Keynote Message
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MARINA – IAMU Symposium on Maritime Education and Training
Topic: Leveraging Technology for a Future-Ready Maritime Workforce
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Esteemed guests, distinguished speakers, colleagues, and students, good morning. It is both an honor and a privilege to welcome each one of you to this important Symposium on Maritime Education and Training. Our topic for this morning session, "Leveraging Technology for a Future-Ready Maritime Workforce," is timely and very relevant. As we gather here today, I invite everyone to reflect on a question that captures the essence of what we're about to explore – How do we prepare the next generation of maritime professionals, especially the seafarers, for an industry that is evolving faster than ever before?

This is not just a theoretical question. It is a challenge we must address with effective solutions. The maritime sector, as the backbone of global trade and transportation, is going through a profound transformation. Technological advancements are redefining how we operate, whether in navigation, logistics, safety protocols, or sustainability initiatives. However, with this rapid innovation comes an urgent reality: our educational systems must keep pace, or we risk falling behind.

Today's symposium provides an opportunity for us to address that very question. As leaders, educators, and innovators from across the maritime industry, we gather here to discuss how we can evolve our training methods and educational frameworks to meet the demands of a changing world. The American philosopher and futurist Alvin Toffler once said, "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn." This quote perfectly reflects the mindset we must adopt as we rethink maritime education, not just updating what we teach but how we teach it, ensuring that our future workforce is ready for the challenges and opportunities of a technology-driven industry.

We cannot overstate the importance of this transformation in the Philippines. As a nation that supplies nearly a quarter of the world's seafarers, we are at the heart of the global maritime labor market. This is a source of pride for us, but it also brings a significant responsibility.

How do we ensure that Filipino seafarers remain competitive in a world where technology is constantly reshaping the industry? The answer lies in rethinking our approach to maritime education and training. The Filipino maritime workforce has long been valued for its skill, dedication, and professionalism. But as the industry evolves, we must ensure that our education and training institutions evolve with it. This is not just about modernizing our curricula; it's also about preparing our cadets for a future where technology plays a central role in every aspect of work.

While we've made strides in aligning with international standards, there is still much work to be done. We are just at the beginning of this journey. The government, through the Maritime Industry Authority, in collaboration with international partners, is now focusing on raising the quality of maritime education. But we recognize that to truly stay competitive, we must invest more in modernizing our training facilities, developing our educators, and integrating cutting-edge technologies into the learning environment. This is where today's discussions become vital. We are here not to present a finished model but to explore how we can accelerate these efforts and ensure that Filipino maritime professionals remain preferred and the seafarer of choice. This symposium marks a crucial moment in shaping the future of maritime education in our country.

One of the key topics we will explore today is the potential of immersive technologies to optimize effectiveness of maritime education and training. Virtual and augmented reality are no longer just the tools of the future, they are technologies that we must be adept with by now. But how can we use these innovations to replicate the complexities of life at sea?

Later, you will hear from Professor Tamera Gilmartin from the State University of New York, who will delve into this very topic. She will explore how immersive technologies can augment traditional training methods, offering cadets the opportunity to experience realistic scenarios in a safe and controlled environment. Imagine navigating through a storm, responding to onboard emergencies, or conducting complex ship maneuvers, all within the safety of classrooms and training facilities. These technologies not only enhance the learning experience but also reduce the risks for all concerned.

In the Philippines, some institutions are starting to use virtual reality (VR) and augmented reality (AR) tools, offering students a glimpse into what training of the future might look like. However, we are only beginning to explore this potential. The potential here is vast, and today's discussions will help us understand how to move forward in making these tools a standard part of our MET programs.

As we look into the future, we must also ask ourselves an essential question. Can we expect our students to thrive in a digital world if their educators lack the necessary tools to guide them through it? The answer is clear. We must invest in our educators if we are to successfully integrate technology into maritime education.

Professor Inga Bartuseviciene from the World Maritime University, one of our distinguished speakers, will address the critical need for digital skill upgrades among MET faculty. In today's world, being an expert in traditional pedagogy is no longer enough. Educators must now be adept at using digital tools, engaging with online learning platforms, and understanding the technologies that are transforming shipping operations.

In the Philippines, we are in the early stages of this transition. MARINA has recognized the need for ongoing professional development for our MET faculty, and initial efforts are underway to provide educators with training in digital competencies. Workshops and programs are beginning to take shape, designed to help our instructors become fluent in the latest tools and techniques. But again, this is just the start. We have a long way to go before our educators can confidently embrace these new technologies and fully integrate them into their teaching methods.

Our aim is not just to produce technologically-acquainted educators but to empower them to inspire a new generation of seafarers, professionals who are not only skilled in traditional seamanship but who are also competent at navigating a rapidly digitalizing world. The discussions we will have today are crucial to helping us understand how we can accelerate this process and support our educators in becoming exponents of innovation.

Another exciting area we will explore today is the use of simulators in maritime education. How do we train our cadets to handle real-world scenarios when the stakes are too high to let them make mistakes at sea? The answer lies in simulation-based training, which allows students to experience challenging and complex scenarios without the risks associated with actual onboard experience.

Professor Srdan Zuskin from the University of Rejika, Croatia, will take us through the transformative role of simulators in enhancing teaching and assessment. Simulators provide a controlled, risk-free environment where cadets can practice everything from ship maneuvers and navigation to emergency protocols.

As we explore these new tools and technologies, we must also keep in mind the larger challenges facing the maritime industry. Are we ready to address the demands for decarbonization, digitalization, and workforce resilience? These are

not abstract issues; they are real challenges that the next generation of maritime professionals will have to contend with.

The International Maritime Organization has set ambitious targets for environmental stewardship and sustainability, while the shipping industry is undergoing rapid technological and regulatory transformations. For the Philippines, this means that we must update our maritime curricula to include training in areas like environmental compliance, cybersecurity, and advanced technologies. Our cadets need to be proficient not only in traditional seamanship skills but also in the new technologies that will define the future of the industry.

We are just beginning to align our educational standards with these emerging demands. There is still much work to be done, and it will require the collaboration of government, educational institutions, and the industry. But we must act quickly if we are to remain a global leader in producing competent seafarers.

As we embark on today's discussions, I invite everyone to think deeply about the future we are building. How can we, as leaders in maritime education, turn today's insights into real-world strategies? Technology alone is not the solution; it's about how we integrate it into our training, how we support our educators, and how we collaborate across the industry.

The maritime industry, like a ship, cannot be steered by a single individual. It takes a crew, working together, to navigate through a planned course toward a defined destination. Today's symposium is a testament to our shared responsibility in preparing the next generation of seafarers.

In closing, I want to extend my deepest gratitude to our partner IAMU, distinguished speakers who will be sharing their expertise, to our moderator who will be guiding the discussions, and to all of you for your dedication to advancing maritime education. Let this symposium not only inspire us but also drive us to take concrete steps toward a future-ready maritime workforce. The future of our industry depends on the decisions we make today. Let's ensure we chart the right course.

Thank you, and I look forward to the valuable insights and collaborations that will emerge from today's sessions.