

Maritime Industry Decarbonization
Symposium 2025 – Glasgow

From Regulation to Readiness in the Gulf

Systemic and Operational Readiness for Maritime
Decarbonization Legal, Educational, and Technical
Adaptations in the Gulf

Dr Captain A. Ragab, Sharjah Maritime Academy

Navigating Global Climate Policy in Gulf Trade

Harmonized EU-Global Standards

Global Climate Policy

Regional EU ETS/FuelEU

Global Policy Implementation Gaps

Regional Policy Adoption Challenges

National Readiness Lag

The Shockwave

Global rules, regional exposure, national readiness lag

These laws aim to set binding targets for emissions reduction, facilitating **collaboration and investment** necessary to achieve sustainable development and a greener future for all stakeholders in the region.



The Gulf Landscape

Navigating the Path Forward Together

LNG

LNG is the current leading fuel, widely utilized for cleaner energy.

E-Methanol

E-Methanol emerges in 2026+, offering a sustainable alternative to traditional fuels.

Biofuels

Biofuels will mainstream in 2025, reducing carbon emissions significantly.

Ammonia

Ammonia is projected as a long-term solution for zero-emission shipping.

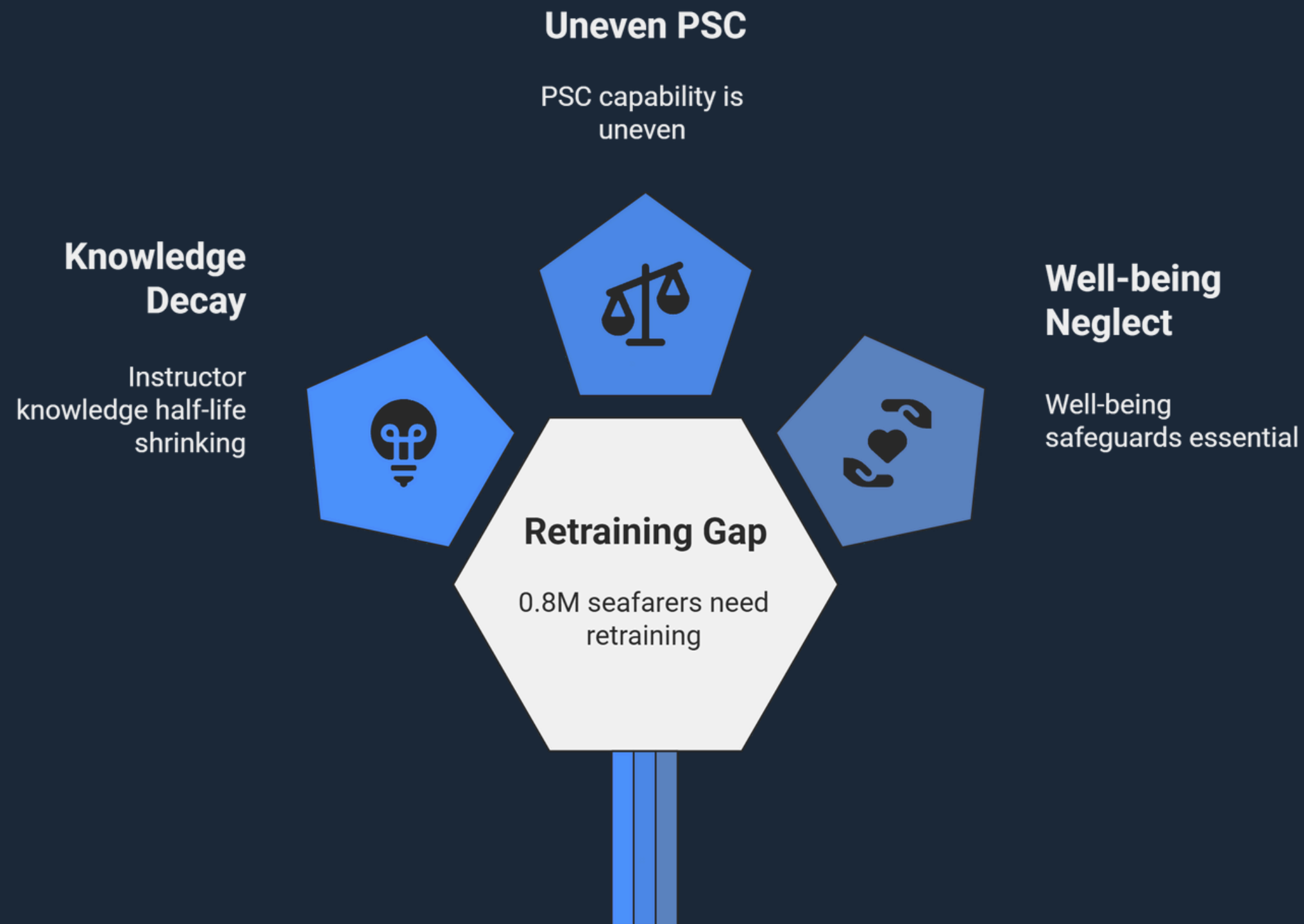
Long-term

The fuel transition illustrates a clear progression towards sustainable energy systems.



The Human Bottleneck

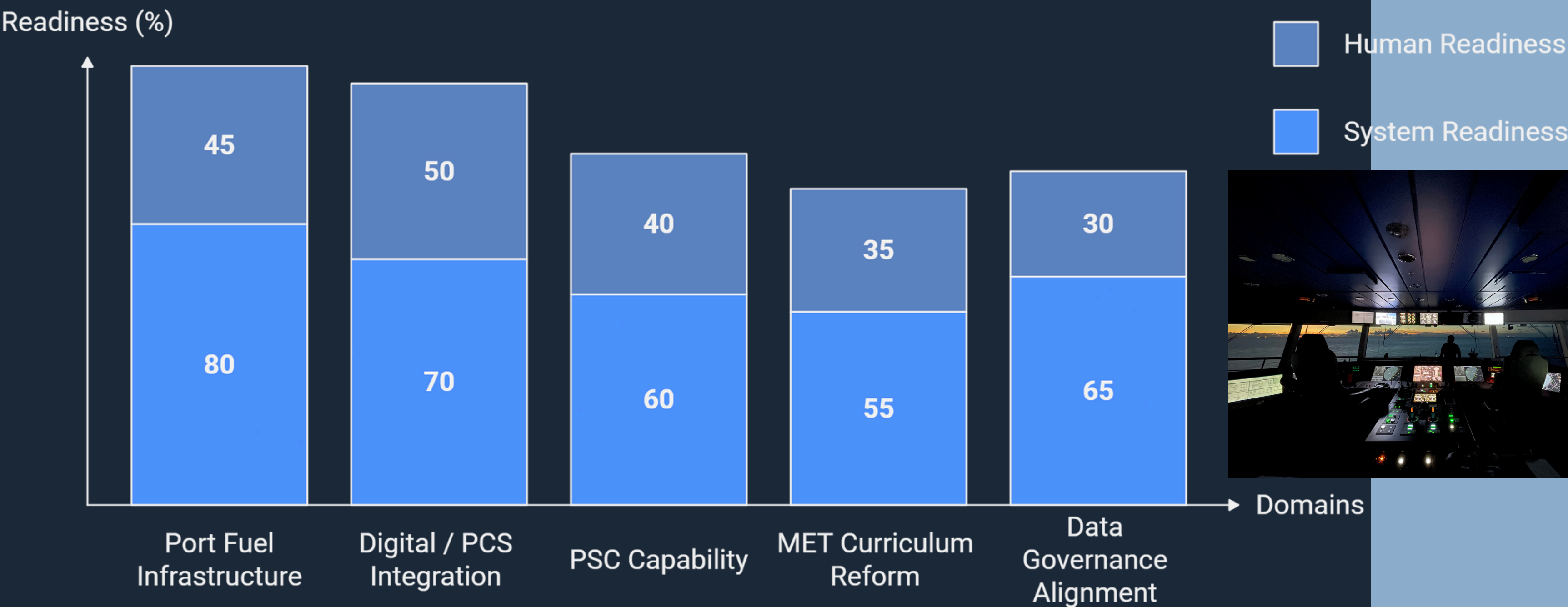
Seafarer Retraining Needs Impacting Maritime Industry



Capacity, not law, defines readiness.



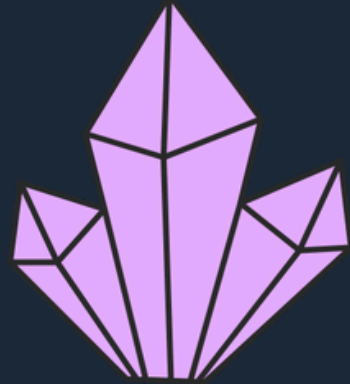
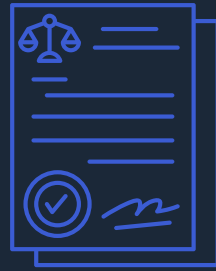
Evidence of Readiness Gaps



System Readiness vs Human Readiness Across Domains

**Data estimated from Gulf pilot reports, port digital initiatives, and SMA training outputs 2024–2025.*

Training Re-think



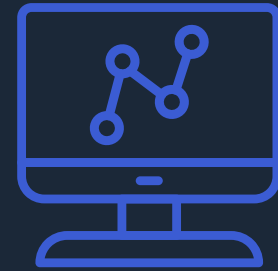
Regulation

Foundational guidelines are established



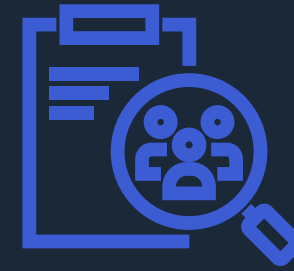
Curriculum Design

Relevant and comprehensive curriculum is created



Simulation

Theoretical knowledge is applied practically



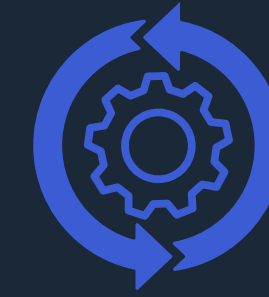
Assessment

Effectiveness of learning is evaluated



Industry Feedback

Real-world applicability is understood



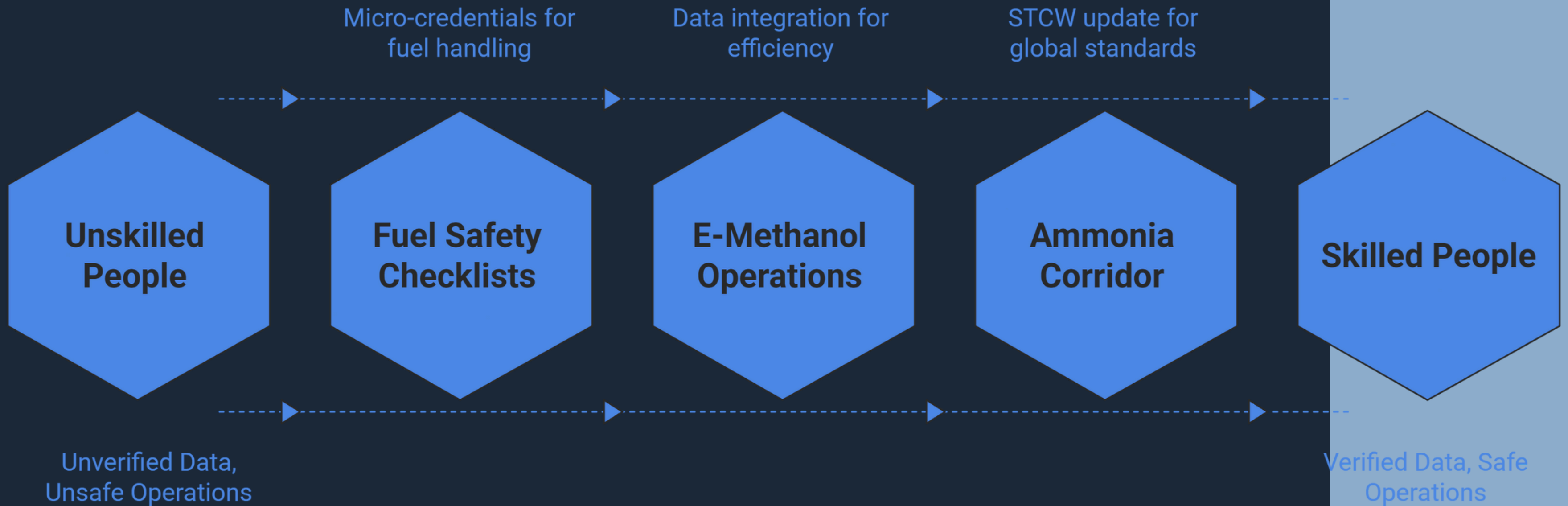
Continuous Update

Educational offerings remain current

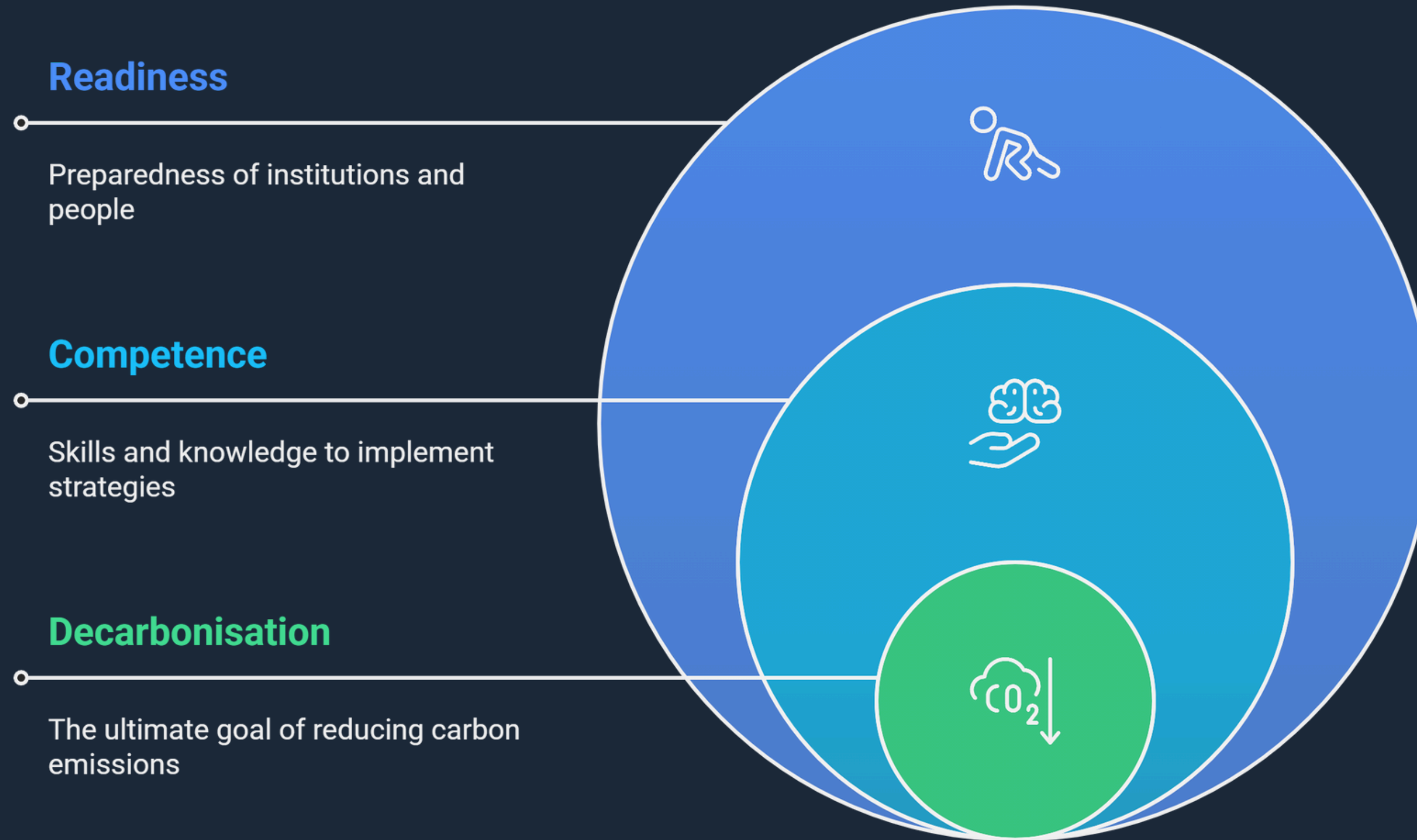


The Road Ahead

Achieving Success by 2028



From Ambition to Implementation



“It is said that economic practices should meet the necessary conditions for the sustainability of resources, climate, environment and business.

The transition towards sustainability must begin with the welfare of the community”

— H.H. Sheikh Dr. Sultan bin Muhammad Al Qasimi, Ruler of Sharjah



SHARJAH MARITIME ACADEMY
أكاديمية الشارقة للنقل البحري



Thank you for your attention