# NATIONAL HYDROGRAPHIC OFFICE: CHALLENGES AND FUTURE DIRECTION



#### LT CDR MOHD MASSUOADI BIN MOHD ZUKRI RMN

STAFF OFFICER OF HYDROGRAPHIC OPERATION
NATIONAL HYDROGRAPHIC CENTRE OF MALAYSIA

ALUMNI WORKSHOP OF IHO-ROK CATEGORY "A" PROGRAMME AT THE USM, USA (BUSAN, 12 – 14 SEPTEMBER 2023)

#### SCOPE

- Introduction
- Challenges
- Future Direction
- Recommendation
- Conclusion
- Q&A



#### INTRODUCTION

### The National Hydrographic Office (NHO) played a crucial role in national maritime infrastructures.

- Safe and efficient navigation
- Foster national maritime development
- Safeguard life and property at sea
- Facilitate the protection of the marine environment
- Support the management and sustainable development of the maritime zones
- Support national security and maritime defence



**Security & Defence** 



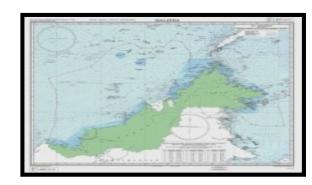
**Safety of Navigation** 



**Exploration and Mining** 



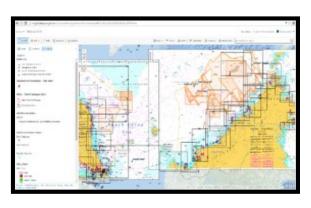
**Environmental Protection** 



**Boundary Delimitation** 



**Disaster Management** 



Marine Geospatial



**Fisheries** 



**Sand Mining** 



**Scientific Research** 



**Tourism** 

#### OBLIGATIONS



- •UN General Assembly Resolutions on Oceans and the Law of the Sea
- UN Convention on the Law of the Sea (UNCLOS)



 International Convention on the Safety of Life at Sea (SOLAS)



Safety of Navigation

### PILLARS OF SUCCESS

#### **PEOPLE**

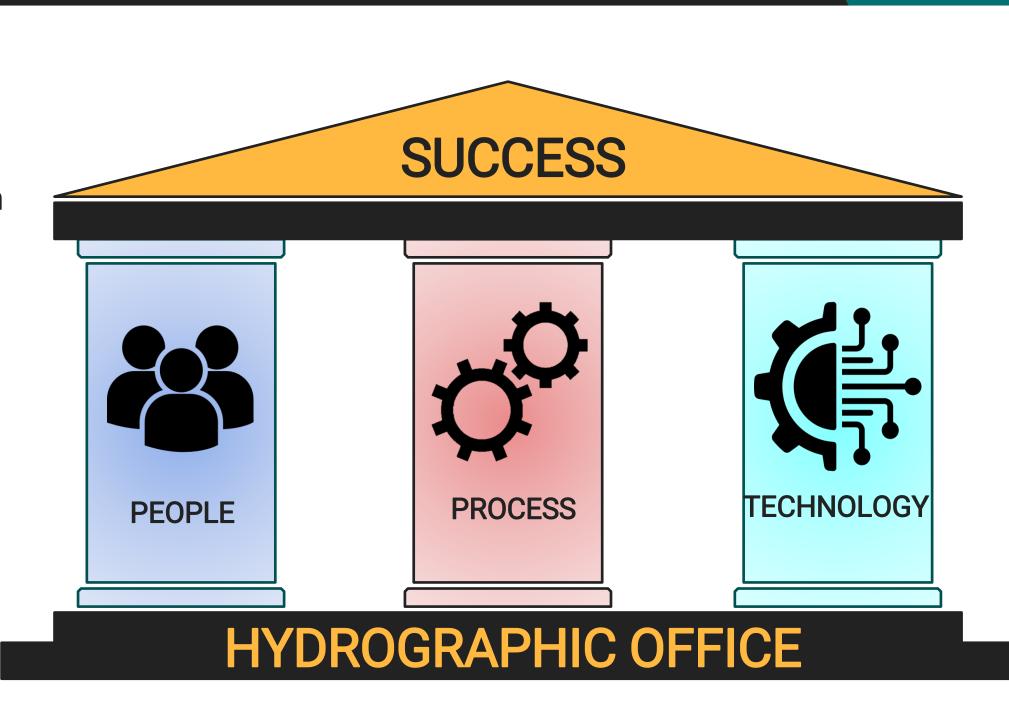
- Our skill and dedicated workforce is crucial to our mission
- Their expertise and training ensure quality services

#### **PROCESS**

- Efficient processes keep us running smoothly
- We adapt to new challenges and tech advancements

#### **TECHNOLOGY**

- Investing in advanced tech boots our capabilities
- It keeps us as leaders in hydrography

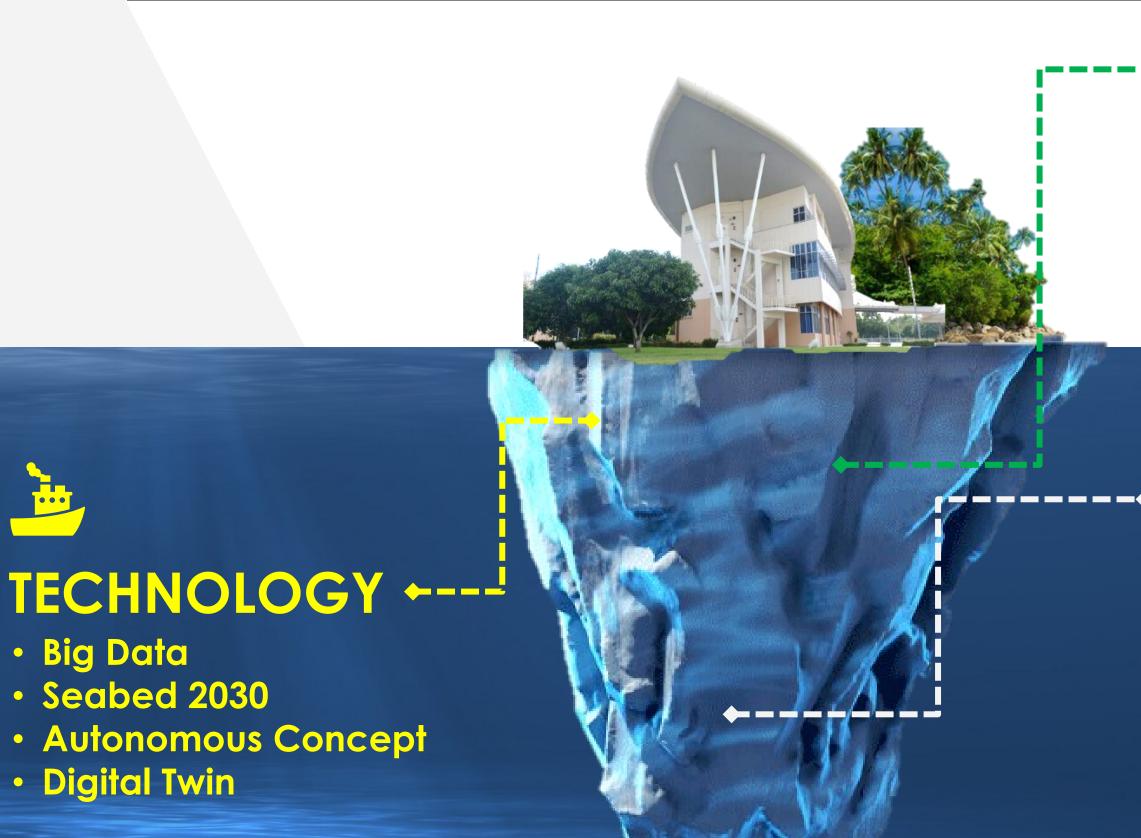


• Big Data

Seabed 2030

Digital Twin

#### CHALLENGES





- Qualification
- Competency
- Manpower

# PROCESS 🖵



- Autonomy
- Product Transformation
- S-100 Implementation
- Product Liability

#### MOVING FORWARD



Is the NHO fully harnessing its human capital to achieve success?



Do the operational processes of the NHO align seamlessly with the overarching objectives of the IHO?



Is the NHO effectively leveraging cuttingedge technology to advance its mission?

#### THE BURNING QUESTIONS



Is there robust nationallevel hydrographic support in place?



Does the NHO clearly understand its challenges and the potential benefits of seeking assistance?



#### RECOMMENDATION



#### The formation of a special committee/task force:

 tasked with overseeing a hydrographic assessment or evaluation initiative, with a clear focus on fostering collaboration and driving continuous improvement within the endeavor.

# The committee is proposed to be named one of the following options:

- Performance Assessment Program
- Hydrographic Excellence Initiative
- Quality Improvement Program
- Capacity Enhancement Program

#### BENEFITS

Promoting a Collaborative Approach Cultivating a Culture of Responsibility 3 **Guiding Towards Excellence** Advocating National Investment

5 Commitment to Enhancing Quality and Accuracy

#### JUSTIFICATION

1) Work closely with the concerned NHO to identify areas for improvement and provide the necessary support and guidance. (IHO M-2)"

2) Provide hydrographic expertise, collaboration and consistency with the **IMO Member State Audit** Scheme (IMSAS)

3) Provide groundwork at the operational level for "The need for National Hydrographic Services

#### SWOT ANALYSIS



- Expertise
- Alignment with IHO Standards
- Improved safety
- Collaboration

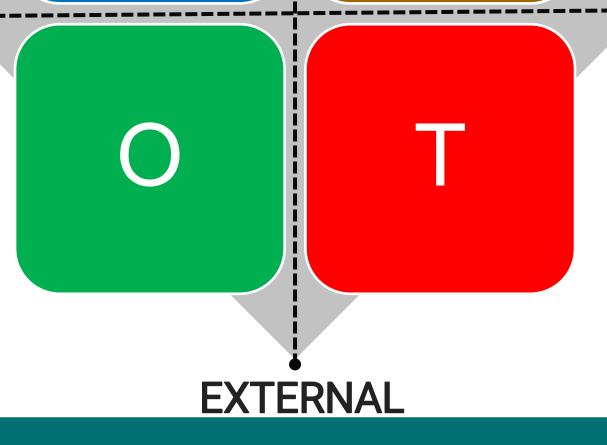
### WEAKNESSES Resource intensive

- Overlap with IMO (IMSAS)
- Complexity

# 



- Improved compliance
- International collaboration
- Capacity building



**INTERNAL** 

# **HREATS**

- Sovereignty concerns
- Resistance to change
- **Budget constraints**
- Political factors

#### PROPOSAL

#### STEERING COMMITTEE

Selective/
nominated
personnel will
spearhead this
initiative and
present it to
both the IHO &
IMO.

## PROGRAM DEVELOPMENT

Meticulous
preparation of
essential
program
documentation
will be a
cornerstone,
encompassing:

**Establishment of a structured committee**, defining roles and responsibilities



including well-defined timelines and crucial milestones

**Design of a robust assessment process,** featuring key performance indicators (KPIs) and metrics tailored for rigorous evaluation

Production of insightful reporting and recommendations rooted in assessment findings, thereby emphasizing transparency and accountability

Emphasis on fostering a culture of continuous improvement, with a focus on identifying and meticulously tracking progress over time

#### CONCLUSION AND KEY TAKEAWAYS



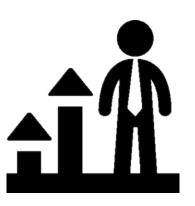
The Evaluation
Program
represents a
United Effort



Emphasizing the paramount significance of tackling challenges



Our Collective Commitment to Mitigate Challenges



Collaboratively
Aligning with IHO
Initiatives



Exploring
Opportunities for
Advancing
Hydrographic
Efforts

