



Building the first OECD

Maritime Civil Nuclear Program

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The Mission

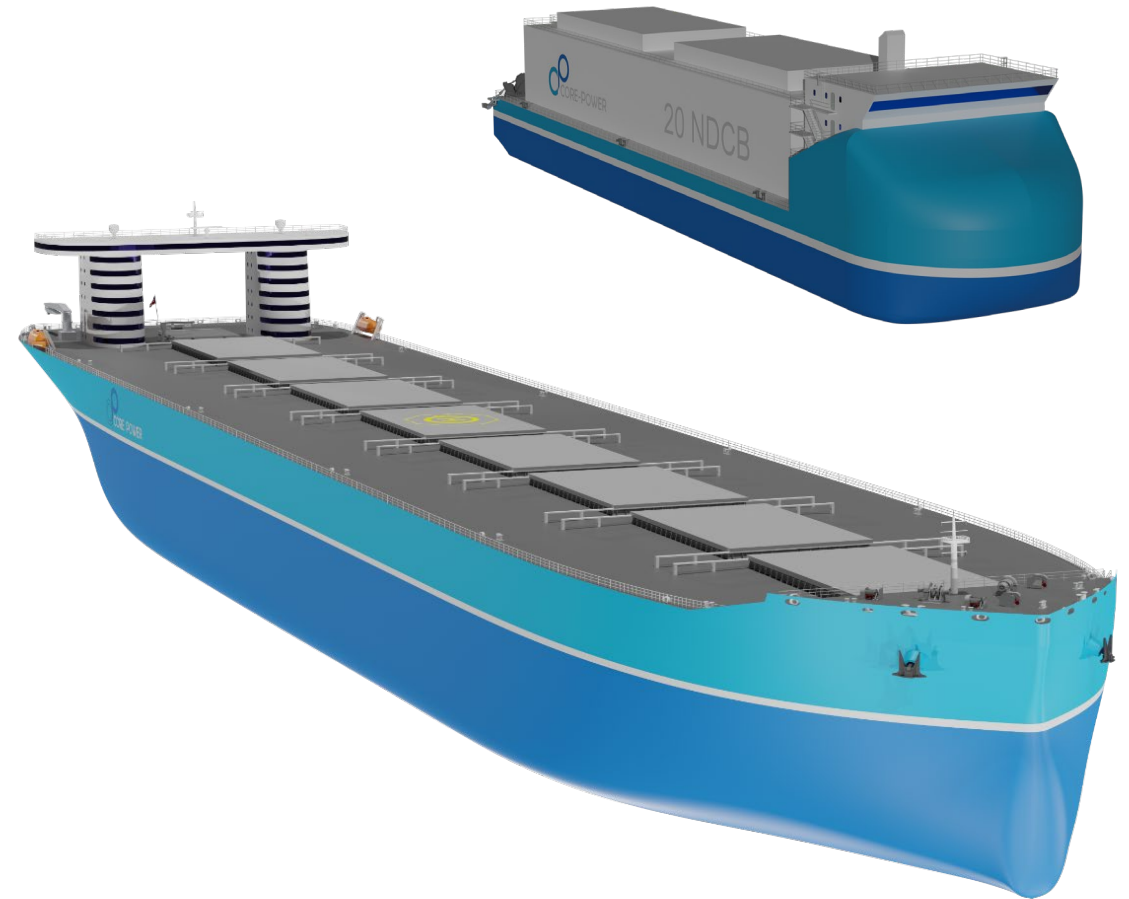
A major industrial program for US and Allied maritime civil nuclear power backed by substantial investments from major shipping, energy, industrial, financial and venture investors.

The program will develop:

1. Commercially insurable 'GenIV' Nuclear-Powered Ships at sea and in ports, attaching to infrastructure for reverse power.
2. Floating Nuclear Power Plants (FNPPs) permanently moored in ports, nearshore environments or deep offshore for remote ops support.

The program will deliver:

- Domestic flagged assets, providing resilient transport and logistics in the OECD.
- Energy security and soft power across the OECD.
- **Dramatic energy efficiency gains with zero emissions.**



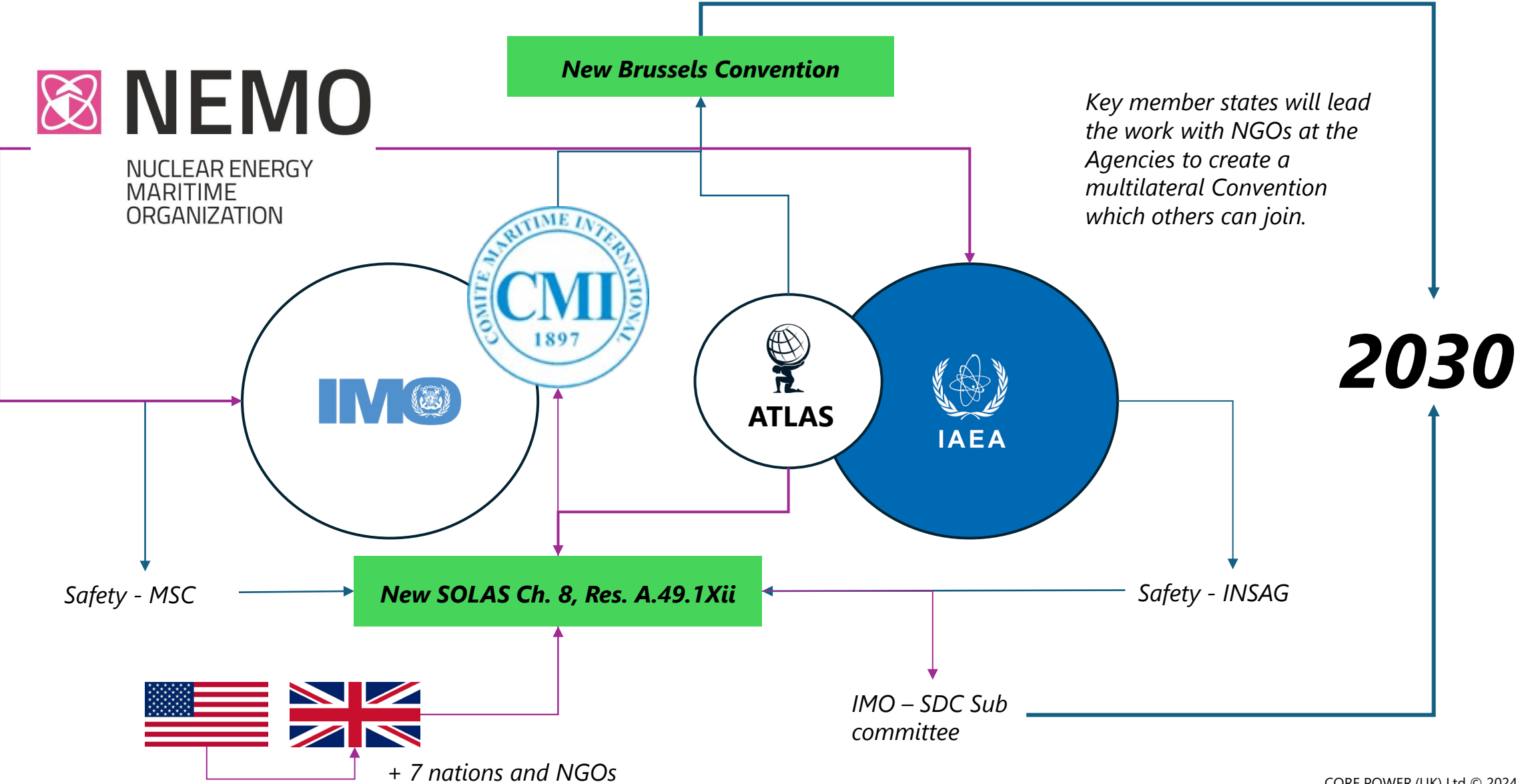
Reactor solutions that fulfil the criteria for success

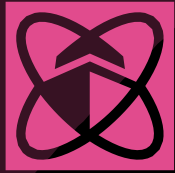


	Advanced Light / Water Reactor – Current naval reactor technology	Lead cooled Fast Reactor – Alfa Class submarines (1960s)	High Temp Gas Reactor – UK AGR fleet and USACE Project Pele	Heat Pipe Reactor – micro reactor originally developed for space propulsion	Molten Salt Fast Reactor – Gen IV advanced liquid fuel, closed cycle designed for marine use	
Technology Type	aLWR	LFR	HTGR	HPR	MCFR	
Low Pressure / small EPZ						Insurance criteria
Online Refueling / long fuel cycle						Safeguards criteria
No meltdown possible						Safety criteria
Complete Walkaway Safety						
High Fuel Utilization						Economic criteria
Compact Size						
High Temperature						
	Conventional 'naval' nuclear	SMRs for land use		New Nuclear for 'civil' Maritime		

Marine Criteria

A civil liability solution for port calls





NEMO

NUCLEAR ENERGY
MARITIME
ORGANIZATION

A new industry association for all stakeholders
around FNPPs and nuclear ships

**"Establish a harmonized regulatory framework that
allows for floating nuclear demonstration by 2030."**

NEMO Membership Summary



- 1  Nuclear tech developers and vendors / project managers
- 2  Shipowners/operators
- 3  Shipyards
- 4  Port Authorities
- 5  Class Societies
- 6  Insurance
- 7  Maritime & Energy Law
- 8  Power offtakers / end-users

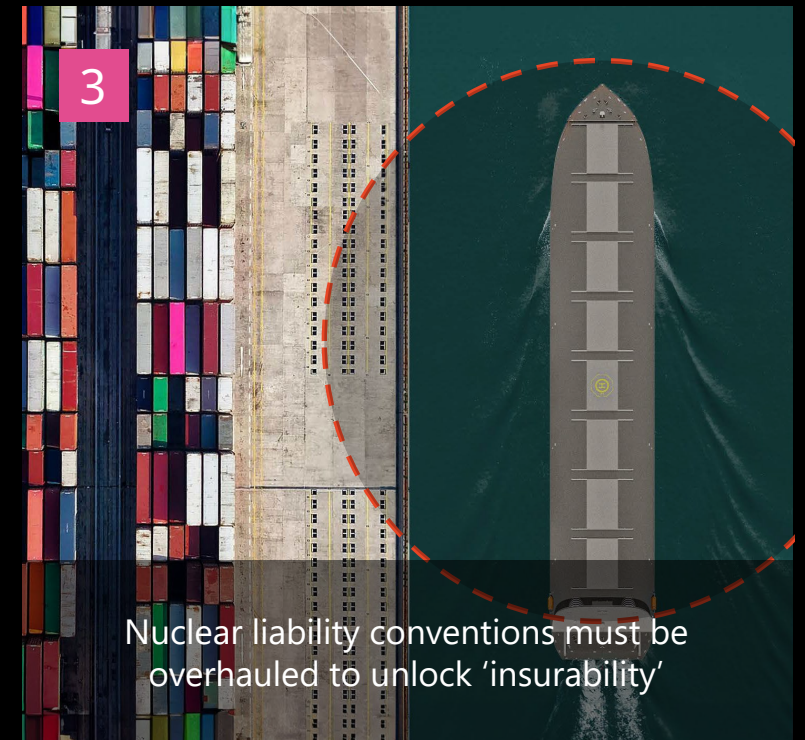
Current Member Count: 42



Here's why it's hard

! No previous initiative or incentive to tackle common issues

Three complicated and interwoven challenges to be solved:



Working Groups: Overview



Initial Set-Up featured 2 x WGs, now expanded to 3 as of Q3 2024:

1 Maritime Regulations (The "Nautilus" WG)

Looking at the application of Nuclear technology within Maritime. In particular regulatory development at IMO and supporting A.491XII.

2 Nuclear Safety, Security & Safeguards (NSSS)

Looking at the challenges and opportunities of maritime deployment from the perspective of Nuclear regulatory bodies. Shepherding progress of FNPP developments through IAEA.

3 Maritime Nuclear Liability (The "Annorax" WG)

Looking at the concept of commercial 'insurability' and the development of a suitable liability convention for floating nuclear, in the context of the 1962 Brussels Convention.

Future WG potential development:

WG4 = Seafarer Training Regimes

WG5 = Ports and Interfaces

High level roadmap to 2030+



2025

Maritime:
IMO agrees to revise Nuclear Code in close dialogue with the IAEA.

2024 – 2026

Nuclear:
IAEA completes gap analysis of **standards for floating nuclear**. 'ATLAS' initiative develops.

2026 – 2028

Insurance:
Unified standards developed as a **foundation for Liability Convention**.

2028 – 2030

Demonstration:
Member states adopt rules for floating nuclear to enter and **operate in waterways and make port calls**.

2030+

Delivery:
Fit-for-purpose technology is **deployed in early 2030s**.



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