

# Research Reactor Coalitions

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**IAEA**

International Atomic Energy Agency

# RR Coalitions

## Background

- Initial discussions and project design (May-Sept 2006)
- Approval of NTI grant request, RER/4/029 (Sept/Oct 2006)
- Informal consultations and development of “notional” proposals (Oct 2006-Spring 2007)
- Number of “models” identified
- Exploratory missions/meetings (Sept-Dec 2007)
- Implementation of 3 formal coalitions, 1 network (2008)
  - Caribbean RRC, East European RR Initiative, Eurasia RRC
  - Mediterranean RR Utilization Network
- IAEA “**facilitator**” - generate and coordinate ideas/proposals/ventures, provide initial support (meetings, training, studies/analyses)



# RR Coalitions

## Types of Coalitions

- No “one size fits all”
- Different forms to meet needs, capabilities, objectives of members
- Start small, evolve, change form, expand as confidence grows

- **Bilateral sub-contracting by a “lead” reactor (or joint venture)**
- **Scientific consortium**
- **Peer group network that can share best practice information**
- **Full-fledged, subscription-based coalition/consortia that**
  - **Acts as a single entity, shares revenue, joint marketing**
  - **Facilitates access, accepts subscriptions, invests in capability**

Variants include:

# RR Coalitions

## Multi-Discipline

**Caribbean-Jam/Col/Mex**  
NAA, training; regional access

**E. Europe-AT/HU/CZ/RO/PO/SL**  
Nuclear E&T; Neutron Scattering; Material testing? RIs?

**Mediterranean RRUN - AZ/EG/GR/MNGR/SYR**  
NAA/PGNAA; Beam apps; RI, calculations; NDT

**Latin America-RLA/O/037:**  
Regional self-sufficiency in RIs; nuclear E&T network; feasibility of regional state-of-art RR

## Education and Training

**Mexico-ININ/LVNPP**  
Practical training for reactor ops & rad protection

**Baltic RR Network (proposed)**  
EST/LAT/LIT/PO/RU/GE/DE/SW/NO - Nuclear E&T

## Radioisotopes

**Eurasia INP-K/INP-U**  
RI production, supply, export

**South/North America MURR/MNR/IPEN/CCHEN**  
RI R&D, supply

# RR Coalitions

## Nuclear Education and Training – 2008 Results

- Mexico (ININ and Laguna Verde Nuclear Power Plant), follow-up from October 2007 meeting
- Trial power reactor operators training course held at ININ Triga for LVNPP training mgrs 26-28 March 2008
- Regular training programme for LVNPP to commence in 2008, including for reactor engineers
- Additional practice activities related to thermal balance, xenon and samarium poisoning to be included
- ININ also held radiation protection course for LNVPP



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## Activities and Results - 2008

- Eastern Europe Research Reactor Initiative (EERRI), 28-29 January, Budapest (MOU w/action items)
- Investigation of Neutron Scattering Coalition, 11-13 February, Vienna (report with recommendations)
- Discussions on Russian Nuclear E&T, 12-14 March, Moscow & Obninsk (agreed protocol)
- Presentation and discussions at NEST, Budapest, 5 May
- Africa regional RRC TC project design, Vienna, 7-9 May
- UK BERR/CNCP Workshop on Commercial Production of Isotopes for Industrial and Medical Purposes, Kazakhstan, 22-23 May
- US DOE Workshop on Isotope Supply, Rockville, MD USA 7-9 August



# RR Coalitions

## Activities and Results - 2008

- Eastern Europe Research Reactor Initiative 2<sup>nd</sup> meeting, 3-4 September, Atominstytut, Vienna
- South-North America Coalition Meeting, 9 October, Columbia, Missouri
- UCN technical assessment mission to TRIGA Pitesti Romania, 13-14 October.
- Eurasia RRC meeting and MOU, 24-26 November, Vienna.
- Caribbean Coalition Practical Arrangement signed



# RR Coalitions

## Upcoming Activities

- Jamaica NAA expert mission to Colombia (February 2009)
- Kick-off workshop for RLA/0/037 (Bariloche, March 2009)
- NCSU-JUST Internet Reactor Laboratory consultancy (March 2009)
- 2<sup>nd</sup> Eurasia Meeting, 19-20 March (before RRFM)
- 3<sup>rd</sup> EERRI Meeting, Vienna, 26-27 March (after RRFM)
- EERRI-designed RR training course (May-June 2009)
- Exploratory meeting on formation of Baltic RR Network (E&T), June 2009, Poland
- Caribbean Coalition NAA and custom-oriented service workshop (2<sup>nd</sup> half 2009)
- East Asia neutron science RR network?
- Continue efforts with Russia



# RR Coalition

## Summary

- Several successes so far, but substantial work remains to achieve full objective of coalitions.
- 2009-2011: New NTI grant (project management); funds from DoE; three regional TC projects
- IAEA continues to play a catalytic role, but seeks to encourage the arrangements to become self-supporting and sustainable.
- Long-range work plans being formulated so IAEA role is minimized by 2012.
- Collective market analysis and business planning needs to be strengthened
- Real opportunities related to isotope production but this is still a “competitive” subject.

