



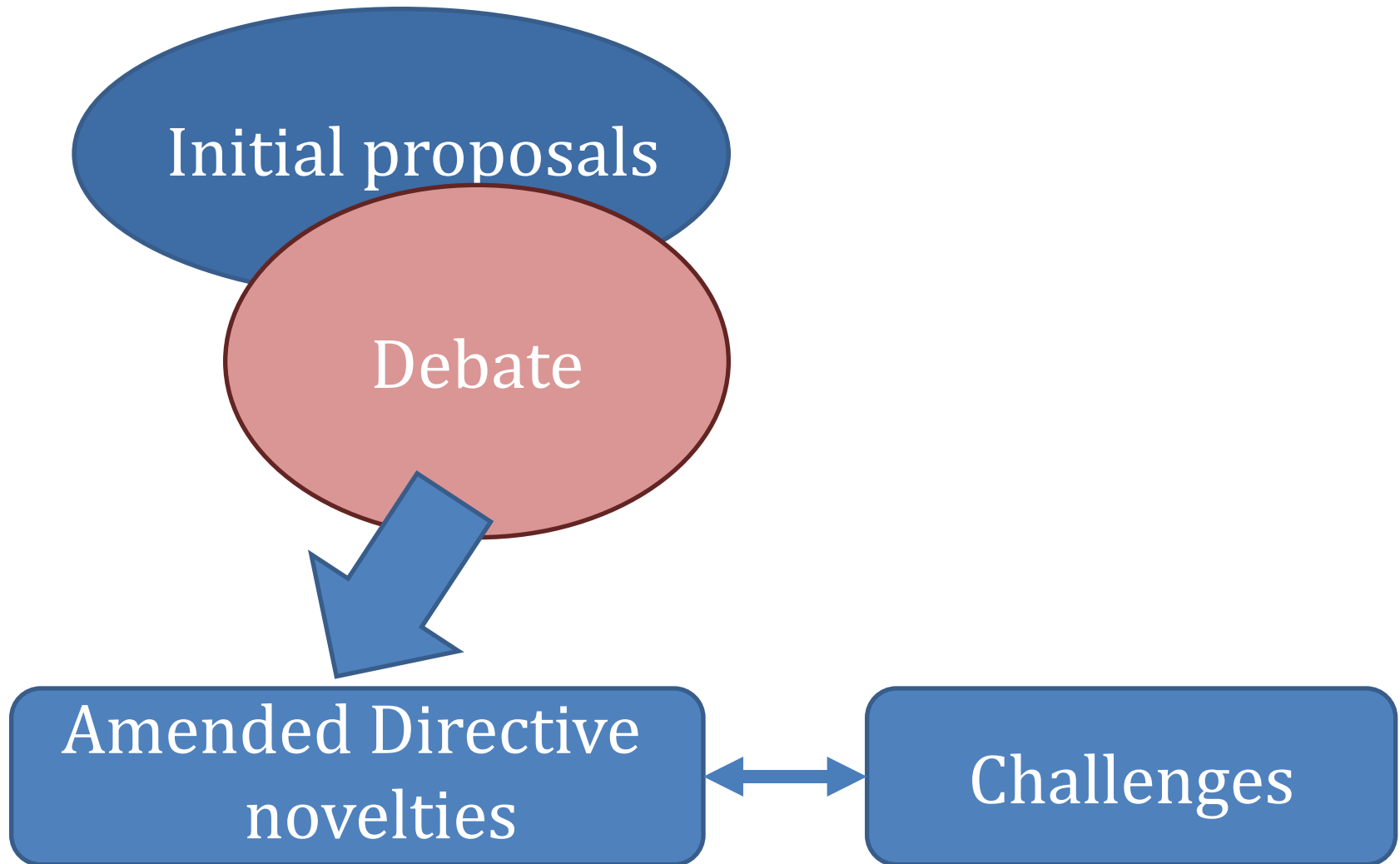
Amended Nuclear Safety Directive compliance challenges

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Amended Nuclear Safety Directive

- After the Fukushima accident in 2011, initiatives were taken in EU level:
 - Nuclear Stress Tests
 - Nuclear Safety Directive amendment, based on:
 - WENRA and IAEA safety requirements
 - Stress Tests and Fukushima accident lessons learnt
- *Council Directive 2014/87/EURATOM of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations*
- Within three years (15 August 2017), MS shall transpose the amended Directive.

Amended Nuclear Safety Directive



Amended Nuclear Safety Directive: promote higher nuclear safety level by...

- **Strengthening regulatory authorities (Article 5, par. 2, 3)**
 - Transparency and independency in regulatory decision making based on robust safety requirements
 - Sufficient legal powers, staff, and financial resources
 - Prevention & resolution of conflicts of interest
 - *“without undue influence associated with changing political, economic or societal conditions” (Recital #7)*

Amended Nuclear Safety Directive: promote higher nuclear safety level by...

- **Conducting Peer Reviews (Article 8e)**
 - Every 10 years: self-assessment and International peer reviews of segments of MS national framework and regulatory authorities
 - Topical reviews, every 6 years, starting from 2017:
 - National assessment
 - All other MS are invited to peer review (and the Commission as an observer)
 - Follow-up measures
 - Reports are published
 - In case of an accident with off-site consequences
 - *“common specific technical topic...use of ENSREG...WENRA...national action plans...EU wide topical peer review report” (Recital #24)*

Amended Nuclear Safety Directive: promote higher nuclear safety level by...

- **Introducing a high level EU-wide Safety objective (Article 8a)**
 - Article 8a: “ ... nuclear installations shall be designed, sited, constructed, commissioned, operated and decommissioned with the objective of preventing accidents and, should an accident occur, mitigating its consequences and avoiding:”
 - Early radioactive releases
 - Large radioactive releases, not limited in area or time
 - which applies to both
 - new (through initial assessment)
 - and existing installations (used as a reference for improvements, including in Periodic Safety Reviews)

Amended Nuclear Safety Directive: promote higher nuclear safety level by...

- **Reinforcement of legal terms on Transparency (Article 8)**
 - Information to the public for normal operation
 - Prompt information in case of incidents and accidents to the public and regulatory authorities from other MS in the vicinity of the installation
 - Cooperation between the regulatory authorities of the MS
 - Participation of the public in decision-making relating to the licensing
 - *“taking into account the different national systems...licensing remains the responsibility of national competent authorities” (Recital #13)*

Amended Nuclear Safety Directive: promote higher nuclear safety level by...

- **Promoting Safety Culture (Article 8b, par. 2)**
 - The regulators and the licensees shall take measures to promote and enhance an effective nuclear safety culture through:
 - Management system
 - Operating experience
 - Reporting of events
 - Education and training

Amended Nuclear Safety Directive: promote higher nuclear safety level by...

- **Arranging for on-site emergency preparedness and response (Article 8d)**
 - Organizational structure between licensee, regulatory authority and organizations, taking into account all phases of an emergency
 - Consistency and continuity between the on-site emergency and the off-site arrangements of the national framework

Debated - difficult points

- **Safety culture**
 - Definition
 - Turn a property into a legal requirement
- **Peer reviews**
 - Supra-nationality
- **Safety objective-implementation-assessment**
 - Reasonably practicable vs. reasonably achievable concept
 - Technical specs in review and assessment methodologies
- **Transparency, public participation**
 - Public participation interfering with licensing vs decision making
 - Level and degree of public involvement
 - Communication Policy vs Information Policy
 - Engagement in cooperation between MSs regulatory authorities

Conclusions

- The new Directive introduces (**legally binding**) novelties, making EU efforts as a world-wide leading direction towards nuclear safety strengthening.
- The most effort is required by MS in addressing these novelties.



Thank you for your
attention!