

Nuclear Education and Training: Addressing a Global Need

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RENEWED GLOBAL INTEREST IN NUCLEAR ENERGY

- Increasing energy and electricity demand
- Low greenhouse gas emissions
- Excellent operational experience of existing plants
- Advanced technologies

The Next Thirty Years

- Continued Safe Operations
- New Technologies
- Generation IV reactors
- Recycling

Tools and Equipment Past and Present

Adding
machine



Electric
typewriter



Computer



Blackberry



I-Phone



NEA Role in Human Capital

- Conduct Assessments
- Education Programmes
- International Research Projects

Qualified Human Resources

« Nuclear Education and Training:
Cause for Concern » (2000)

- Methodology and Objective
- Finding: Situation Deteriorating

Shortfall of Nuclear Expertise

- Sharp declines observed in countries dependent on large nuclear infrastructures
- Student attitudes and interest declining
- Age of faculty members up
- Aging research facilities
- Graduates going elsewhere

Trends

- Little strategic planning
- Short-term horizons vs longer-term well being
- Nuclear subjects disappearing
- Fewer students in sciences
- Research funding dwindling

Recommendations for Governments

- Longer-term strategic energy planning to include adequate human resources
- Increase international collaborations
- Investment
 - educational networks
 - technologies
 - facilities

Nuclear Education

- Revitalize university programmes
- Industry responsibility
- Develop attractive research projects
- Better coordination

« Nuclear Competence Building » (2004)

Findings: Some Progress

- Government Response ↔
- Nuclear Education ↑
- Research and Development ↓
- International Collaboration ↑

The Harnessed Atom

What teachers told us

- Students short-changed
- Need updated high school version

What was done

- Partnerships created
- Choices offered

Encouraging News

Student survey indicate increasing:

- Enrollments
- Degrees
- Female students
- Leveraged funding

Ensuring Qualified Human Resources

2007 NEA Statement

- Key Elements
- Response
 - G-8 Initiative
 - Country Activities
 - International Organisations
 - Conferences

Meeting the Renaissance Needs

- Education
- Research
- Public Awareness
- International Experience

*« We cannot always build the future
for our youth, but we can build our
youth for the future »*

*Franklin D.
Roosevelt*

Women have Changed...

