



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري
Arab Academy for Science, Technology & Maritime Transport



The International Maritime Transport and Logistics Conference "Marlog 9"
Impacts of the Fourth Industrial Revolution on Port-City Integration
"World Port Sustainability Program Aspects"

Global Maritime Professional (GMP); addressing the Industrial Revolution Needs



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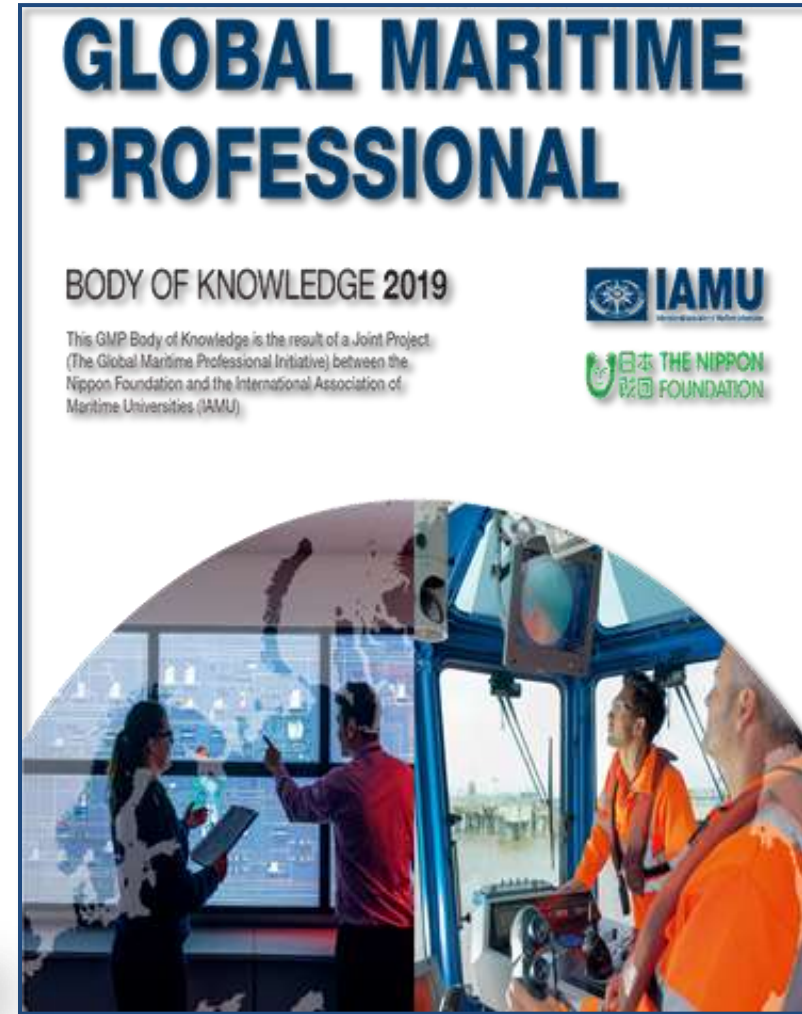


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IAMU Overview

“Geographic distribution of IAMU members”



Region I
40
members

Region III
10
members

Region II
17
members

Region	Region No.	No. of members
Europe and Africa	1	40
Asia, Pacific and Oceania	2	17
Americas	3	10
Special members (WMU & The Nippon Foundation)		2

69 members from
35 Countries
as of July 2020

IAMU organizational structure



Honorary Chair of IAMU



Annual General Assembly

IAMU Secretariat



International Executive Board (IEB)

Standing Committees

Academic Affairs Committee

Policy & Planning Committee

Liaison Committee

Finance Committee



IAMU-IEB members



Special Members



**Takeshi
NAKAZAWA,**
Executive Director,
IAMU



**Mitsuyuki
UNNO,** *Executive
Director,*
**The Nippon
Foundation**



**Cleopatra
DOUMBIA-
HENRY,**
President WMU,
Sweden



**Ismail Abdel
Ghafar Ismail
Farag,**
President AASTMT,
Egypt



**Irakli
Sharabidze,**
*President, Batumi
State Maritime
Academy, Georgia*

Ex-Officio

Regional Representatives



**Eduardo Ma R
Santos,**
President, MAAP
Philippine



**Janusz
Zarebski,** *Rector,*
*Gdynia Maritime
University, Poland*



**Efren Simon
Moreno
Martinez,**
*Director, Nautical
Institute in Veracruz,*
Mexico

At Large Representatives



**Glenn
Blackwood,** *Vice-
President, Memorial*
Canada



Michael Riley,
*Pro-vice
chancellor,
Liverpool/John
Moore's University,*
UK



**Jesper
Bernhard,**
*President,
Svendborg
Maritime Academy,*
Denmark

MET Curriculum Drivers & Trends

Many drivers influencing development & nature of MET curricula

Technology
& Industry
needs

Global
natural risks
(energy, climate
change, COVID-
19, etc.,...)

Geopolitical
risks (trade
wars, currency
wars, regional
conflicts, ...)

Legislative,
National and
administrative
requirements

Financial
challenges

Safety &
Security
challenges
"cyber-
security,...

Demand &
supply of
labour
Disruption

IAMU is considered the *best global representation of higher education* in the maritime context.



Challenges facing Shipping Industry

- Global community is changing, *“Yesterday, Today and Tomorrow”*
- Many industry-influencing factors formulating *future* of the maritime industry and formulating the character of the *next generation seafarer* and optimum MET curriculums!
- New trends: *Artificial Intelligence, Autonomous Ships, Robotics, Blockchain Technology, Big Data Analytics, Voice-controlled Devices, IoT, VR, AR, Drones, Green Shipping, etc.,?*



GMP – BoK Background

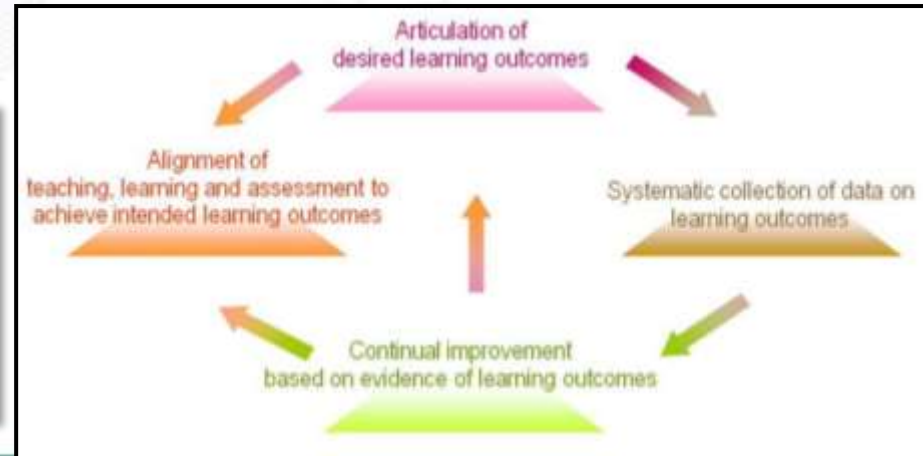
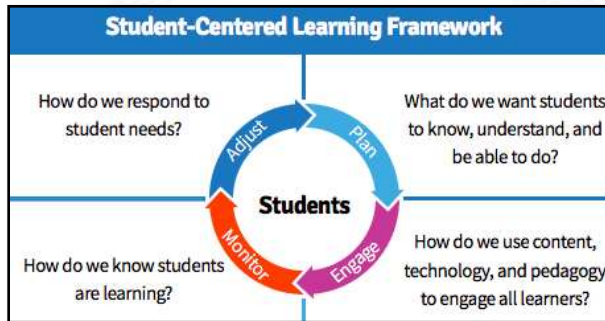


- METHAR & METNET results
- Dr. Sasakawa *comments* in 2005 (IMO special lecture),
The need for Global common educational goals and objectives.



STCW VS GMP-BoK

- STCW focuses on the tutor who is teaching “old learning **objectives** (*Passive learners approach*)”,
- STCW is the minimum standards to which all parties are agree and mainly **focused on the training part of the MET process**,
- **Objectives** are never formally assessed, but **outcomes** always are and by different methods.
- **4 essential Elements of OBE:**



GMP milestones

**WG report on
curricula for
officers licenses,
AGA17, Haiphong**

2016

2017

**GMP as a concept,
AGA18, Varna**

**Task force plus
committee formation**

2018

**IMO launching and
IAMU inauguration**

2019



GMP initiative

- **GMP's Two Fundamental Principles:**

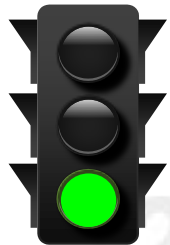
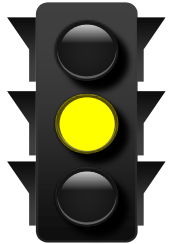
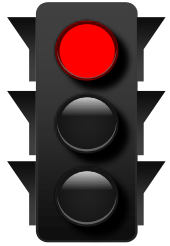
Outcome-based education

Identification of learning outcomes deemed common for the optimization of human resource competency for the maritime industry across all national boundaries



Internationalization versus globalization

Leaving the determination of specific curricula, syllabi, learning activities to *individual Higher Education systems* in sovereign States



GMP Developing Process

- **GMP-BoK** established to be **a guide** for IAMU member universities in curriculum development.

Develop GMP Body of Knowledge

Define learning outcomes related to focus areas

Designate subject (focus areas) covering such competencies

List competencies (KSA) required to be a GMP

An outcomes-based approach

Describe the "Global Maritime Professional" (GMP)

GMP –BoK
Developing
Process



Description of the GMP



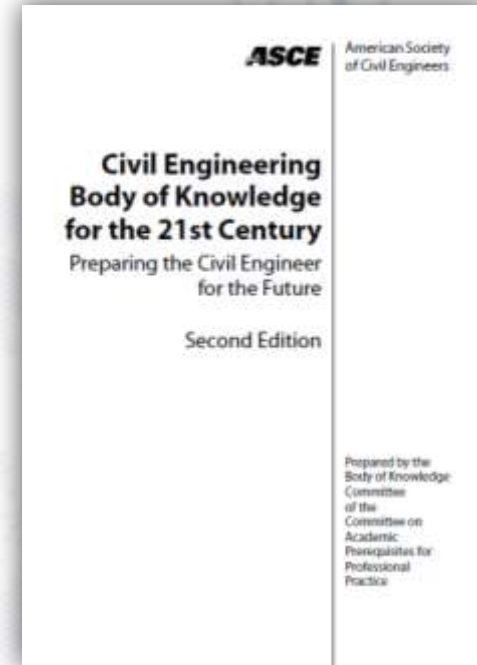
GMP

- ✓ Equipped with all international required **technical competencies**,
- ✓ **High level academic skills** (e.g. logical and critical thinking),
- ✓ High level of **professionalism** and **ethical behavior, human relations skills, emotional intelligence and multicultural awareness**,
- ✓ Significant **leadership** skill,
- ✓ Work with **team**,
- ✓ Take **personal initiative**,
- ✓ High sense of **environmental consciousness** and the need for **sustainable practices**,
- ✓ Excellent grasp of **contemporary issues** affecting the maritime industry.

GMP Developing Process

Initial survey

- A vision for the GMP in Short, medium and long terms,
- Future ship requires different skills,
- Illustrate the current gap between International Maritime Industry and curriculums of the most of the MET Institutions,
- The needs for innovative teaching approach, training and assessment methods to pace the new rapid change in the technology.

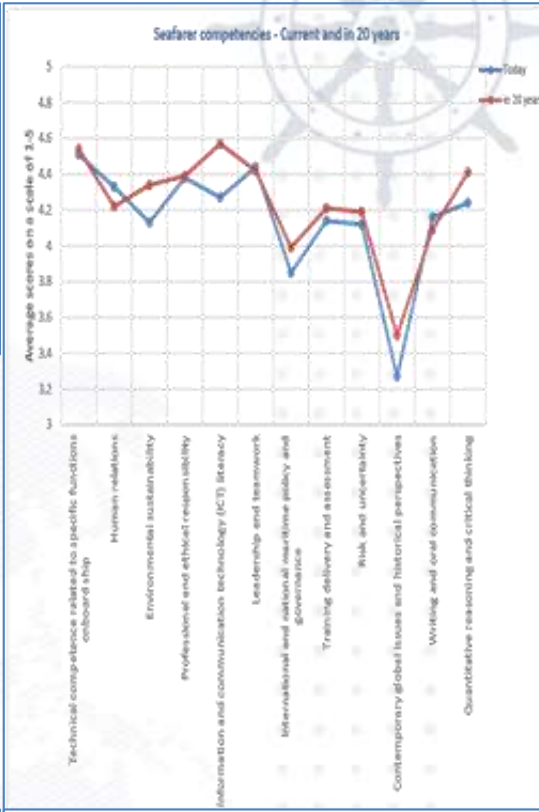
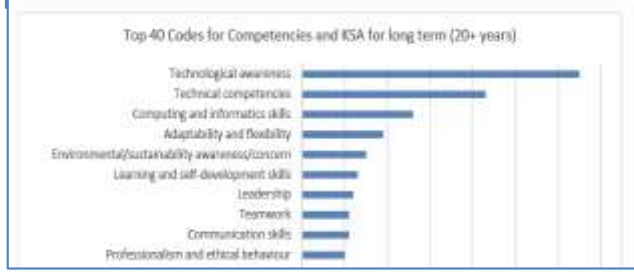
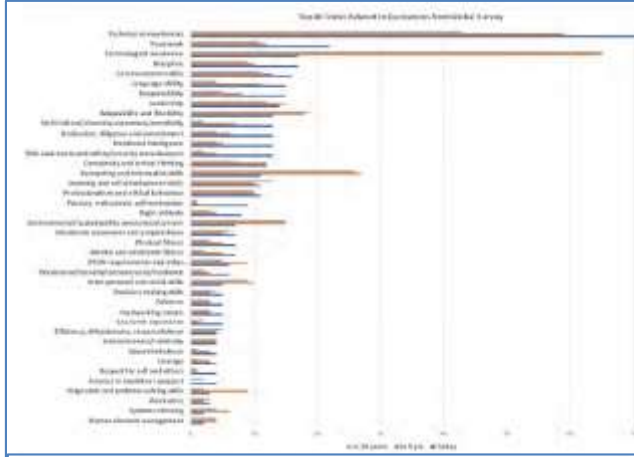


GMP initiative

Initial Survey “In Appendix III”

- Extracts from global survey report that among other things, informed the GMP BoK,
- Focused on contemporary skills and future skills “**top 40** competencies”

For more information please refer to **Annex -1**



Code		Ranking ⁴¹		
		Today	Medium term	Long term
1	Ability to deliver practical instruction/train/mentor	11 ⁶	18	15
2	Adaptability and flexibility	7	4	4
3	Adaptability	19	11	11
4	Alertness	19	11	11

Survey outcomes (GMP-BoK Focus Areas)

28 Focus Areas (FA) categorized into **FOUR sets of skills** as follows:

I. Foundational knowledge and skills: SIX FA

Fundamental arts and scientific nature that are deemed relevant to a long-term maritime career.

II. Academic skills: FOUR FA

Research and discovery skills, critical quantitative and qualitative thinking and academic integrity.

III. Professional – Technical skills: SEVEN FA

Specific technical competencies required to carry out professional competences/tasks, e.g. the technical standards required by **STCW 1978, as amended**, for specific competences/tasks.

IV. Professional – Soft skills: ELEVEN FA

Skills that are required to complement technical skills. They are mainly knowledge, skills and attitudes required for **human-human** and **human-organizational** interactions.



GMP-BoK Tiers

- The BOK categorizes the GMP learning outcome requirements at **four levels or tiers: A, B, C, and D:**
 - **Tier A:** COC Operational level + BSc.
 - **Tier B:** COC Management level + BSc.
 - **Tier C:** COC Management level + MSc.
 - **Tier D:** COC Management level + PhD.
- **Each tier acts as a prerequisite to that which follows.**



GMP-BoK consists of “four chapters & three appendices”

- Chapter I** Background: Key facts and trends
- Chapter II** Approach and methodology for the BOK
- Chapter III** The Body of Knowledge “KSA levels & tiers”
- Chapter IV** The future
- Appendix I** Specific tier tables
- Appendix II** Using the specific tier tables in Appendix I
- Appendix III** Extracts of report of task force to the IEB with survey approach and results.



Extraction of ILOs



ILOs: Describe what students should **know** or be able to **do** at the end of the course.

Tier selection

Related Focus Areas (FAs)

LOA for each domain



ILOs for each FA for each domain

curricula

Syllabi
Learning activities
Assessment approaches

K nowledge	<i>What students should know & understand by the time the course is completed.</i>
S kills	<i>What students should be able to do by the time the course is completed</i>
A ttitude	<i>What the students' opinion will be about the subject matter of course by the time it is completed</i>

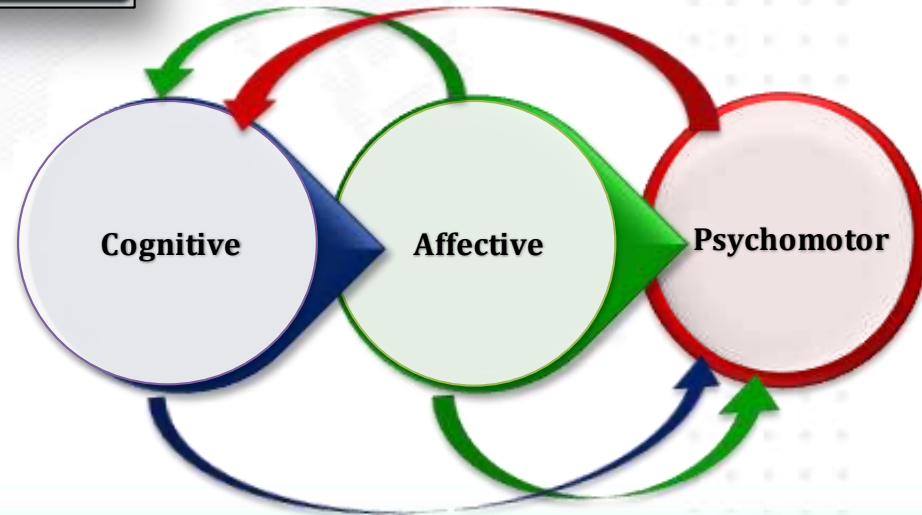


Learning Domains, ILOs, Level Of Achievements

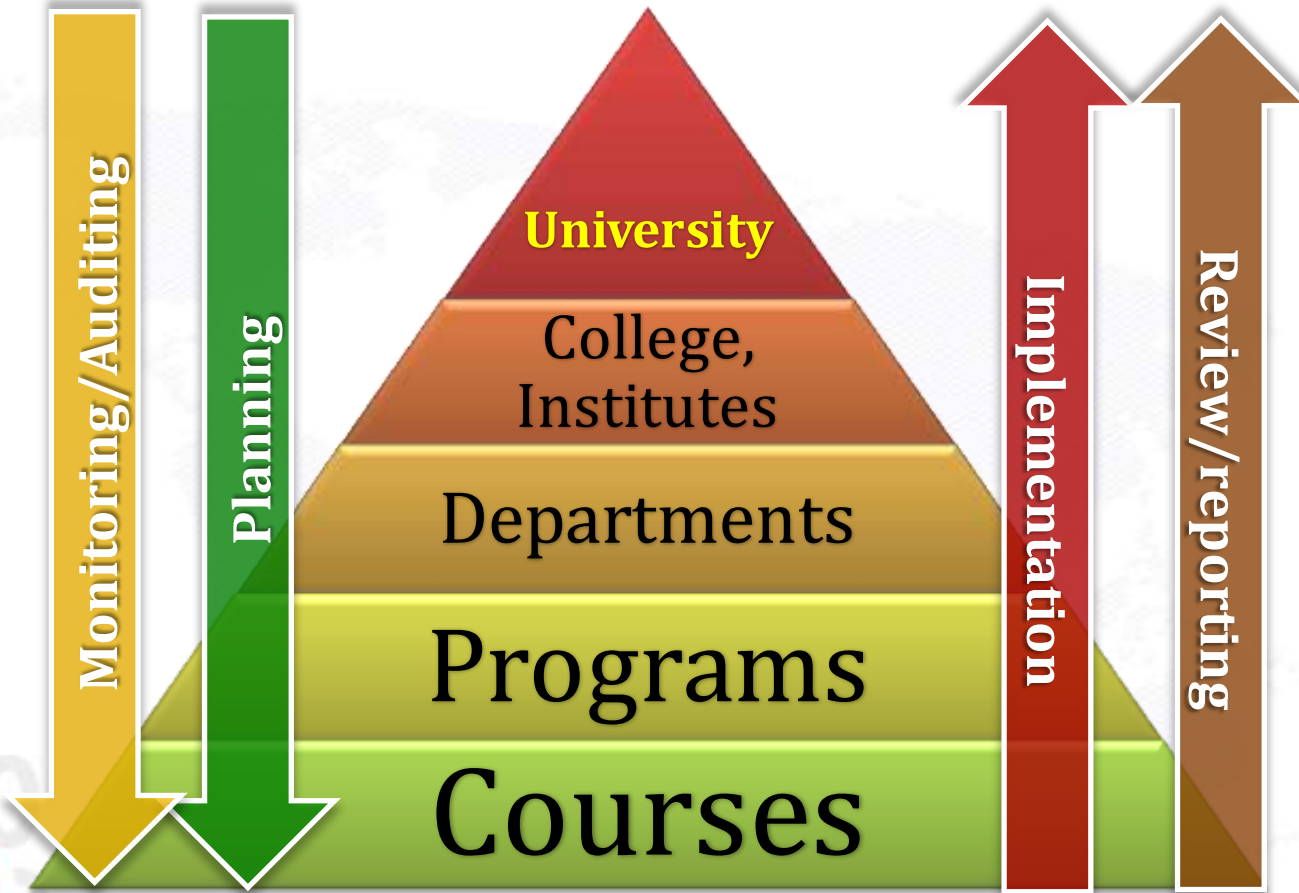
Bloom's Cognitive & Affective Taxonomy



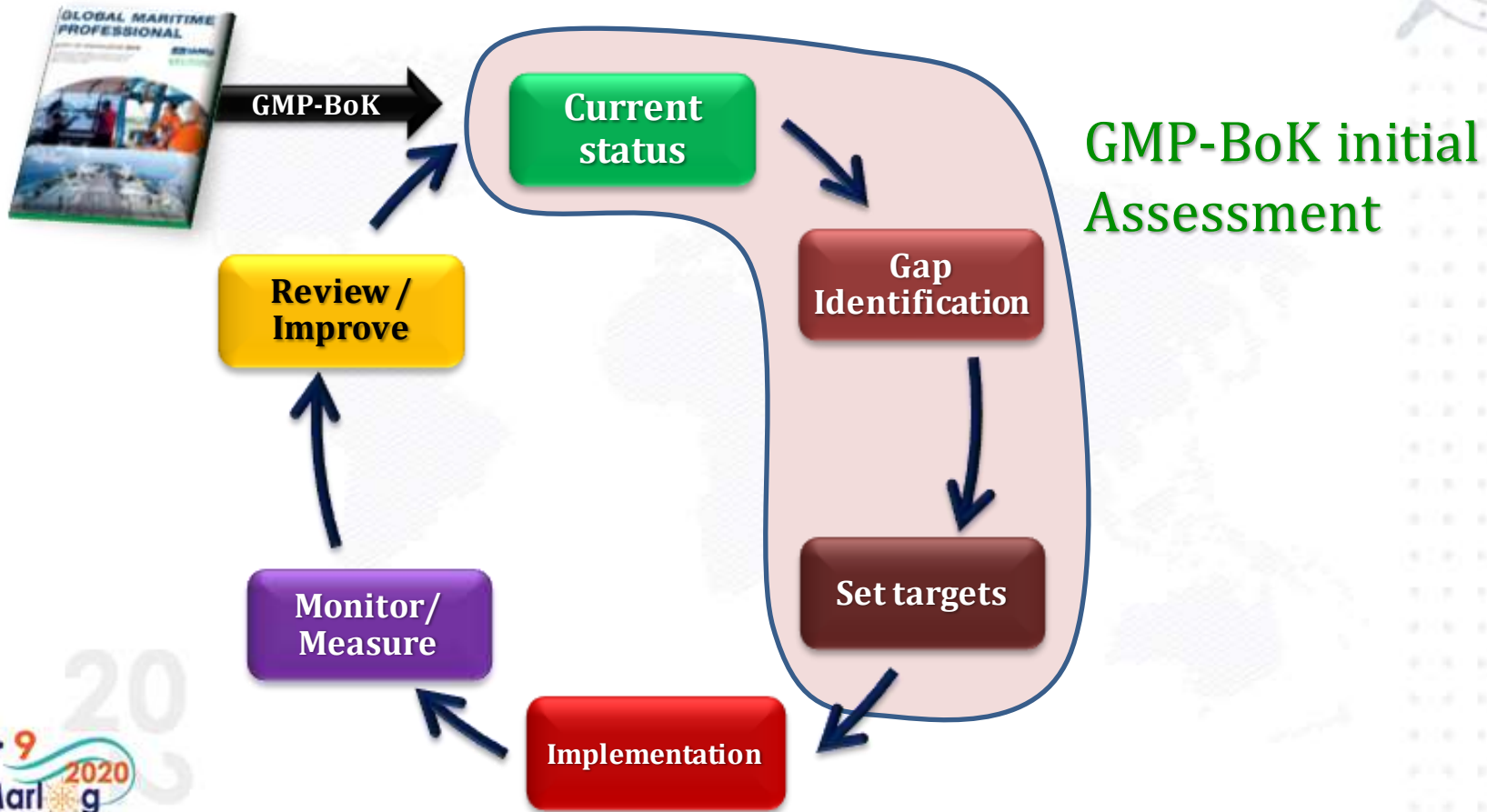
Simpson's Psychomotor Taxonomy



Implementation levels

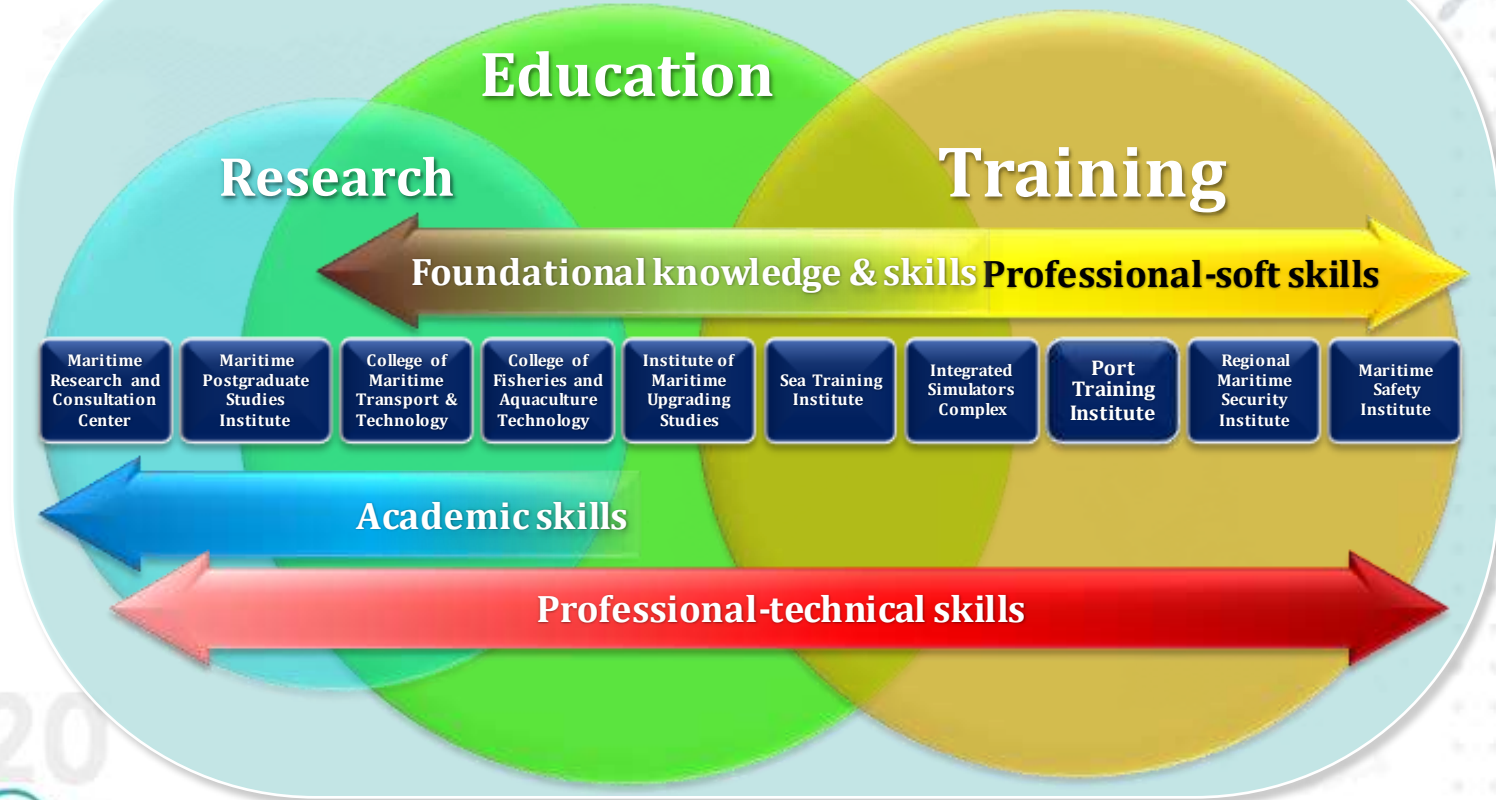


Effective implementation Cycle of the BoK?



AASTMT Implementation vision

MARITIME SECTOR



GMP- Future Scenarios

Our future strategy re GMP is clear, compelling, and responsive to the challenges that maritime industry faces



- Will be developed utilizing modern concepts (e.g. the triple-helix approach)
- A key element to provide leadership in the Arab world could be the **shift from traditional to a smart academy** that provides **MOOCs** as well as promotes Innovation and industry based research

MOOCs

- 1 • **Massive** in relation to the number students that can participate at any one time
- 2 • **Open** in that they are freely accessible for students
- 3 • **Online** in that all learning activities, content and interaction occurs fully online
- 4 • **Courses** in that relevant based on triple-helix approach.



- An electronic interactive GMP – BoK version will be provided
- AASTMT's advanced facilities would maintain, strengthen and sustain a competitive advantage



OPPORTUNITIES linked to the future of GMP



In alignment with the performance of Maritime Universities:

- **Pillar 1 – Research**

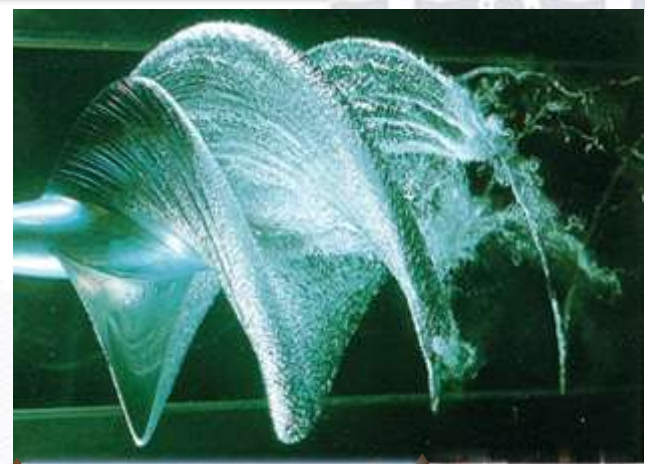
- The continued growth of this BoK will be linked to IAMU funded research

- **Pillar 2 – Teaching**

- Next phase will focus on GMP-Instructor
- The future versions will include wider scope within the maritime education

- **Pillar 3 – Global Engagement**

- AGA 21 and the opportunity of forming new partnerships



THREE career options for Academics

Life's A Journey
Choose
Yours



BALANCED

1. Current Option

(40% Teaching + 40% Research + 20% Admin)



RESEARCH FOCUSSED

2. To Promote Research activities and Innovation

(60% Research, Grants and Consultancy + 20% Teaching + 20% Admin)



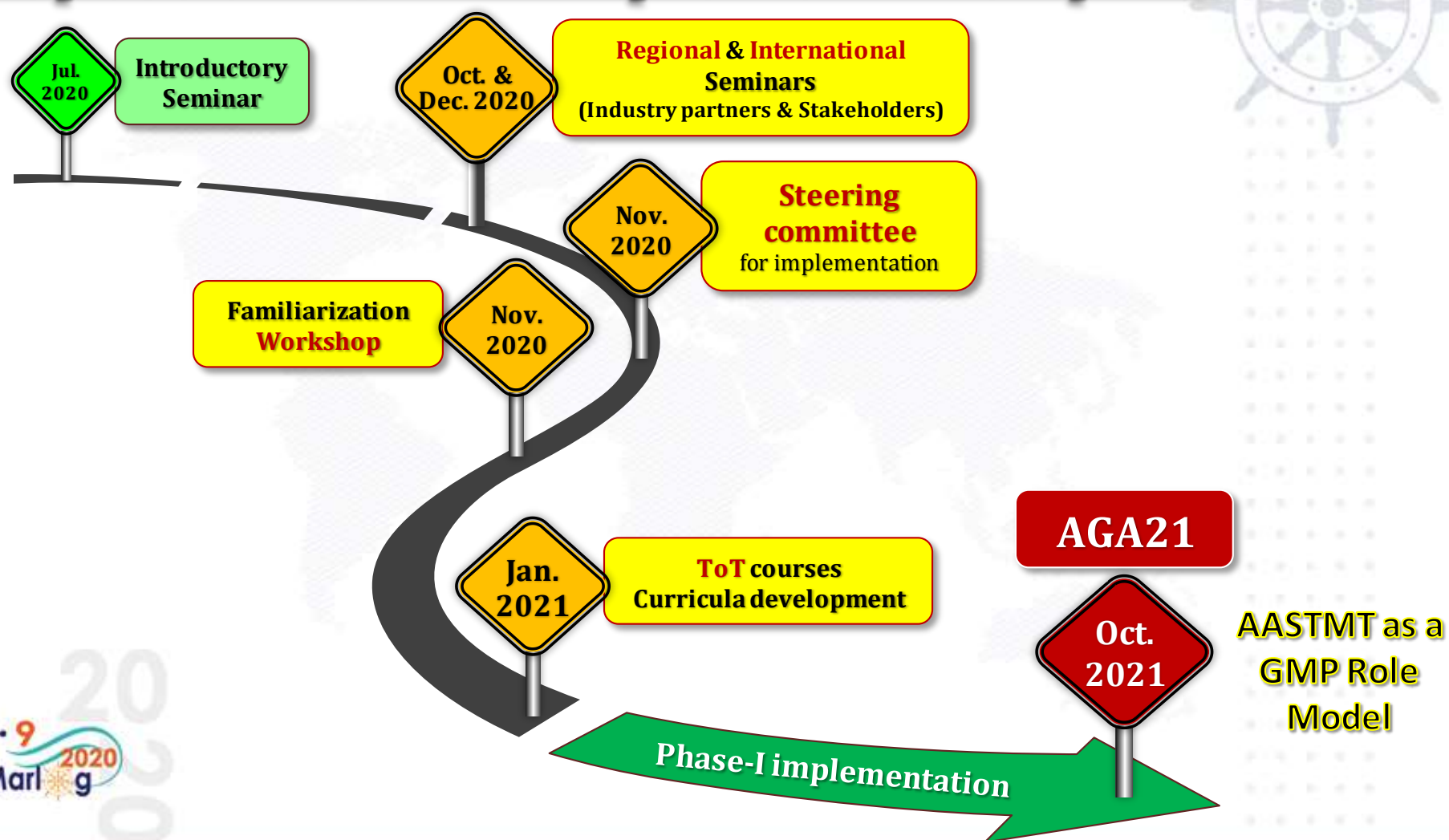
EDUCATION FOCUSSED

3. To enhance students' learning experience

(60 % Teaching + 20% Research and curriculum development + 20% Admin).



Proposed AASTMT Implementation plan



Conclusion

- ✓ The AASTMT has an **important role** in IAMU (GMP-BoK & other projects)
- ✓ **STCW is not fit** anymore! e.g. student-based education
- ✓ IAMU as a leading association has taken the first step to develop maritime education and training by introducing **GMP-BoK**
- ✓ GMP is in parallel with **METHAR & METNET** recommendations
- ✓ The AASTMT strives to present a **role-model** in implementing the GMP-BoK
- ✓ For effective GMP-BoK implementation, a **full cooperation/integration** between all sector's institutions is certainly required
- ✓ GMP implementation **incentives** (scholarships)
- ✓ GMP is **just a start!**





International Association of Maritime Universities



Thank you

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