



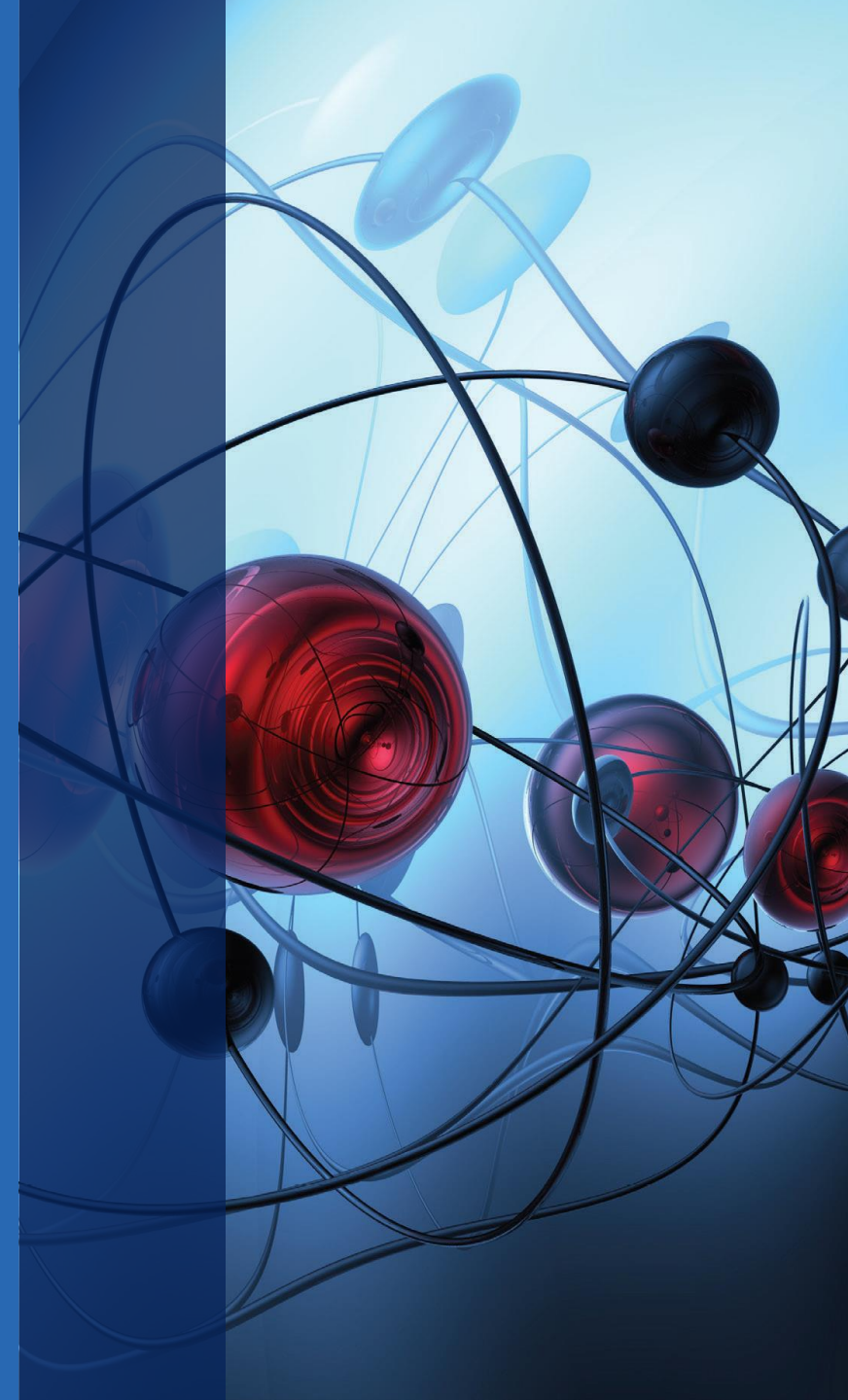
# Holding the Future to a Higher Standard

CSA Nuclear Program and Innovation

CNS G4SR Webinar: Regulatory and Standards Readiness for Innovation in Nuclear  
October 5, 2021

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# Agenda

- Introduction to CSA Group, CSA nuclear program, and standards development
- Strategic initiatives
  - Innovation and emerging technologies
  - Small modular reactors
  - CSA research
- Opportunities to engage in standards development



# Standards

## Mission

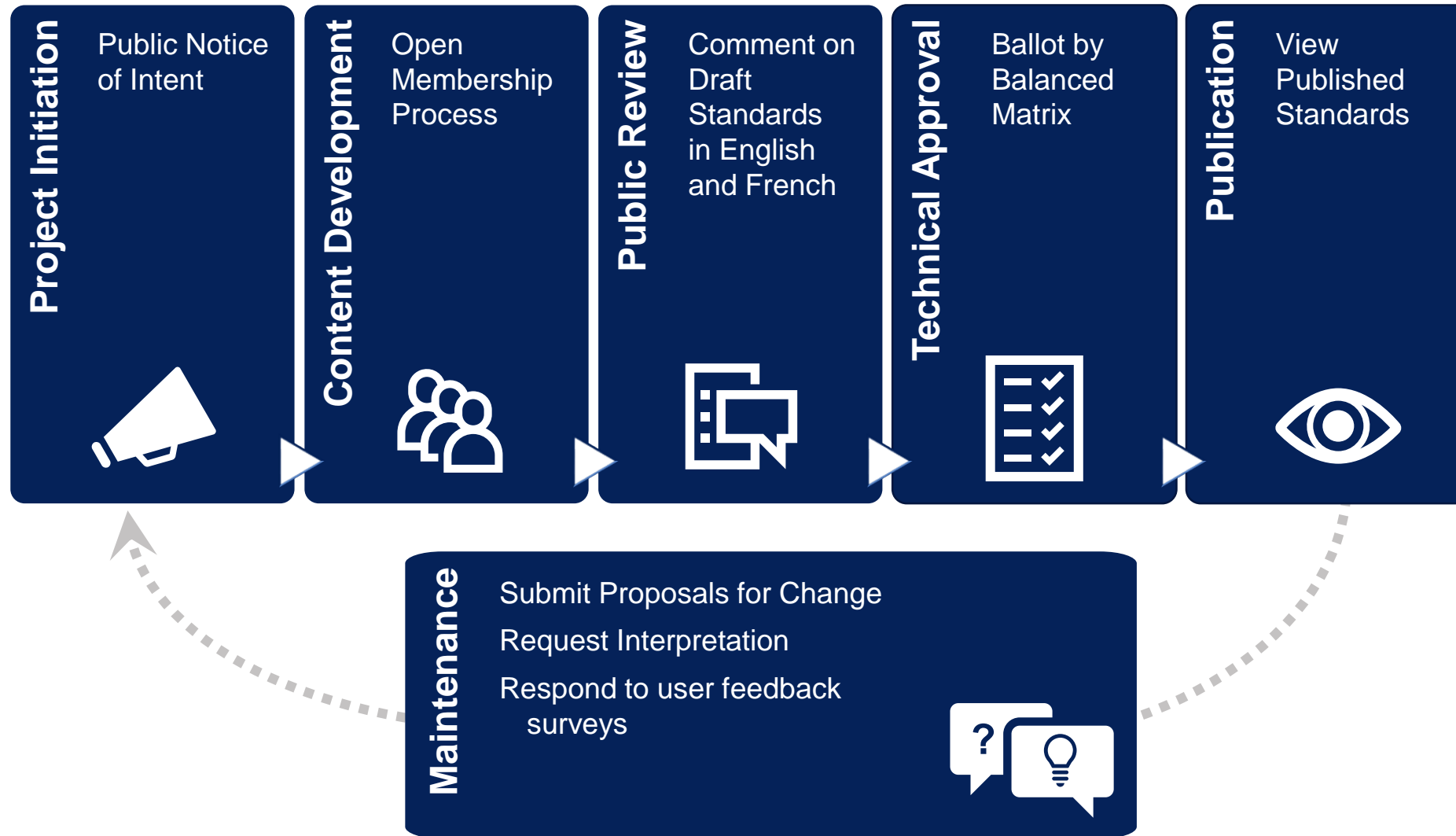
The mission of CSA Group's Standard Development organization is to **enhance the lives of Canadians** through the **advancement of standards** in the public and private sectors.

We are a **leader in standards research, development, education, and advocacy**. The technical and management standards developed by our **10,000 members** improve safety, health, the environment, and economic efficiency in Canada and beyond.



# Standards Development

Accredited, transparent, inclusive process





# CSA Nuclear Program

## Overview

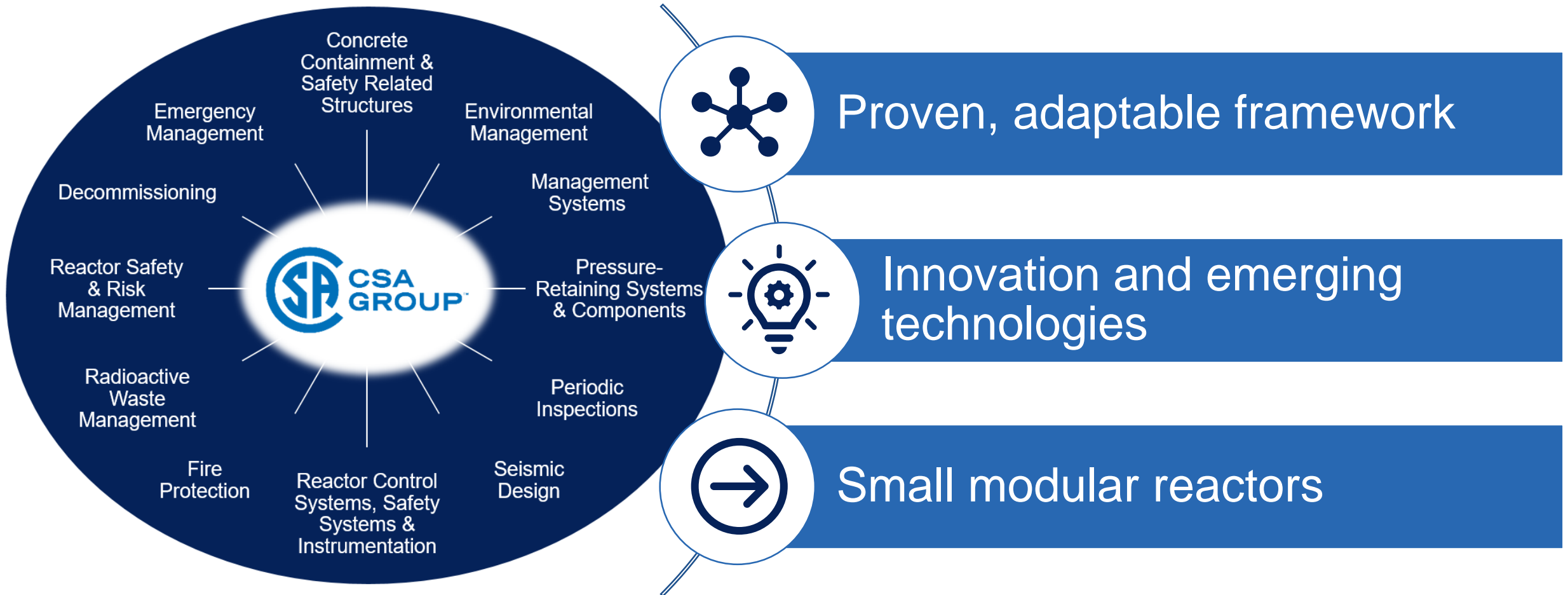
The CSA Nuclear Program was established in response to the needs of the Canadian nuclear industry and its regulator for a reliable process to develop vital standards to ***promote the safe and reliable operation of the nuclear power industry*** in Canada.

- 600+ expert members on 65+ committees
- 65 published standards and related documents
- 94% of standards referenced by CNSC



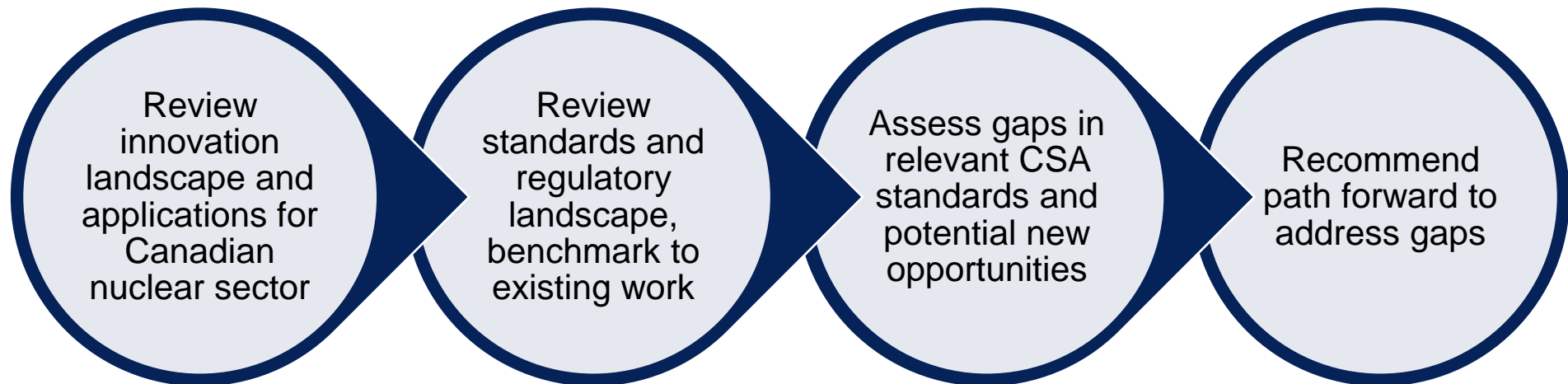
# CSA Nuclear Program

Responsive and proactive



# Innovation and Emerging Technologies

- Strategic assessments of standards applicability and needs
  - Advanced manufacturing
  - Digitalization
  - Remote inspections



# Small Modular Reactors

## Small Reactors Task Force

- Identification and prioritization of topics for SMR standards needs
- Evaluation of standards applicability and gaps with technical committees

## Active standards development project

- Supplement to CSA N293-12, *Fire protection for nuclear power plants (application to small modular reactors)*

## Engagement in sector initiatives and forums



# CSA SMR Research

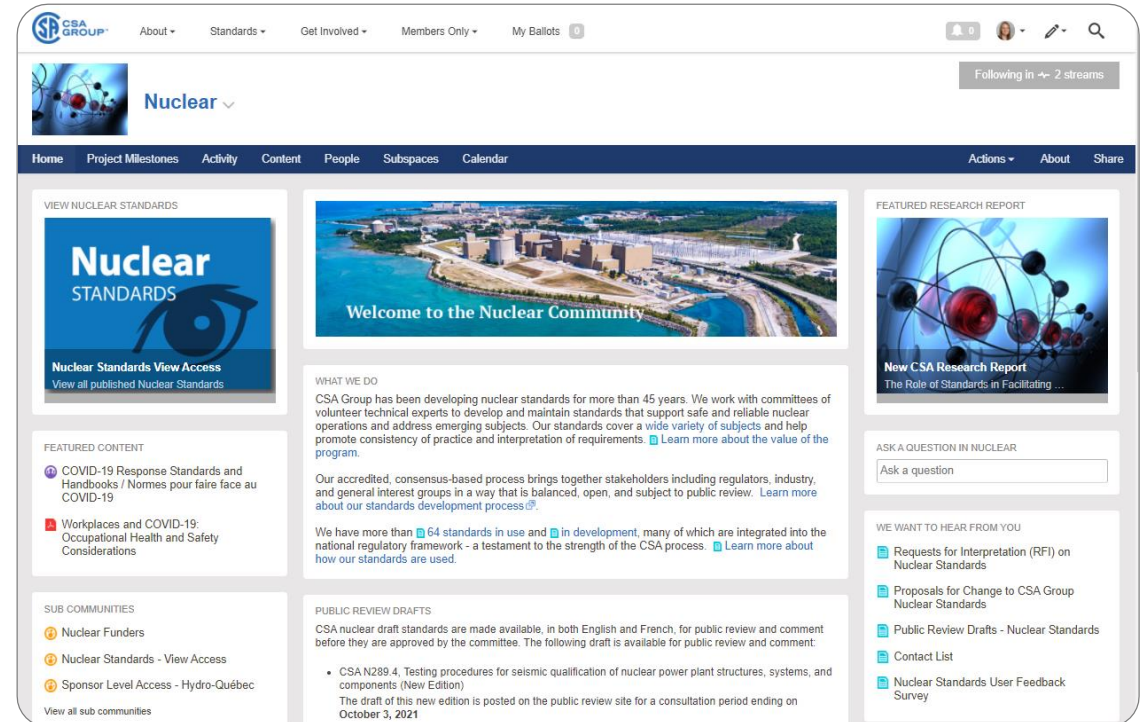
- The Role of Standards in Facilitating Deployment of SMRs in Canada

<https://www.csagroup.org/article/research/the-role-of-standards-in-facilitating-deployment-of-smrs-in-canada/>

- Overview of harmonization approaches
- Benchmarking to standardization approaches used by other sectors in deployment of new technologies
  - Aerospace
  - Electric vehicles
- Assessment of SMR landscape
- Recommendation of standardization approaches that would benefit Canadian nuclear sector in the deployment of SMRs

# Learn More and Get Involved

- Engage in standards development
  - Public review
  - Requests for interpretation
  - Proposals for change
  - User feedback surveys
  - Request membership
- CSA Communities
  - Open, collaborative online environment to connect members, stakeholders, and users of standards
  - Accessed with a free user account
- Nuclear Community
  - <https://community.csagroup.org/community/nuclear>



# Summary

- CSA is a leading standards development organization and is dedicated to a better, safer, more sustainable world
- Our nuclear program provides
  - A standards development process that is open and transparent
  - A collaborative forum that brings together experts to develop standards
  - Voluntary standards that support the national regulatory framework
  - A responsive and proactive approach to address innovation and evolving sector needs
- We welcome feedback and engagement to continuously improve our standards, processes, and practices



Thank you!