

MODERNISING REGULATION FOR EMERGING TECHNOLOGIES

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GLOBAL NUCLEAR SECURITY PARTNERS

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EMERGING NUCLEAR TECHNOLOGIES

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Space Applications

entX (AS)
Nano Nuclear Energy (US)
BWXT (US)

Fusion Reactors

HB11 (AS)
Commonwealth Fusion Systems (US)
Helion Energy (US)
Zap Energy (US)
Energy Singularity (CN)
Tokamak Energy (UK)

Medical Isotope Production

AdvanCell (AS)
entX (AS)
Oklo/Atomic Alchemy (US)

Mircoreactors / Nuclear Batteries

Deployable Energy (AS)
entX (AS)
eVinci (Westinghouse) (US)
Project Pele - US Army (US) - BWXT
Nano Nuclear Energy (US)

Small Modular Reactors & Advanced Reactors

Terra Power (US)
Nu Scale (US)
Oklo (US)
X Energy (US)
Kairos Energy (US)
Deep Atomic (SZ)

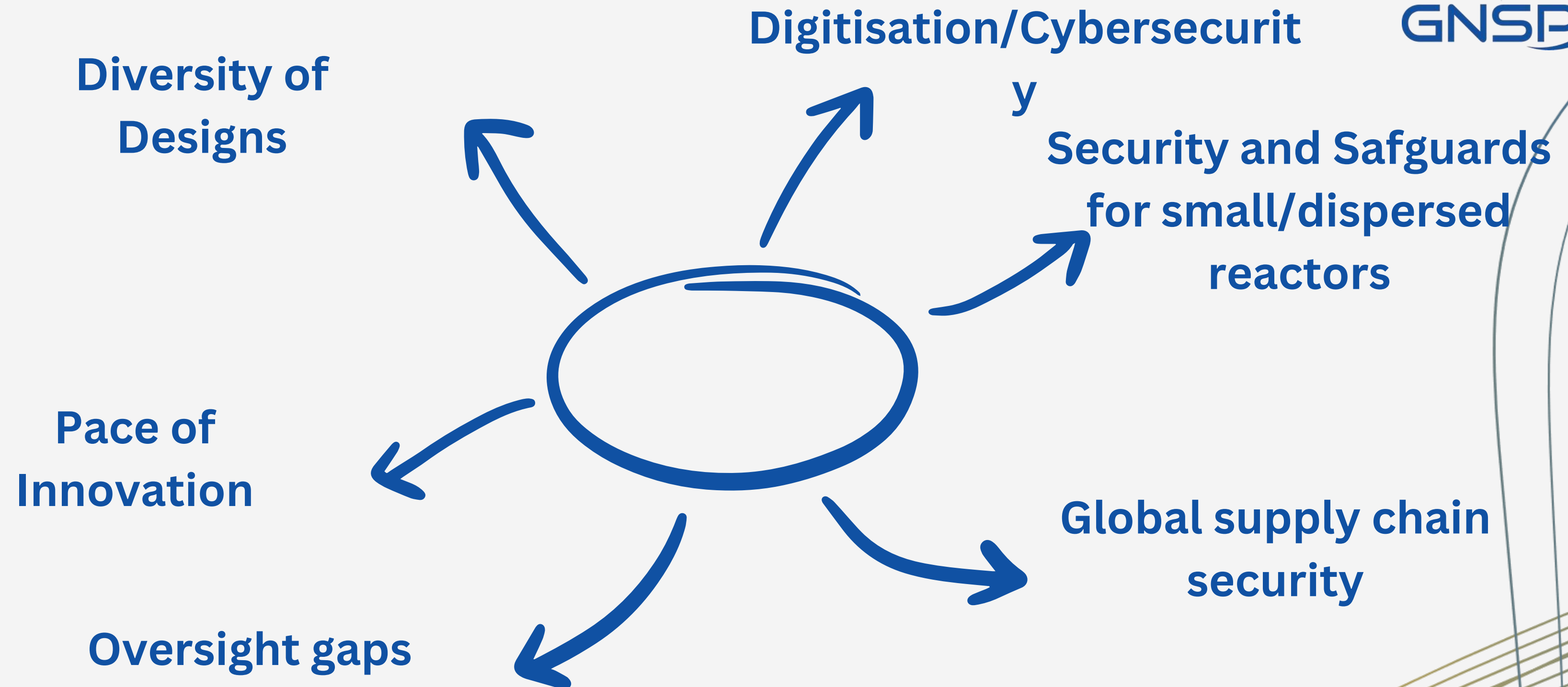
Commercial Maritime Propulsion

Deployable Energy (AS)
Core Power (UK)
Seatom (FIN/US)



REGULATORY CHALLENGES

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PUBLIC TRUST IN TECHNOLOGY

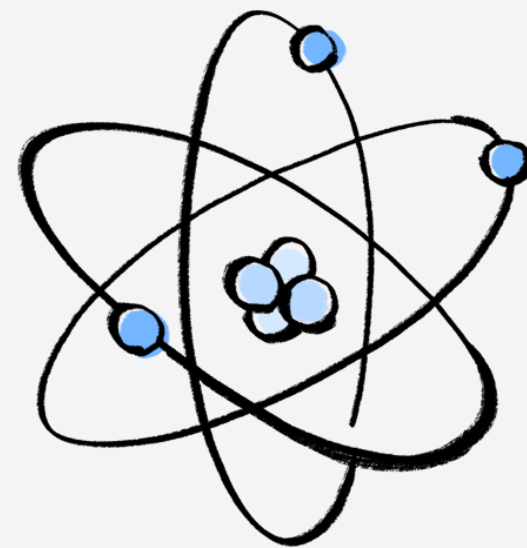
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SMR's are
unproven and
therefore not
safe

Micro reactors
are a security
risk

Advanced nuclear
is safer and
cleaner



I only support
fusion because
there is no waste.

REQUIREMENTS FOR MODERNISATION

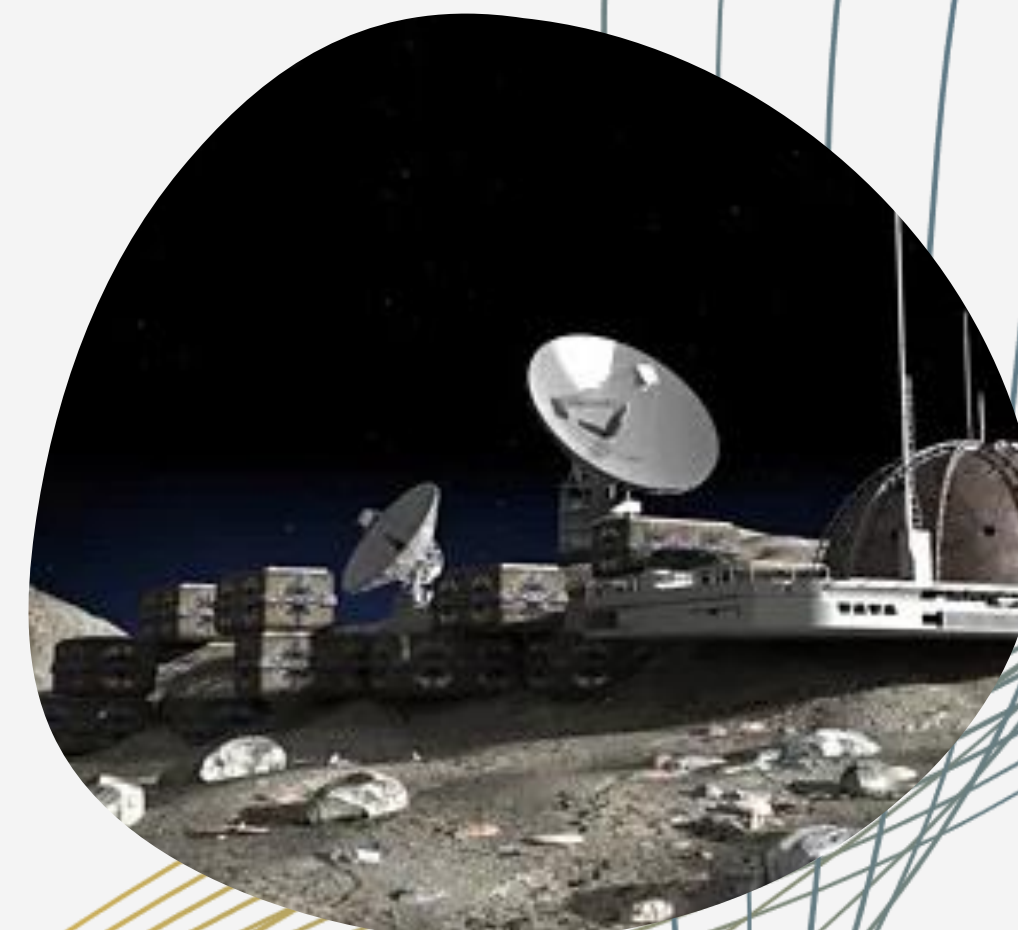
Shift to risk informed regulation - this is already how regulation is approached in Australia.

Flexibility and adaptability

Digital oversight tools

International collaboration and harmonisation

Bridging sectors - i.e. medical regulators, environmental

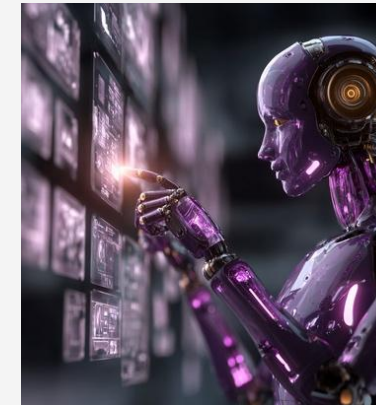


IDEAS FOR TOOLS AND TECHNIQUES TO SUPPORT

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Use of AI



**Remote
Verification &
Monitoring
Systems**



**International
Collaboration**



**Regulatory
Sandboxes**



Pilot Projects



**Digital Twins &
Advanced
Simulations**



We cannot let regulatory inertia
hold back innovation, nor let
innovation outpace our ability to
safeguard it



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WiN Australia's Vision



WiN Australia's vision is to promote diversity and inclusion in nuclear through networking, advocating for women in nuclear, and informing the nuclear discussion through evidence-based information.

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