



ANS Meetings

IT'S GO TIME

*Creating Momentum Toward
Transformational Change*

Modern Risk-Informed Regulatory Framework

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ADVANCED REACTORS STAKEHOLDERS

[Union of
Concerned Scientists



THIRD WAY

CLEARPATH



NEA

NUCLEAR ENERGY AGENCY

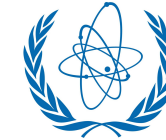
NEIMA

NEICA



OKLO

TerraPower™



IAEA

International Atomic Energy Agency



Kairos Power



PUBLIC

Federal
State
Local



TERRESTRIAL
ENERGY



Southern Nuclear



Argonne
NATIONAL LABORATORY



FEMA



NUCLEAR
INNOVATION
ALLIANCE



Westinghouse

NEI

iNL

Idaho National Laboratory



Sandia
National
Laboratories

OAK RIDGE
National Laboratory

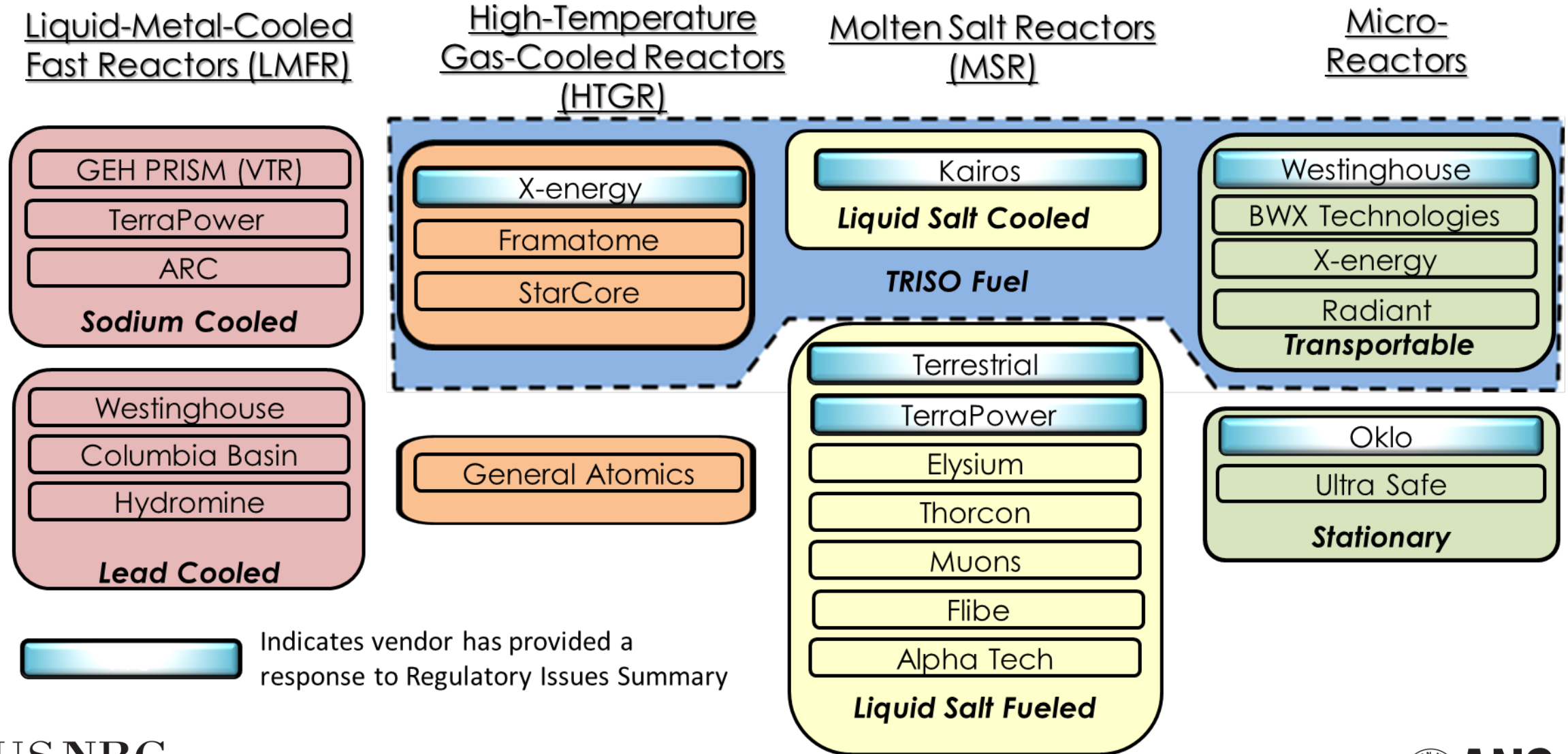
Pacific Northwest
NATIONAL LABORATORY

BROOKHAVEN
NATIONAL LABORATORY



ANS

Broad Landscape of Designs

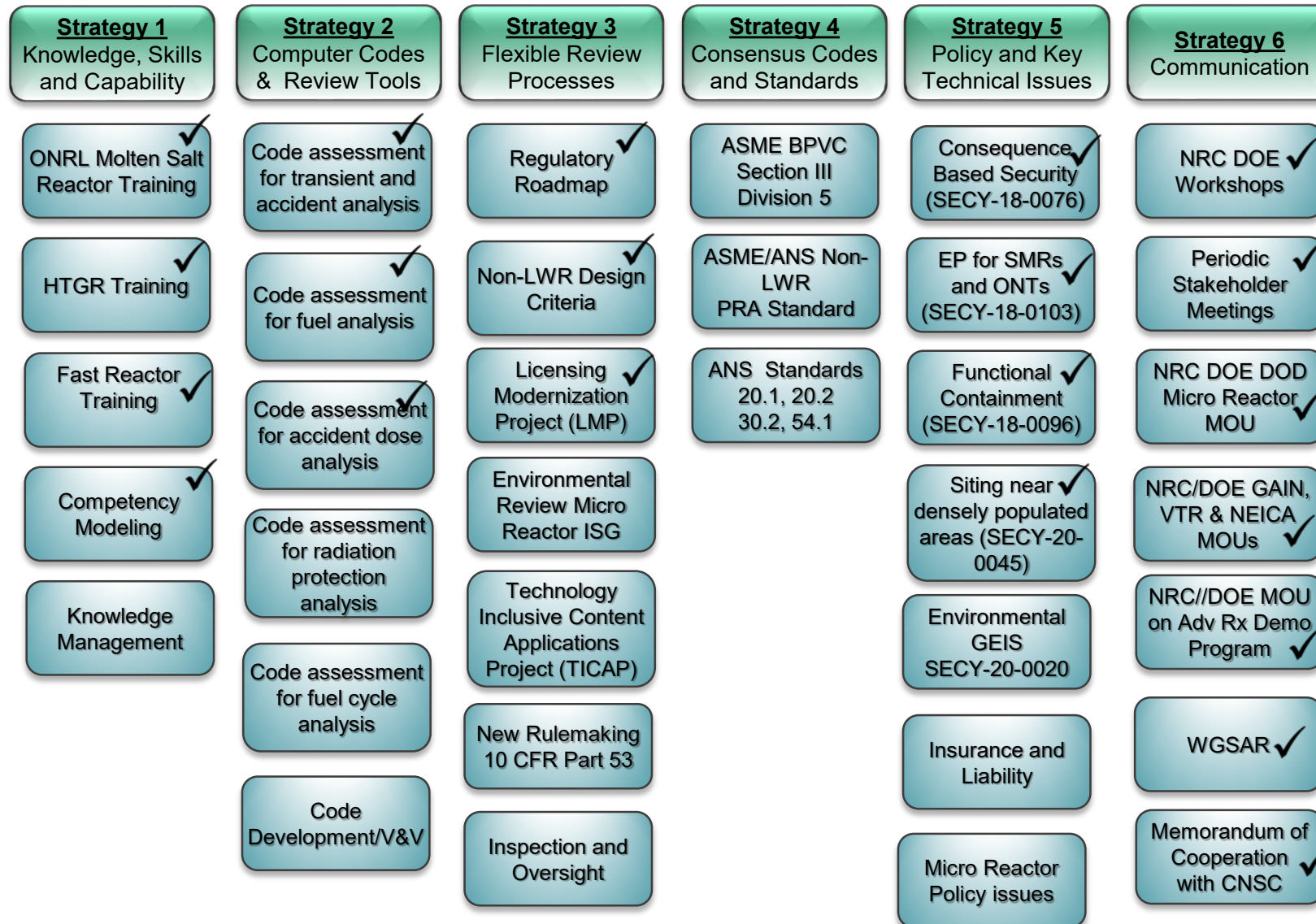


Advanced Reactor Vision and Strategy



We Make **SAFE** Use of Nuclear Technology **POSSIBLE**

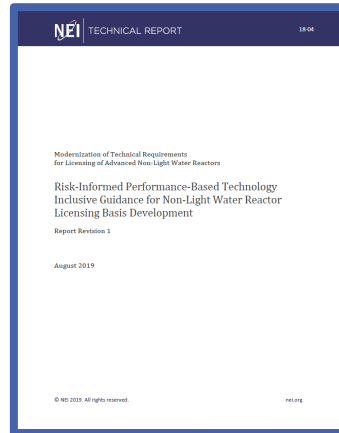
Advanced Reactor Readiness



Facilitating Innovation with an Integrated Safety Approach



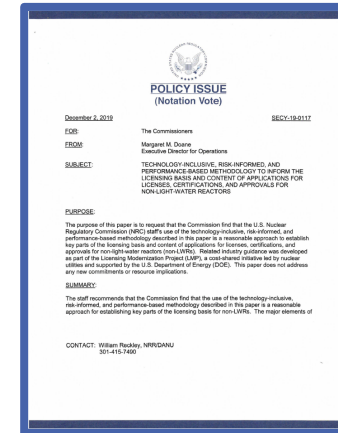
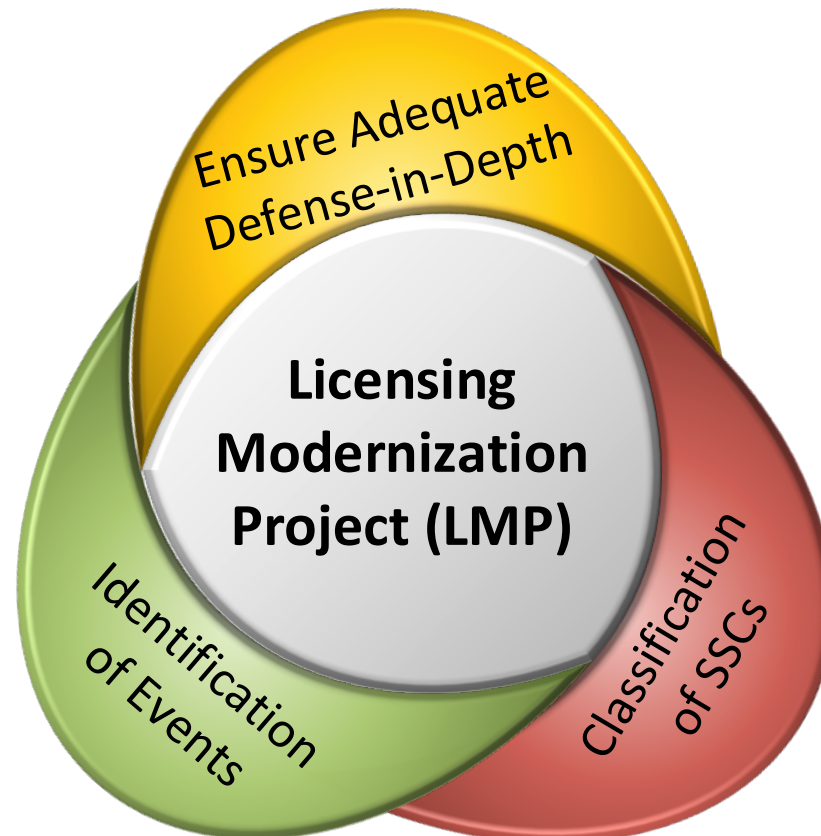
Developing a Modern Risk-Informed Framework



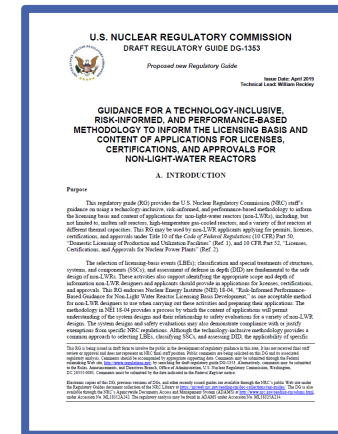
NEI-18-04



6 LMP Pilots

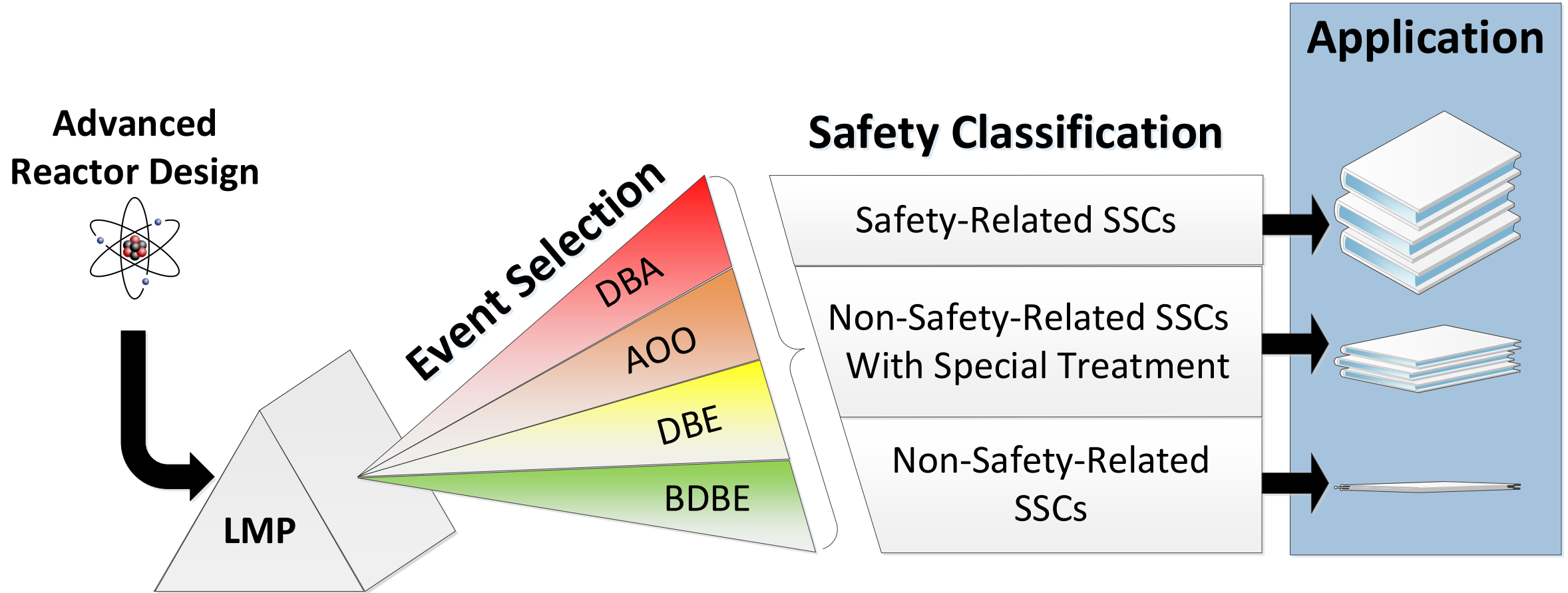


SECY-19-0117



RG 1.233

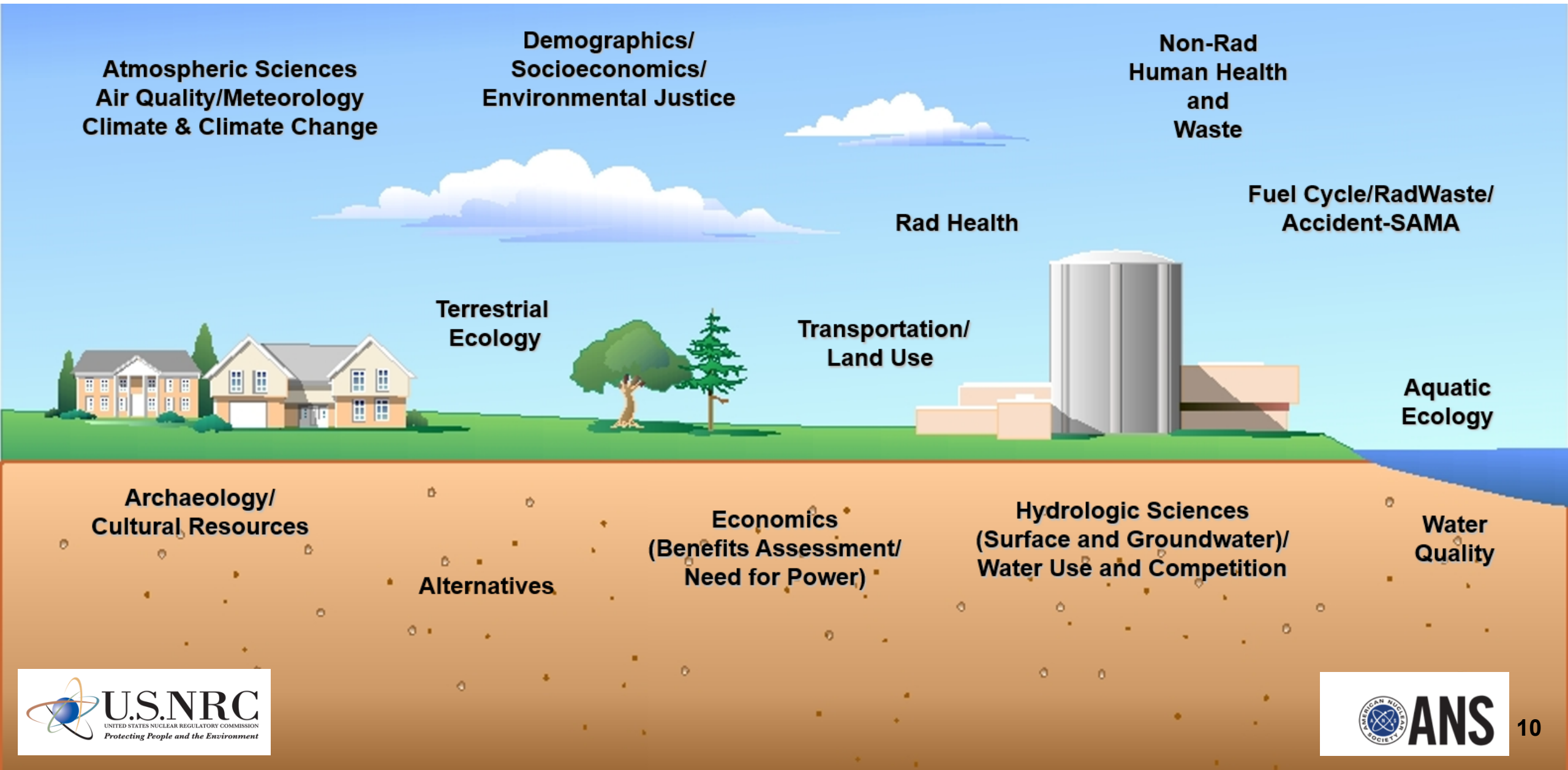
Risk-Informing the Content of Applications



Pathway to New Regulatory Framework

- **“Part 53”**
 - NEIMA required rulemaking to establish a technology-inclusive, risk-informed and performance based regulatory framework
- **Rulemaking Plan Issued in April 2020 – SECY-20-0032**
- **Builds on current activities including the Licensing Modernization Project**
- **Significant stakeholder engagement planned**

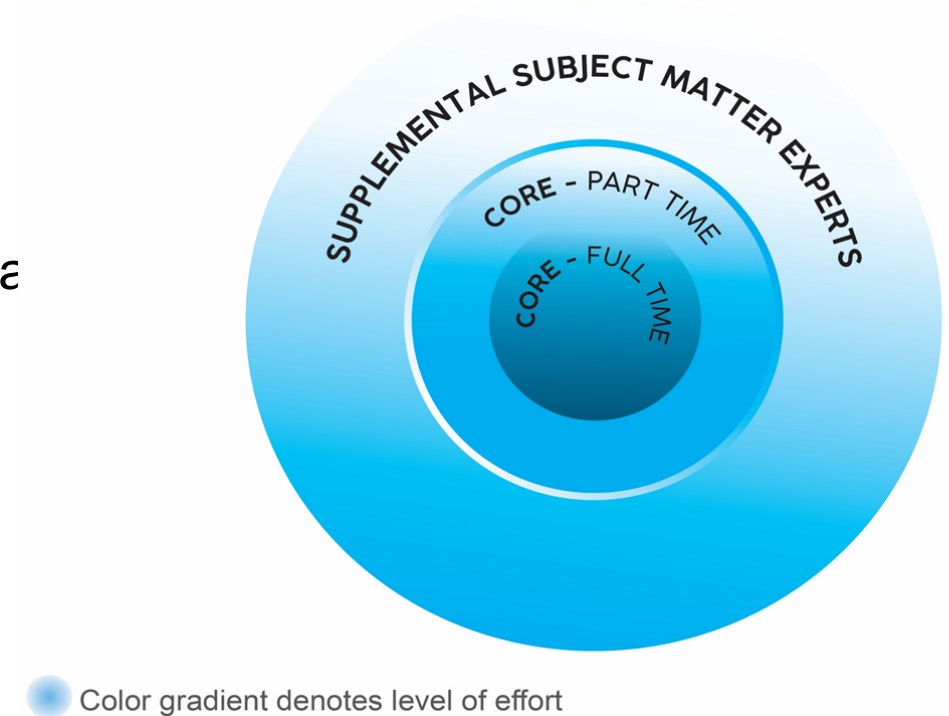
Modernizing the Environmental Review



Executing Strategies for Near-Term Reviews

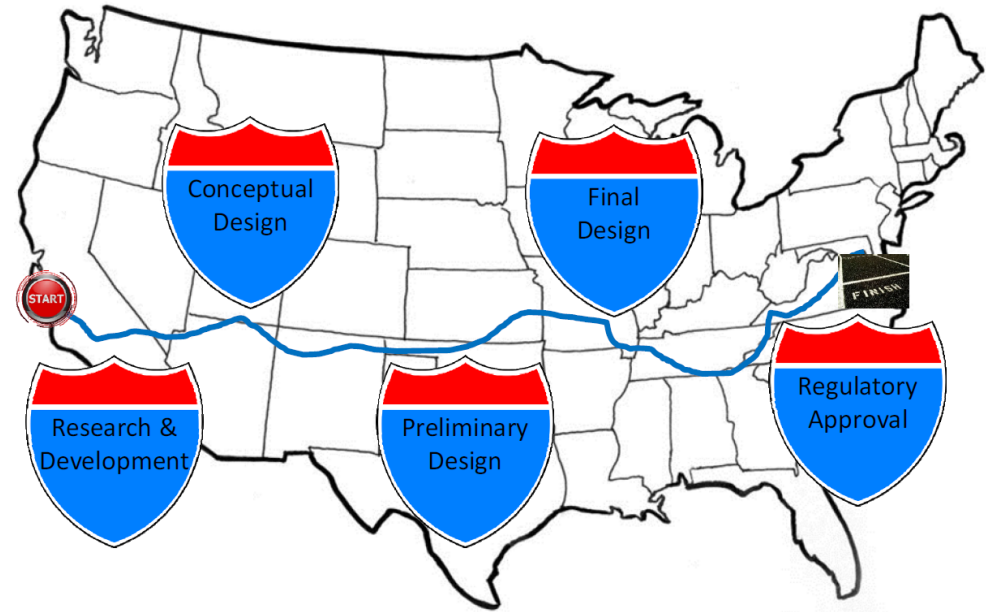
- OKLO Aurora COL application docketed
- Preapplication reviews underway
 - Meetings/White papers/Topical reports
- Timely and effective reviews
 - Core review team
 - Integrated safety review to reach reasonable assurance protection finding
 - Exemptions where appropriate for non-LWR technologies
- Guidance available
 - Advanced Reactor Design Criteria (RG 1.232)
 - Licensing Modernization Project (RG 1.233)
 - ISG for environmental review
- Key policy issues resolved
 - Functional containment
 - Risk-informed event selection
 - SSC classification
 - Defense-in-depth

OKLO INTEGRATED REVIEW — PROJECT TEAM STRUCTURE



Pre-Application Engagement is Encouraged

- Regulatory Review Roadmap
 - Encourages early engagement with NRC
 - Stresses use of Regulatory Engagement Plans
 - Interact in meetings or in review of white papers, technical reports, topical reports, etc.
- Regulatory Issue Summary (RIS) 2017-08
 - Request pre-application and application plans
- Robust pre-application engagement program
 - May lead to shorter and more predictable review schedules



References

- NRC's Advanced Reactor Website
 - <https://www.nrc.gov/reactors/new-reactors/advanced.html>