TC Liaison Officers/Assistant and New Staff Members of
Permanent Missions in Vienna
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Global Nuclear Safety and Security Regime

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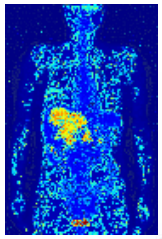
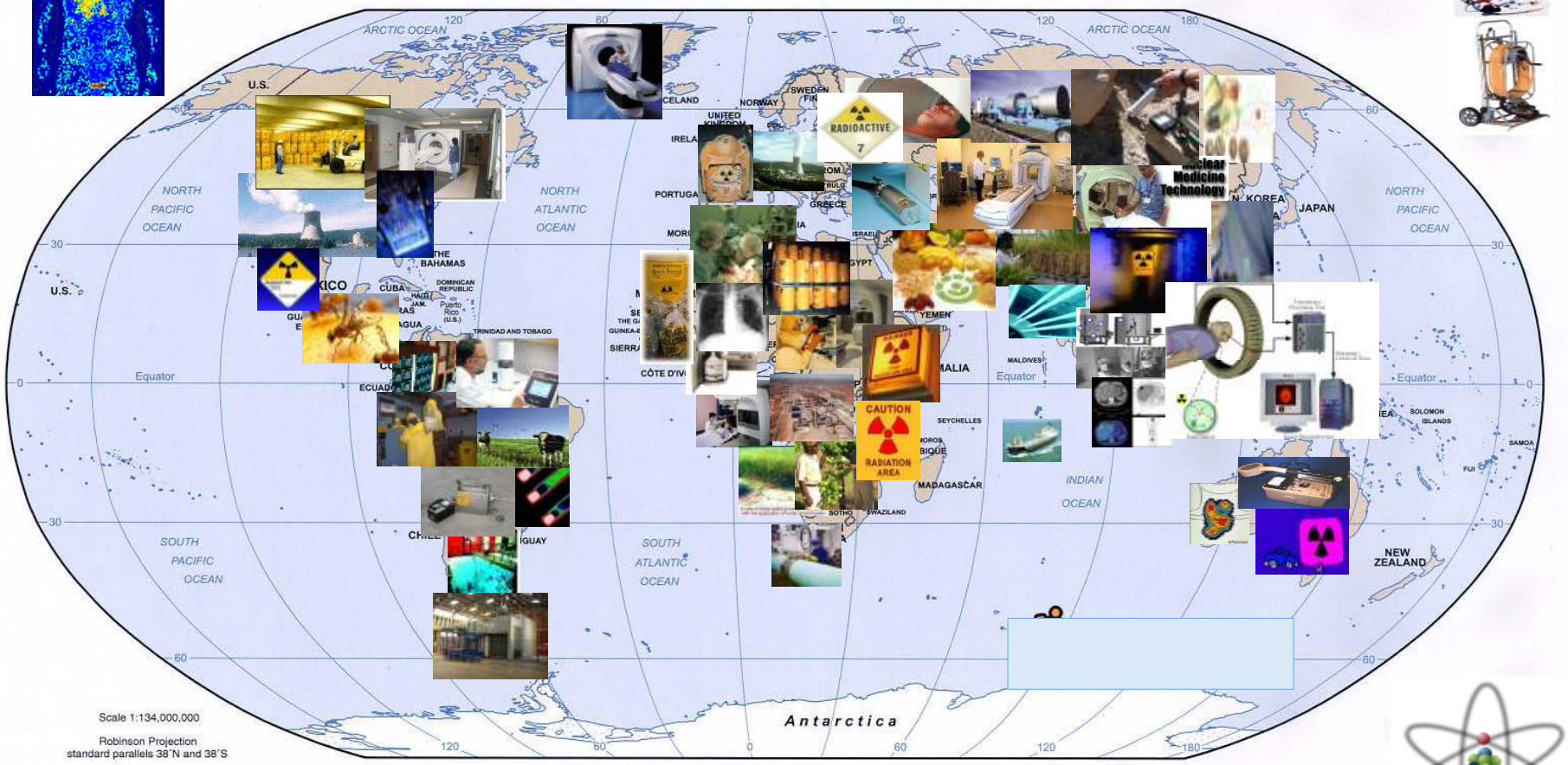
Background




ARCTIC OCEAN
NORTH PACIFIC OCEAN
NORTH ATLANTIC OCEAN
SOUTH PACIFIC OCEAN
SOUTH ATLANTIC OCEAN
INDIAN OCEAN
Equator
U.S.
JAPAN
NEW ZEALAND
MADAGASCAR
RADIOACTIVE
CAUTION
RADIATION AREA
Nuclear Medicine Technology
Antarctica
Scale 1:134,000,000
Robinson Projection
standard parallels 38°N and 38°S

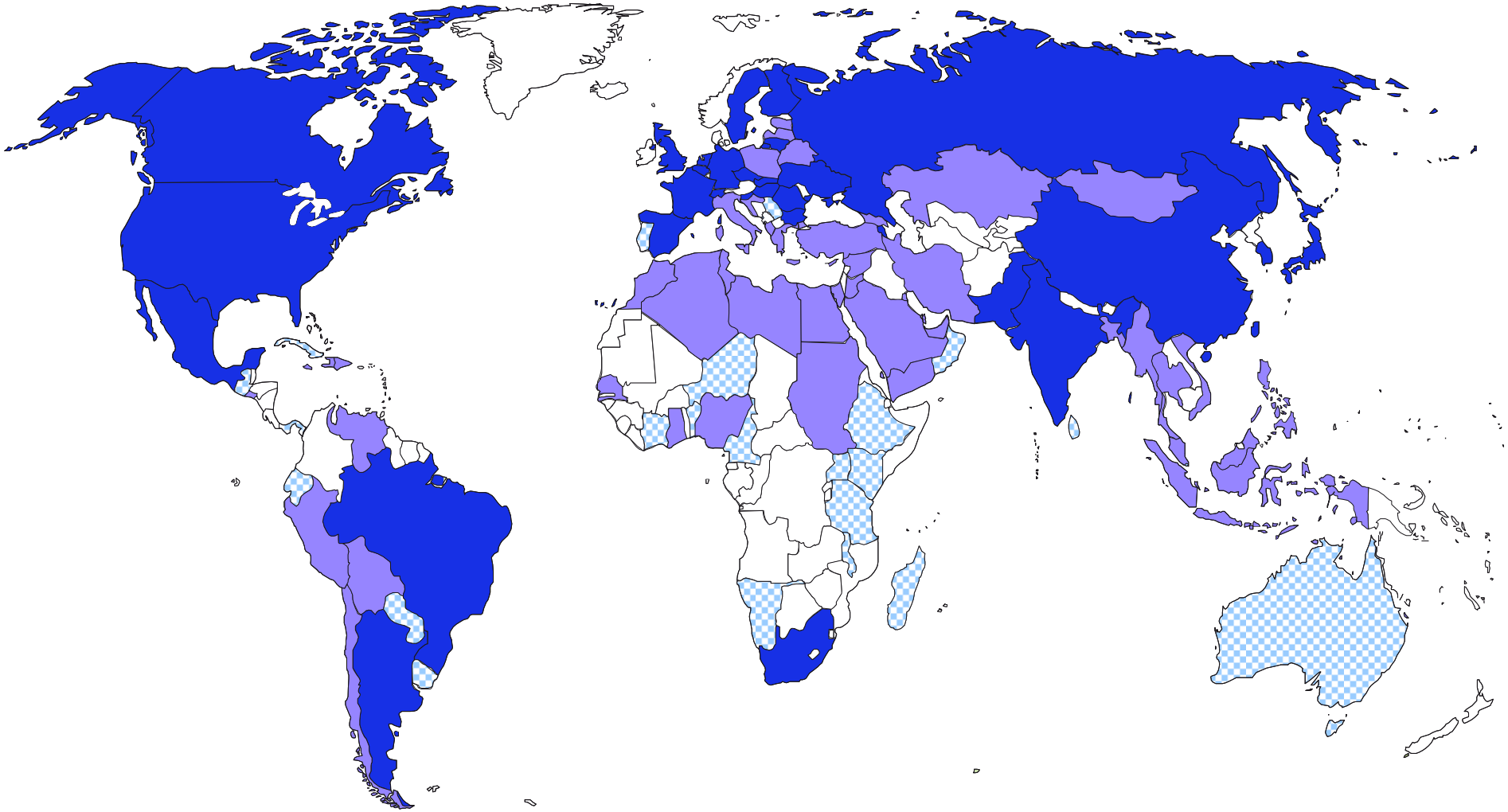
Global Nuclear Power Projections

- **Projections of nuclear power around the world show an upward trend**
- **Nearly 70 countries are considering or planning a first nuclear power plant**

Nuclear Generating Capacity	
2008 Current	2030 Projected
372 GW(e) in 30 Countries	***High Estimate*** **748 GW(e)** **20 New Countries**
	Low Estimate **473 GW(e)** **5 New Countries**

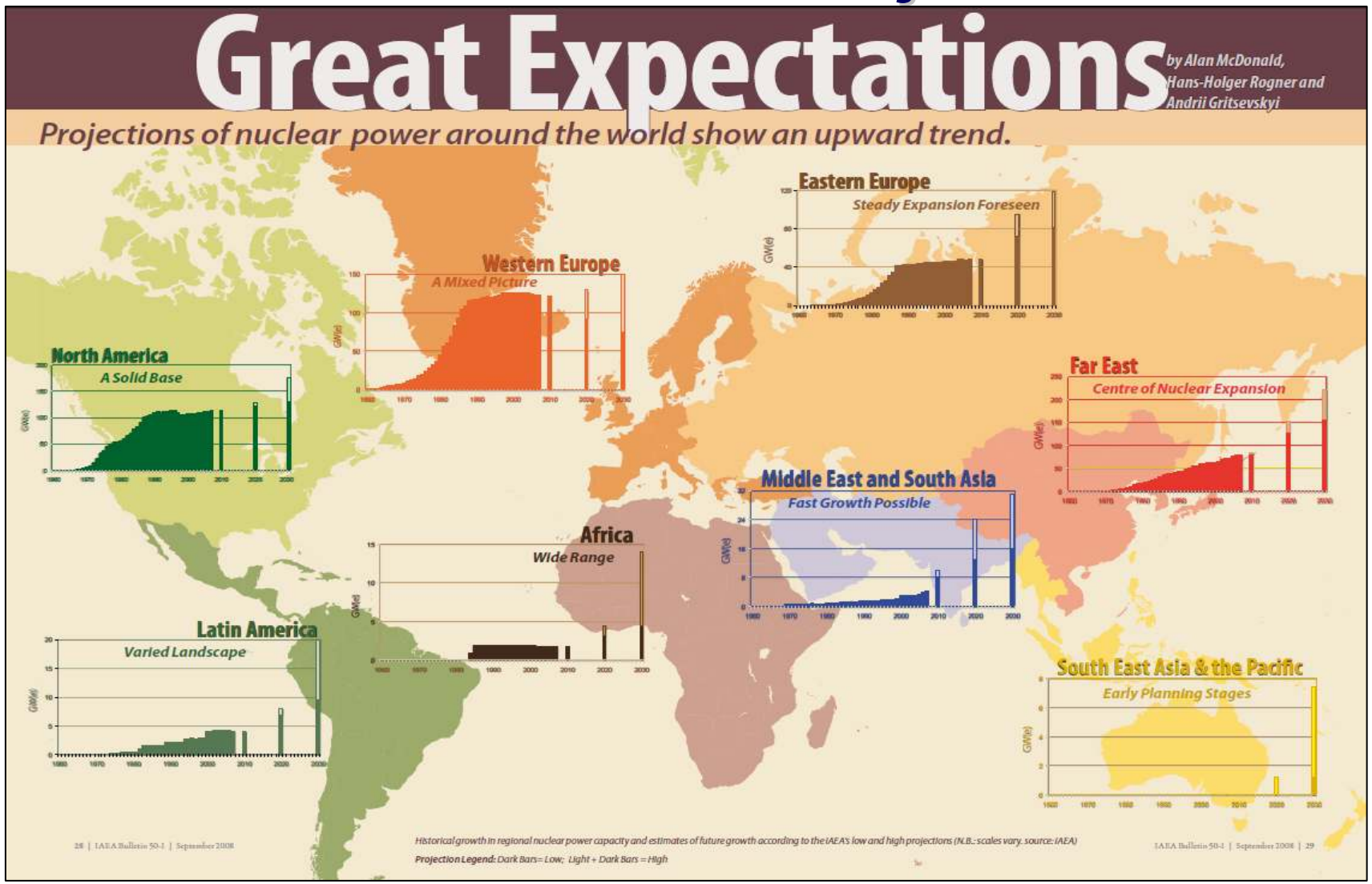
Source: Energy, Electricity and Nuclear Power Estimates for the Period to 2030 (RDS-1) 2008 Edition (IAEA 2009)

68 countries have expressed their interest for nuclear power



Operating (30) Considering (43) Having expressed interest (25)

Global Nuclear Power Projections (Cont'd)

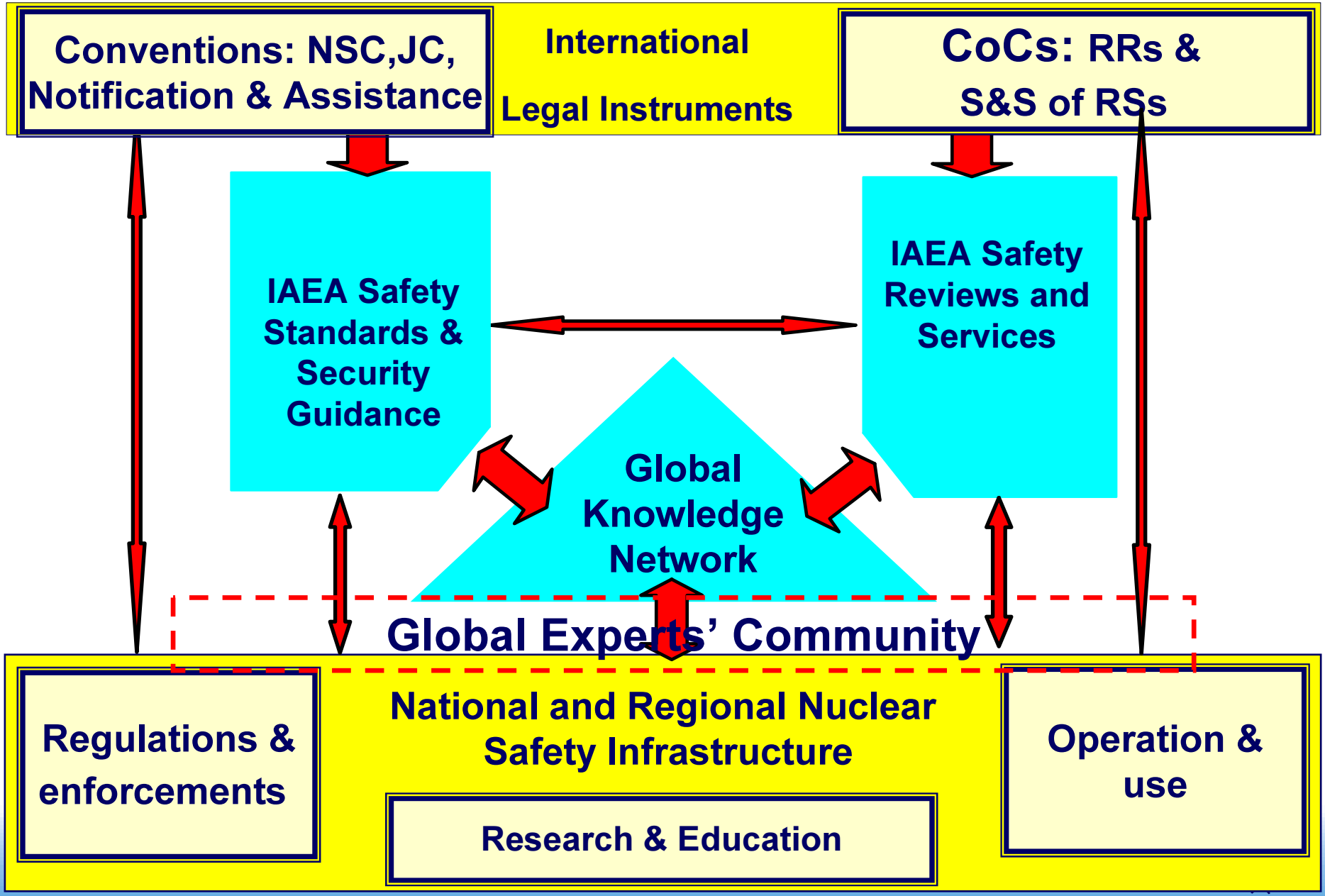


Source: IAEA Bulletin, September 2008

Lessons Learned

- The TMI, Chernobyl accident and recent malevolent events were turning points for safety and security respectively in the nuclear industry
- Both have resulted in accelerated international cooperation in nuclear safety and security and the establishment of global safety and security regimes as a more visible important aspect of the globalization process
- Incident or accident in any nuclear activity has impacts for all nuclear activities world-wide

Global Nuclear Safety Regime



Safety Conventions and Codes

Convention on Early Notification of a Nuclear Accident

Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency

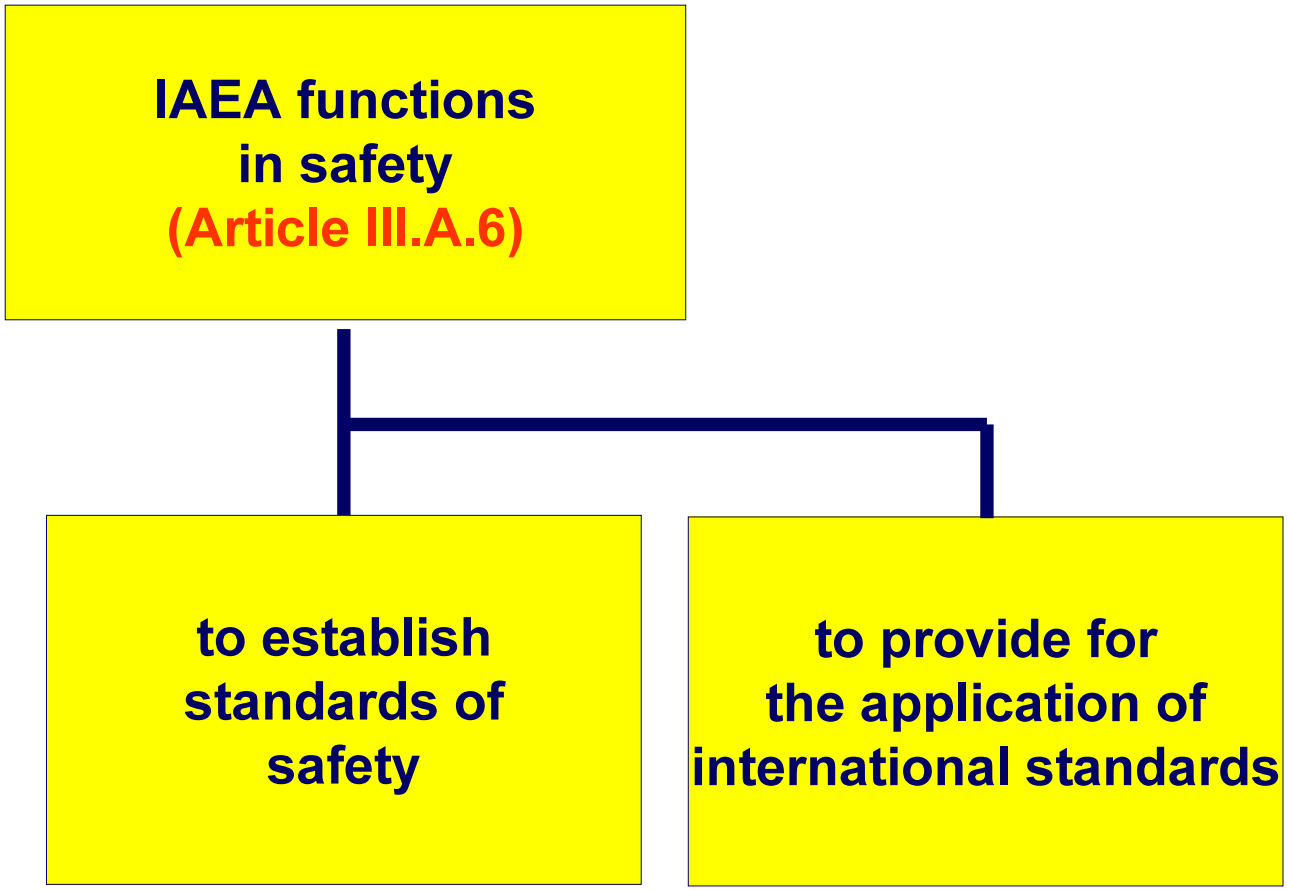
Convention on Nuclear Safety

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

Code of Conduct on the Safety and Security of Radioactive Sources

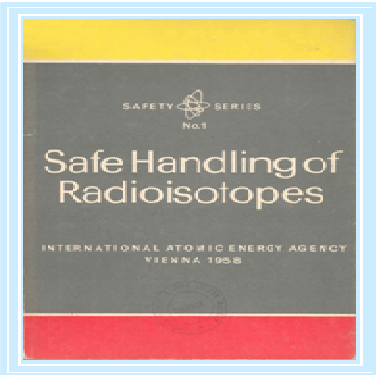
Code of Conduct on the Safety of Research Reactors

IAEA statutory safety functions



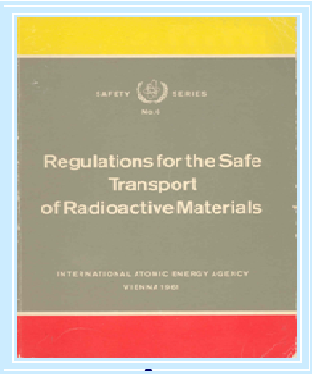
History

Safe Handling of Radioisotopes



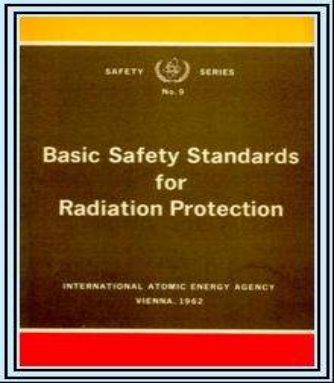
1958

Safe Transport of Radioactive Material



1961

BSS for Radiation Protection



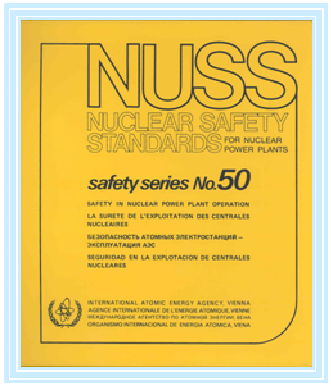
1962

Radioactive Waste Disposal into the Ground

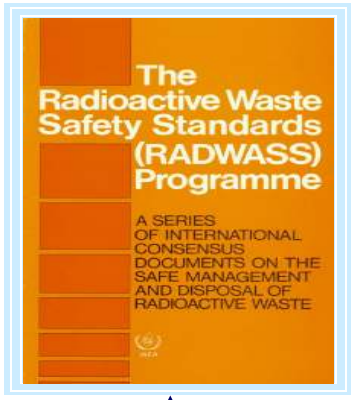
1965

History (cont'd)

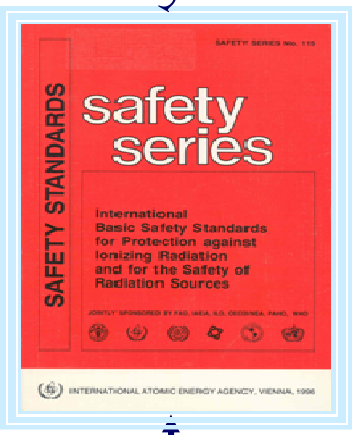
NUSS Programme



RADWASS Programme



Basic Safety Standards



1974

1988

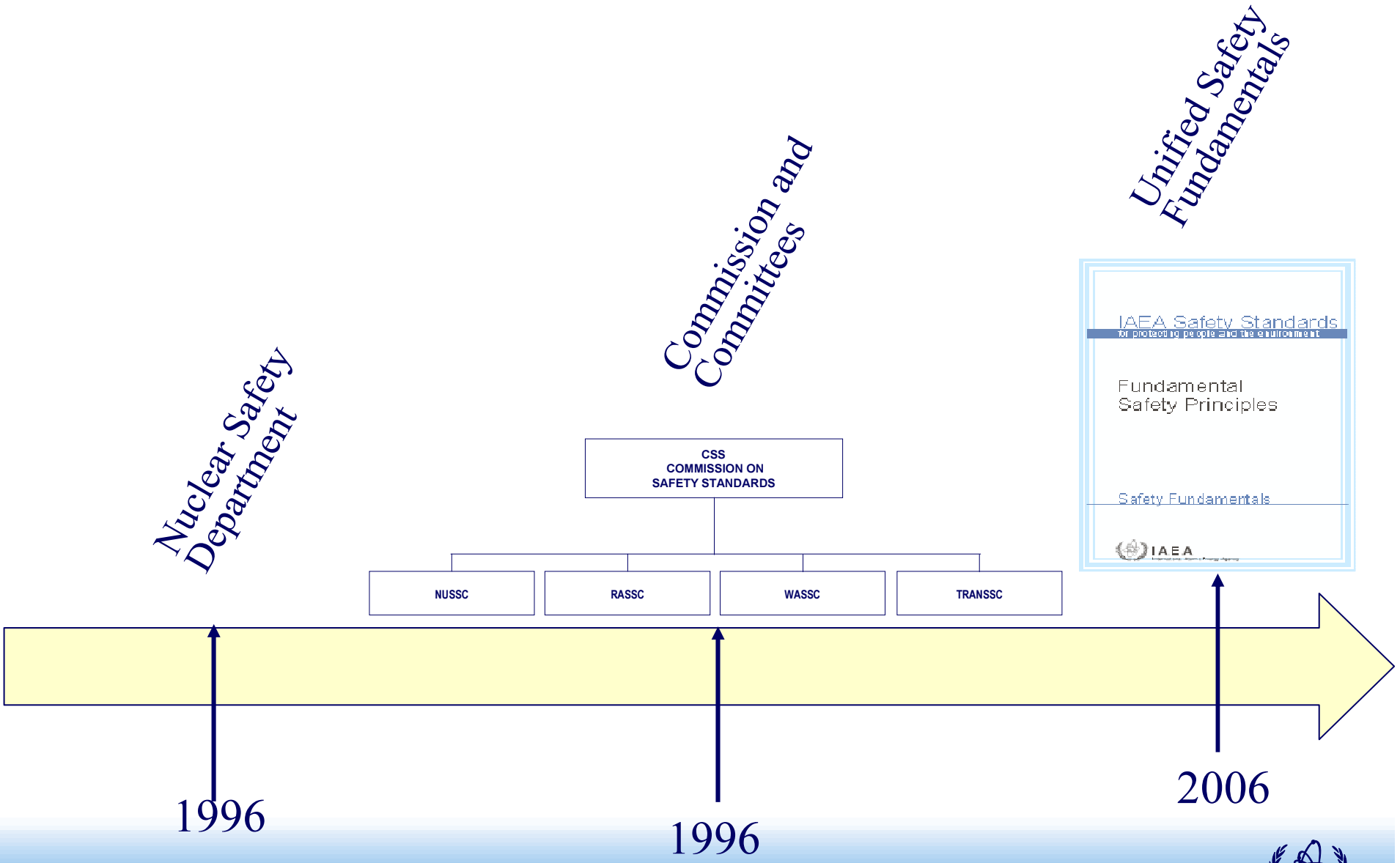
1996

History (cont'd)

1958 - 1996

- Four structured programmes
- Bottom-up approach
- Identification of requirements
- Issuance of three Safety Fundamentals

History (cont'd)



History (cont'd)

1996 - 2008

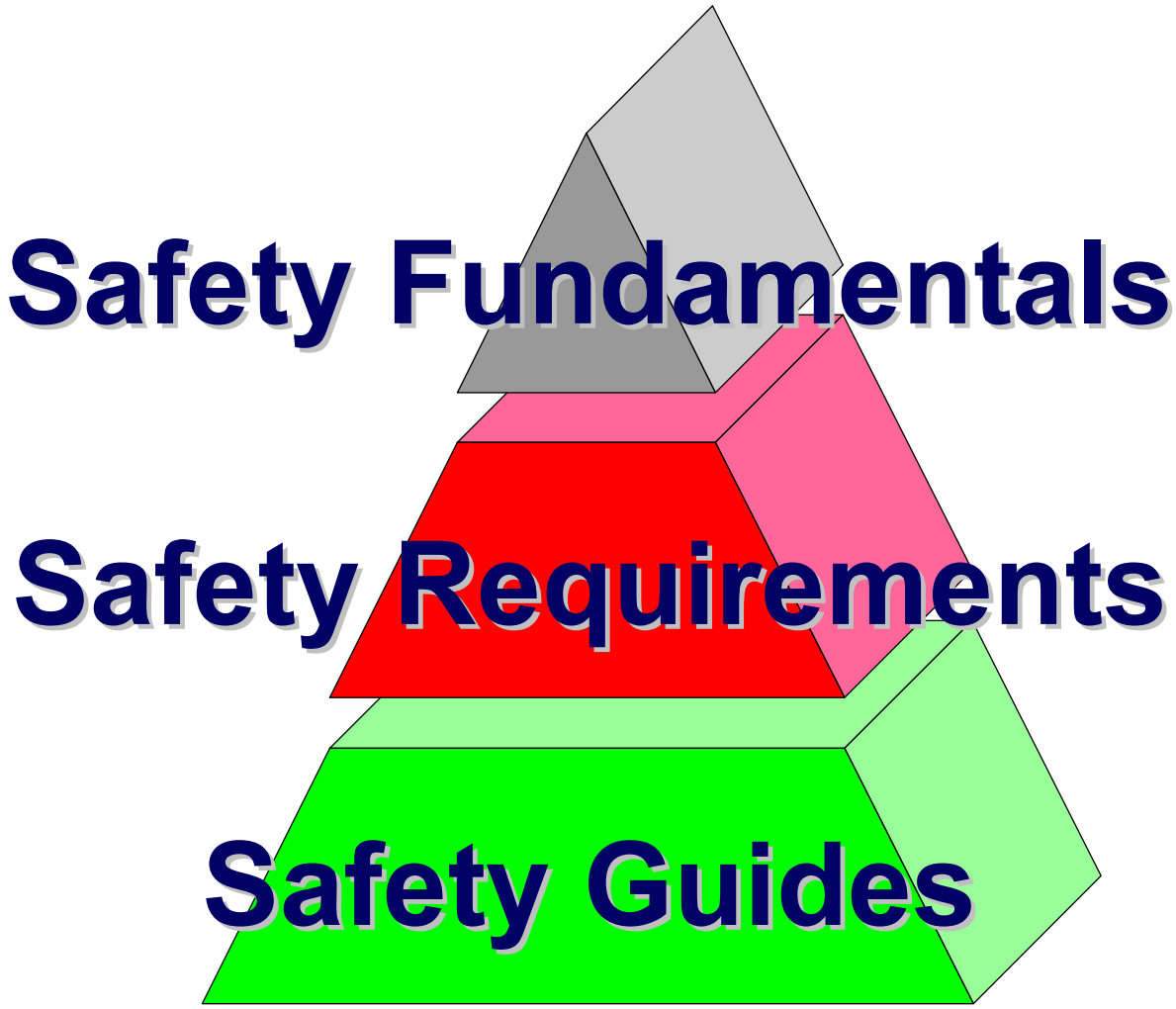
- 1996 - Establishment of the Department of NS:
  - ✓ **Harmonized processes involving the Commission and the four Committees; and**
  - ✓ **Preparation of an overall structure of Safety Standards.**
- 2006 - Unified Safety Fundamentals: beginning of a top-down approach
- 2008 - Roadmap on the long term structure and format of SR approved by CSS

Status of the IAEA Safety Standards

Safety Standards are:

- **Non binding on Member States but may be adopted by them**
- **Binding for IAEA's own activities**
- **Binding on States in relation to operations assisted by the IAEA or States wishing to enter into project agreements with IAEA**

Safety Standards Categories



Commission & Committees

Commission on Safety Standards

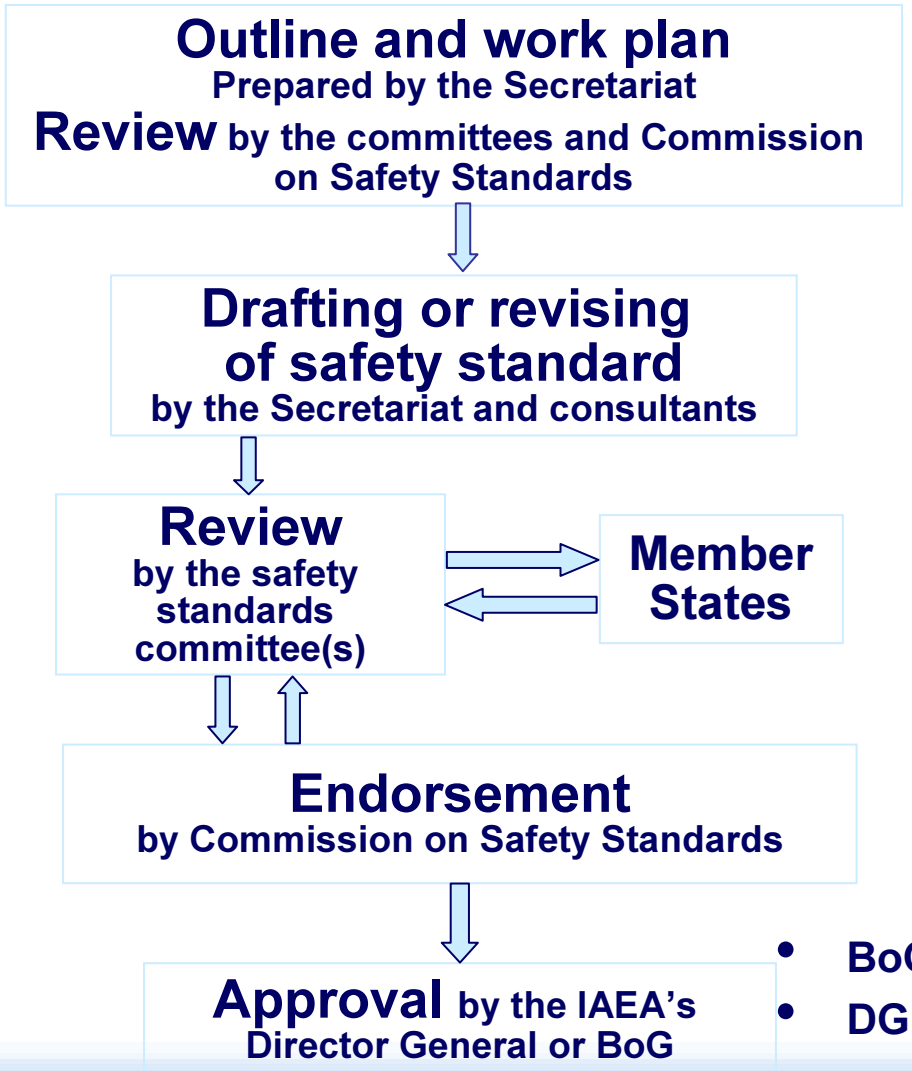
- Standing body of senior government officials holding national responsibilities for establishing standards and other regulatory documents relevant to nuclear, radiation, transport and waste safety

- Overview role with regard to the Agency's safety standards and provides advice to the Director General on the overall programme on regulatory aspects of safety

Safety Standards Committees

- Standing bodies of senior experts, established by the DDG-NS
- They advise the DDG-NS on the overall programme for the development, review and revision of standards

Process Flow for the Development of IAEA Safety Standards

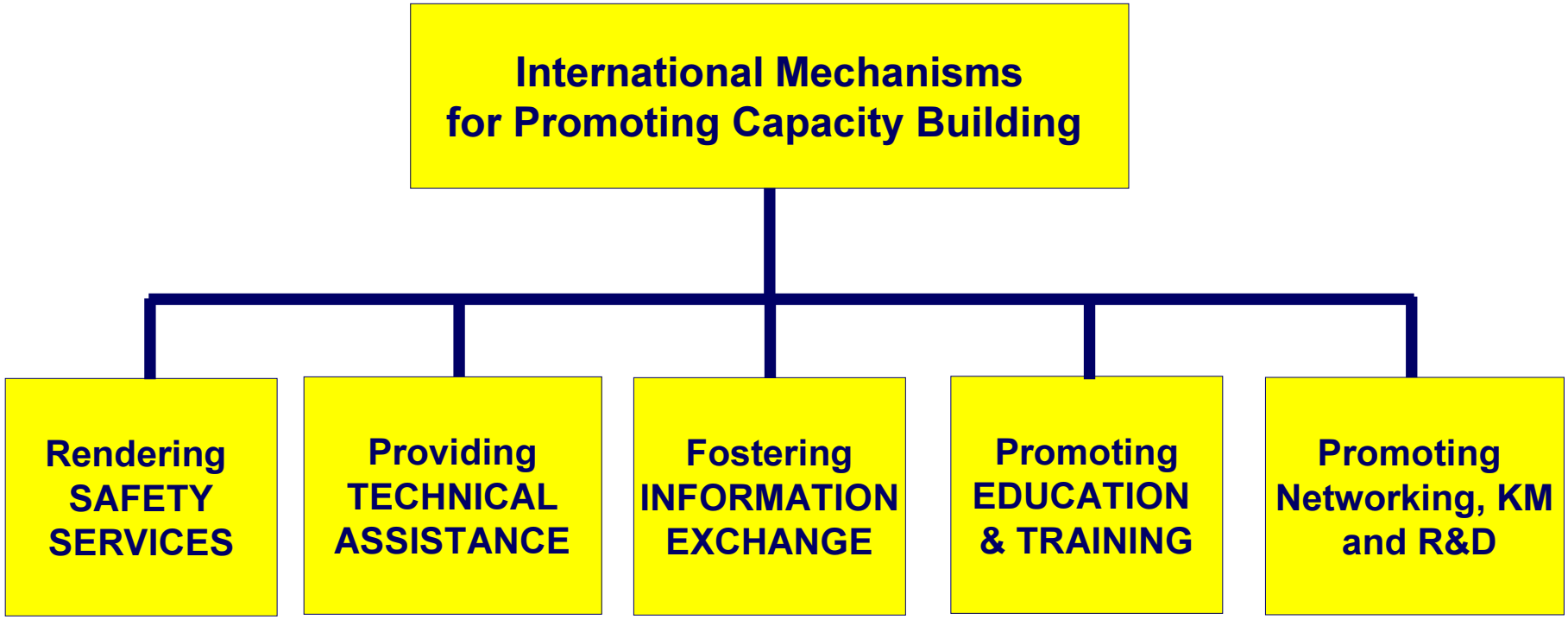


- BoG: SF & SRs
- DG:SGs

Vision

- Complete, consistent, coherent, integrated and user-friendly safety series with a manageable number of publications
- Sustainable continuous improvement system through effective feedback from application of SSs
- Global Reference used worldwide by Member States to deliver a harmonized high level of safety for protecting people and the environment from the harmful effects of ionizing radiation

Provisions for the application of standards



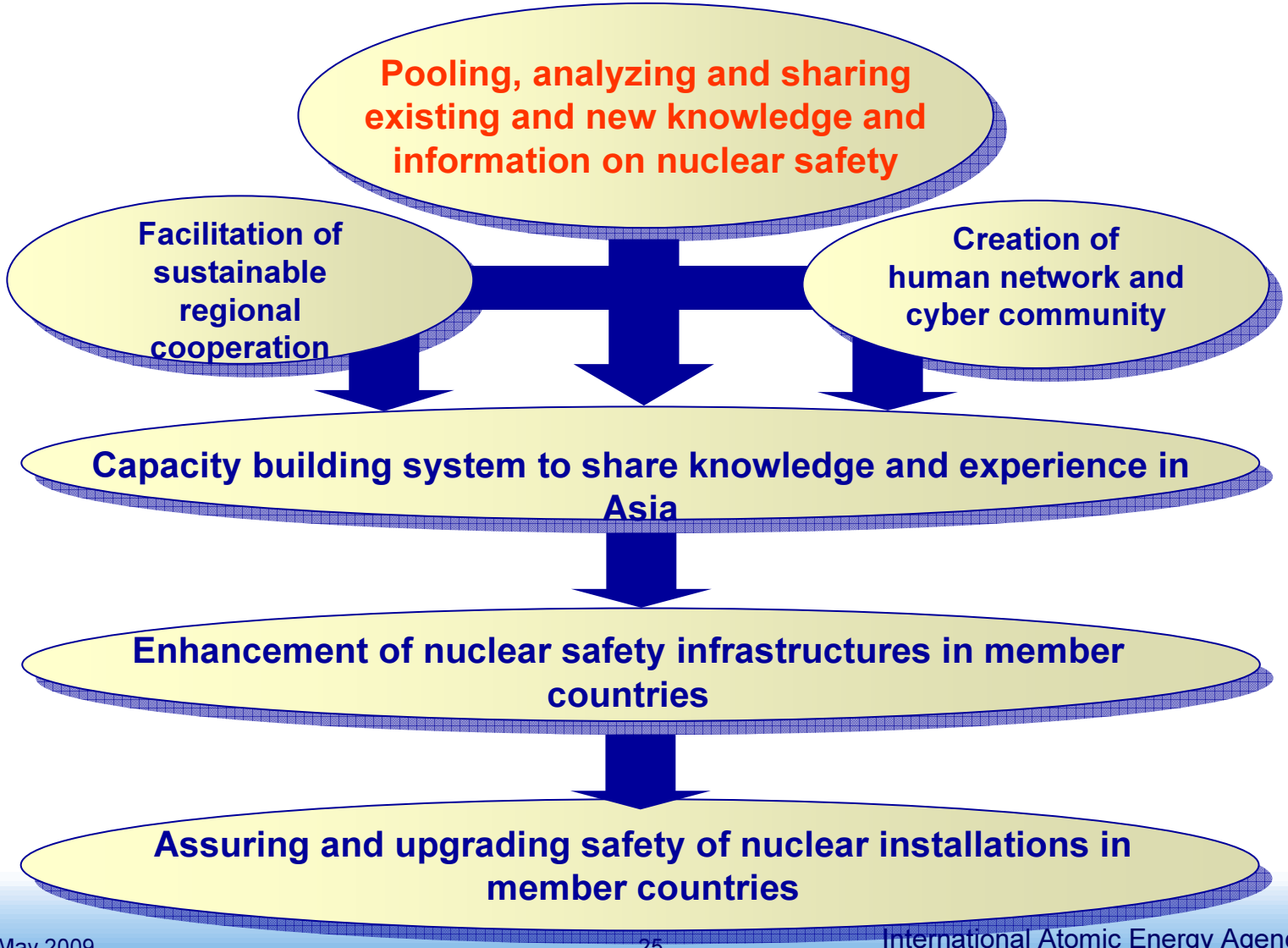
Global Nuclear Safety & Security Network

- The GNSN is based on & will promote GNSSR
- The GNSSN platform is currently being developed at the IAEA
- The vision is to have all safety related networks and information resources made visible and available through links on this platform

ANSN
Asian Nuclear Safety Network

IAEA
International Atomic Energy Agency
Atoms for Peace

Asian Nuclear Safety Network



ANSN
Asian Nuclear Safety Network

IAEA
International Atomic Energy Agency
Atoms for Peace

Sharing knowledge: IT & Human networks

Steering Committee

IT Support Group

Topical Groups

Supporting Countries

Australia
France
Germany
USA
EC

Internet

Hubs

www.ansn.org

Korea

China

Japan

Thailand

National Centres

Indonesia

Vietnam

Malaysia

Philippines

NUCLEAR SAFETY KNOWLEDGE

Users

- Approximately 4000 documents in the centralised web site
- Large number of documents in Hubs and National Centres

Associate countries:
Bangladesh, Pakistan

Conclusion

"The… Committee has decided that the Nobel Peace Prize for 2005 is to be shared… between the IAEA and its Director General…

- **for their efforts to prevent nuclear energy from being used for military purposes, and**
- **to ensure that nuclear energy for peaceful purposes is used in the safest possible way."**

" At a time …when there is a danger that nuclear arms will spread both to states and to terrorists groups, and when nuclear power again appears to be playing an increasingly significant role, IAEA's work is of incalculable importance."

Conclusion (Cont'd)

- Changes in world markets and technology are having an impact on both nuclear industry and regulators as never before. A key challenge now is to properly assess and address the safety and security implications of these changes
- There is greater need for international consistency of standards and their application and for strong leadership and clear responsibility for safety and security

Conclusion (Cont'd)

- The Global Nuclear Safety and Security Regime provides the mechanisms for safety and security excellence in all nuclear activities

- The Global Nuclear Safety and Security Regime is an enabler of safe, secure and sustainable use of nuclear applications

Conclusion (Cont'd)

Safety is continuous improvement & the success of an effective Global Nuclear Safety & Security Regime is our success!

Continuous Support form MSs Missions in Vienna is highly appreciated

…Thank you for your attention

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