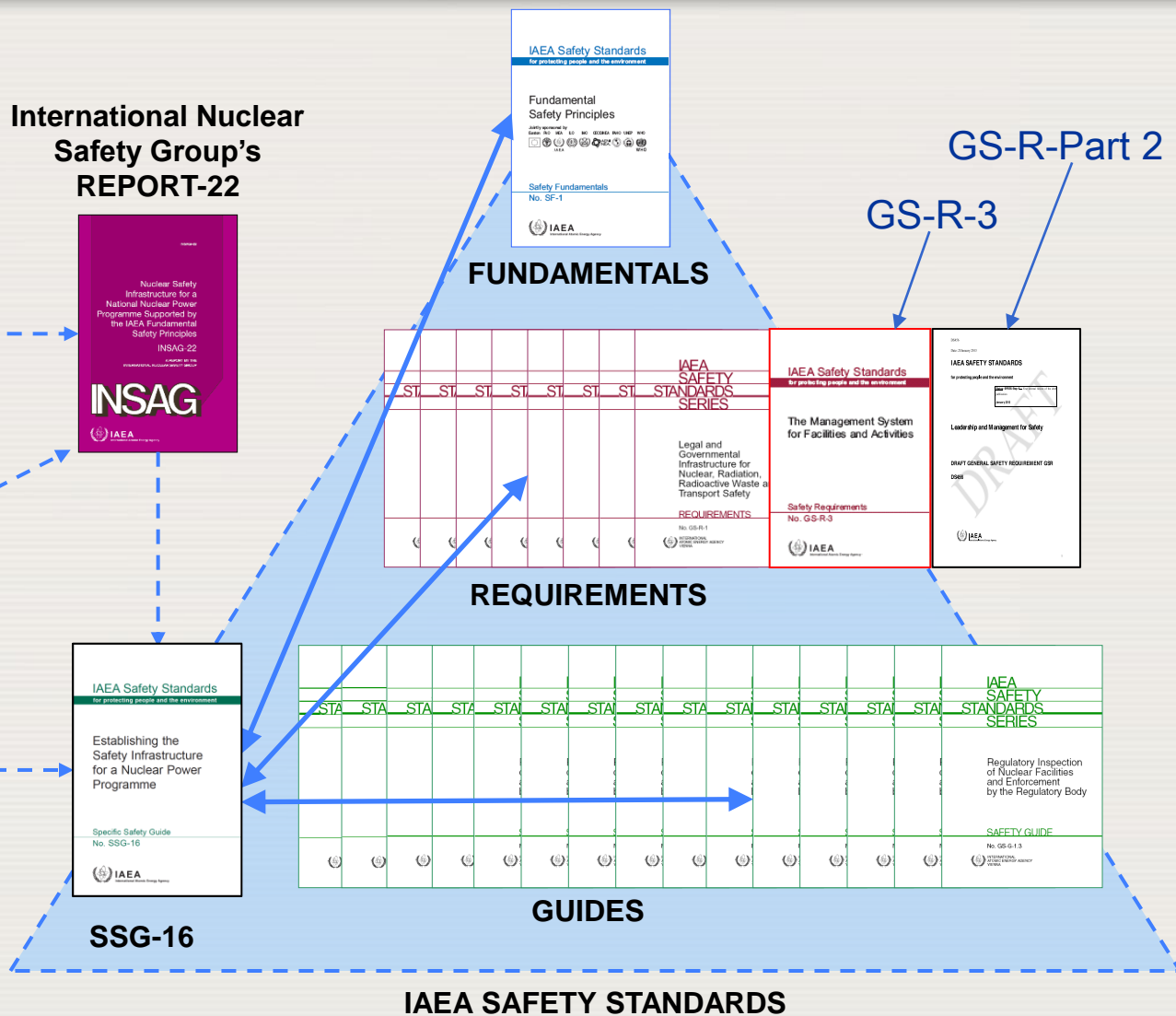
## IAEA Nuclear Power Support Group's BROCHURE



## International Nuclear Safety Group's REPORT-22

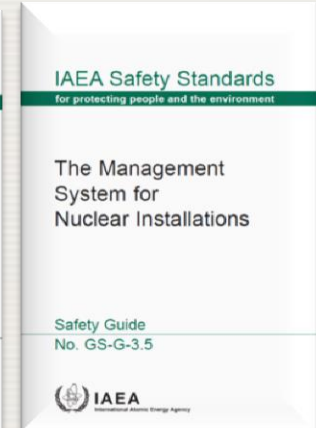
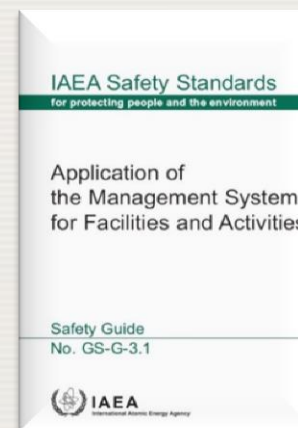
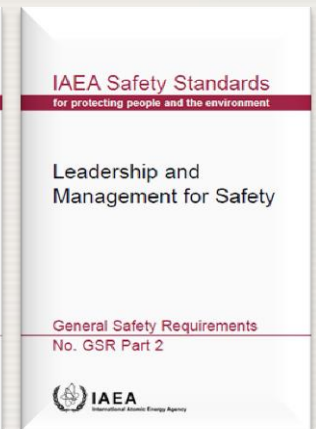
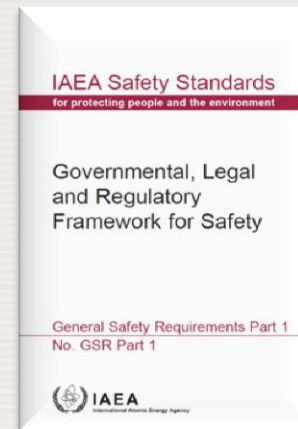
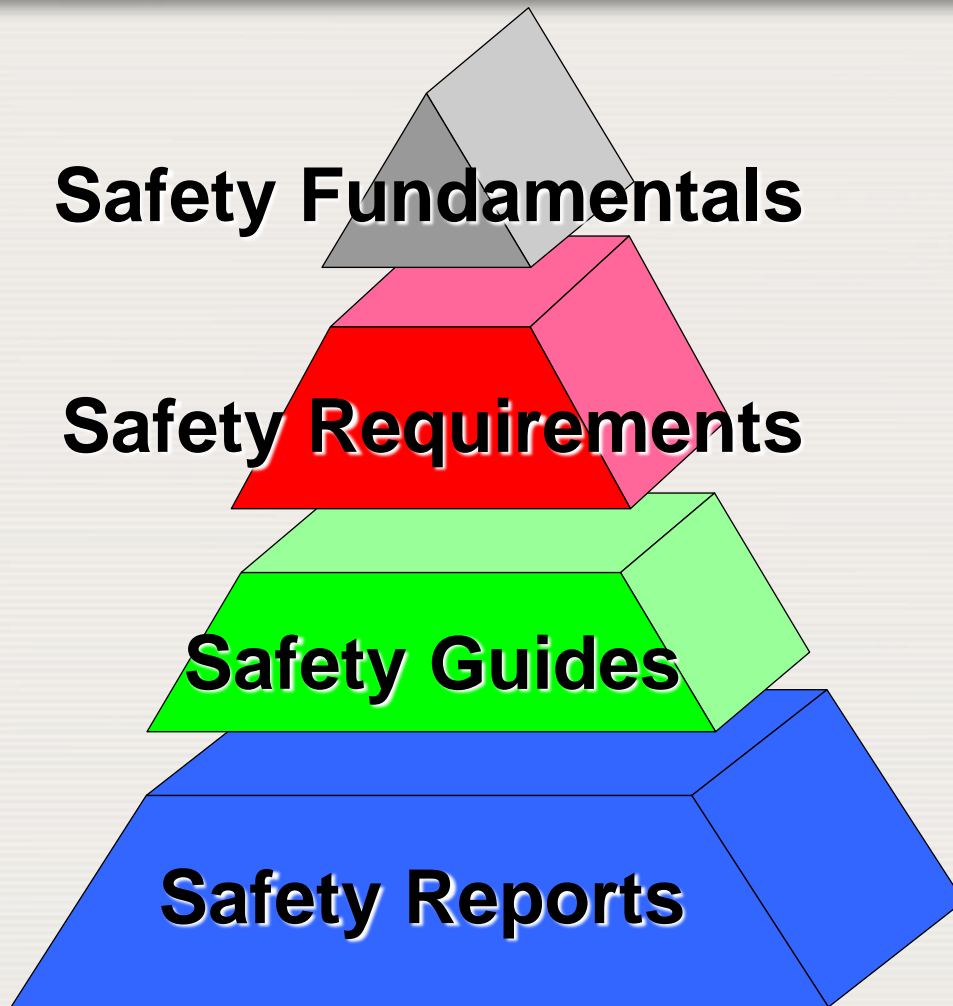


## "Milestones" document IAEA NG-G-3.1



[Adapted from A. Nicić]

# IAEA Safety Standards





# 1. IAEA Safety Standards

## SAFETY FUNDAMENTALS

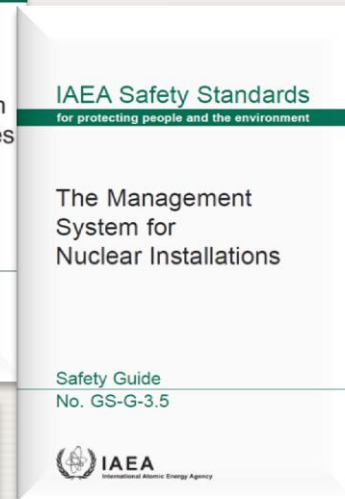
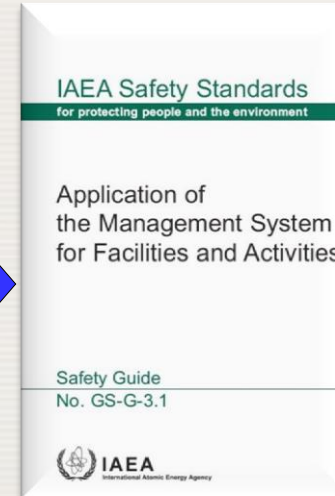
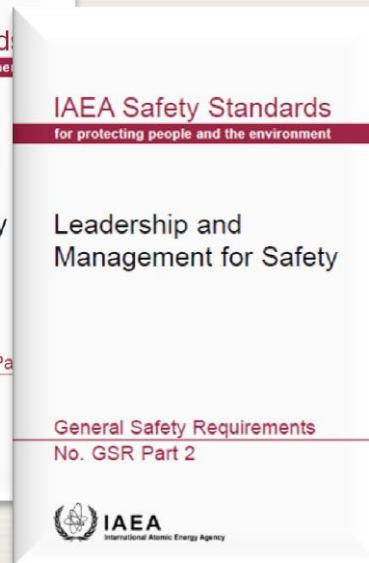
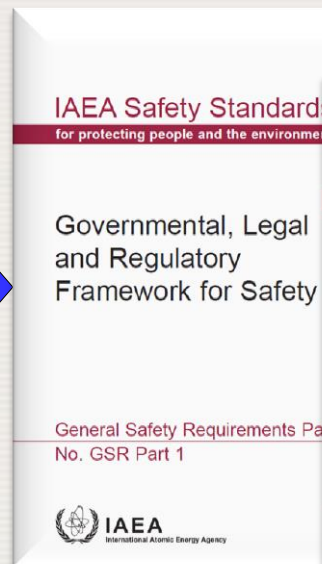
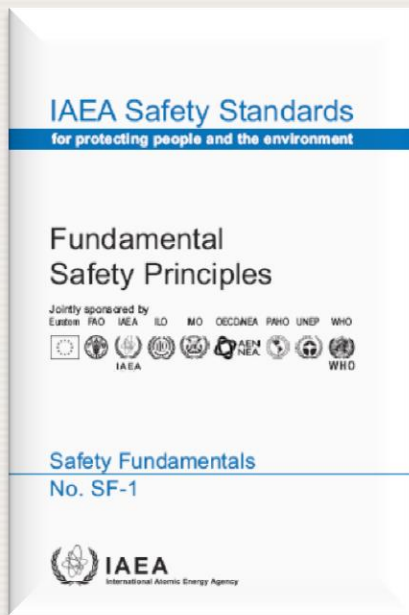
Effective leadership and management for safety must be established and sustained

## SAFETY REQUIREMENTS

Safety shall be paramount within the management system

## SAFETY GUIDES

Provide guidance for management system implementation and sustainability



Provide basis for developing and implementing  
**Leadership and Management System for Regulatory Body**

# Leadership and Management for Safety

Requirements specifically directed at senior managers e.g.,

**SF-1** | Principle 3 *Leadership and Management for Safety*

**GSR Part 1** | R 19 *The Management System of the Regulatory Body*

**GSR Part 2** |

## 1. Responsibility for Safety

- Requirement 1: *Achieving the fundamental safety objective*

## 2. Leadership for Safety

- Requirement 2: *Demonstration of leadership for safety by managers*

# Leadership and Management for Safety

## 3. Management for Safety

a) Responsibility for integration of safety into the management system

- Requirement 3: *Responsibility of senior management for the management system*
- Requirement 4: *Goals, strategies, plans and objectives*
- Requirement 5: *Interaction with interested parties*

b) The Management System

- Requirement 6: *Integration of the management system*
- Requirement 7: *Application of the graded approach to the management system*
- Requirement 8: *Documentation of the Management System.*



# Leadership and Management for Safety

## c) Management of Resources

- Requirement 9: *Provision of resources*

## d) Management of processes and activities

- Requirement 10: *Management of processes and activities*
- Requirement 11: *Management of the supply chain*

## 4. Culture for Safety

- Requirement 12: Fostering a culture for safety

## 5. Measurement, Assessment and Improvement

- Requirement 13: Measurement, Assessment and Improvement of the Management System
- Requirement 14: Measurement, Assessment and Improvement of Leadership for safety and of Safety Culture



# Requirements for your role

## Requirement 1: Achieving the fundamental safety objectives.

*Senior management shall ensure that the fundamental safety objective of protecting people and the environment from harmful effects of ionizing radiation is achieved without unduly limiting the operation of facilities or the conduct of activities that give rise to radiation risks.*

- a) *Ensuring the safe; siting and site evaluation, design, construction, commissioning, operation and decommissioning of facilities. Also ensuring the quality of the associated equipment important to safety.*
- b) *Ensuring the safe management and control of all radioactive material that is produced, processed, used, handled, stored, disposed of or transported.*
- c) *Ensuring the safe management and control of all radioactive sources and radiation generators;*
- d) *Ensuring that Managers at all levels in the organization develop an understanding of their radiation risks and their potential consequences, and of how to manage radiation risks.*
- e) *Ensuring the provision for adequate resources and funding for the long term management and disposal of radioactive waste, with due consideration given to the protection of future generations;*

*Ensuring that arrangements are made in preparedness for an effective response in the event of a nuclear or radiological emergency, and establishing arrangements for the management of severe accidents.*



# Requirements for your role

Requirements specifically directed at senior managers e.g.,

- GS-R-3 | 3.1, 3.2, 3.3, 3.4, 3.5; GS-G-3.1 | 3.3-3.7 Management Commitment
- GS-R-3 | 3.6 Satisfaction of Interested Parties
- GS-R-3 | 3.7; GS-G-3.1 | 3.10, 3.11, 3.12 Organizational Policies
- GS-R-3 | 3.8, 3.9, 3.10, 3.11; GS-G-3.1 | 3.13-3.16 Planning
- GS-R-3 | 3.12, 3.13, 3.14; GS-G-3.1 | 3.17-3.20 Responsibility and Authority for the MS
- SSG-16 Action 78 – Effective Leadership and Management for Safety



# Discussion - critical success factors

- Based on what you have learned so far, what do you think would be the critical success factors in implementing an IMS in your organization?

# Key success factors

- Confirming top management commitment
- Preparing the organization for the transition from QA/QM to IMS
- Developing the strategy to make the transition
- Developing, implementing and assessing the overall plan to implement the IMS
- Setting a clear vision
- Setting clear objectives and requirements
  - Specific, Measurable, Agreed, Reachable, Timed

# Key success factors

- Leadership and Vision
  - Keen and competent oversight and prompt resolution of issues, disputes and conflicts
  - Timely intervention and contingency plans
  - Clear, frequent, and effective communication with stakeholders

# Key Success Factors

- Skills and Resources
  - Active and positive involvement of all staff
  - Full project team participation including team participation in planning and problem-solving
  - Clear roles and responsibilities and lines of authority
  - Provision of adequate financial, material and other resources
  - Effective project change management

# Final thought

If its not you, whom?

...without constant senior  
management involvement, the  
effort will stumble and fail...

# Thank you!



IAEA