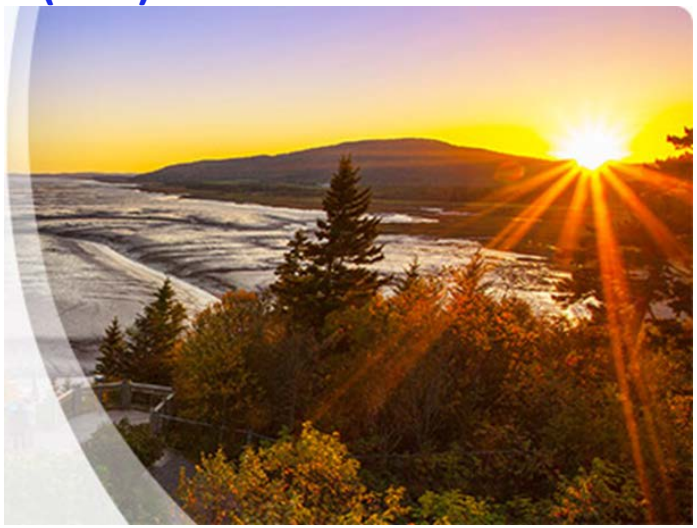
CNS PRESENTATION

Peter Ozemoyah (PhD)



www.cns-snc.ca

HOW PEOPLE DEFINE US

CANADIAN NUCLEAR SOCIETY IS A REPOSITORY OF GREAT EXPERIENCE AND KNOWLEDGE ABOUT ALL THINGS NUCLEAR

About Canadian Nuclear Society (CNS)

- Formed in 1979 as Technical Unit of CNA
- Incorporated as a Not-for-Profit Organization in 1998
- First President - George Howey
- President at Incorporation - Benjamin Rouben/Paul Thompson

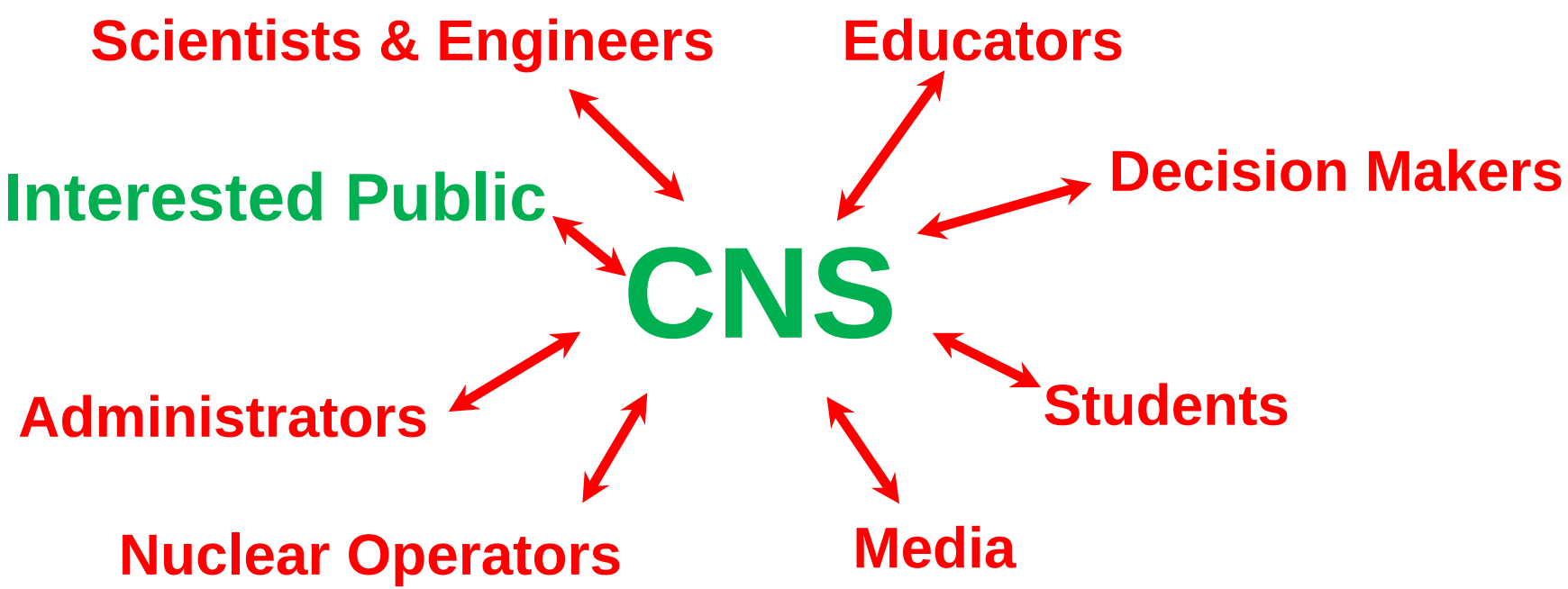
Types Of Membership

One Class of Membership

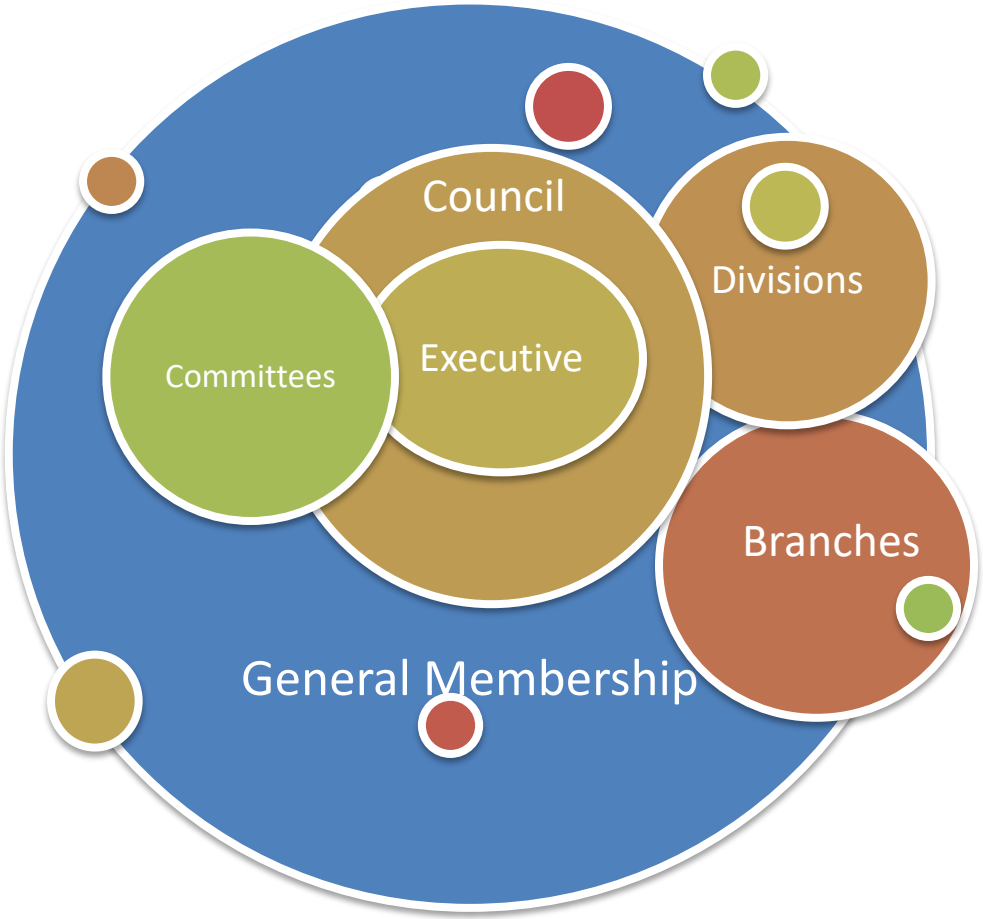
Four Designations

- Charter
- Regular
- Retiree
- Student

Source of Membership



CNS STRUCTURE



GOVERNANCE

THE EXECUTIVE	
President	1st Vice President
2nd Vice President	Secretary
Treasurer	Immediate Past President
THE COUNCIL	
18 – 30 Members, 3 of them are not by Election	
THE EXTENDED COUNCIL	
Comprised Chairs and Co-Chairs of the Divisions and Committees	

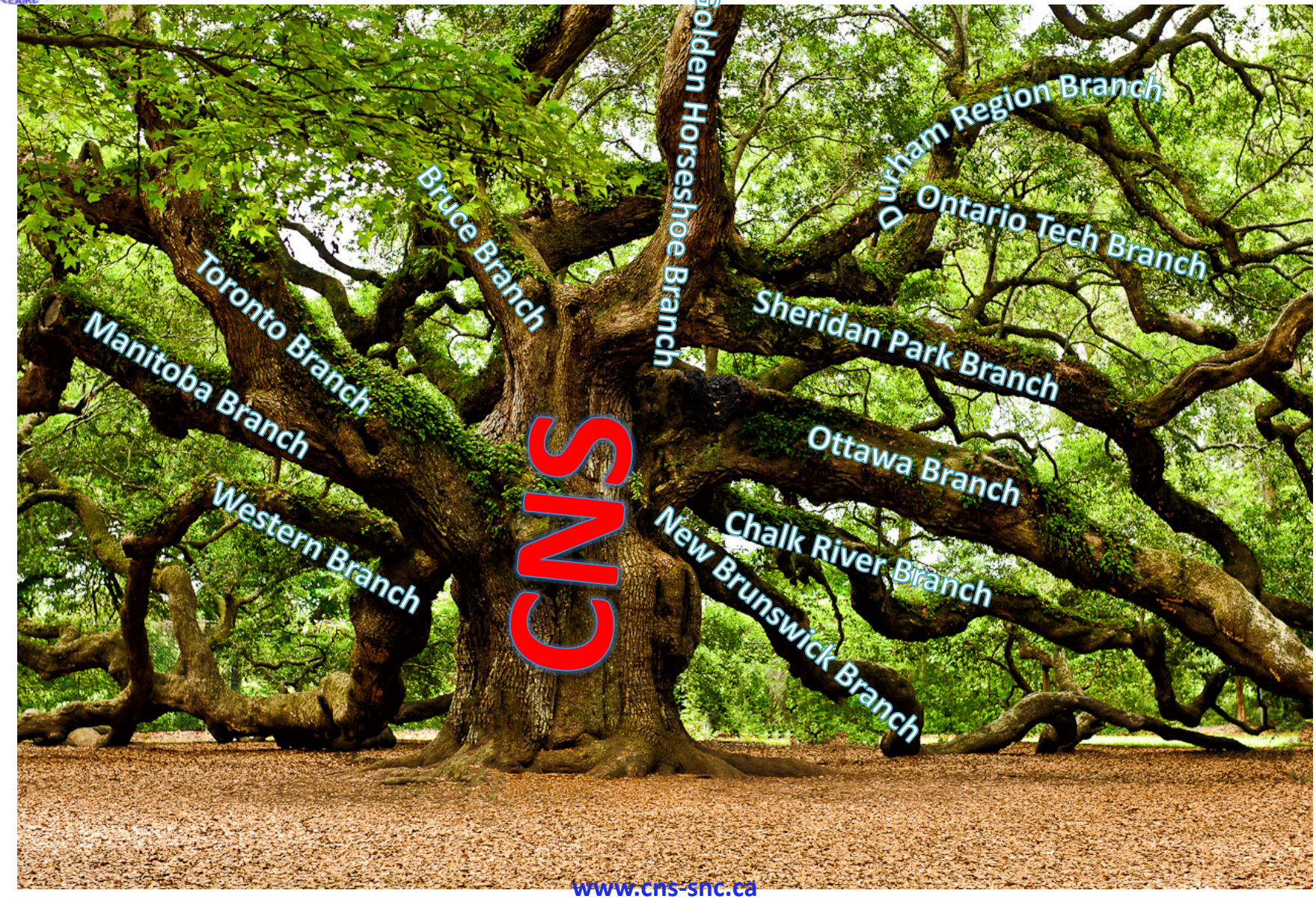
COMMITTEES

STRATEGIC PLANNING	BRANCH AFFAIRS
EDUCATION AND COMMUNICATIONS	PROGRAMS
HONOURS AND AWARDS	MEMBERSHIP
PUBLICATIONS	FINANCE
SHOLARSHIP	BUSINESS SUPPORT
INTERSOCIETY	INTERNATIONAL LIAISON
GOVT & REGULATORY AFFAIRS	

Divisions of the CNS

- Disruptive, Innovative and Emerging Technology (DIET)
- Environment, Waste Management & Decommissioning (EWMD)
- Fuel Technologies (FT)
- Fusion Energy and Accelerator Science and Technology (FEAST)
- Generation IV and Small Reactors Technology (G4SR)
- Materials, Chemistry & Fitness-for-Service (MCF)
- Nuclear Operations and Maintenance (NOM)
- Nuclear Science and Engineering (NSE)
- Science and Technologies of Radio Isotopes (STORI)

BRANCHES OF CNS



BRANCHES OF CNS

WESTERN	MANITOBA
GOLDEN HORSESHOE	SHERIDAN PARK
TORONTO	UOIT
BRUCE POWER	DURHAM REGION
OTTAWA	QUEBEC
CHALK RIVER	NEW BRUNSWICK

Mission of CNS

- Foster the development and beneficial utilization of nuclear science and technology for peaceful purposes
- Be a forum for the exchange of information relating to nuclear science and technology
- Encourage the education in, and the knowledge about, nuclear technology as applied to power generation, safety, medical applications, and to radiation protection
- Enhance the professional and technical capabilities of those involved in nuclear science and technology
- Be a resource of information to academia, industry, governments and to public in nuclear science and energy related matters

What We Do

- Conducts conferences annually that attract attendees from all over thee World
- Publishes a quarterly Bulletin
- Has an active Educational & Outreach program to raise public awareness and understanding of nuclear science and technology
- Has active Branches that organize seminars and presentations
- Has an Achievement and Awards Program
- Intervenes at public hearings to advance the nuclear industry

CONFERENCES

- **The Annual Conference.**
- **Nuclear Waste Management**
- **CANDU Maintenance and Nuclear Components**
- **Fire Safety and Emergency Preparedness**
- **Small Modular Reactors & Gen IV**

Joint International Conferences

- Environmental Degradation of Materials in Nuclear Power Plants
- Pacific Basin Nuclear Conference (PBNC)
- Nuclear Reactor Thermal Hydraulics (NURETH)
- Physics Of Reactors (PHYSOR)
- International Symposium on Supercritical Water Cooled Reactors
- International Conference on Future of Heavy Water Reactors
- Modelling and Simulation in Nuclear Science and Engineering

Courses & workshops

- CANDU Reactor Technology and Safety Courses
- CANDU Fuel Technology Courses
- Nuclear-101 Course for those working in the nuclear industry but have no nuclear background
- “Nuclear for Everyone” Course for the Public
- Workshop on Fusion Energy
- Nuclear Safety Culture Course

NOT ALONE

CNA

OCNI

COG

NAYGN

WiN

UNENE

NOT ALONE

23 International Nuclear Societies

PNC

INSC

EIC

NUCLEAR IN CANADA

Refurbishment

SMR

Uranium

Fusion

Actions & Pronouncements

Refurbishment

- Pickering Unit 1
- Pickering Unit 4
- Bruce A Unit 1
- Bruce A Unit 2
- Point Lepreau

- Darlington 2
- Darlington 3 has started

- 10 of the 18 reactors in Ontario will be refurbished over 15 years period at estimated cost of $25b

NRCan & SMR

Canada's Small Modular Reactor Action Plan

In 2018, NRCan brought together provincial and territorial governments, industry, utilities and other interested stakeholders for a 10-month, pan-Canadian conversation on Canada's SMR opportunity.

Launched Canada's SMR Action Plan in December 2020

OPG applies for Licence to Construct application, lodged with the Canadian Nuclear Safety Commission (CNSC) on 31 October, was developed

SMR

Four Canadian Provinces signed a Memorandum of Understanding to study and support the potential of SMR development and application

Canadian Nuclear Laboratories offered to be a global hub for SMR research and technology and proposed its Chalk River site for the building and demonstration of an SMR unit

Proposed micro-SMRs for remote applications. One such demonstration reactor project (Micro Modular Reactor Project) was initiated by OPG, and collaboration between Global First Power and Ultra Safe Nuclear Corporation will see this in service at the Chalk River site by 2026

Other Actions - Uranium

McArthur River mine has now been milled and packaged at the Key Lake mill,

Acquisition of Westinghouse by Cameco and Brookfield Renewables

Other Actions - Fusion

Fusion: CNL and Gen Fusion signed MoU to advance fusion technology and make it commercially available by 2030 (Report by Calgary Herald)

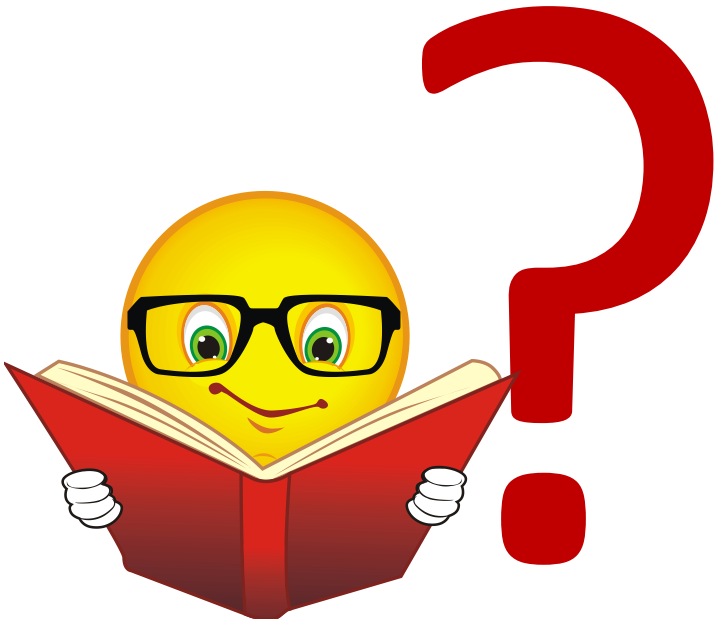
Canada's General Fusion and the UK Atomic Energy Authority (UKAEA) will collaborate on projects to "advance the commercialisation of magnetised target fusion energy.

Other Actions - Pronouncements

Nuclear being clean energy

Nuclear needed to achieve the net zero objective

The Canada Infrastructure Bank has announced a commitment of CAD970 million (USD713 million) towards Ontario Power Generation's Darlington New Nuclear Project, in the bank's largest investment in clean power to date ($970m loan access available for nuclear projects)



QUESTIONS COMMENTS