



CRI

Centre for Regulatory Innovation

Regulators' Capacity Fund

Readiness to Regulate Fusion Technologies

QUICK GLANCE

Lead Organization:

Canadian Nuclear Safety
Commission (CNSC)

Timeline:

Oct 2020 – Mar 2022

Funding:

\$250,000

ABOUT THE RCF

The CRI's Regulators' Capacity Fund empowers federal regulators to better consider economic, competitiveness, and resilience factors in regulatory design and implementation.

PROJECT OVERVIEW

The project aimed to prepare the CNSC for the emerging field of fusion energy. The project focused on developing regulatory frameworks, guidelines, and capacity to safely and effectively regulate fusion technologies.

The Challenge:

Fusion energy presents unique regulatory challenges due to its novel and complex nature. Existing regulatory frameworks are not fully equipped to address the specific safety and technical requirements of fusion technologies.

The Approach:

CNSC conducted comprehensive research on fusion technologies, engaged with international regulatory bodies, and developed tailored regulatory guidelines. The project also included training CNSC staff and stakeholders on fusion-specific regulatory issues and safety protocols.

The Impact:

The project significantly enhanced CNSC's readiness to regulate fusion technologies, ensuring that Canada is well-prepared to support the safe development and deployment of fusion energy. This proactive approach not only safeguards public and environmental health but also positions Canada as a leader in the global fusion industry.

Lessons Learned:

Proactivity: Early preparation is key to effectively regulating emerging technologies.

Collaboration: Engaging with international bodies enhances regulatory frameworks.

Education: Continuous training ensures readiness and adaptability.

This project demonstrates proactive regulatory preparation, highlighting the importance of early and comprehensive planning in addressing the challenges of emerging technologies.