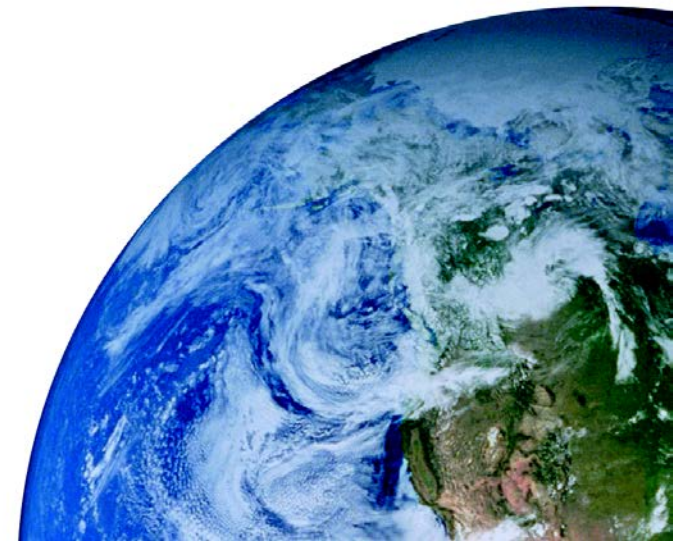


# WNTI Challenges in Back End Transport area

Secretary General, WNTI

Waste Management Symposium 2017  
Phoenix Convention Center, Arizona, USA  
Wednesday, March 8, 2017



# Table of Contents

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- I. What is WNTI
- II. Background of radioactive material transport and regulations (WNTI perspective)
- III. Package Challenges from Industry Perspective
- IV. Conclusion

# What is the WNTI

WNTI

WORLD NUCLEAR TRANSPORT INSTITUTE

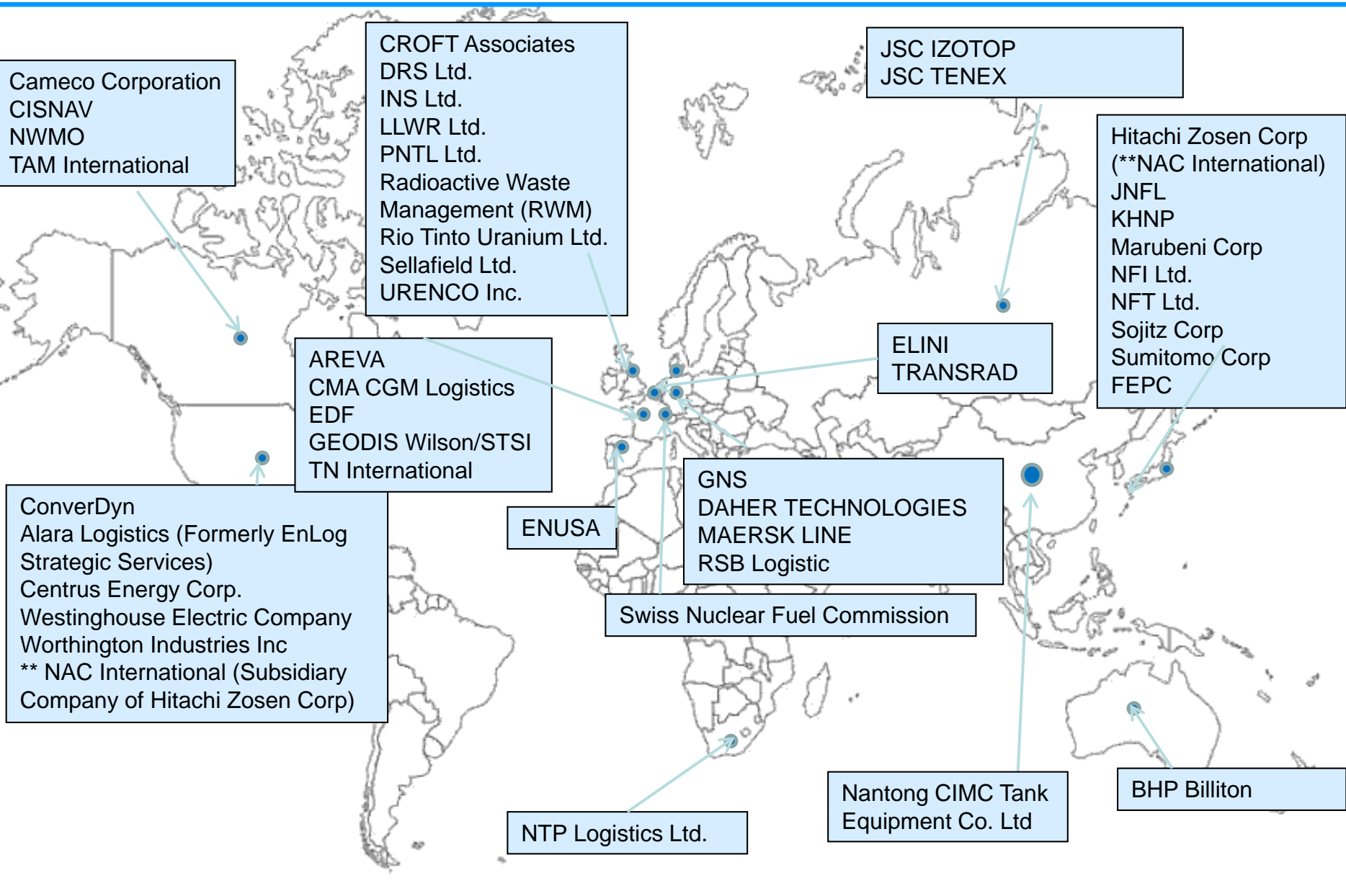
**Dedicated to the safe, secure, efficient and reliable transport of radioactive materials**

**– Voice of the radioactive material transport Industry –**

- Founded in 1998. Members from many industry sectors
- Over 40 Member Companies from across the World
- Based in the UK, but with representatives World wide
- Observer Status at Major Intergovernmental Organisations
- Publications covering safe, secure, efficient and reliable transport, based around good Industry practice
- WNTI Working Groups develop good practices and position papers..

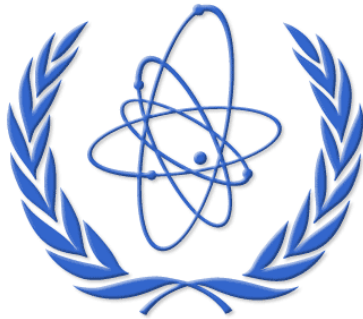


# WNTI Members (2017)



46 Members from a wide range of industry sectors.

# Observer Status at Major International Organisations



**IAEA**

International Atomic Energy Agency

*Atoms For Peace*



**IMO**



UNITED NATIONS



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## Media Centre

### Nuclear Fuel Cycle

WNTI produces comprehensive, well-researched and professionally presented information on all aspects of radioactive materials transport.

[View More](#)

### Image Library

View WNTI's extensive range of transport related images.

[More Info](#)

### Publications

The WNTI suite of publications includes Fact Sheets, Information Papers, Good Practice Guides and Standards. All our publications are available in PDF format which can be viewed online or downloaded.

[More Info](#)

### Press Contacts

We welcome enquiries from journalists and news organisations around the world.

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WNTI WORLD NUCLEAR TRANSPORT INSTITUTE

FACT SHEET

Nuclear Fuel Cycle Transport  
Front End Materials

Dedicated to the safe, efficient and reliable transport of radioactive materials

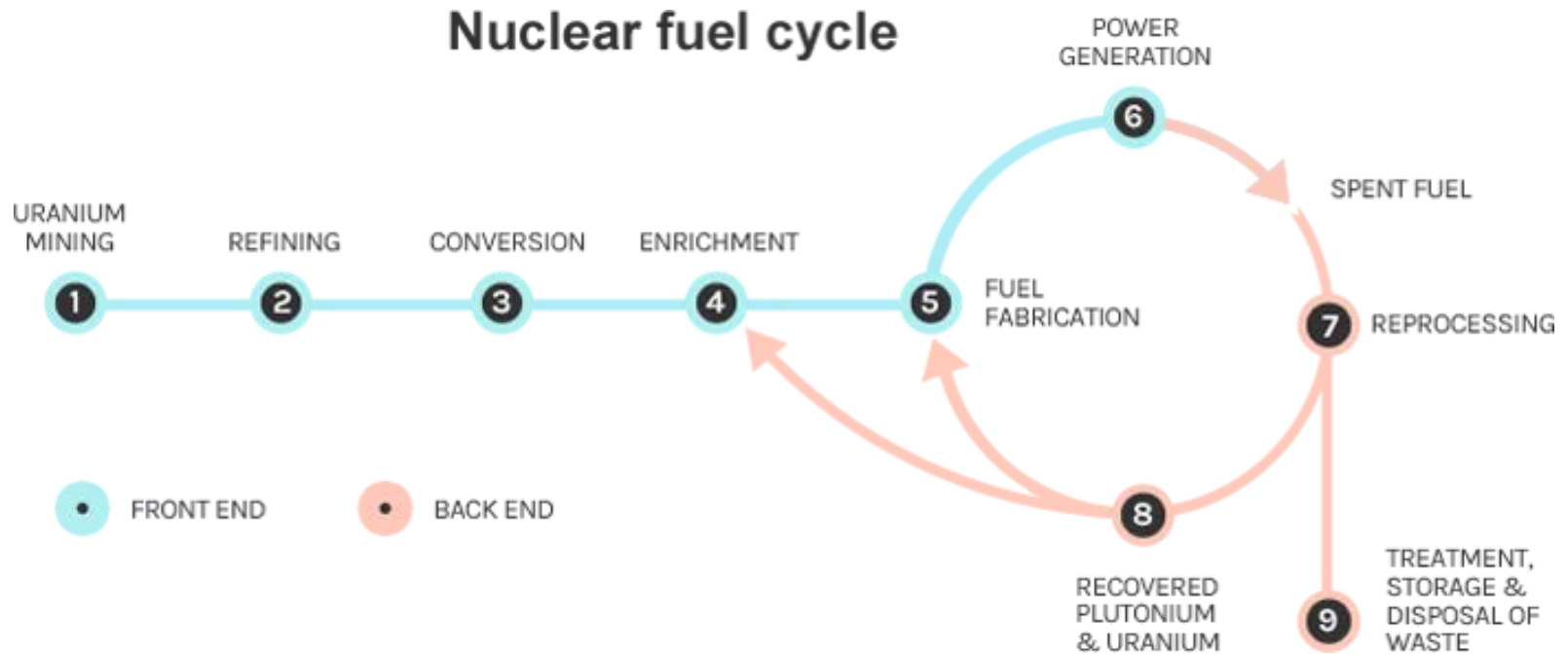
Wide range of publications:

- Fact Sheets
- Information Papers
- Good Practices
- Standards
- Annual review

[www.wnti.co.uk](http://www.wnti.co.uk)



## No Transport... No Nuclear Energy



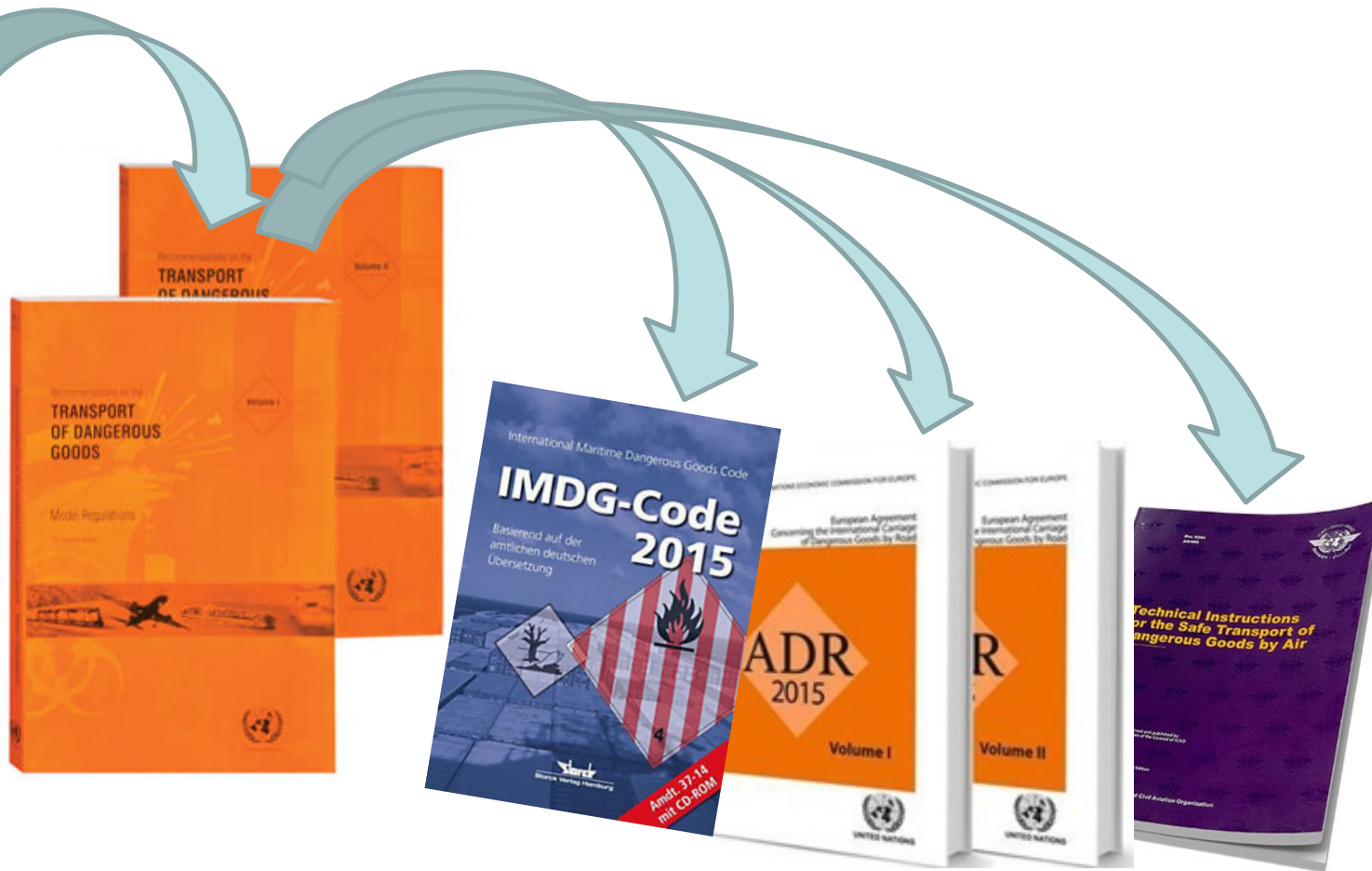

To sustain this important source of energy, nuclear utilities around the world depend on safe, efficient and reliable transport of the full range of nuclear fuel cycle materials.

# Regulations for the Transport of Radioactive Materials

**IAEA Safety Standards**  
for protecting people and the environment

Regulations for the Safe Transport of Radioactive Material  
2012 Edition

Specific Safety Requirements  
No. SSR-6





# Modes & Types of Transport

- Sea, Air, Road and Rail

- Limitations



- Segregation



- Safety & Security



# Package Challenges from Industry Perspective

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## [Regulatory aspects]

- Harmonisation : some countries' requirements are not same as IAEA Transport Regulation (SSR-6)
- Approval process and Transition arrangements

## [Technical aspects]

- Codes and standards
  - Analysis conditions and methods such as critical analysis conditions
- 
- WNTI work examples of challenges for waste transport packages
    - ✓ Criticality Assessment
    - ✓ Transport Frame
    - ✓ DPC
    - ✓ Large Components
    - ✓ Waste Characterisation
    - ✓ Cask Decommissioning

# Challenges for Cask Decommissioning

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## Situation

- Old transport casks for spent nuclear fuel are planned to be decommissioned in some countries

## Concerns

- Waste origin (from international transport)

## WNTI actions

- To collect Industry information and regulatory concerns.
- To support development of acceptable solutions.
- To consider Fact Sheets and Good Practice Guides for stakeholders.

# Summary

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- WNTI represents the voice of Transport Industry at intergovernmental organizations and provides factual information covering Nuclear Transport
  - WNTI works closely with Intergovernmental and non-governmental bodies to support balanced standards, guidelines and practices
  - WNTI through its broad international membership and working groups continues to address new challenges in package certification.
-



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