The improvement of Higher MET at Vietnam Maritime University by enhancement of the linkage with industries and international relations

Dang Van Uy & Pham Xuan Duong
Vietnam Maritime University, Vietnam

ABSTRACT: Vietnam Maritime University (VIMARU) is a stated-owned institution in Vietnam. Undergoing more than half of a century of development, VIMARU has been facing to many difficulties and challenges such as limitation of budget from government, limited and obsolete facilities, lack of teaching staff, high density of students with very low tuition fee, and especially, limited chances for students to be trained on board training ships, shipyards and other manufacturing sites.

For overcoming these difficulties and challenges, since 1990s, VIMARU had decesively renovated the organization system, especially and strongly focused on the enhancement of the linkage with industries and also, the enhancement of the international relations.

In this paper, the experiences and results from the mentioned renovation process of the Vietnam Maritime University are presented.

1 INTRODUCTION

Established since April 1st, 1956 in Haiphong City, one of the biggest ports in the North of Vietnam, the Vietnam Maritime University (VIMARU) has developed rapidly in the half century and is now capable of efficiently meeting standards for maritime education and training (MET) of the International Maritime Organization (IMO). (Vietnam became a member of IMO in 1984). Since 1997, the university has made radical changes to the training syllabus aimed at meeting stringent requirements of the International Convention on Standards on Training, Certification and Watchkeeping for Seafarers (STCW78/95). Therefore, Vietnam's maritime education and training with the Vietnam Maritime University acting as a maritime training cradle was listed on the White List by the IMO in 2001. Today, the university's achievements have been attributed to its ability to set up facilities with the application of modern science and technology.

As for international cooperation, the university has established relationships with a number of maritime universities and institutions worldwide and international organizations, especially with those in Japan and Korea. Through such cooperative ties, the university has signed cooperative deals in training and the scientific research field with different universities in Japan, Korea, China, Belgium, the Netherlands, Australia etc. Since 2001, Vietnam Maritime University has been recognized as the member of the Association of Maritime Education and Training Institutions in Asia and Pacific (AMETIAP). Since November 2004, VIMARU has been recognized as a full member of the International Association of Maritime Universities (IAMU). Especially, VIMARU has also been participating in all activities of the Asia Maritime & Fisheries Universities Forum (AMFUF) since its establishment in 2002. Since October 2001, Japanese Government, through Japan International Cooperation Agency (JICA) has granted the Project-type Technical Cooperation to Vietnam Maritime University, namely, "The improvement of Higher Maritime Education in Vietnam" which lasts for three years until October 2004, worthy about US$ 5.0 million. With the fruitfulness of the project, many important activities at VIMARU have been being enhanced and all of the projected goals have been approached, especially in the improvement of the qualification of VIMARU's graduates, who were benefited with the assistance of the project.

As for professional training, the university has taken breakthrough steps in establishing several training centers aimed at raising student skills before graduation. This is a strategic step in maritime education and training in Vietnam. In the past, university graduates often had to spend between two to three years on probation before they could work as officers and engineers on board ships. The probation time has now been shortened significantly to just 12 months. The present program blends classroom training with practical lessons, so graduates not only have a sound theoretical background but have good practical skills as well. Thanks to this effective improvement of MET

standards, many of captains, chief engineers and other officers and engineers of the university have been already employed by great overseas shipping companies to manage and operate dozen of new-built, super bulk carriers and modern ships, remarking the high reputation of the Vietnamese maritime officers and seafarers to the world.

The Vietnam Maritime University (VIMARU) is a pioneer in crew export and it has entered joint ventures with leading shipping companies of Japan and the Republic of Korea to export crew to these two countries. VIMARU has obtained encouraging achievements in this field.

With approval and encourage from the Government, the university established the Flight Dragon Shipping Company in 1992. In 1994, the university proposed to the Ministry of Transport for setting up the Eastern Dragon Shipping Company and it was permitted by the Government to establish the company. This is a joint venture between the university's Flight Dragon Shipping Company and the Kamchatka Shipping Company, the Federation of Russia. Presently, both the university's companies exploit and manage nine ships that operate worldwide under direct management of VIMARU lecturers and students.

For the purpose of enhancing the qualification of Vietnamese seafarers, VIMARU launched a joint venture, the Center for Training and Improvement of Maritime Professions (VINIC) with the Nippon Steel Shipping Co, Ltd in September 1997. The Nippon Steel Shipping Company Limited is a member unit of the Nippon Steel Corporation (Japan), the second-ranking steel manufacturer in the world. The joint venture has an investment capital of more than US$1.7 million, especially for establishment of some important simulator training rooms such as RADAR/ARPA and GMDSS in both North and South of Vietnam. Until now, VINIC has been gradually and stably increasing the number of qualified officers, engineers and ratings who fully meet with the requirements of Japanese shipowners.

In January 1999, VIMARU established its Crew Manning Center (VICMAC) to better manage crew and officers. VICMAC is growing fast to strengthen the trust ship-owners have given to it. For further effective management of some companies and centers, in August 2004, the university established the International Shipping and Labor Corporation (ISALCO), including VICMAC, Flight Dragon Shipping Company and Shore-labor Export Company.

Vietnam Maritime University was the first university in Vietnam which successfully applied the ISO 9001:2000 to its activities. The university has supervised the education and training quality of faculties of Navigation and Marine Engineering with the application of ISO 9001:2000 since May 2003. After very strict procedures of the assessment, in May 2005, Vietnam Maritime University's Quality Management System has been approved with the Certificate of Compliance with the ISO 9001:2000.

With its strong determination of development strategy, together with the encouraging assistance from the Vietnamese Government, as well as the assistance from friend institutions all over the world and partners from industries, the Vietnam Maritime University will soon keep pace with advanced maritime universities in the region and worldwide.

2 THE MARITIME EDUCATION AND TRAINING (MET) SYSTEM IN VIETNAM

The figures below show the flow chart of the MET system and locations of the MET institutions in Vietnam, consisting of two maritime universities and two maritime secondary schools.

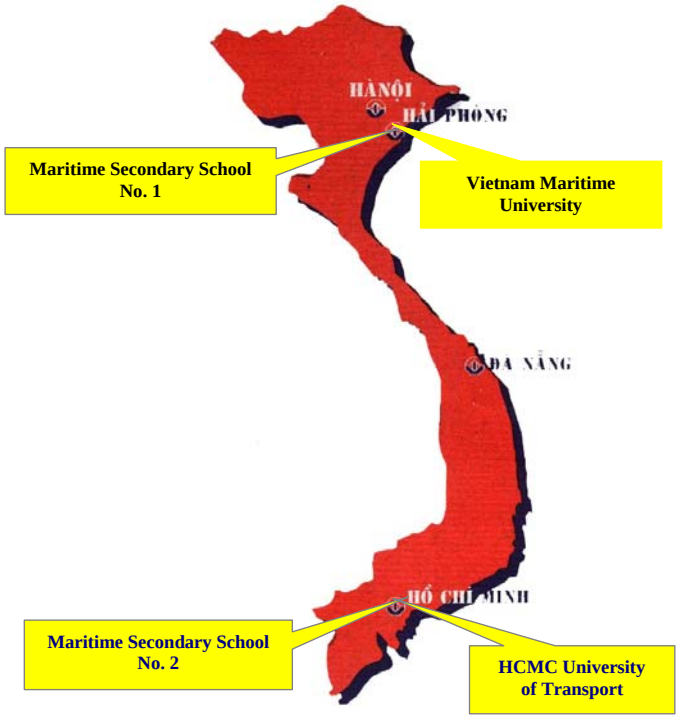


Fig. 1. The location of MET institutions in Vietnam

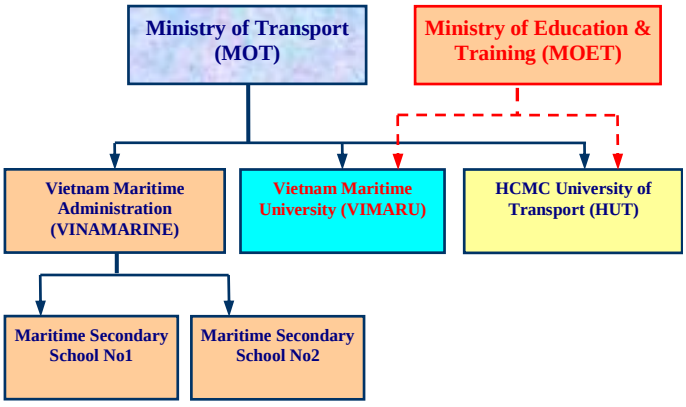


Fig. 2. The chart of the MET system in Vietnam

Table 1. The function and assignment of the maritime institutions in Vietnam

No.	Institution	Field of Education in Maritime industry	Number of Annual Enrolment	Level of education and training
1.	Vietnam Maritime University (VIMARU)	Navigation and Marine Engineering	870	– Higher Education (Engineer, Bachelor) and Post Education (PhD., Msc). – Maritime officers of 1st and 2nd classes(1)
2.	Ho Chi Minh City University of Transport (HUT)	Navigation and Marine Engineering	380	– Higher Education (Engineer, Bachelor) and Post Education (PhD., Msc). – Maritime officers of 1st and 2nd classes(1)
3.	Maritime Secondary School No. 1	Navigation and Marine Engineering	1,300	– Vocational and technical training. – Maritime officers of 3rd and 4th classes (2)
4.	Maritime Secondary School No. 2	Navigation and Marine Engineering	700	– Vocational and technical training. – Maritime officers of 3rd and 4th classes (2)

In which,

(1) First and Second Class Maritime Officers:

– First class: Officers of Ship of of 3,000 GT and over; Engineers of Ship with Main Engine output of 3,000 KW and over.

– Second class: Officers of Ship of 500 GT and less than 3,000GT; Engineers of Ship with Main Engine output of 750 KW and less than 3,000 KW.

(2) Third and Fourth Class Maritime Officers:

– Third class: Officers of Ship of 100 GT and less than 500GT; Engineers of Ship with Main Engine output of 150KW and less than 750KW.

– Fourth class: Officers of Ship of less than 100GT; Engineers of Ship with Main Engine output of less than 150 KW.

Fig. 3 and Fig. 4 below show the detailed flow charts of the MET system which currently exist in Vietnam and the links among all levels of the education and training.

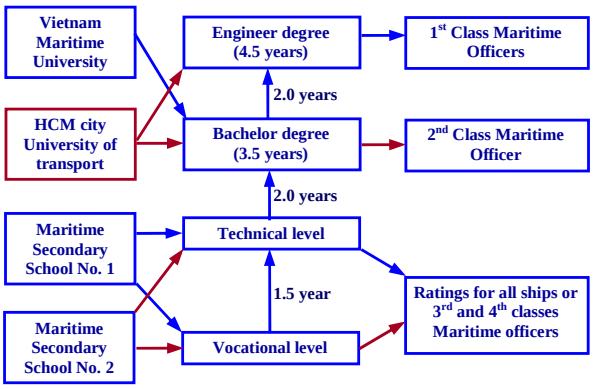


Fig. 3. The MET and links among all levels of the education and training

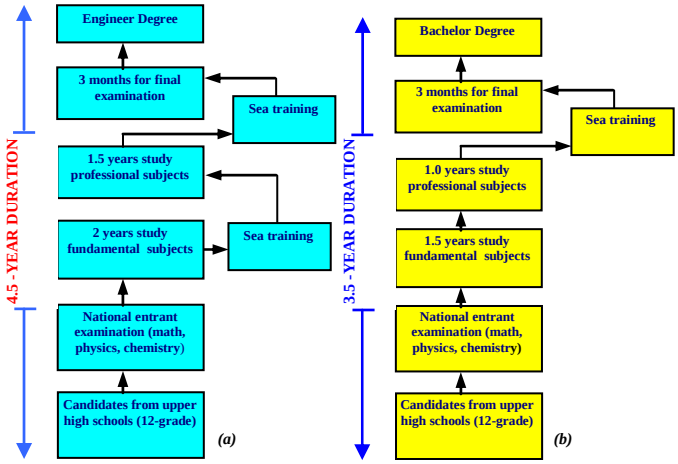


Fig. 4. The detailed MET at VIMARU *a. Engineer degree; b. Bachelor degree*

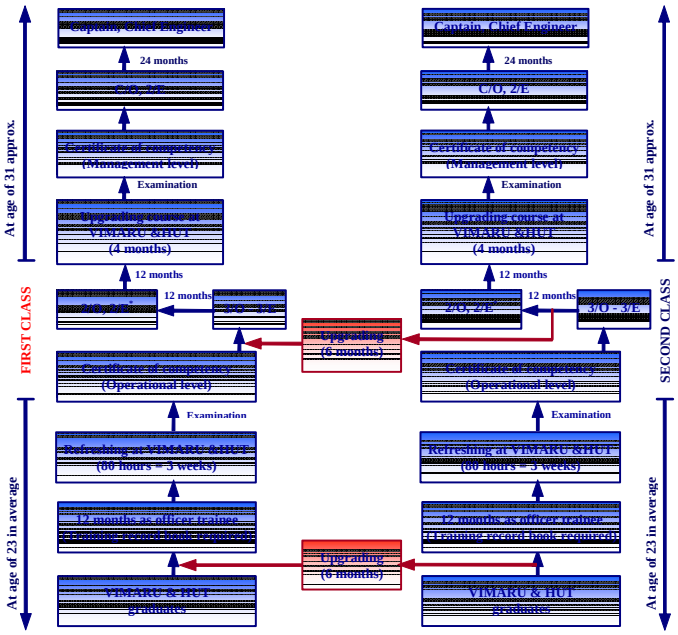


Fig. 5. The Certificate of Competency system and links among the levels of the training

3 THE IMPROVEMENT OF VIETNAM MARITIME UNIVERSITY BY SUCCESSFUL ENHANCEMENT OF THE LINKAGE WITH INDUSTRIES AND INTERNATIONAL RELATIONS

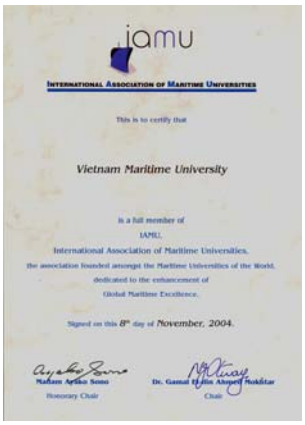
3.1 *The improvement of international cooperation*

Until now, VIMARU has successfully established the official relations and cooperation with many organizations and maritime institutions in the world, especially with the Nippon Foundation, Ship and Ocean Foundation (as called as the Ocean Policy Research Foundation since April 2005), Japan International Cooperation Agency (JICA). In 2002, VIMARU was accepted as a member of Association of Maritime Education and Training Institutions in Asia Pacific (AMETIAP). In November 2004, VIMARU was recognized as a full member of the

International Association of Maritime Universities (IAMU) among other 45 members all over the world. VIMARU has tried its best to contribute its efforts to the development and improvement of maritime education and training in the world.

In March 2005, VIMARU has joint with Korea Maritime University, Dalian Maritime University and Shanghai Maritime University to build up the Asia LNG Training Center (as called as ALTC), under the umbrella of the IAMU. Many exchanged information and mutual cooperation agreements have been signed between VIMARU and other member institutions of the IAMU, especially with Tokyo University of Science and Technology, Marine Technical College (Japan), Korea Maritime University, Mokpo Maritime University and etc. VIMARU has also actively participated in the Annual Conference of the Asia Maritime and Fisheries Universities Forum (AMFUF) which was founded by Korea Maritime University in 2002.

The international cooperation at VIMARU has been highly appreciated by the Vietnamese Government, Ministry of Transport, Ministry of Education and Training and other authorities in Vietnam.



3.2 *The improvement of scientific research and technology transfer activities at VIMARU*

The enhancement of maritime scientific research at VIMARU is one of the main objectives of the university. Under the assistance of the Government and friends all over the world, the researchers at VIMARU have been encouraging themselves very much and determining their new methodology of doing research activities. Especially, VIMARU has successfully established the Institute of Marine Science and Technology. VIMARU also has been successfully issuing many volumes of the Magazine of Marine Science and Technology in both papers and electronic versions for broadening by VIMARU's website since 2004. Many researchers were sent to Japan, Korea, EU and other countries for participating in the international seminars, meetings and symposiums. Many research papers done by VIMARU lecturers were accepted in some important international maritime magazines. With the increasing reputation of the university, many young lecturers of VIMARU have been accepted to study aboard, as the World Maritime University, Tokyo University of Marine Science and Technology, Kobe University, Korea Maritime University and other maritime universities in Europe. Many researches now are under joint programs with the professors in Japan, Korea, Belgium, the Netherlands, Russia, Poland and etc.

3.3 *The application of the Quality Management System in compliance with ISO 9001:2000*

Inheriting all the achievement of the development strategy, Vietnam Maritime University had determination to apply the Quality Management System for maritime education and training in compliance with the ISO 9001:2000 since May 2003.

In May 2005, the Directorate for Standards and Quality of the Ministry of Science and Technology of Vietnam has issued the Certificate of Compliance with the ISO 9001:2000, stamped of the QUACERT--JAS-ANZ, for the maritime education and training at Vietnam Maritime University. Thus, VIMARU became the first university in Vietnam to receive this important certificate.

VIMARU is applying this Quality Management System for whole university and intentionally, this QMS is going to be approved fully in the end of the year 2007.

3.4 *Impact of the improvement of education and training to the university graduates*

The graduates of the university and maritime officers and engineers from industry who have been being benefited by the renovation of the university are highly appreciated by their employers according to their better performances in comparison with those who have no chances to receive the effectiveness of the project. The most important evidence that the project-benefited graduates now are able to quickly familiarize with their duties on board ships, thus, the retraining time on board ship for them now can be shorten considerably. As mentioned at the introduction of this paper, in the past, university graduates often had to spend between two to three years on probation before they could work as officers and engineers on board ships.

The probation time has now been shortened significantly to just 12 months.

The lecturers of the university have been upgraded very much according to this improvement process, especially in the improvement of the modern teaching methodology, the new approaching method, and "planning before doing" philosophy. The huge amount of revised curricula, syllabi, teaching materials, textbooks etc was done by the lecturers of the university.

The figures below show the number of the graduates and maritime officers who successfully attended the training courses using project-provided equipment and also the technical assistance.

Table 2. The number of VIMARU's graduates benefited by the revised and updated training curricula in 2001-2005

Academic year	Navigation			Marine Engineering		
	Engineer level	Bachelor level	Total	Engineer level	Bachelor level	Total
2001-2002	0	0	0	0	0	0
2002-2003	112	78	190	78	51	129
2003-2004	128	94	222	94	75	169
2004-2005	137	121	258	128	108	236

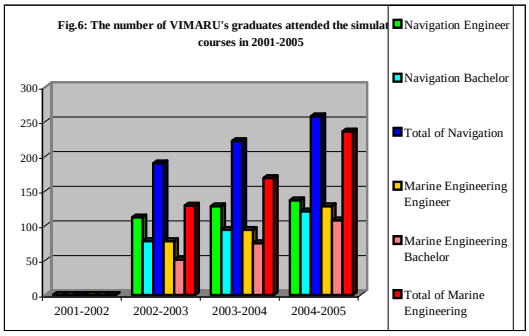


Fig. 6. The number of VIMARU's graduates benefited by the revised and updated training curricula in 2001-2005

Table 3. The number of maritime officers and engineers benefited by the revised and updated training curricula in 2002-2005

Year	Navigation			Marine Engineering		
	Management level	Operational level	Total	Management level	Operational level	Total
2002	0	0	0	0	0	0
2003	54	114	168	85	155	240
2004	81	106	187	69	133	202
2005	95	144	239	110	145	255

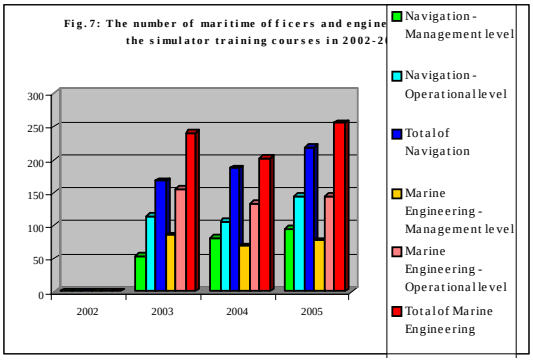


Fig. 7. The number of maritime officers and engineers benefited by the revised and updated training curricula in 2002-2005

Table 4. The projected number of VIMARU's graduates benefited by the revised and updated training curricula in 2005-2010

Academic year	Navigation			Marine Engineering		
	Engineer level	Bachelor level	Total	Engineer level	Bachelor level	Total
2005-2006	273	74	347	234	70	304
2006-2007	214	63	277	208	106	314
2007-2008	316	48	364	215	95	310
2008-2009	420	50	470	328	63	391
2009-2010	454	58	512	397	52	449

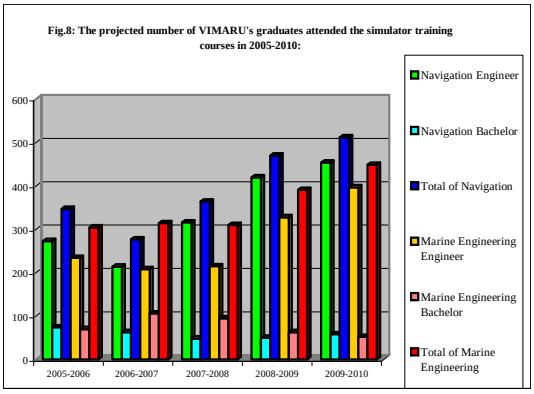


Fig. 8. The projected number of VIMARU's graduates benefited by the revised and updated training curricula in 2005-2010

Table 5. The number of VIMARU annual enrolments in 2001-2005

Academic year	Navigation field			Marine Engineering field		
	Engineer level	Diploma level	Total	Engineer level	Diploma level	Total
2001-2002	273	75	348	234	70	304
2002-2003	250	69	319	205	69	274
2003-2004	353	121	474	289	129	418
2004-2005	392	154	546	342	131	473
2005-2006	428	147	575	394	142	536

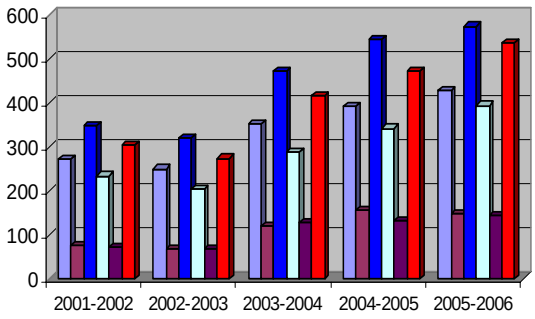


Fig. 9. The number of VIMARU annual enrolments in 2001-2005

Table 6. The number of VIMARU maritime graduates in 2001-2005

Academic year	Navigation field			Marine Engineering field		
	Engineer level	Diploma level	Total	Engineer level	Diploma level	Total
2001-2002	106	70	**176**	72	47	**119**
2002-2003	112	78	**190**	78	51	**129**
2003-2004	128	94	**222**	94	75	**169**
2004-2005	137	121	**258**	128	108	**236**
2005-2006	273	74	**347**	234	70	**304**

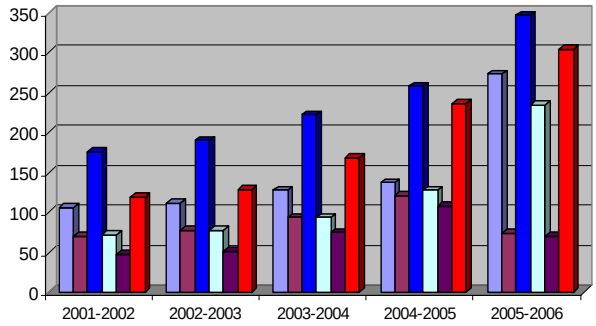


Fig. 10. The number of VIMARU maritime graduates in 2001-2005

Table 7. The statistics on the employment of VIMARU's maritime graduates in 2003-2004 *(by tracing survey method)*

Field	Degree	Job		2003		2004	
Navigation	*5 years* (Engineer degree)	Seafarer	*Ocean - going*	128 *(96%)*	111	137 *(95%)*	118
			Domestic		17		19
		On shore		8		7	
		Total		*134*		*144*	
	3.5 years (Bachelor degree)	Seafarer	*Ocean - going*	94 *(88%)*	78	121 *(88%)*	103
			Domestic		16		18
		On shore		13		17	
		Total		*107*		*138*	
Marine Engineering	*4.5 years* (Engineer degree)	Seafarer	*Ocean - going*	94 *(80%)*	80	128 *(91%)*	107
			Domestic		14		21
		On shore		25		12	
		Total		*119*		*140*	
	3.5 years (Bachelor degree)	Seafarer	*Ocean - going*	75 *(90%)*	66	108 *(90%)*	87
			Domestic		9		21
		On shore		8		12	
		Total		*83*		*120*	

The followings are the biggest employers who have the demand for VIMARU's maritime graduates:

– The Vietnam National Shipping Lines including its sub-companies, such as Vietnam National Shipping Co., (VOSCO), VINASHIP, VITRANCHART, Inlaco Saigon, Inlaco Haiphong etc.

– VINIC, a joint venture between Vietnam Maritime University and Nippon Steel Shipping Co., Ltd (NSS). Presently, VINIC owns more than 450 maritime officers, engineers and ratings who work on board 10 new-built cape-size and panamax-size bulk carriers of NSS and other Japanese shipowners such as Daiichi Chuo Kissen, Nissen Kaiun, Meiho Kaiun etc. Among those 12 ships, there are 08 ships are operated by full Vietnamese crewmember from Master to ratings. The Vietnamese captains and chief engineers are highly appreciated by all shipowners. Every year, VINIC interviews, provides scholarships and employs about 40-48 graduates from VIMARU and dispatches them to Japan for attending the training courses on board ships under the direct instruction of Japanese and Vietnamese officers and engineers. Most of them become high qualified officers and engineers. VINIC also recruits and employs about 30 to 40 graduates from the Maritime Secondary School No.1 and No.2 each year for training them to be qualified ratings on board ships.

– VICMAC, a crew manning center which belongs to VIMARU's International Shipping and Labor Company (ISALCO). Now VICMAC owns MNNNNNNN more than 700 maritime officers, engineers and ratings who work on board the other Japanese shipowners such as Nissho Shipping Co., Korean shipowners and Vietnamese shipping companies.