



Building 'LIBERTY' – a U.S. Maritime Civil Nuclear Program

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June 2025

Introducing CORE POWER

Who?	A private company with 65+ strategic shareholders from shipping, energy, trading and banking.
What?	Building the ' <i>Liberty</i> ' Program – the world's first Maritime Civil Nuclear Program.
Why?	A \$5.6 trillion addressable market in maritime, improving the way nuclear is delivered and, global trade is powered.
How?	Mass-assembly in shipyards, of Floating Nuclear Power Plants and nuclear-powered ships.
When?	Orderbook opens 2028. Full commercialisation by mid-2030s.



The complete end-to-end
Maritime Civil Nuclear
Program for deployment
at sea.

Unlocking a \$2.6 trillion floating nuclear power market



Floating nuclear power is **fully modular** and a great way **to scale nuclear**.

Why FNPPs?

How do you buy nuclear?

- Deliver on time and within budget.
 - Directly to customers, or their utilities.
-

Small Modular Power Plants, not SMRs

- Shipyard construction in repeatable series.
 - Tow to anywhere, less site preparation needed.
-

Scaling nuclear deployment

- 65% of all economic activity is coastal.
 - Allows nuclear to reach new markets.
-

Creating a \$3 trillion market for large ships



Dramatic energy improvements for commercial shipping.

Why maritime civil nuclear propulsion?

Shipping needs a solution.

- Over 7,000 ships must be replaced by 2040.
- ✓ Must achieve 70% GHG reduction.

Nuclear works at sea, but...

- Mobile PWRs (naval reactors) cannot be commercially insured in ports.
- ✓ Safeguards and Security by design really matters.

...how do we do it right?

- End-to-end from R&D to decommissioning.
- Regulatory framework and export controls.
- ✓ Social contract with the public, build on safety.

Key criteria for nuclear in commercial maritime

Insurance

Ambient pressure reactor
= small Emergency Planning Zone.

Safeguards

By full ecosystem design. No refuelling in ports.

Safety

Inherently safe, by physics and chemistry.

Economics

Superior fuel efficiency. Compact size.

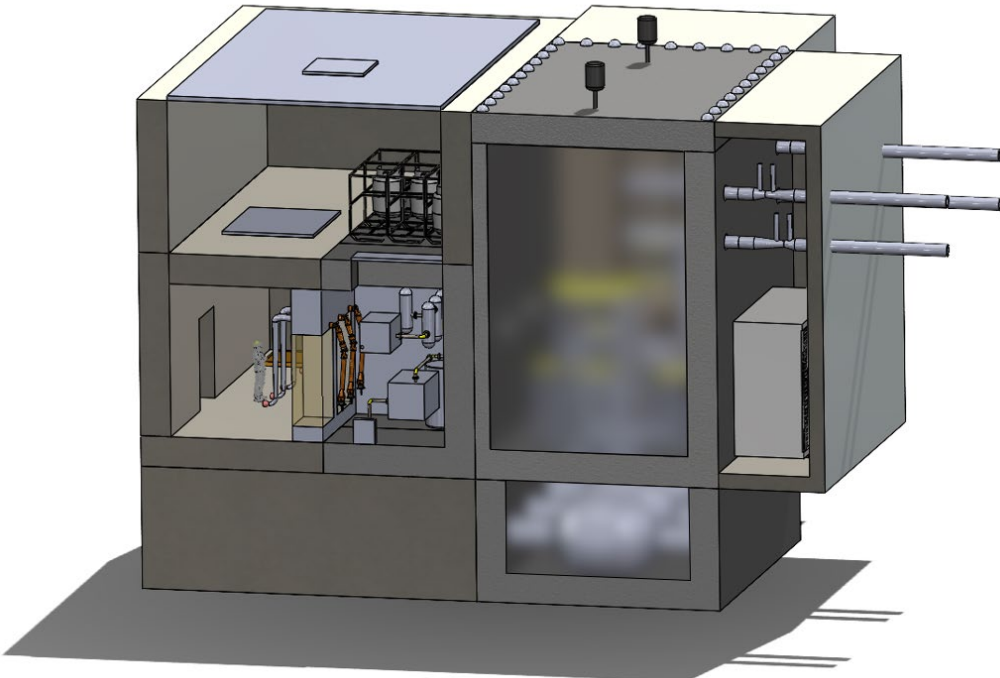


Comparison of technology alternatives

			Advanced Light / Water Reactor	Lead cooled Fast Reactor	High Temp Gas Reactor	Heat Pipe Reactor	Molten Salt Fast Reactor
		Technology Type	aLWR	LFR	HTGR	HPR	MCFR
Insurance criteria	→	Low Pressure / small EPZ					
Safeguards criteria	→	Online Refueling / long fuel cycle					
Safety criteria	{	No meltdown possible					
		Complete Walkaway Safety					
Economic criteria	{	High Fuel Utilization					
		Compact Size					
		High temperature					
			Conventional 'navy' nuclear	SMRs for land use		Nuclear for Maritime	

MCFR: the ideal marine reactor

What?	How?
Safe	Liquid Fuel. Cannot meltdown, overheat or lose coolant.
Efficient	96% + fuel efficiency at 20 full-power years. <i>(30+ years in a ship).</i>
Durable	Internal fuel filtration cleans the fuel.
Reliable	5–10-year maintenance cycle. Very few moving parts.
Insurable	Low pressure gives minimal EPZ. Condition for Insurance and mobility in ports.
Sustainable	Consumes more energy from fuel. Leaves less waste.

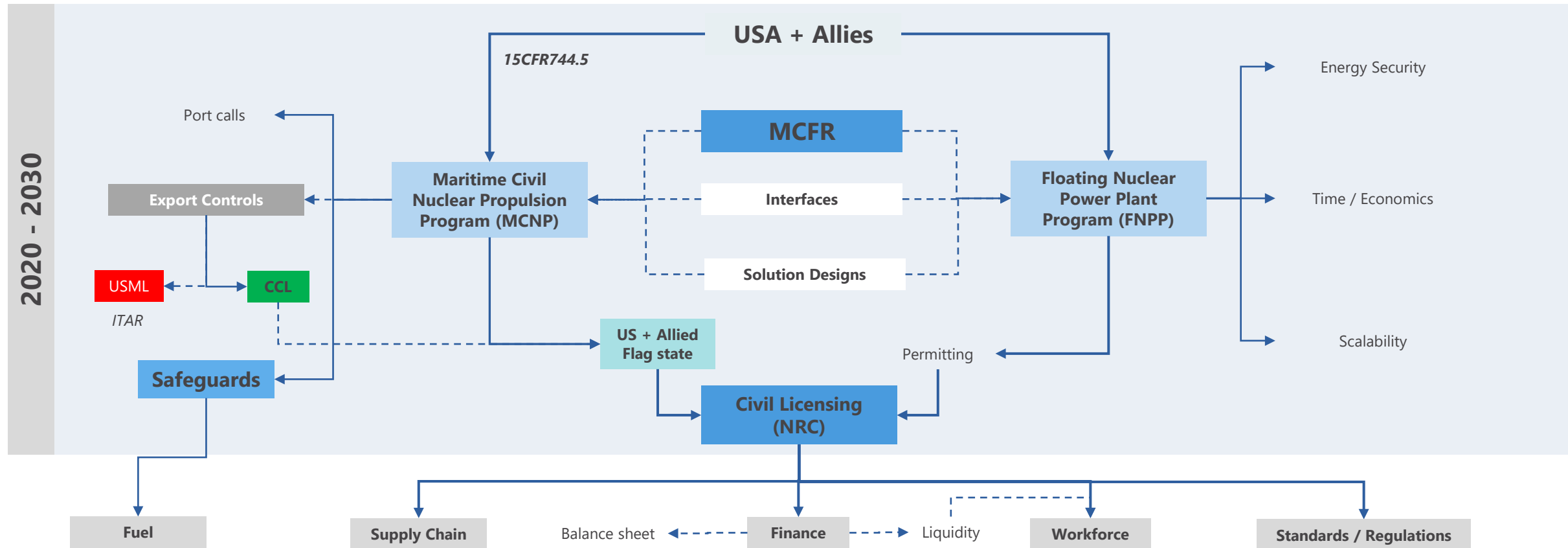


Molten Chloride Fast Reactor in partnership:



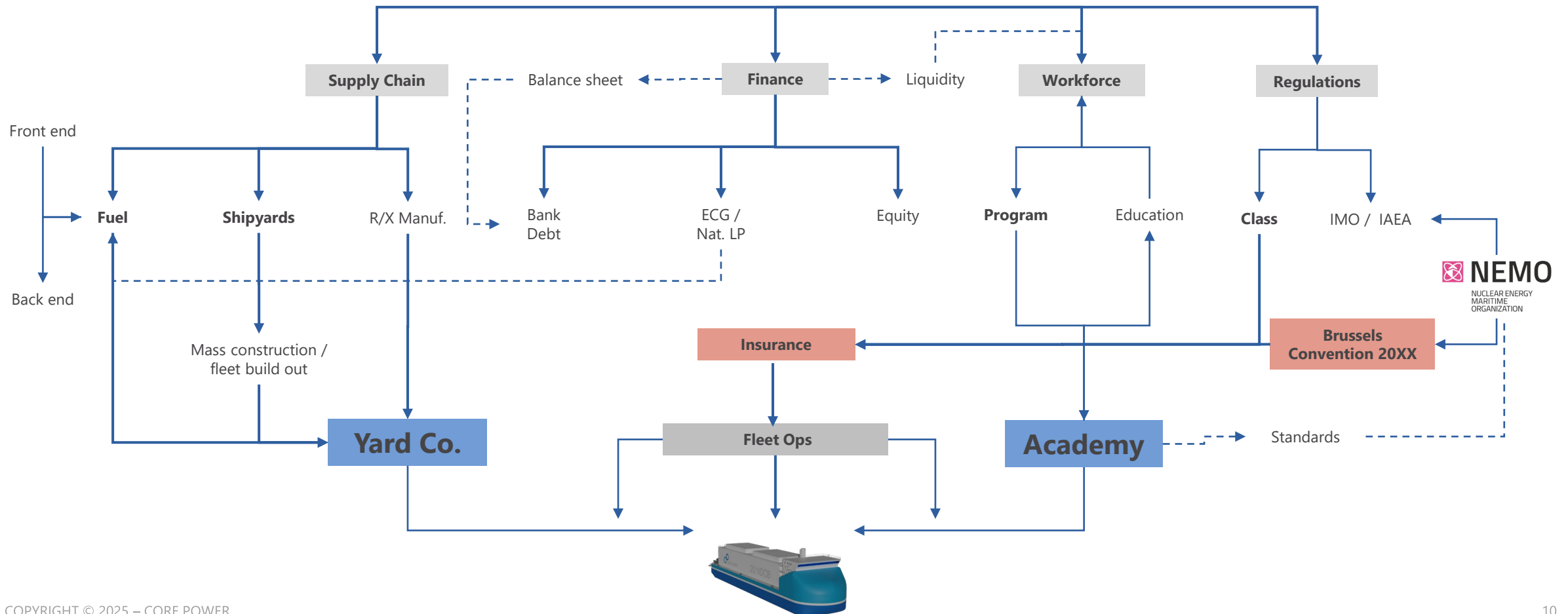
Phase 1: Charting the Program to 2030

- **Product development:** inherently logical designs of marine reactors which meet the key criteria for success.
- **Focus on:** Design, licensing, export control framework, safeguards, insurance and orderbook.



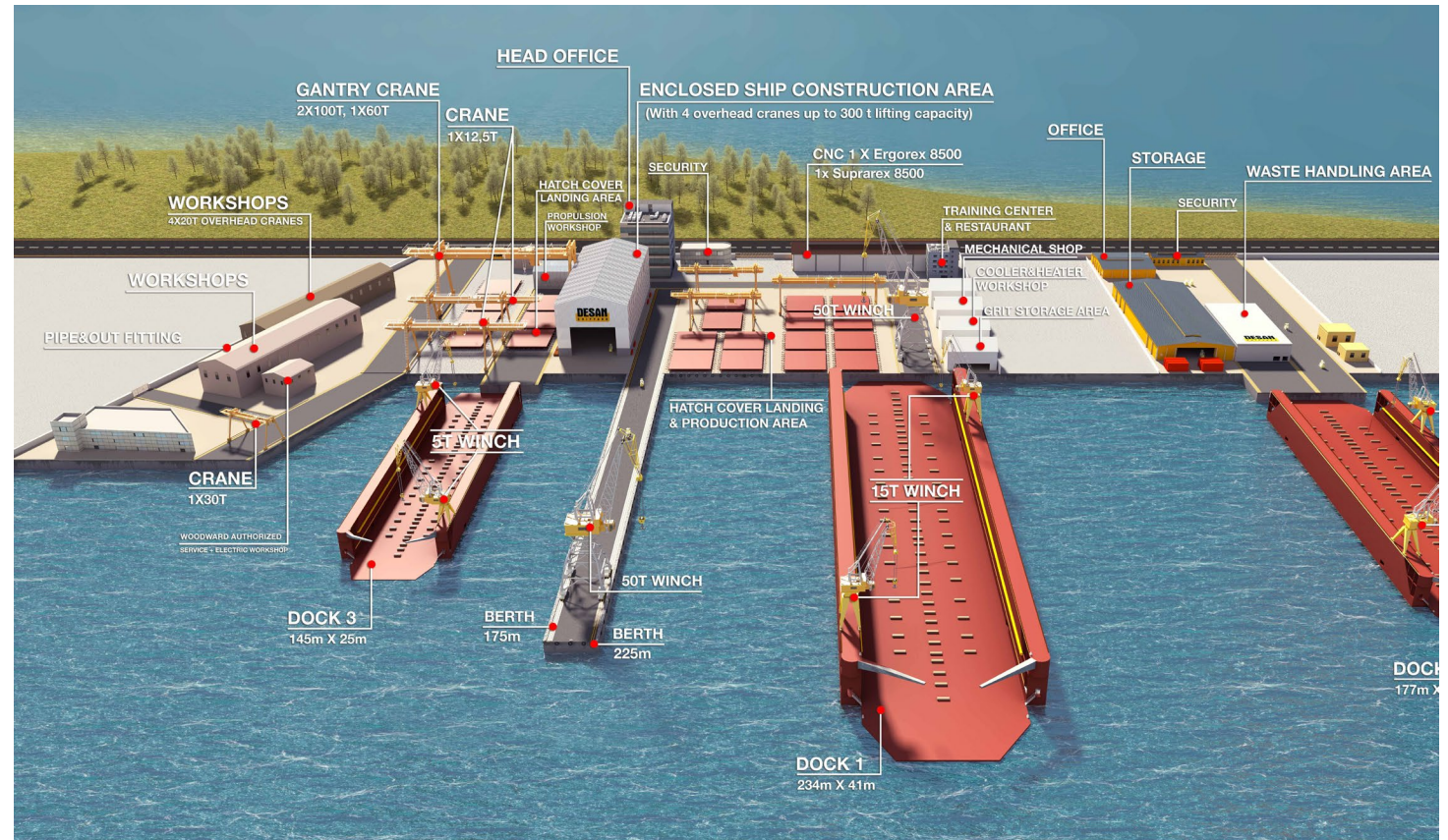
Phase 2: Supply chain and workforce development

- **Commercial prototyping:** building out supply chain, workforce, financing and specific rules framework.
- **Focus on:** Liability convention, home yard facility, fuel cycle, academy and project finance.



The MCFR factory and home-yard

- MCFR production yard.
- Sea, rail and road links.
- Transport terminal.
- Large dry dock and graving dock.
- Commissioning facility.
- Fuel handling facility.
- Service and maintenance area.
- Decommissioning yard.
- ...powered by our own FNPP?



Nuclear grade, central factory plant for the MCFR co-located with 'fit-out' yard for FNPPs and Nuclear-Powered ships, initially constructed in Japan and Korea.

Rapid learning curve, accelerating innovation cycle and economy of numbers from mass assembly.

Academy, workforce development

- Academic Resources Program – feeder to our workforce.
- **CONVOY** Executive Program – training and educating customers.
- Nuclear and marine engineering academy with strong links to leading Universities.
- Certified training and education program – (...*parallel to USN Nuclear Power School.*)
- MCFR and power systems R&D.
- Laboratory and test beds.



Development for our workforce.

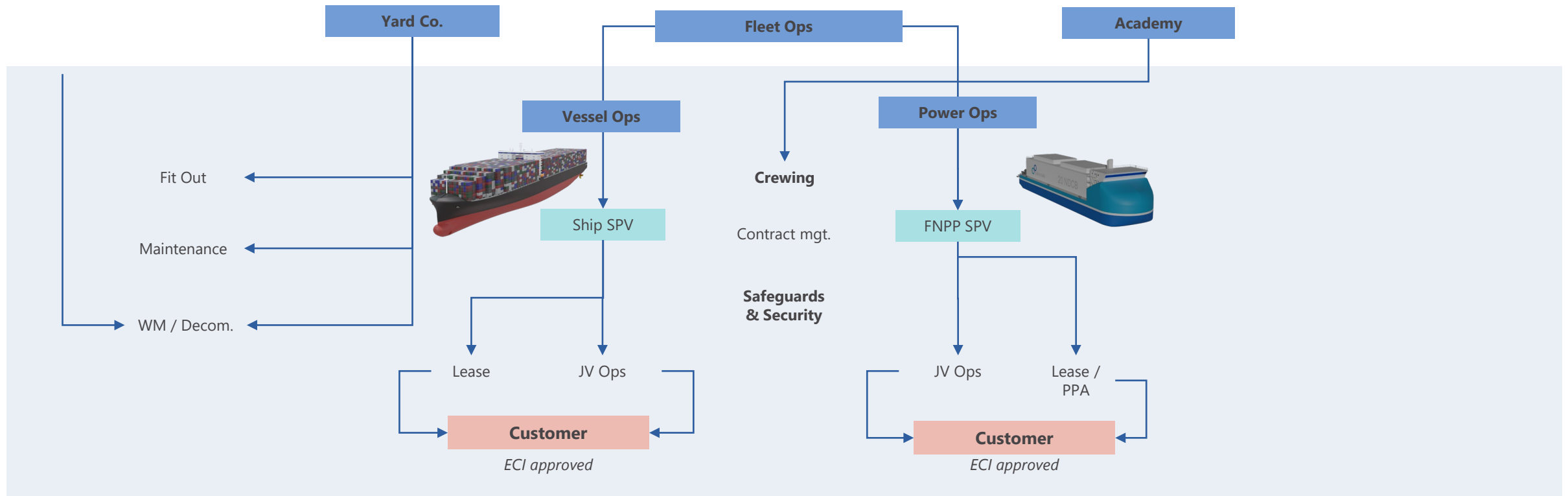
Multi-purpose campus.

Gold standard training program

Culture of excellence.

Phase 3: Business operations model

- **Industrialisation:** Creating the manufacturing base, building the operating company.
- **Focus on:** Contract arrangements with customers, asset financed SPVs, operating units, crewing and security.





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