



The Importance of Research and Development – Developing Staff and Supporting Industry and commerce

By Professor Dr Reza Ziarati Vice-rector Piri Reis University

Research is in fact a way forward; looking at what is already being done well and should therefore be further developed or supported; and what is being done not well enough, or badly, and therefore needs to be changed, stopped, or replaced by something new. It is also to create new things.

Unfortunately in some countries there is so much emphasis on social, technical and scientific papers for publications in cited journals that universities, and their funders, often forget that a university is a universe with all sorts of small and large stars, some far, some near, some shining and some with little shine or any vigour.

A university should be a centre of excellence in what it teaches and to do this it must develop all staff, young and the more experienced. It must work and support industry and commerce, for which it is preparing the young people for.

It has to be realised that the interests which business has in wishing to establish or improve links with academia are different from those of the academia, and may not always be compatible. The educationalists can aspire to be altruistic; business people can only afford to be altruistic when they have made more than enough money for the maintenance and development of their businesses. This is not a moral judgement – it is a pragmatic one.

Academia needs the industry to support it in the development of its programmes so that they can identify and respond to the needs of industry and commerce. It needs industry to seek funds to progressively develop its laboratories, and it needs industry to develop its staff members.

Industry needs academia to improve the quality of its employees, present and future; it needs academia for technological progress useful to business, and to better management of business; it needs academia for the formation of its future customers, and so of demands for its products and services.

There are three types of research, i) near market (short term) which is of particular interest to business; ii) strategic, which is of interest to larger and more established businesses; and iii) basic (or long term) which is of interest to businesses in general to secure their long term sustainability and survival. A good university should promote all three types through a well-managed process of working with industries related to the subjects it teaches.

University research, therefore, is an effective means of making new discoveries; underpinning further and higher education programmes, developing and motivating staff, establishing working relationship with industry and commerce and, developing independent learning while preparing students for the future. They are also intended to create wealth and jobs, and serve the community to become more stable and accommodating. Students should learn about self-learning early in their studies and in the latter part of their programmes should be introduced to research and scientific methods for seeking knowledge and making sound judgements. The students must also realise the importance of preparing



themselves for the world of work. All students should be introduced to development techniques viz., how products and services are developed and the processes involved.



Piri Reis University Takes a Lead in Maritime Education and Training

What? Piri Reis University (PRU) is the education and research arm of the Turkish maritime community. PRU currently has the largest number of EU funded maritime projects anywhere in the Europe and publishes many articles on this particular aspect of its work and produces over 10 major refereed papers each year. A list of papers published can be found in www.marifuture.org.



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Why? Today, the development of a Maritime Education and Training (MET) system is a dynamic process under the pressure of rapidly emerging maritime technology and new practices. An ideal development cannot be achieved by considering the existing practices and procedures only and needs to have a wider perspective by reviewing best practices and establish the necessary benchmark for future improvements.

Recent research has shown that the response of international bodies to address identified deficiencies on STCW content, language competence, automation, emergency situations and environment are generally slow, sluggish and/or lack resources. PRU, as the research and education wing of the Turkish maritime community had also to look ahead and seek excellence in MET.

Response - To overcome these deficiencies, PRU established a partnership with well-known and well-respected international maritime organisations and universities in Europe and worldwide, and through working with organisations such as BTEC/Edexcel, MNTB (Merchant Navy Training Board), NVQ/SVQ (National Vocational Qualification/ Scottish Vocational Qualification) authorities and professional institutions such as IMarEST (Institute of Marine Engineering, Science and Technology) developed a set of most up-to-date programmes for Deck officers as well as Senior Deck officers and similar programmes for Marine Engineers and senior Engineer officers. These co-operations and partnerships, including staff and student exchanges, not only provided opportunities for collaboration and joint programme and unit design and developments but also initiation of a number of funded European Union projects. A sample of these European Union funded projects are listed below;

Safety On Sea (SOS) (www.maredu.co.uk), the aim was to develop the first set of internationally recognised maritime education and training for deck and Marine Engineering cadets and officers in conjunction with major awarding bodies (such as EDEXCEL/BTEC), accrediting Professional institutions (such IMarEST) and licensing authorities (such as MCA) and leading universities in Europe.

EGMDSS and E-GMDSS-VET (www.egmdss.com), led to the development a novel e-learning platform for maritime communication devoted to GMDSS (SRC and LRC). The platform has been awarded several European and international prizes and currently has over 40000 registered users. It provides a range of leaning units and online EGMDSS simulation exercises.

MarTEL (www.martel.pro) and MarTEL Plus, facilitated the development of standards for maritime English for all types and ranks of seafarers including for Ratings. The Each standard has its own test supported by guidelines for test takers and teachers.

SURPASS (www.surpass.pro), contains complete programme of training for seafarers to avoid automation failures at sea and if these accidents do happen to ensure they can take the right decisions.

M'AIDER (www.maider.pro) developed to reduce accidents and emergencies at sea by learning from previous accidents and also to prevent emergencies and, once these emergencies occur, take the necessary precautions to avoid accidents at sea.

EBDIG (www.ebdig.eu): a project to emphasise the importance of design and training the future designers and also to transfer innovation from automotive industry to boat and ship industry.

UniMET (www.unimet.pro) was initiated to go beyond the minimum standards set by IMO and to introduce new and improved standards and promote good practice.



IMPACT (www.impact.pro) introduces new ways of assessing project achievement and how good practices in MET can be promoted.

MarEng, MarEng Plus and CAPTAINS (www.catptains.pro) was prepared to develop novel tools for teaching of Maritime English.

Sail Ahead (www.sailahead.pro) encourages seafarers and young people to join the seafaring profession and prepare themselves for jobs ashore.

Leonardo TRAIN 4Cs I (2008), II (2010) and III (2012)

PRU MET programmes and pathways have been validated through a series of EU funded mobility programme called TRAINS 4Cs (I, II and III). Through this mobility programme many cadets continued their degree studies in universities in the UK and USA and and/or register on the UK's NVQs and SVQs sea training diploma programmes and seek to obtain the UK's Maritime Coastguard Agency's (MCA) Notice of Eligibility (NoE). In the latest programme concluded in February 2013, one cadet obtained the MCA's officer of watch certificate and MCA's Certificate of Competency (CoC). There were 6 cadets in the UK recently seeking either MCA's NoEs and/ or preparing for their MCA CoC examinations to obtain the UK's Officer-Of-Watch (OOW) certificate.

The PRU has also commenced its ERASMUS mobility programme - ERASMUS Mobility -2012-1-TR1-ERA02-36736, Student and Teaching Staff Mobility & Work Placement.

PRU and its European partners have established a major partnership called MarEdu (www.maredu.co.uk) supported now by a new European platform called MariFuture (www.marifuture.pro) which has initiated several new proposals which most of them have been approved by the EU. Project UniMET, which is based on an earlier successful EU funded project known as SOS, is introducing new and improved MET standards. One of the proposals is a 34 MEUR project aim to establish the Turkish Maritime Centre of Excellence (TMCE) in Tuzla, Istanbul.

MariFuture is expected to be similar to the EU's ManuFuture platform which supports the EU in manufacturing planning in Europe.

Learning the financial instruments available to businesses

Prof. Dr. Paul Bennett

- Visiting Professor in Piri Reis University
- Former Vice President of the New York Federal Reserve Bank;
- Former Chief Economist of the New York Stock Exchange

The Department of International Business and Trade will prepare students to successfully make contributions to companies engaged in global business activities. How do relative cost advantages and exchange rates affect decisions about locating production and distribution activities? How do transportation and communications infrastructures matter? What types of contracts, facilities, and management configurations are most likely to lead to success? At Piri Reis, real life examples,



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theoretical reasoning, and classroom discussions will help the student increase his or her understanding of successful global business decision making. The courses offered by the Department of International Business and Trade will be particularly helpful to students who are involved in the Maritime, Transport, and related industries.

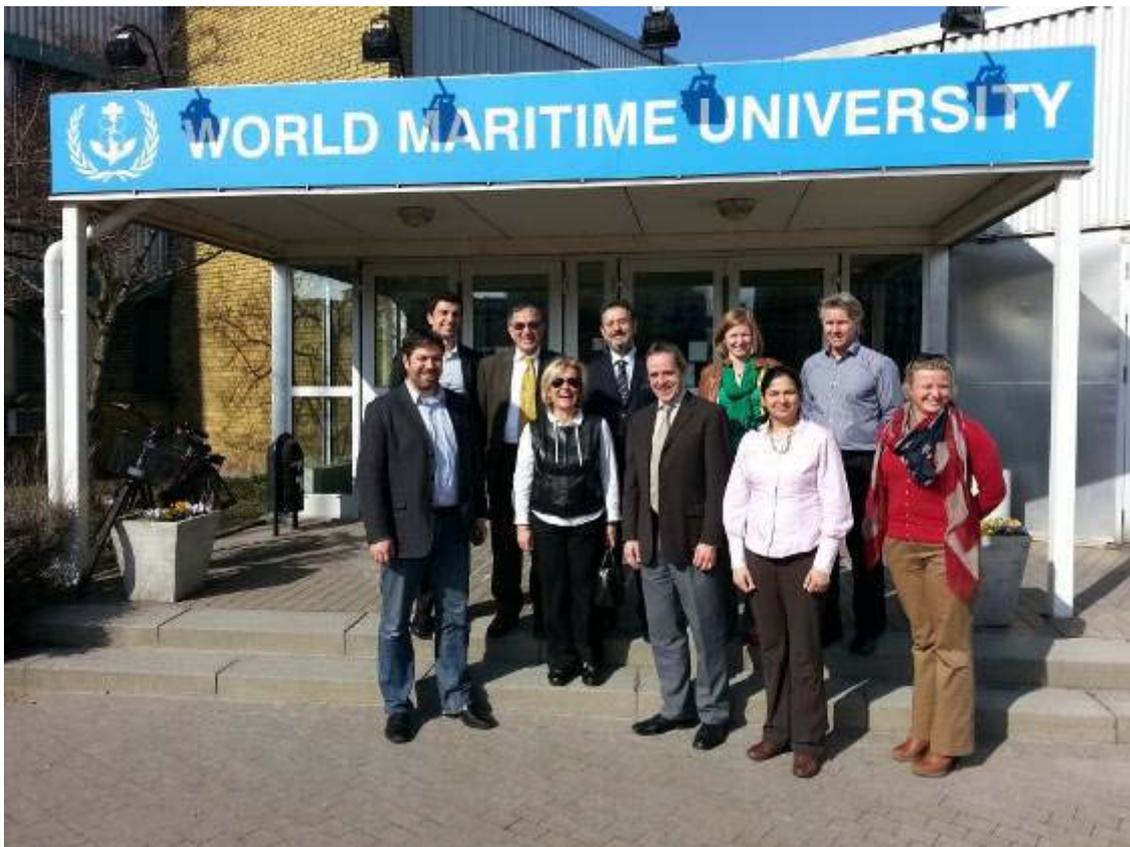
The Department of Economics and Finance will help Piri Reis students to succeed in business decision making by providing understanding and tools for gaining access to finance that matches the specific needs of businesses, including entrepreneurial start-ups as well as mature, well established organizations. Students will learn financial instruments available to businesses, as well as the institutions and markets that can provide outside funding and risk sharing. How and when to raise fresh capital? What types of relationships and alliance with other companies can lead to greater success? What are the risks? Economic and Financial theory will help students focus on optimizing company value for success while avoiding unnecessary risks, and will help provide a strong understanding through real world case studies and experience. Students in the Maritime, Transport, and related industries will find the courses offered by this department to be of particular use in understanding how to optimize their business outcomes and financing costs.





Views of foreign countries about PRMU

A Memorandum of Understanding (MoU) was signed between WMU and Piri Reis Maritime University (PRMU) of Istanbul, Turkey and went into effect on 26 April 2013. The MoU on Academic Cooperation recognizes the educational benefits to be gained through cooperative programs between WMU and PRMU that promote scholarly activities and international understanding. In addition, the MoU will promote the exchange of information and materials of mutual interest as well as the exchange of staff, students, and scholars. The MoU was proposed during a recent visit to WMU by Asst. Prof. Dr. Taner Albayrak, Vice Dean of the Maritime Faculty and Head of International Relations at PRMU. After Dr. Albayrak returned to Turkey, the MoU was signed by Prof. Dr. Osman Kamil Sag, Rector of PRMU.



PRMU was established by the support and sponsorship of the entire Turkish Maritime Sector (approx. 7500 companies); namely the Turkish Chamber of Shipping (DTO) through the Turkish Maritime Education Foundation (TUDEV) which is a non-profit private organization that was established in 1993. The Vision of PRMU is to provide world class, quality education and training, conduct research, and create synergy between vocational and academic education in an environment of global competition. PRMU is named after the famous Ottoman – Turkish Admiral and Cartographer Piri Reis who lived in XV – XVIth centuries and is best known for his World Map and the book of Navigation (Kitab-ı Bahriye). This year is the 500 year anniversary of Piri Reis' 1513 map which has been recognized by UNESCO as a noteworthy anniversary in 2013.



Review meeting of Metprom Project

During the week of 17 April, the first progress review meeting for the EU funded LEONARDO project METPROM – Modular Enhanced Training Programme for European Maritime Security Personnel - was held in Malmö and hosted by WMU. METPROM deals with the transfer of innovation into a modular and enhanced training programme for European maritime security personnel in ports. WMU is one of the core partners of the consortium led by Piri Reis University Istanbul.

The partners from The Netherlands, Belgium, Germany, Turkey and Sweden reported about their activities as well as the outcome and preliminary results of their work during the first project period. The three day meeting included a visit to the port of Malmö to view security related objects and discuss existing challenges as well as potential ways to improve the security level.

In this work package WMU, among others, performed field studies and interviews to analyse security training in sea and airports to compare these approaches with training in other transport modes. The studies are intended to identify potential gaps and needs for harmonizing training programs for personnel assigned to security duties. Furthermore, the work of WMU aims at identifying training subjects that have potential for the integration and implementation of innovative training methods utilizing supporting tools such as e-learning or simulation-based exercises.

More detailed information about the METPROM project can be found at www.metprom.eu.

WMU Major Partner in European Funded Leonardo da Vinci Project – METPROM

The European Commission's Leonardo da Vinci (LDV) Programme is established to fund practical projects in the field of vocational education and training. The Initiative of DG Education and Culture includes activities from providing individuals with work-related training abroad to large-scale cooperation efforts. METPROM - Modular Enhanced Training Programme for European Maritime Security Personnel (METPROM) – is one of the latest projects (started on 1st October) running under the LDV – program. The 24-month-project is intended to develop and transfer innovations for maritime security training and simulation based modules to fill security gaps in increasingly complex operational activities in ports which are vital for the timely conduct of shipping and support more than 90 % of world trade. METPROM is also intended to bring EU wide standards to the port security procedures e.g. through standardized and harmonized training programs in partner countries. New courses are planned under the project including a new course in port security incorporating novel, simulation- based modules utilizing game-based technology, 3D models, and adaptation of an e learning platform with assessment facilities.

The project's coordinator is Piri Reis University Istanbul, Turkey. Seven core partners for the project are key training and education institutions and organizations from Turkey, Belgium, The Netherlands, Germany and Sweden. The total project budget is almost 400.00 (392.491,00) with a total community grant of 300.000 (294.368,00) of which WMU will receive 50.000,00 (49472). WMU is involved in all work packages (WP) and responsible leader of the work package on "Development of innovative training environment concept". In this WP WMU will perform analysis of the existing training materials and the consolidation of findings to design and develop training module contents.



How is the life in Tuzla?

Prof. Dr. Seigo Hashimoto/Japan Gemi Makinaları İşletme Mühendisliği Öğretim Üyesi

I participated in the project for the enhancement of MET (Maritime Education and Training) in ITUMF (Istanbul Technical University Maritime Faculty) conducted by JICA (Japan International Cooperation Agency) for four years from 2002 and one year nine months has passed since I joined Piri Reis University. I have involved in MET in Turkey for nearly six years. The personnel who are working on MET should figure out first the circumstances of shipping industries, types of ships and facilities, operational conditions, nature of marine officers and so forth as fundamental knowledge. In addition, they should know systems to send human resources to the shipping industries and the human resources. In particular, it is quite essential to understand the human resources in terms of technical aspect and their mentality. The technical aspect means professional education and training including general education and the mentality means a kind of intentionality of the people to the maritime society.

The intentionality contains various human elements and if it is higher, it will bring about progress of the maritime society and maritime technical advancement, and a position of seafarers in the society and people's sense of value greatly affect on how much intentionality to the maritime society the individual resource has. In regard to this point, I would like to provide Japan's case as an example that they had a rapid progress of seaborne shipping in the past. Main responsibilities of the personnel of MET must be at least contributions to the maritime society from the aspect of maritime technologies and it is indispensable to figure out the human resources' intentionality for effective contributions. At the same time, I also wish we could have changes in maritime society for further increase of the intentionality.

I have heard that Piri Reis University moves to the new campus in October and practical and experimental facilities are expected to be enlarged as well as establishments of new faculties. Especially, the practical and experimental facilities play important roles in education of engineering to



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cultivate a power of execution understanding engineering theories. The facilities provide academic staff with good teaching materials and the students with many opportunities to have an interesting in marine engineering causing the increase of intentionality to the maritime society.



Furthermore, larger campus causes that many students come together to have an interaction with various activities and this will provide the students with memorial campus life. Our academic staff must make efforts to send higher quality human resources to the maritime society providing the students with higher quality education.

Piri Reis University is located in Tuzla in Istanbul and Tuzla comprises several business sections and towns, and the new campus of the university is being built next to ITUMF on the coast line of the Marmara Sea. Thus, Tuzla was commuting place for me for four years from 2002, but now it has also become a living place since October, 2011.

The university is in my walking distance from my house and there are a number of various shops and supermarkets here and there nearby my house. Tuzla must be a convenient town for foreigners to live. From my understanding, the center of the town where I am living must be a district of the main street



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which connects the road along the seashore to the big cross located at inland about 100 meters from the coast line.

There are many shops, banks and cook shops on the both sides of the street. I personally call this district as “Tuzla GINZA”. In Japan, they call busy down town street as GINZA street in many cases, where many people walk around doing shopping and business, and enjoying entertainments and others. The Ginza street in Tokyo is most famous and may be the biggest Ginza in Japan and Istiklal Cad. In Taksim would be a similar street as Ginza in Istanbul. Tuzla GINZA would be a similar district to Ginza street located at a regional small town in Japan. However, in my case I call it as Ginza due to my acquaintanceship irrespective of such a circumstance. When I describe the town of Tuzla to my Japanese friends, “Tuzla GINZA becomes a very convenient word since this only one word can represent the district in clearly understandable terms. “Tuzla GINZA is one of my walking routes and I walk on the street on every Saturday and Sunday unless I have special events. I have known the town of Tuzla since 2002 and I have an impression looking back over the past that there has been no change. No change sometimes causes negative image but to be honest, I wish the town to be remained as a good old town. I wish that unchanged town stays in a memory of the graduates and I would like to tackle MET in the university to be a person who the graduates think about there was a Japanese teacher when they flash back to their university from vessels at sea in the future.

Here is the Present and Future of the World’s Maritime Education and Training

Gregory C. McIntosh When I first came to Istanbul some fifteen years ago, there was no Piri Reis Maritime University. When I returned to the beautiful and vibrant city again last year, I was intrigued to learn that there was a university that had been named after the famous sixteenth century Ottoman Turkish admiral and cartographer. I asked myself: “What was this school?”



I soon learned from my conversations with both faculty and students that the university was founded only a few years ago and was rapidly becoming well known as an innovative leader in maritime education. After touring the soon to be finished new campus in Tuzla, I knew I wanted to be a part of this young, vital, and dynamic educational institution. It only seemed appropriate that I should be associated with Piri Reis Maritime University, because I am widely considered to be the world’s



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leading authority on the Piri Reis Map of 1513. The university is already noted for the Green Campus, the first environmentally responsible campus in the Republic of Turkey, being built in Tuzla and which will be completed in October of this year.

The computer-aided training facilities, such as the simulators, are examples of the successful implementation of leading-edge technology for the benefit of the students. Piri Reis Maritime University is at the forefront of the newest methods of education.

The international recognition given to the Piri Reis University was evident last week, for example, when the Turkish Embassy in London invited, arranged, and supported myself and two other colleagues of the university in attending and speaking at an international conference at Greenwich University in London. The strong support provided by important organizations such as the Turkish Embassy is an indication of the high regard and respect in which Piri Reis University is held.

Piri Reis Maritime University has positioned itself as the leader in training the world's maritime officers and engineers in the growing maritime industry. The ocean-going vessels of the world staffed with Piri Reis Maritime University graduates are at the forefront of the globalization of commerce and the increase in international trade and cooperation.

What was this school? Now I know the answer: Piri Reis Maritime University is the present and future of Maritime Education and Training.