Knowledge Transfer for New Nuclear Power Programs





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The Challenges of today!

Nuclear power "market" behaviour

- High upfront capital costs
- Sensitive to interest rates
- Long lead times (planning, construction, etc) payback periods
- Regulatory / policy risks
- Market risks
- Political risk

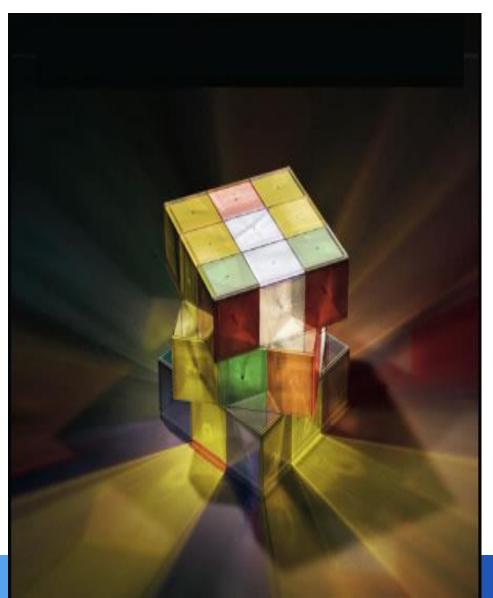
Security concerns

- Access to proliferation sensitive parts of the fuel cycles
- Public concerns acceptance?
 - HLW, Radiation impacts of severe accidents

Nuclear infrastructure!

- Knowledge, competence and skilled labour force
- Understanding Nuclear Quality
- Safety Culture!!!!

Nuclear education



- The Students
- The Teachers
- Courses and textbooks
- *Infrastructure(
 R&D)
- Nuclear facilities
- Outreach to society

Knowledge for whom and what?

Nuclear facilities (including NPPs, fuel cycle, rad-waste) Government agencies, **NEPIO** (Ministries, etc.)

Owners/Operating Organizations. (incl. headquarters)

Educational institutions

Technical Support organizations

Specialized training organizations

> International and professional organizations

Knowledge Resources for the **Nuclear Program**

R&D

organizations

Regulators

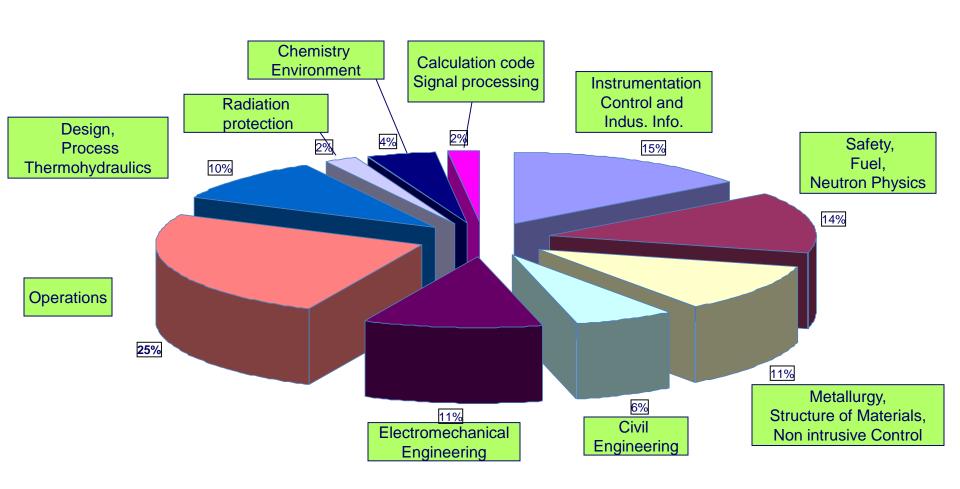
(incl. nuclear)

in nuclear or radiation activities

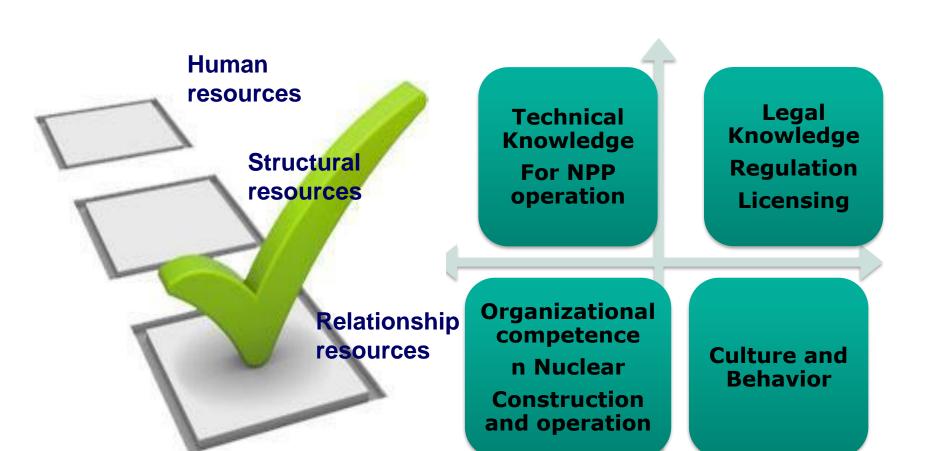
Equipment Vendors, Suppliers, Construction

Organizations involved

Academic and Practical Education

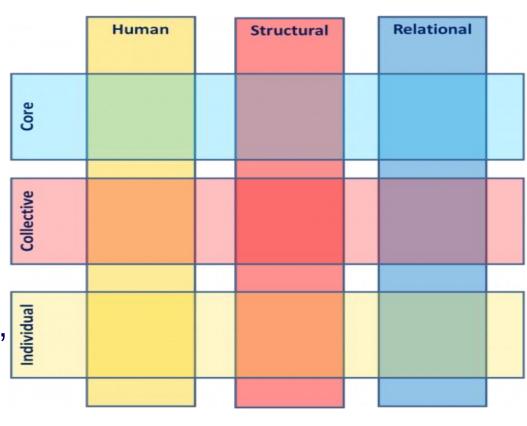


The Knowledge Resources Matrix



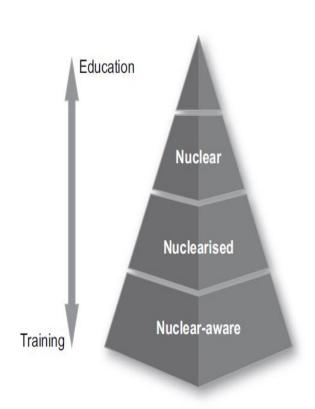
Management competence

- The ability of the organisation to meet its objectives effectively and efficiently through the interaction of
 - people having the appropriate knowledge and skills,
 - processes, procedures, systems and technology
 - behaviours and culture,



Knowledge resources

Nuclear Competence



- Nuclear Profound understanding of nuclear science and technology...
- Nuclearized Good knowledge of nuclear implications of other competencies.
- Nuclear aware Basic knowledge for safety rules and practices in nuclear area.

Harmonization



- High quality education
- Nuclear educational standards,
- Learning objectives,
- Curricula,
- Training materials,
- Methodology,
- Providing a uniform global educational approach between the vendor countries.



Thank you

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