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***“Global Challenges for the Future of Nuclear Energy and the IAEA”***



# **REGIONAL COOPERATION AND THE ASIAN NUCLEAR SAFETY NETWORK**

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# KEYWORDS IN NUCLEAR SAFETY

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- **Global Nuclear Safety Regime**
- **Nuclear Safety Infrastructure**
- **Technical Knowledge Management**
- **Operational Safety**



# GLOBAL NUCLEAR SAFETY REGIME

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*“framework for the achievement of  
the world-wide implementation of  
the safety of nuclear installations”*



# Major Elements of GNSR

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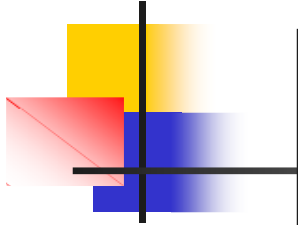
## **National nuclear infrastructure**

- Operators of nuclear facilities;
- Nuclear safety regulators;
- Technical expert organizations;
- Research organizations and universities;
- Suppliers of equipment and services;
- Other stakeholders with interests in securing nuclear safety.

## ■ **International participants in the Global Nuclear Safety Regime**

- Intergovernmental organizations dedicated to nuclear field, such as:
  - The International Atomic Energy Agency (IAEA);
  - The Organisation for Economic Cooperation and Development Nuclear Energy Agency (OECD)/NEA.
- Multinational networks among regulators, such as:
  - The International Nuclear Regulators Association (INRA);
  - The Network of Regulators of Countries with Small Nuclear Programmes (NERS);
  - The Western European Nuclear Regulators Association (WENRA);
  - The Forum of the State Nuclear Safety Authorities of the Countries Operating VVER Type Reactors.
- Multinational networks among operators, such as:
  - The World Association of Nuclear Operators (WANO);
  - Owners groups of NPP vendors.
- Stakeholders in the international nuclear industry, such as:
  - NPP vendors;
  - Suppliers of equipment;
  - Suppliers of services.
- Multinational networks among scientists, such as the World Nuclear Association.
- The public, the news media and NGOs.

# **Nuclear Safety Infrastructure Needed in Power Industry**



- **Nuclear Safety Regulation**
  - *Safety and Environmental Review*
  - *Licensing for Construction and Operation*
  - *Regulation During Construction, Operation & Post-Operation*
  
- **Nuclear Power Plant Operation**
  - *Safe & Reliable Operation of Power Plants*
  - *Robust Maintenance & Repair of Operating Plants*
  - *Emergency Preparedness*
  
- **Nuclear Power Plant Supply**
  - *Architect Engineering*
    - *Project Management (Project Construction & Engineering Management, Project Support Services such as Planning & Scheduling, Procurement, Quality Assurance, Project Administration, etc.)*
    - *Plant Engineering and Design*
  - *Equipment and Fuel Supply*
    - *NSSS Design*
    - *Equipment Manufacturing and Supply*
    - *Fuel Supply*
    - *Equipment Follow-up Services after Supply and during Plant Operation*
  - *Construction*
    - *Civil Work*
    - *Building Erection*
    - *Equipment Installation*

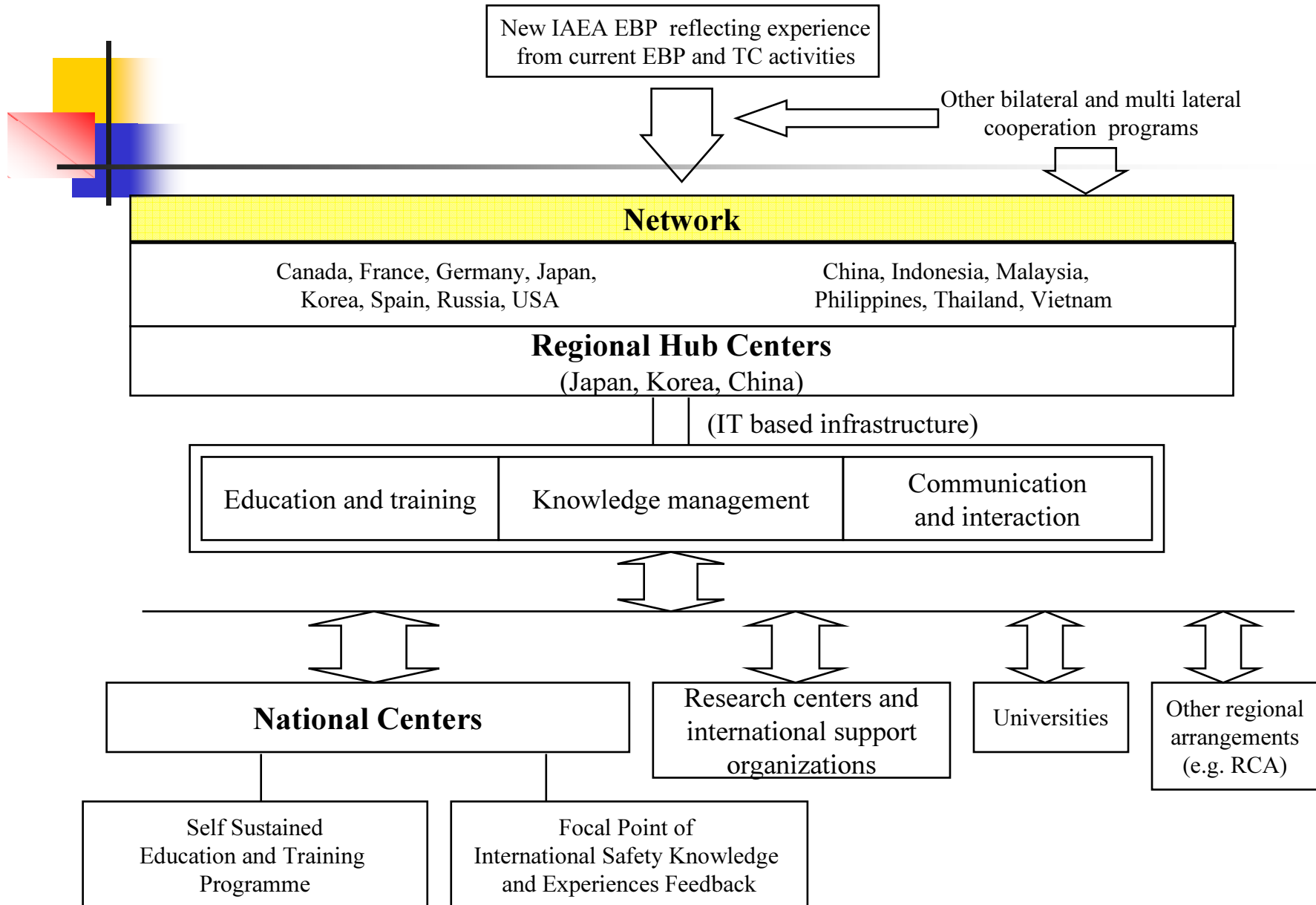


# ***Technical Knowledge Management***

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- Technical knowledge:
  - Information.
  - Experience.
- Management of technical knowledge:
  - Optimization of
    - *Acquisition of technical knowledge.*
    - *Transfer of technical knowledge.*
    - *Deployment of technical knowledge.*
  - Maintenance of knowledge base.

# Asian Nuclear Safety Network



**A N S N**

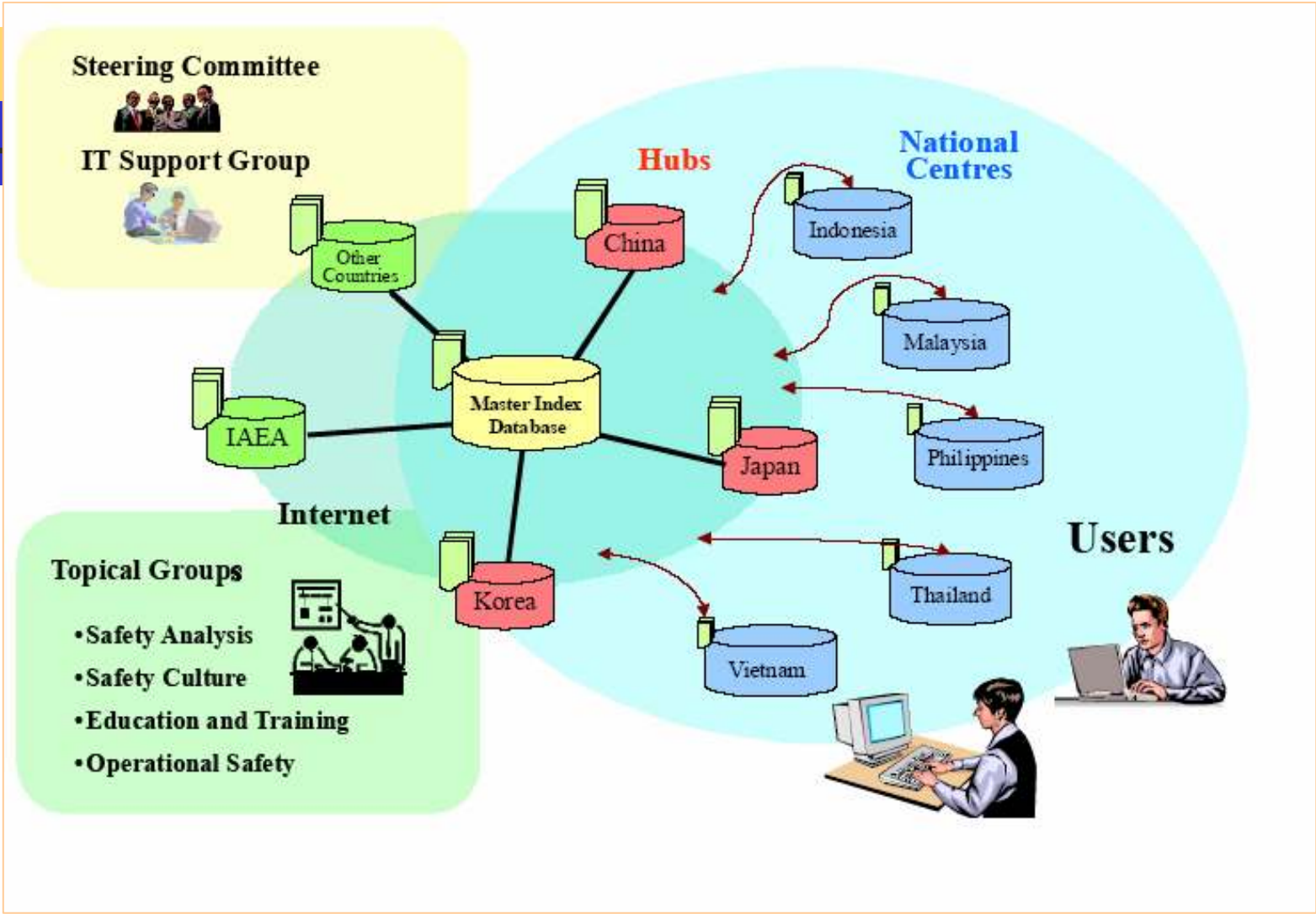


***ASIAN NUCLEAR SAFETY NETWORK***

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**“Pool, Analyze and Share Existing and New Technical Knowledge, and Practical Experience to Further Improve the Nuclear Safety in Asia.”**







## ***Comments to the Panel on Their Presentations***

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***In order to strengthen the Global Nuclear Safety Regime,***

- **Limitations of the CNS Activities**
- **Balance Between Safety and Security**
- **Overcoming Language Barrier**
- **Free Flow of Information**
- **World Trade of Nuclear Power Plants**