

### INTERNATIONAL YOUTH NUCLEAR CONGRESS

THE GLOBAL NETWORK OF FUTURE LEADERS IN NUCLEAR SCIENCE AND TECHNOLOGY

### Melissa Crawford IYNC President

23rd Women in Nuclear Annual Conference: Women in Nuclear Meet Atoms for Peace

> Vienna, Austria 24 – 28 August 2015



# Safeguards and Nonproliferation -Perspectives from the Young Generation

# IYNC GLOBAL

Hungary

Jamaica

Japan

Kenva

Lithuania

Malaysia

Netherlands

Mexico

Nigeria

Norway

Portugal

Peru Poland

India

Israel

Italy

Argentina Australia Austria Belarus Belgium Bolivia Brazil Bulgaria Canada China Croatia Czech Republic Ecuador Finland France Germany

Romania Russia Slovakia Slovenia South Africa South Korea Spain Sri Lanka Sweden Switzerland Tanzania UAE UK Ukraine USA

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### **Multilateral Nuclear Approaches (MNA)**

"We should ... consider multinational approaches to the management and disposal of spent fuel and radioactive waste. Over 50 countries currently have spent fuel stored in temporary locations, awaiting reprocessing or disposal. Not all countries have the appropriate geological conditions for such disposal and, for many countries with small nuclear programs, the financial and human resources required for the construction and operation of a geological disposal facility are daunting."



Dr Mohamed ElBaradei, Director-General of the UN's International Atomic Energy Agency (IAEA), November 2003

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### **Nuclear Waste is SEXY!**



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# **Recent MNA Studies**

- PANGEA (1990's) Australia, southern Africa, Argentina and western China
- 2. ARIUS ERDO Association for Regional and International Underground Storage (CH), European Repository Development Organisation
- **3. SAPIERR** (2003-2009) Support Action, Pilot Initiative for European Regional Repositories



# **Challenges to the MNA:**

#### 1) Political Legislation:

- Import/Export laws on (foreign) nuclear materials
- National transportation bans
- Wartime concerns

#### 2) Non Proliferation Concerns

• Assurance of disposal and not reprocessing

### 3) Transport

- Nuclear material transportation bans
- Minimizing transport



IYNC2016, Hangzhou, CHINA July 24-30 2016

IYNC2016 will be held in Hangzhou, China and will bring together more than 700 young and senior professionals, students and academia. IYNC2016 will feature plenary & panel sessions, interactive workshops, technical tracks, a large variety of technical tours and networking activities.



### **NUCLEAR POWERING OUR LIFE!**

#### **12 Technical tracks**

- 1. NPP Operation and Maintenance, Design Modification
- 2. Advanced Reactors Design (including Gen IV)
- 3. Reactor Physics and Neutronics
- 4. Thermal Hydraulics
- 5. Nuclear Fuel and Materials
- 6. Nuclear Safety, Security, Safeguards (including nonproliferation) and Radiation Protection
- 7. Nuclear Fuel Cycle, Waste Management and Decommissioning
- 8. Fusion
- 9. Education, Human Resources Development and Knowledge Management
- 10. Politics, Economics, and Societal issues
- 11. Applications of Nuclear Technology in Non-power Sectors
- 12. YGN best practices

http://www.iync.org/iync2016

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