

**International Atomic Energy Agency**

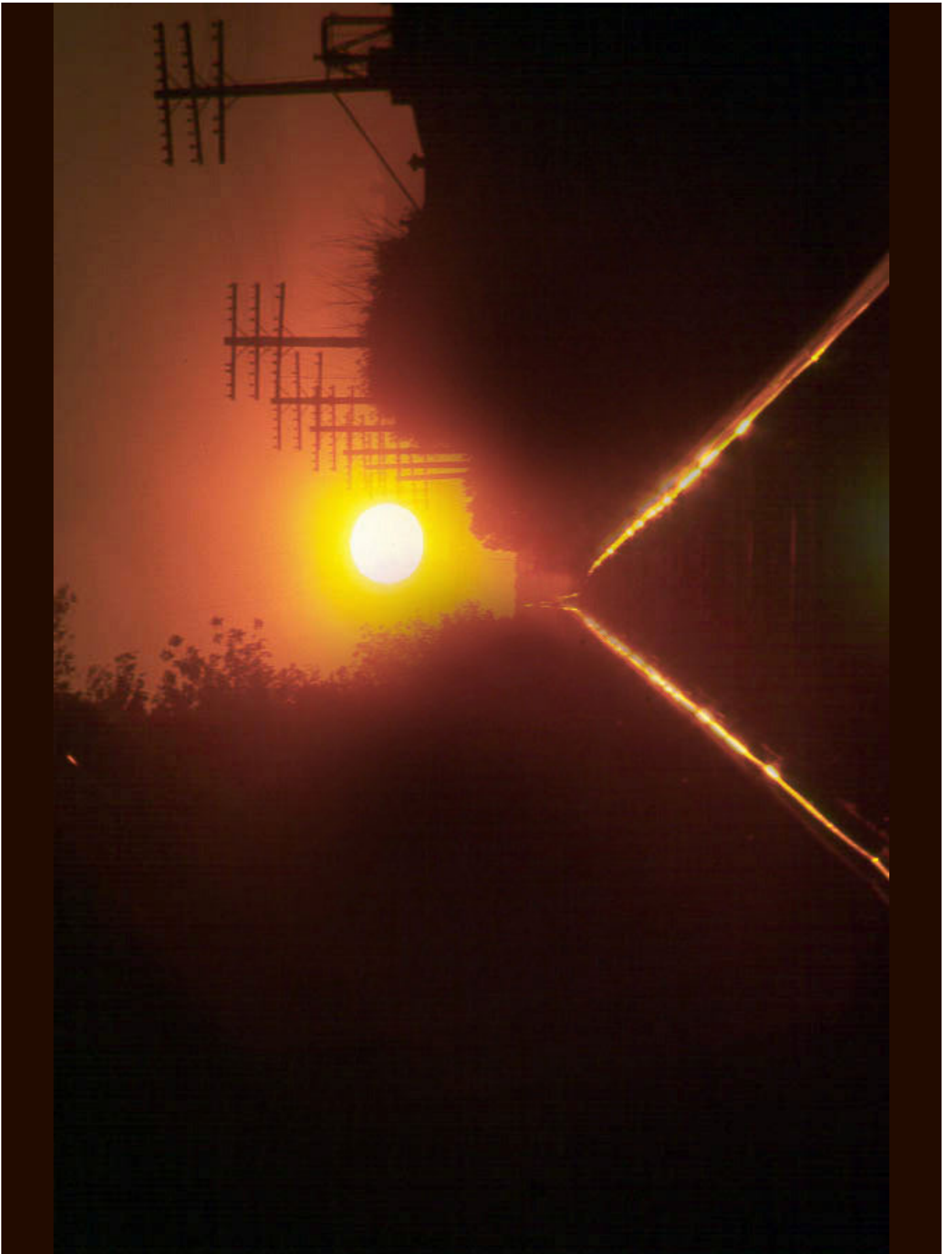
# **Next Generation PSA Software & Model Representation Standards**

**What Is the “Next Generation”?**

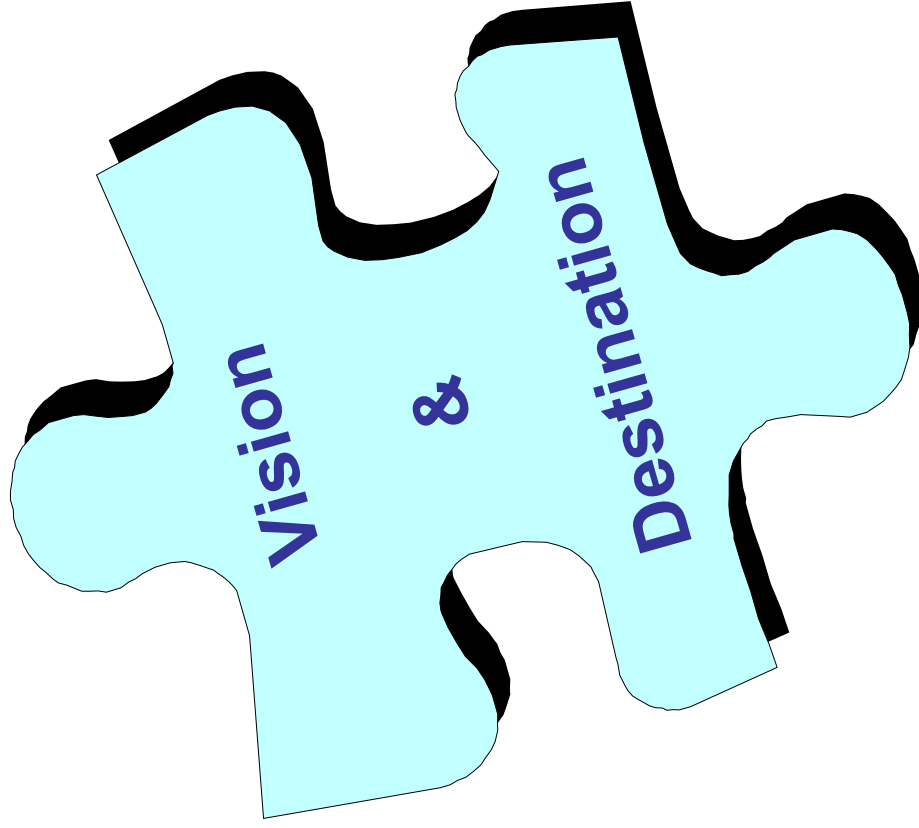
**Mark Reinhart**

**Senior Risk Assessment Officer**

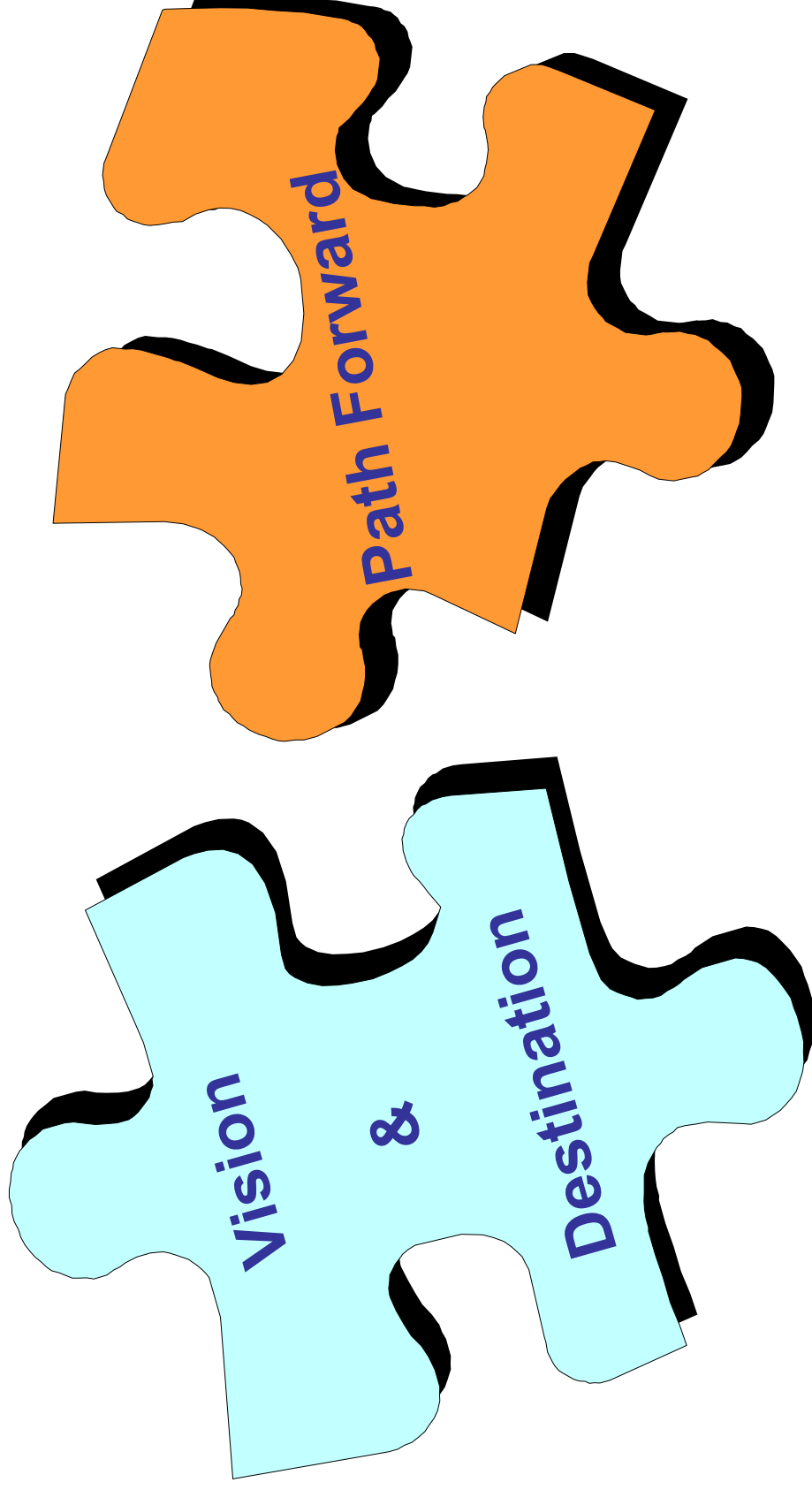
**Risk Assessment Branch**



# Navigate To Destination



# Navigate To Destination



# Objectives to be Gained

- Improved Language, Structure, Capabilities
- End & Potential Software Use? Now & Future!
  - Applications?
  - Who?
  - How?
- Software Interface
  - Human: On-Line? Reports?
  - Electronic: Local? Inter-Organization? International?
- Inputs: Data, Assumptions, etc.
  - International?
  - National?
  - Plant Specific?
  - All of the Above?



# 2020 Planning Hypotheses

- **Countries Operating NPPs**
  - **Currently:** 32
  - **Additional to Pursue:** 15
  - **Additional to Consider:** 20
- **Balance\* of NPPs**
  - **Currently in Operation:** 440
  - **Projected Additions:** 200
  - **Projected Shutdowns:** 80



# Risk-Informed Decision Making Benefits

- Refine & Improve Safe NPP Ops
- Assess, Reduce, & Manage Risk
- Improve Reliability, Increase Operational Flexibility & Optimizing Resources
- Provide Appropriate Balance Among
  - Operational, Maintenance, & Design —
  - Strategies & Decisions
- **Supported by High Quality PSA**



# RIDM International Coordination

- **Assimilate & Disseminate Harmonious:**
  - **Thinking**
  - **Approaches**
  - **Methods**
  - **Experiences**
  - **Successes**
  - **Challenges**
  - **Lessons**
  - **Terminology**
  - **Safety Goals**
  - **PSA Software**
  - **Codes**
  - **Standards**
  - **Assumptions**
  - **Success Criteria**
  - **Data: PIEs, etc.**
  - **Performance Measures**







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