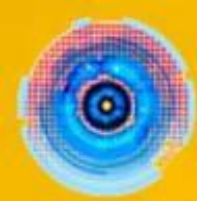


# Safety & Security Interface

May 11, 2016 / Topic 2 - Regulatory Challenges

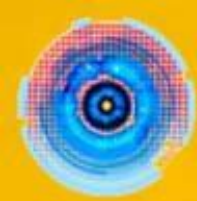
Jorge Dejoz  
ENSI



# Presentation outlines

- ⦿ Definitions & International Framework
- ⦿ An Integrated Approach
- ⦿ Responsibility, Involvement, Complementarity
- ⦿ Ways to a Comprehensive Approach
- ⦿ Organizational Structure at Competent Auth.
- ⦿ Conclusions

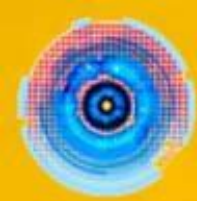




# Definitions & International Framework

- ⦿ **Nuclear Security (IAEA Security Glossary):**  
The prevention and detection of and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities.



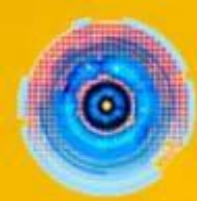


# Definitions & International Framework

## ⦿ Nuclear Safety (IAEA Safety Glossary):

The achievement of proper operating conditions, prevention of accidents and mitigation of accident consequences, resulting in protection of workers, the public and the environment from undue radiation risks.





# Definitions & International Framework

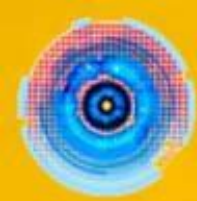
- ⦿ CPPNM and its Amendment 2005:

Does not reflect explicitly on the interaction of nuclear safety and nuclear security.

- ⦿ CNS (Art. 27):

Denominates the confidentiality of information related to national security or to physical protection of nuclear materials or nuclear installations.

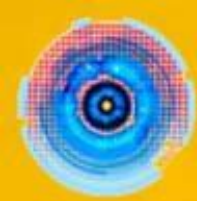




# Definitions & International Framework

- Nuclear Security Series No.20; Fundamentals  
(1.2) Nuclear security and nuclear safety have in common the aim of protecting persons, property, society and the environment. **Security measures** and **safety measures** have to be designed and implemented **in an integrated manner** to develop synergy between these two areas and also in a way that security measures do not compromise safety and safety measures do not compromise security.

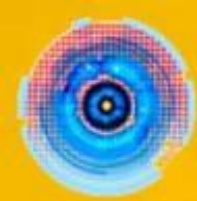




# Definitions & International Framework

- ⦿ Nuclear Security Series No.20; Fundamentals  
E.E.12: ... each **competent authority** and **authorized person** and other organizations with nuclear security responsibilities contribute to the sustainability ... by:
  - (a) Developing, implementing, and maintaining appropriate and effective integrated **management systems including quality management** systems;
  - (b) '**Demonstrating leadership** in nuclear security matters at the highest levels; ...





# Definitions & International Framework

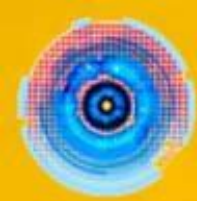
So, in this case ...

*Just do it!*

But: While nuclear safety and security share a common objective, there are points of potential conflict between the measures taken in each area to accomplish that objective.







# An Integrated Approach

## ⦿ At Legal Framework

- Usually both issues are addressed, but leave the implementation widely open

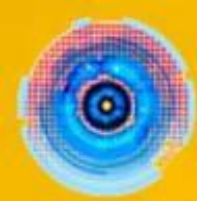
## ⦿ At Regulatory Requirements

- As in many regulatory frameworks, the challenge of integrating the two objectives have been addressed to operators

## ⦿ At Operational Level

- Almost all activities rely on that level of action





# An Integrated Approach

- ◉ Focusing on operational level actions
  - Leverage existing programs, controls, and processes to manage both planned and emergent activities/conditions
    - Plant Operations Review Committee
    - Work planning and control
    - Design control and configuration management
    - Quality assurance and audit
    - etc.

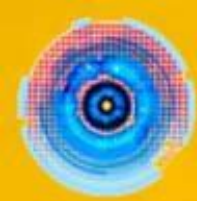




# An Integrated Approach

... is it enough ?



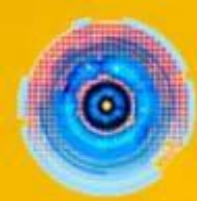


# Responsibility, Involvement, Complementarity

## ⦿ IAEA

- Under the lead of the IAEA, the Interface-Group was formed in June 2012.
- Being composed by the Chairs of the five Safety Standards Committees and five members of the Nuclear Security Guidance Committee, it ensures on the level of Standards and Guidance a mutual consideration and comprehension.



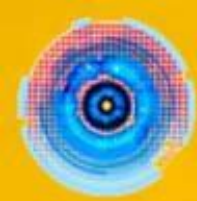


# Responsibility, Involvement, Complementarity

- The role of the competent authority
  - Fulfils the legal requirements
  - Establishes regulatory requirements
  - Verifies the fulfilment of legal and regulatory framework addressed to license holders
  - Follows international trends
  - Supervises operational modifications etc.

**Do we also take part of **how** the things are done on a nuclear facility?**





# Responsibility, Involvement, Complementarity

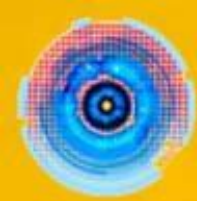
## ⦿ Nuclear Safety Culture:

“That assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear plant safety issues receive the attention warranted by their significance.”

## ⦿ Nuclear Security Culture:

“The assembly of characteristics, attitudes, and **behaviour** of individuals, organizations, and institutions which serves as a means to support and enhance nuclear security.”



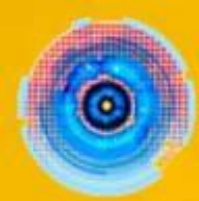


# Responsibility, Involvement, Complementarity

- ◉ Nuclear Security Culture:
  - Is it only affected by the legal and regulatory framework and the requirements and guidelines of the competent authority, and
  - Is it only the duty of the license holder?
  - Or has the organizational culture of the competent authority also an influence?

**Nuclear security culture goes further than the protected area.**





## Responsibility, Involvement, Complementarity

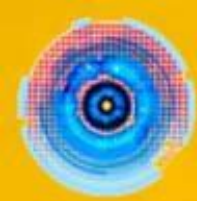
- ⦿ If this assumption is recognized, then the following fundamental position should be a leading factor over the competent authority and his way to work:

### **BELIEFS AND ATTITUDES**

- (a) Credible threat exists;
- (b) Nuclear security is important







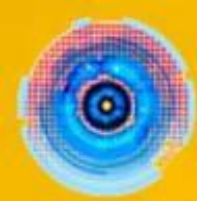
## Ways to a Comprehensive Approach

- ① Share the beliefs & attitudes of **safety culture** and **security culture** throughout all involved organizations

and consequently:

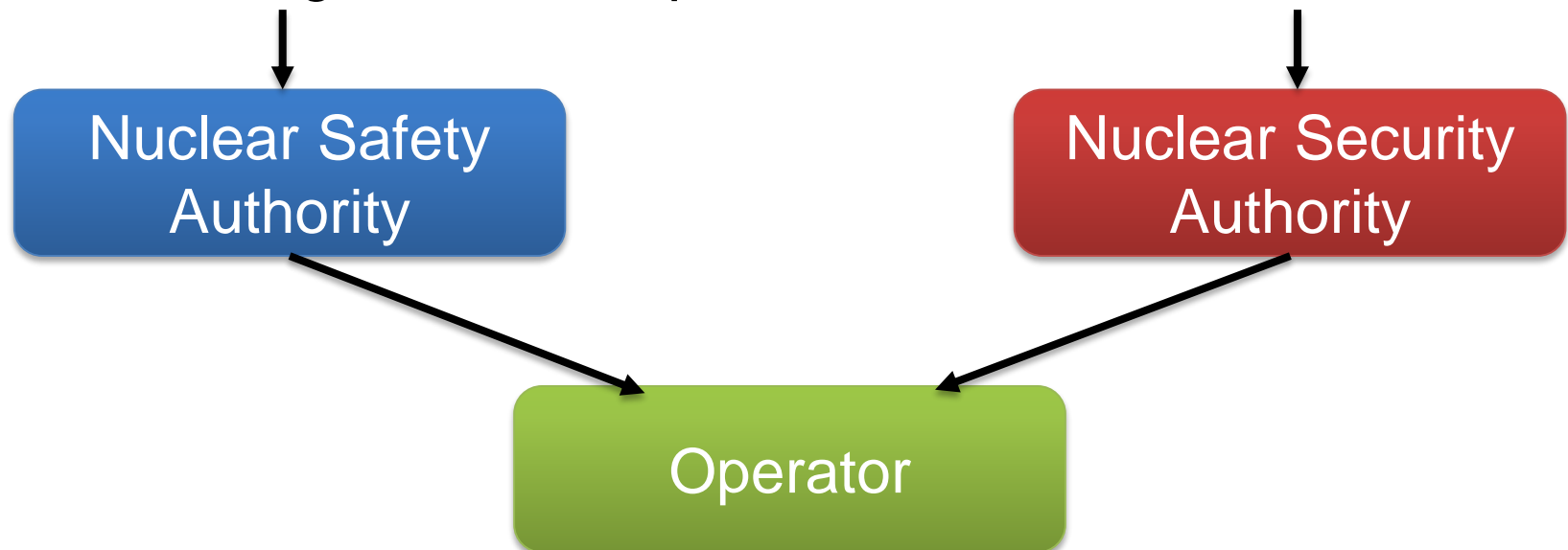
- ① Let the beliefs & attitudes be a foundation for the work at the interface of safety and security at the competent authority

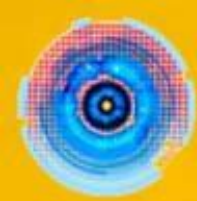




## Organizational Structure at Competent Authority

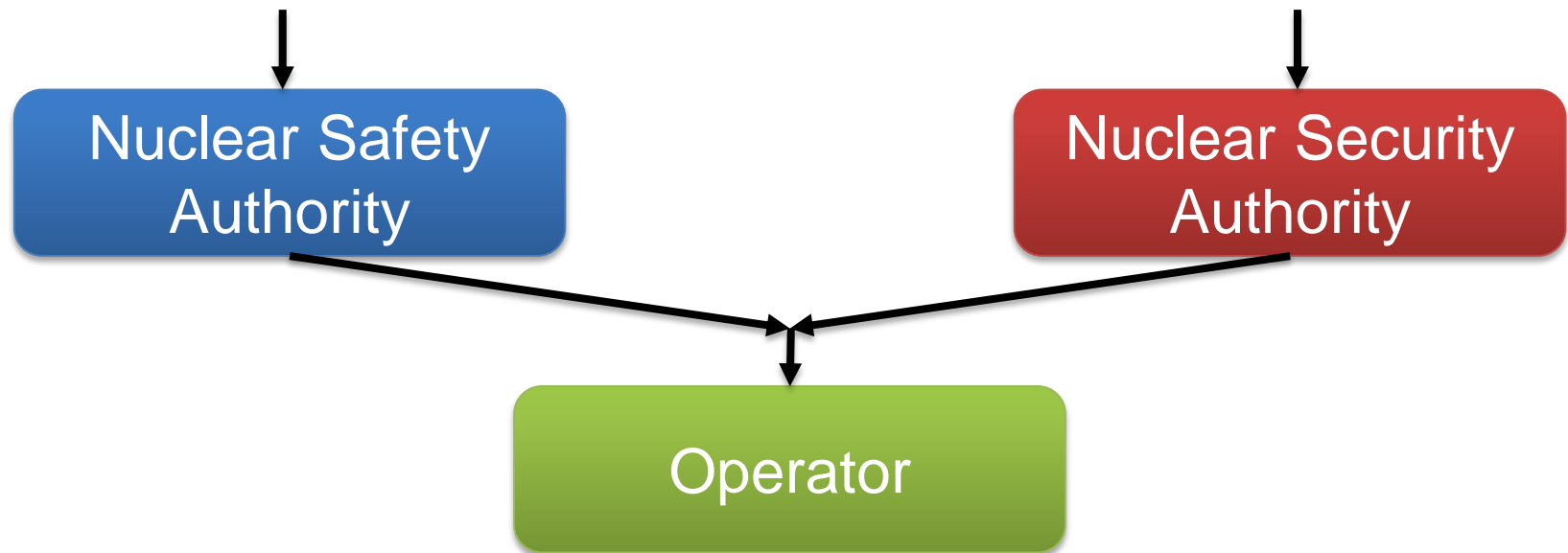
- ⊕ Separate Authorities for the two domains
  - Strict separation of safety and security items throughout the full process chain





## Organizational Structure at Competent Authority

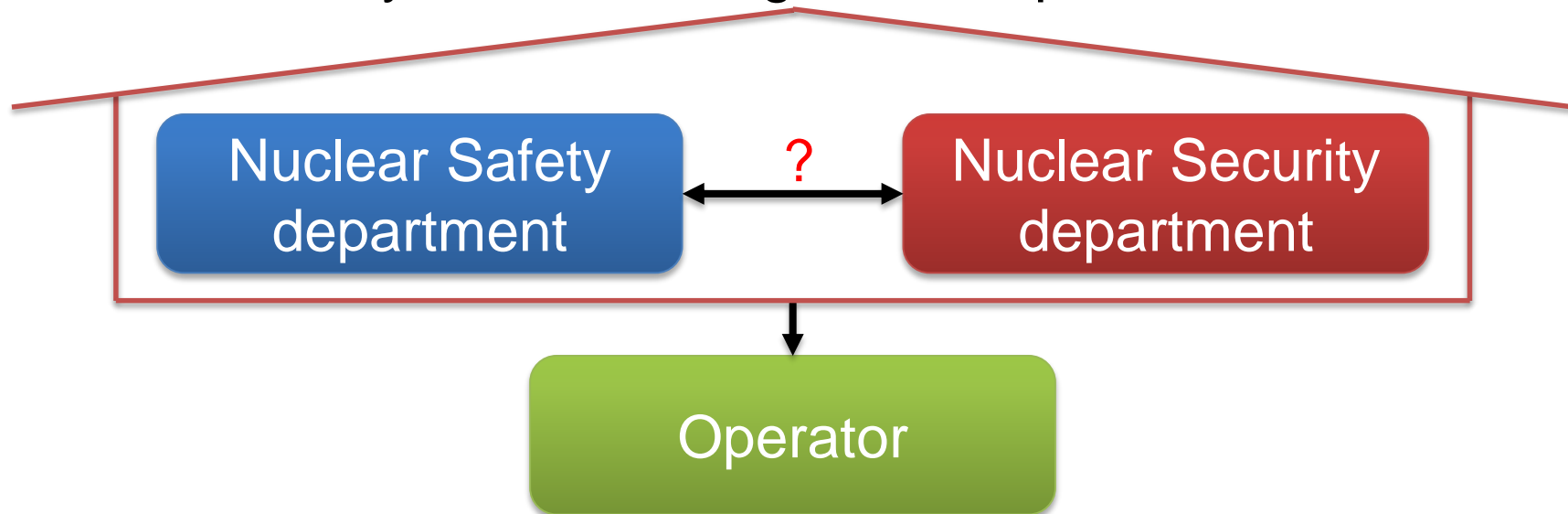
- ⊙ Separate Authorities with collaboration
  - Strict separation of safety and security, but at least a common basis at solution level

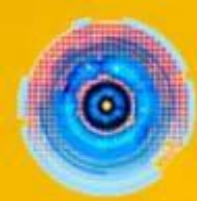




## Organizational Structure at Competent Authority

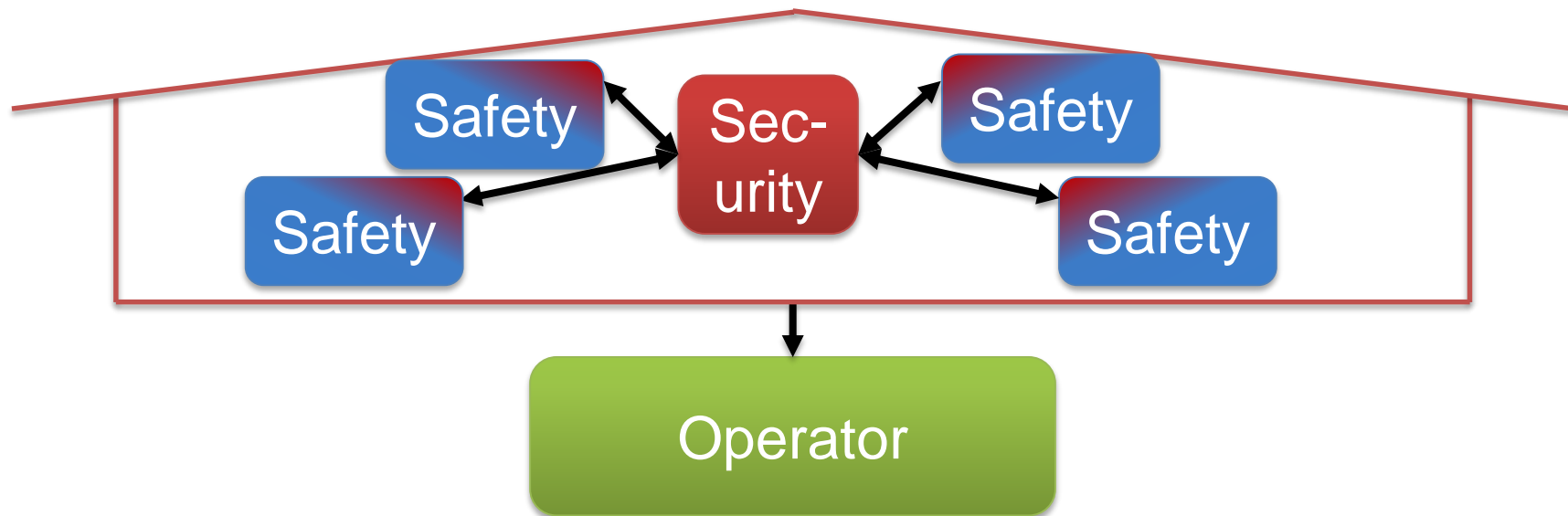
- ⊙ Combined Authority, separated departments
  - Now we have them «under-one-roof»
  - Are they also encouraged to cooperate?

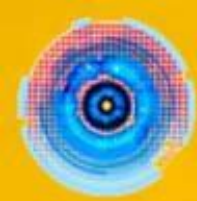




## Organizational Structure at Competent Authority

- Comprehensive Safety-Security-Approach
  - Liaison officers at Safety Teams ensure a well-balanced integration





# Conclusions

- ⦿ Interaction of safety and security finds answers to diverging goals
- ⦿ Interaction of safety and security starts already during the making of regulations, guidelines and other documents
- ⦿ Comprehensive approach in the interaction of safety and security *at the competent authority* is essential

