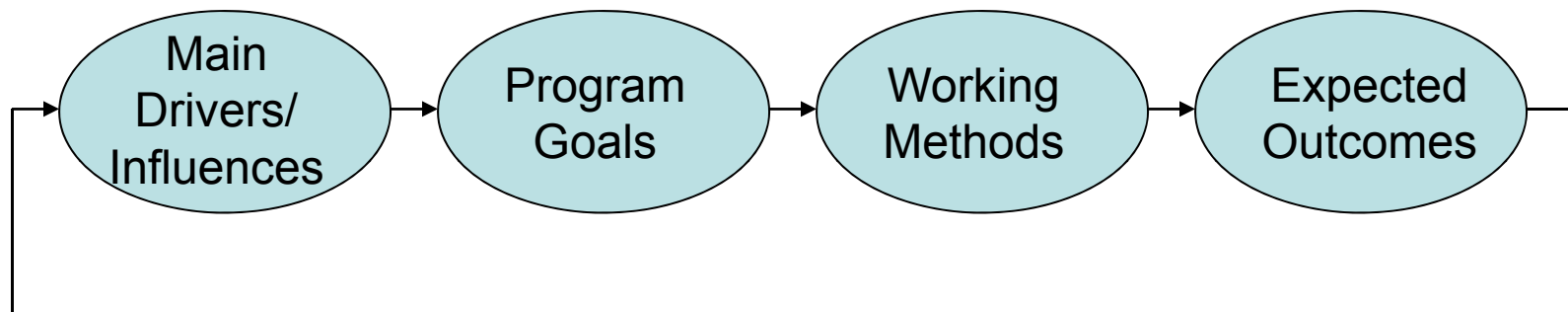




**RIC 2010**  
**International Cooperation in**  
**PRA R&D**

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Office of Nuclear Regulatory Research  
March 10, 2010

# Regulatory R&D Cycle



- SRMs
- User Needs
- TARs
- LTRP
- Agency Mandates
- Emergent Needs (e.g., 9/11)
- Influences
- ACRS recommendations
- **External (e.g., international views)**
- Operational experience
- Exploratory work
- Planning initiatives

- Issue resolution
- Application support
- Mission support

- Contracts
- Staff work
- **International agreements**
- MOUs
- Professional societies
- Internal collaboration

- Analysis insights and results
- Technology
  - Methods
  - Models
  - Tools
  - Data
  - Guidance
- Recommendations



# International Activities

- OECD/NEA
  - CSNI working groups
  - Projects
- IAEA
- Other
  - Bilaterals
  - International cooperative projects
  - International technical meetings and conferences



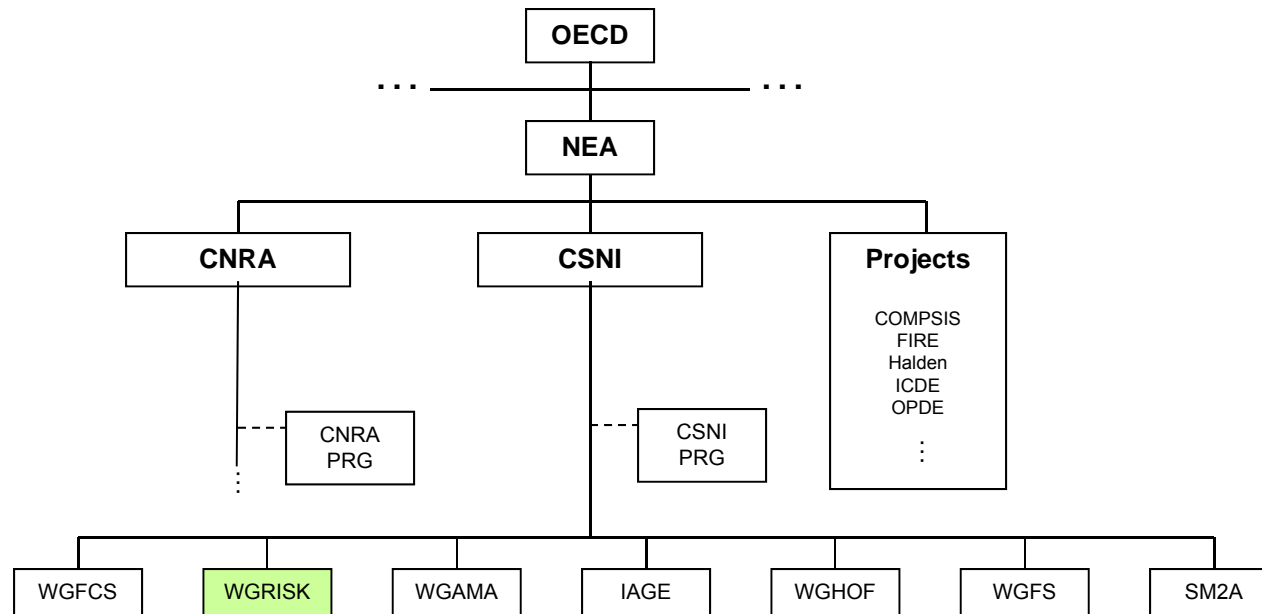
## Goals and Related Activities (Examples)

Goal	Example Activities
Support Reactor Oversight and Operating Experience Programs	International technical meeting on risk-based precursors
	OECD/NEA ICDE, OPDE, and FIRE projects
Improve effectiveness and efficiency of risk-informed regulation	OECD/NEA/CSNI/WGRISK project on digital I&C
	OECD/NEA ICDE project
Expand PRA infrastructure to encompass new reactor concepts and designs	OECD/NEA/CSNI/WGRISK project on advanced reactor PSA
Support continuous advancement in PRA state-of-the-art and state-of-practice	OECD/NEA/CSNI/WGRISK, WGHOFF, WGAMA and IAGE working groups
	International HRA Empirical Study
	International conferences

# OECD/NEA/CSNI/WGRISK Overview

## Mandate

Support improved uses of Probabilistic Safety Assessment (PSA) in risk-informed regulation and safety management through the analysis of results and the development of perspectives regarding potentially important risk contributors and associated risk-reduction strategies.





## Current and Recent WGRISK Activities

Topic Area	Activity	Lead	Status
PSA knowledge transfer	Survey	Germany (GRS)	Survey being developed
Advanced reactor PSA	Survey and workshop	Korea (KAERI)	Survey ongoing Workshop: April 6-7, 2010
HRA data from simulators	Workshop (w/WGHOF)	Switzerland (PSI)	Proceedings in preparation
Severe accident mgmt measures	Workshop (w/WGAMA)	Switzerland (PSI)	Proceedings in preparation
Digital I&C risk	Survey and Workshop	US (NRC)	Report published: NEA/CSNI/R(2009)18
LPSD risk	Survey	US (NRC)	Report published: NEA/CSNI/R(2009)17
Probabilistic risk criteria & safety goals	Survey	Canada (CNSC)	Report published: NEA/CSNI/R(2009)16
Non-seismic external events	Survey	Finland (STUK)	Report published: NEA/CSNI/R(2009)4
Use and development of PSA	Survey	NEA	Technical note published Update to be started



# Concluding Remarks

- International cooperation is valuable to NRC's PRA R&D program
  - Identification of potential issues
  - Sharing potential approaches, data, solutions
- NRC will continue to pursue means to leverage its resources
  - Existing programs
  - Emerging opportunities