

October 2009



## CONSTANTA MARITIME UNIVERSITY (CMU)

### Introduction

A site-visit of CONSTANTA MARITIME UNIVERSITY (CMU) has been conducted from September 30 to October 2, 2009 in the framework of the institutional evaluation programme of the Romanian Agency for the Higher Education Quality Assurance (ARACIS). It was directed by Professor PhD. Eng. Marius Bulgaru.

The experts have appreciated the welcome and commitment of all people encountered with their institution and the success of the site-visit. They also could appreciate the quality of the facilities and the equipment (in particular simulators).

A great number of informations have been made available by the self-evaluation report (The Academic quality self assessment report – SER - and the two SER of the two CMU Faculties). Other data were provided on request and during meetings during the site-visit or were available on the website of the University.

CONSTANTA MARITIME UNIVERSITY (CMU) is the former Civil Marine Institute re-established in 1990 through the separation of the Navigation Faculty and Electromechanics Faculty from the « Mircea cel Batran » Marine Institute (under the Ministry of Defence), and their subordination to the Education Ministry. In 2000 this institution changed its name into Constanta Maritime University. It is a public higher education institution.

The University became a doctoral institution in 2001 . Accreditation for university's specializations was reconfirmed in 2008.

The present report will deal only with a few specific aspects which have been addressed by the University and discussed during the site-visit.

1. The context of CMU's activities and its implications on the evaluation process
2. The quality assurance process
3. Perspectives and strategic planning

# **1. The University context and its implications on the evaluation process.**

CMU activity context is characterized by its specific professional character : as a consequence it has quite a number of exchanges and relationships with the economic environment and firms active in the maritime sectors of activities, as well as with European and other international higher education institutions involved in the same domains.

## **1.1. The economic and international environment**

### **1.1.1. Relations to the economic environment**

CMU aims to develop a continuing exchange of experience, inducing a continuing training of teaching staff, with partner European universities of maritime profile, to develop research activities with these universities and collaboration with crewing firms, which may offer future employment to graduates.

The university has a collaboration with 22 crewing companies offering posts for students' embarked practice, financial support and tutorship during the embarkation period; in 2007 and 2008 a total number of 1040 students benefited from training onboard ships.

The training at CMU has therefore a strong external professional component, which follows standards and regulations set by other institutions. The activity of professional orientation for students is conducted by the Certificate of Competency-Graduation Department. This Department is in charge of monitoring and keeping records of :

- courses modules organized in the framework of the International Maritime Organization (IMO), the United Nations' specialized agency responsible for improving maritime safety and preventing pollution from ships,
- the training periods on board maritime ships,

both being obligatory requirements for obtaining certificates of competency as deck or electromechanical officers.

CMU has thus to take into account the maritime, technical and economical environments' requirements. It has to consider permanent and new expectations regarding each specialization graduates' competencies. It has to correlate them with the university's experience and know-how, and with international and European training standards and practices. It has to organize a periodic adaptation of the university studies' offer.

It has to ensure efficient coordination with the students' practical training by increasing the number of practice jobs on board ships belonging to national and international companies.

The economic situation has strongly affected the situation of shipping and related activities in Romania. However the international character of its domain of activities, characterized among other by an international global shortage of seafarers, especially officers, maintains opportunities.

### **1.1.2. Relations to the international institutional environment**

Constanta Maritime University is affiliated to the international association of Maritime Universities (IAMU) since 2000. Affiliated higher education institutions are mostly focussing on core activities of navigation and naval engineering, and their commercial aspects, but also more and more on global environment, economic and social consideration of all issues concerning the oceans. This requires new interdisciplinary perspectives, with the University own resources and in cooperation with other higher education and research institutions, through joint research projects, in new options for their core traditional courses, in the creation of new courses and degrees, and then in the creation of new teaching and research departments.

CMU cooperates with the World Maritime University (WMU) established in 1983 in Malmö (Sweden) by the International Maritime Organization (IMO) to increase the number of highly trained specialist maritime personnel.

CMU is affiliated to the Black Sea Universities Network (BSUN) since 1999, and to the International Maritime Lecturers' association (IMLA)

It develops cooperation with higher education institutions having the same specialization (Vrije University Brussels, Belgium, Maritime Faculty of Istanbul, Technical University, Turkey, Maine Maritime Academy, USA Arab Academy for Science & Technology Alexandria, Egypt).

The most representative present project is RoNoMar (4 millions Euros with Norway), launched in September 2009. It is the strongest project, for foreign partners, of the Industrial Development Corporation of Norway (SIVA) the Norwegian governmental corporation and national instrument to develop strong regional and local industrial clusters through ownership in infrastructure, investment and knowledge networks as well as innovation centres.

Constanta Maritime University is involved, as a promoter, in a European SOCRATES project : « Master's Studies for Maritime Safety », with the following partners: Southampton Institute, Barcelona Technical University, Szczecin Maritime University and Gdynia Maritime Academy.

This international network brings many opportunities for benchmarking and anticipating on future needs in this area. This also creates a need and pressure towards more interdisciplinary research and academic work.

### **1.2. The evaluation and accreditation context**

CMU is subject to several professional external evaluations and certifications, prior to the more recent development of ARACIS global evaluation and accreditation processes

Courses sponsored by the IMO Training Department" focus on (re)training specialists. Online IMO courses have been designed, as the result of a European project, in collaboration with Kongberg Maritime Norway, Universitat Bremen Germany, Fachhochschule Oldenburg

Germany, Escola Nautica Infante D. Henrique, Portugal. A portal supplies specialized courses for merchant marine officers in compliance with IMO regulations.

The quality of curricula and teaching syllabuses has to conform to specific national and international assessment criteria, such as the Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and are subjected to corresponding audits.

Constanta Maritime University is periodically audited by the European Maritime Safety Agency (EMSA), the last audit in 2006. After evaluating the main domains of educational activity, the agency makes observations for correcting observed dysfunctions, for improving the syllabus by introducing new disciplines and new contents required by the international standards in the field.

CMU participations in various international projects include specific evaluations of their own : Socrates, Erasmus, RoNoMar and other international multilateral or bilateral projects (such as a compatible syllabus for lifelong learning programme guidelines higher education- together with Naval Academy "Nikola Vapzarov", Varna, Bulgaria)

*This international economic, sectoral and institutional environment creates a strong pressure towards consideration of requests coming from world maritime industry and connected fields, also to benchmarking with foreign curricula and best practices. It leads to a permanent concern with quality promotion internal mechanisms, to updating, modernization and innovation of curricula.*

## **2. The Quality concern in the University**

Constanta Maritime University has two faculties

- The Faculty of Navigation and Naval Transport with the specialization of Navigation and Maritime and River Transport

- the Faculty of Naval Electromechanics with the specializations of Electromechanics and Electrotechnics

with a total number of 5500 students . For the academic year 2009-2010, the university offers 1070 places for entering students.

The tenured teaching staff includes 100 members, almost equally divided into professors and lecturers (academic year 2009). All hold a PhD title)

### **2.1. Teaching**

Constanta Maritime University's Syllabus' content is periodically revised and improved, based on monitoring internal and external clients' satisfaction by using specific instruments. The University elaborated a "Syllabus' initiation, approval and periodic evaluation guide". It looks for updating the syllabus and the content of disciplines in accordance with present demands of the labour market in the maritime and economical domain. Therefore, CMU organises periodic meetings with the shipping and crewing companies involved in protocols concerning students' embarked practice. This should facilitate the necessary concern for more

coordination between the theoretical and practical/professional aspects of training and between disciplines in an interdisciplinary perspective.

Constanta Maritime University also gathers information and makes comparisons regarding the innovations and quality of education in other universities from the country or from abroad.

The University is accredited for all higher education cycles : bachelor/licence, master and doctorate degree (almost 50 students are PhD candidates).

From the academic year 2005-2006, CMU has adapted its academic training to the european framework :

a) a four years BS degree (four years (240 credits allotted to the disciplines studied during eight semesters and 20 additional credits for the BS degree exam : students are awarded an Engineer Diploma in the following fields : Naval Engineering and Navigation, Electrical Engineering, Environment Engineering, Engineering and Management, Electronical Engineering and Telecommunications.

b) a Masters degree (three semesters) in the following fields :

- 4 in the Faculty of Navigation and Naval Transport : Maritime Law, Maritime and multimodal transport management, Maritime and Port management,
- 3 In the Faculty of Naval Electromechanics : Advanced concepts of Naval Engineering, Naval Radiocommunications, Technical management of Port areas.

c) Doctoral Studies in the domain of Mechanical Engineering. 30 PhD titles have been awarded so far.

### ***2.3. Quality assessment procedures of the teaching staff***

A specific comprehensive process has been designed, and seems well-accepted

- to identify shortcomings and bring in improvements in the whole education process (teaching-learning practices ; assessment of the students' acquired knowledge and abilities, monitoring and support of students' progress, monitoring the results obtained at the certificate for competency examination of the Romanian Naval Authority (RNA) compulsory to become Maritime Watch Officer.

- to improve professional performances by annual assessment, through self-evaluation and hierarchization of teaching staff, on the basis of assessment criteria.

A Peer evaluation is performed within the Chair the teacher belongs to : for each teacher, a number of colleagues chosen by the Dean complete a peer assessment sheet. A final score is calculated as the average of scores awarded by peers having completed the sheet.

A teacher assessment by students is based on a final questionnaire assessment of course/program. Teacher assessment by students is done for each teacher within the groups he/she is teaching. The final results are centralized at the Chairs' level.

The whole process includes a feed-back from students, graduates, employers, crewing agencies, regarding the structure, quality and improvement of educational service.

An annual assessment sheet (Period September 1- August 31) includes an assessment of the variety of required and accomplished tasks. These tasks are described in an annex to the

individual contract of employment : teaching workload, guidance for studies projects, training activities and pedagogical practice, assessment activities, consultations, participation to scientific circles, organizing of scientific/sports events for students, participation in committees and councils, in administration, organization of academic exchanges between universities, participation in international training programs, creation and publication of teaching materials, activities proposed for the following academic calendar, research activity.

## **2.2. Quality management**

The quality concern in Constanta Maritime University started from the long standing necessity of generating a long term consistent trust in the university's capacity to be efficient on the higher education European and world market (in a context of competition intensification in the maritime activities). CMU has to seek harmonization with the standards, procedures and practices existing in other maritime universities from European states and the standards imposed by the profession and international organizations and conventions.

The University also intends to respond to performance criteria , standards and indicators of the External Evaluation Methodology of the Romanian Agency for Quality Assurance in Higher Education, ARACIS, and the European higher education area (EHEA)

Since 2008 a Commission for Quality Assessment and Assurance Evaluation was established in Constanta Maritime University. It is a department included in its general organization. The Commission develops collaboration and circulates information concerning "good practices" within the university, with the assistance of Faculties' Quality Committees. CMU has an intensive set of procedures for annual assessments, authorization and accreditations.

The aim is to improve the quality of the academic and administrative management of the university, faculties, departments, directions and services. It has been followed through analyzing and formalizing the major procedures in the main university activities domains.

There is an intensive common work and communication between the Commission for Quality Assessment and Assurance, the central services and the Faculties and their deans and administration, who are the first in charge of assessing and improving the quality of their activities. This has led in every faculty or department to the constitution of a core of teachers interested and trained on academic quality issues.

A Quality Management System (QMS) was introduced, referred to ISO 9001:2000 (good quality management practices) and ISO 14001:2004 (environmental management), certified by an independent certification organization (Bureau Veritas), applied to educational performances (for didactic and research activities).

The Quality evaluation and assurance Department organizes periodic meetings between the teaching personnel and specialists, education programmes' beneficiaries. It elaborates, reviews and revises requested processes, procedures and documents. Annual actions' programmes are elaborated, regarding the quality improvement of didactic and scientific research processes at faculties' and departments' level, which bear the major responsibility. The quality is considered the responsibility of every teacher, and every teaching collective, within the framework of the CMU unitary approach of quality assurance.

At the end of every session an internal quality audit is drawn up for the next session,

### 3. Perspectives and strategic planning

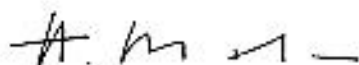
CMU has a traditional recognized and efficient core of activities in its two faculties. The evolution of the sector, the demands of the economic environment have progressively led to the creation of several additional new fields of training and research, such as maritime law or protection of the environment

The quick international technological and economic and social changes, the economic crisis and their employment consequences provoke a new, accelerated, context evolution, with the corresponding pressures and challenges. This opens to CMU a large scope of potential developments in research and the expansion or creation of new academic sectors inducing new employment opportunities for graduates. It also creates a need for, and should open several fields of fruitful cooperation with other romanian higher education institutions. Further exploring these fields for developing interdisciplinary research and courses networks should give CMU in the near future interesting perspectives for evolution.

Developing new directions and activities can also provide significant complementary financing resources.

CMU has therefore to maintain and intensify its present active strategic watch on all developments related to maritime transport and navigation but also related to other aspects of the maritime environment such as marine biology, protection, exploration and exploitation of the sea resources, health issues, and also on international commerce, transportation safety, legal and insurance issues, intercultural communication, etc.

Some of these aspects, which may lead to future important sources of employment, can be developed in several parts of the Romanian higher education system. Considering its strong points, its economic and international exposure and experience, CMU has a strategic place and could have a lead in the Romanian universities network for developing several of these new interdisciplinary domains concerning the sea sciences and technologies.



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