

# CONS.A.R. NEWSLETTER

YEAR VIII – ISSUE 11 – 03/08

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## FOR CONTACTS AND DEEPENINGS

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Cons.a.r has activated on its website a new section completely dedicated (MARECO Center) to update, information and discussion over environmental themes relative to maritime sector. The initiative aims to represent a specialized support for the operators and for all the stakeholders interested to the topic.

[www.consar.net](http://www.consar.net)



## INTRODUCTION

This newsletter aims at disseminating in the shipping sector an updated contribution on the advances in the field of scientific research and technological development. The point of view of this newsletter is from Consar, a shipping body involved in the main European and national research programmes. Other news about training, services to the companies and about specialistic support to Confitarma are inserted in a synergic context complementary to research activities. This newsletter is a small contribution to raise awareness about the role and the weight that shipowners are able and have to play as active subjects in the process of technology evolution, environmental protection, safety and human resources development, to maintain high the competitive qualities of the national fleet. You can ask for deepenings and information to the addresses you can find in the headline.

*Giuseppe Balzano*

## EUROPEAN RESEARCH



### FLAGSHIP PROJECT

EUROPEAN FRAMEWORK FOR SAFE, EFFICIENT AND ENVIRONMENTALLY-FRIENDLY SHIP OPERATIONS

For general information over the project: [www.consar.net](http://www.consar.net) - [www.flagship.be](http://www.flagship.be)

Progress status: Month 15 of 48

Cons.A.R. main activities:

#### T.D.2.1. SURVEY OVER THE RESISTANCE OF MARITIME STAFF TO THE INTRODUCTION OF ICT

During February, the development of this task has been completed through the issue of a summarizing report with the most significant results of the European survey.

In total 2,681 questionnaires were analysed, coming from different parts of Europe in representation of a large geographical sample. Only 15% of the sample states to be resistant to the introduction of new ICT technologies: a large majority of the answers stresses that the main factor for the resistance is that the technologies are usually introduced without an appropriate training for their use.

Moreover, most of seafarers of the "old" generation say that the "new" generations of seafarers seem to rely too much on the modern technologies.

An assessment of specific pieces of technologies on-board was also performed: seafarers are very satisfied about their reliability, user friendliness and standardization characteristics.

The final section of the questionnaire proposed for the survey focused on some information and communication means, such as the internet and e-mail. Seafarers give to these means a great importance, saying that, in the actual working context and especially in the maritime one, they cannot be renounced. In fact, they can be used both as an important support for the ship's operations and to contact relatives at home.

The results of the survey also contain indication, information and cues of great interest for national maritime context, too (training, stakeholders, ICT technologies producers, etc.)

On the web site [www.consar.net](http://www.consar.net) a final report referred to Italian sample participating to the survey can be found.

#### T.C.1.1 STANDARDIZATION OF EMERGENCY MANAGEMENT - T.C.1.2 SAFETY ANALYSIS FOR TECHNICAL SYSTEMS

After the meeting in January c/o Confitarma premises (Rome), the two activities of the sub-project C of the Flagship project planned in the first year of implementation were completed.

After an accurate classification of on-board emergencies, the main functionalities of an appropriate decision support system for their management were defined.

An example of the structure for a standardized security system on-board was also defined, through the description of all connections and dependences between various single sub-systems and by also considering all devices used for communications on-board and between the ship and other entities (shore offices, coast guard, port authorities, insurance companies, media, etc.).

The work performed is useful as an input for the development of the task C1.3, which will concern a cost/benefit analysis of the standardized proposed system.



## SEVENTH FRAMEWORK PROGRAMME 1ST ANNOUNCEMENT

### APPROVED RESEARCH PROPOSALS (with CONSAR as partner)

#### AZIPILOT

The main purpose is to improve the ship's safety, by taking into consideration the man-machine interface and training of maritime pilots, especially when ships equipped with azimuthing control devices are used. This kind of control is rapidly spread in the maritime industry, from the propulsors of little support ships to cruise ships and transatlantics. While industry succeeded in satisfying all the demands, this quick evolution has not allowed the spread of knowledge about different themes.

Even if each industrial sector has its own skill, loss of communication caused an obstacle for the development and compromised the safety. Moreover, a lot of works were just repeated without any real need. To deal with this problem, AZIPILOT project will activate a forum to discuss about technical matters and interconnections with industrial key sectors, such as:

- design specialists and tests about hydrodynamics (theoretical and experimental) and experts of the behaviour of azimuthing control and propulsion systems;
- designers and producers of software, hardware and physical models for marine simulation used to drill maritime pilots (designers, human factor specialists, producers of control and automation systems, lever systems, graphical user's interfaces are also included);
- training structures for stakeholders, by using physical and mathematical simulation instruments, specialists in theory and practise for human factors and specialists in deck personnel and pilots training;
- professional in operative drills (maritime pilots, ship's operators/managers, pilots and final users associations, Maritime Authorities interested in policy and regulations are also included).

The project partners are the following: School of Marine Science and Technology, BMT SeaTech Ltd., Broström Ship Management AB, Cons.a.r. – Italian Ship Owners Research Consortium, CTO, Ship Design and Research Centre, Development Centre for Ship Technology and Transport Systems, FORCE Technology, Foundation for Safety of Navigation and Environment Protection, Mettle, SOGREAH – Port Revel, South Tyneside College, SSPA Sweden AB, STC – Scheepvaart en Transport College, Transas Group, United Kingdom Maritime Pilots Association.

The proposal was approved by the EU Commission. Negotiation step for the project has started after the approval and will be completed within the end of March. Some Cons.a.r.'s associated companies will be directly involved in the project.

#### RISPECT

The main scope of the project is the provision of a software/hardware solution to optimize the management and the maintenance of the ship's structure and painting. The purpose is to rationalize the use of data detected during inspections to compartments/structures and to painting. Main Cons.a.r. objectives in the project are:

- an easier control and constant knowledge possibility by the side of the Shipping Company, through a rational use of the inspections data (classification and internal data);
- maintenance costs reduction. Support in requirement phase of quotations for remedial works (works specification);
- ship's life lengthening;
- reduction of risks for major damages and unforeseen structural downfalls.

During the project there will be the development of:

- ship/fleet software/database which wants to:
  - o make the input from the on-board inspections easier (thickness, coating conditions, corrosions, lesions, etc.). The system allows data input, not only for classification inspections, but also for internal inspections (on-board, inspectors, etc.)
  - o reply to ship's manager answers about situations and forecasts relative to most interesting ship's areas conditions (tanks, compartments, holds, etc.)
  - o produce output reports and documents, for internal management systems for shipping Company (SMS, etc.), for Classification Agencies, for specifications of works, etc.
- a centralized database of European level:



in this database, gradually and anonymously, structural and painting data from a large number of ships will flow together. This centralized database will be accessible to the following potential users: designers, classification agencies, shipyards and shipowners. The last will use statistics, which are available in the database, as a support and comparison in their own maintenance choices.

Cons.a.r. has involved some of its associates to establish a starting group of shipowners to feed and test the functionality and the effectiveness of a centralized database prototype. In order to assure the use of data and to protect the extreme confidentiality, Cons.a.r. imposed the condition that this last experiment will be performed under its close control.

The partners of the project are the following:

- Universities of Glasgow and Strathclyde
- Atlantec Enterprise Solutions
- Bureau Veritas
- CONS.A.R
- Gdansk University of Technology
- Instituto de Soldadura e Qualidade
- Instituto Superior Tecnico
- University of Newcastle
- Shipbuilders and Shiprepairers Association
- TWI (The Welding Institute)
- University of Liege

The project start date is estimated on 1st May 2008.

## SEVENTH FRAMEWORK PROGRAMME 2ND ANNOUNCEMENT



On the 30th November 2007 the second call for the 7th European Research Framework Programme was announced. Among the various themes presented, there is also one related to maritime transports, divided into different areas.

Expiration date for the submission of the proposals is due on 7th May 2008.

Further information are available on the website [www.consar.net](http://www.consar.net).

## RESEARCH PROPOSALS UNDER PREPARATION FOR THE 2<sup>ND</sup> CALL OF THE SEVENTH FRAMEWORK PROGRAMME (with CONSAR as partner)

**HELPS:** Narrow water, channels and manouvring navigation.

**SHIP SURVIVABILITY:** safety for average and little dimensioned ships.

**GemTech :** Exploration of radical change in support of reduced green house gas emissions, incorporating breakthrough technologies and results from interdisciplinary fields such as nanotechnology and biotechnologies.

## NATIONAL RESEARCH



### ECOMOS PROJECT (FIRB)

ECOLOGIC COMPATIBILITY OF THE SHIPS TRADING ON THE MOTORWAYS OF THE SEA



#### Project Objectives:

The ECOMOS project, started on the 2nd January 2008, will last three years and will concern about the basic research for the implementation of an integrated reduction system for pollutant atmospheric emissions (SO<sub>x</sub>, NO<sub>x</sub>, PM) from ships. On 31st January the kick-off meeting in Genoa (c/o CNR) officially started up the project.

#### Cons.A.R. participation:

Cons.a.r. will perform research activities oriented to the in-depth examination of performances of the modern reduction systems for the exhaust emissions in order to make them environmental friendly complying with the latest laws, without having a large decrease in the main propulsion system's performance of ships.

Cons.a.r. activities will mainly concern the following two basic research themes:

- RB1: Methodological approach to the reckoning and abatement of noxious gaseous emissions from ships trading the Motorways of the Sea;
- RB4: Testing of emissions abatement systems and demonstration, with the cost/benefit evaluation.

During the first year of the project, Cons.a.r. will be in charge of several activities. A survey on International, National and European Community regulations in force and in progress will be performed. After the issue of a first report, periodical six-month bulletins will be issued to consider relevant regulations developments.

Moreover, another survey is going to be started in order to ask stakeholders working in the Motorways of the Sea data about on-board plants, fuel used, operational profiles, etc.

The other partners participating to the project are the following:

- CNR Genoa;
- CETENA;
- Genoa University;
- The National Interuniversity Consortium "Chemistry for the Environment" (INCA).

### INDUSTRIA 2015 INITIATIVE

Industria 2015 is the law proposal over the new industrial policy launched by the Italian government on September 22th, 2006. The contents of this proposal have been taken in by the 2007 Financial Law. The proposal establishes the strategic guidelines for the development and the competitiveness of the Italian productive system of the future, founded over an **industry** concept extended to the new productive chains including manufacturing, advanced services and new technologies, and over an analysis of the economic-productive future scenarios of our country in the middle and long run (2015).

The initiative aims at repositioning the Italian industrial system into the worldwide economy.

The implementing decrees of three Industrial Innovation Projects (PII) have been approved: Energetic Efficiency, Sustainable Mobility, New Technologies for the Made in Italy. The competition announcements are expected for the following dates: 03/03/08 (Energetic Efficiency) – 17/03/08 (Sustainable Mobility) – 31/03/08 (New Technologies for the Made in Italy).



## THE NATIONAL TECHNOLOGY PLATFORMS AND THE “RITMARE” INITIATIVE

(ITALIAN RESEARCH FOR THE SEA)



Technology Platforms are spontaneous initiatives of the industrial system. Their objective is to create a wide plan for the definition of a research strategic agenda. Technology platforms with bottom up or technology driven approaches, represent an aggregation moment for the industry, that could produce a wide impact over the productive system, responding to the needs of the society and outlining the guidelines of the future marketplace.

This practice can work as long as the industries use the technology platforms to express their technological needs, detect the problems and draw the future of the same industry. Moreover, this practice, if well-conducted, will allow the approach of the research to the market requirements and to the real needs of the society. The involvement of institutional organizations, research centers and universities, should accelerate the achievement of the agreement, fundamental element for the choices and the policy decisions for the future investments on national and European level (source: Confindustria).

In the maritime sector, the Maritime National Technology platform has elaborated the “RITMARE” initiative. By means of this initiative the priority indications and the research requirements (S.R.A.) have been produced, in line with the European platform.

The national organizations involved are: RINA, Assonave, Fincantieri, Cetena, Ucina, Confitarma. Five detailed technological areas have been individuated:

1. Safety, security, survivability
2. Environmental Sustainability
3. Comfort
4. Efficiency
5. Materials, Processes and innovative components

In relation to these subjects, the RITMARE Initiative proposes to enable a three-year investment. On March 3, 2008, the produced results and proposals elaborated by the three technology platforms (TERIT *Communication* – RITMARE *Maritime* – SERIT *Security*) have been presented during a meeting in Confindustria, at the presence of Dr.Criscuoli and Dr.Beltrame.

## CONSORTIUM SERVICES

ADVANCED MANAGEMENT SYSTEMS FOR THE SHIPPING



### ISO 9001/14001

QUALITY AND ENVIRONMENTAL MANAGEMENT SYSTEMS

Cons.A.R. continues the activity of bringing a primary shipping company associated to the consortium to the implementation of the ISO 9001 system.

Moreover, Cons.A.R. is bringing to ISO 9001/14001 certification another associated company.

### 231 SYSTEM (DLGS 231/01)

COMPANIES CONTROL, GOVERNMENT  
AND ORGANIZATION MANAGEMENT  
SYSTEM



Cons.A.R., on last October, in collaboration with a consultant company, has started the elaboration of the "231 System" for a prestigious Italian shipping company. This is one of the first times this system is applied to the shipping sector.

#### Normative notes:

The 231/2001 decree law brings in the organizations' administrative responsibility (on penal level, for crimes committed by someone working for the organization, and that take benefits to the same organization).

In case of crime, in addition of who has committed the same crime, also the organization who has taken benefits can be legally sued.

The organizations can have pecuniary or interdicting sanctions, with and punitive aims. A pecuniary sanction, like the seizure of the profit relative to the committed crime.

In case of absence (or inadequacy) of a suitable managerial system, the company will have certain responsibility over the committed crime.

Adopting the 231 system, the company defines and rules a business responsibility system, through the "risk assessment" methods. The use of the "231 System" does not warrant the company absolution in case of crime. It represents an exempting and, if it is effective, the organization responsibility will be excepted or attenuated.

#### A "231 System" must have:

- Risk Assessment;
- Procedures to avoiding crimes;
- Internal disciplinary system;
- Internal ethic code;
- Internal vigilance corps;
- Staff training.

In the shipping sector, the normative will be extended to other areas like:

- Working injuries;
- Working hygiene;
- Maritime pollution.

#### For more information over the law please visit:

<http://www.parlamento.it/leggi/deleghe/01231dl.htm>

(in Italian language)



## OTHER SERVICES

The normal activities for the provision of the following consortium services for the companies is proceeding:

### Manuals and Procedures:

- S.O.P.E.P. plan (Shipboard Oil Pollution Emergency Plan)
- Garbage management plan (Amendment Reg. 2 and new Reg.9 – Annex V – Marpol)
- SMS Manual (ISM Code – IMO Resolution)
- Security plan (Art.6 – 271/99 decree law) – *New version – 2007 – With italian and international normative requirements*
- HACCP manual (155/97 decree law). *New version – 2007 – With italian and international normative requirements*
- Procedures for the notification and the ordinance of the on-board garbage in E.U. ports (2000/59/CE directive – 27th November 2000). Bilingual Version (Italian/English)
- Fire Training Manual and Booklets (Solass)

Moreover you can find this new services:

### Elaboration and implementation of the management systems:

With the debate of security requirements, environmental normative and needs, security, operating complexity and technological developing, shipping companies needs to be endowed with certified, advanced and rational management tools. Now, the Cons.A.R. is able to offer to all the associated companies, the management systems planning and developing service at easier conditions. The consortium context where the services are developed, assures an optimization and homogenization of the systems and of the procedures, with benefits regarding the implementation costs' containment and the elaboration, auditing and certification steps quickness.



Here you can find all the offered services:

- Elaboration and implementation of Quality Management Systems (**ISO 9001**)
- Elaboration and implementation of Environmental Management System (**ISO 14001 – EMAS**)
- Elaboration and implementation of Company Management Systems for the security (**OHSAS 18001**)
- Elaboration and implementation of Etichs and Societal responsibility systems (**SA 8000 – Societal Balance – Environmental Balance – SCR-SC – Ethical Code**)
- Elaboration and implementation of companies control, government and organization management system (**231/01 decree law**)
- Technical assistance in Company Management Systems' develop and evolution, with the intent to satisfy the improvement objectives expected by TMSA (**Tanker Management & Self Assessment**)
- Elaboration and implementation of informative systems (**Management forms and corporate website**)



## PUBLISHING HIGHLIGHTS

### HISTORY OF THE NAVIGATION



Cons.A.R. proposes to the associated shipping companies, the purchase (at exclusive conditions) of a unique literary opera:



# STORIA DELLA NAVIGAZIONE

## HISTORY OF THE NAVIGATION

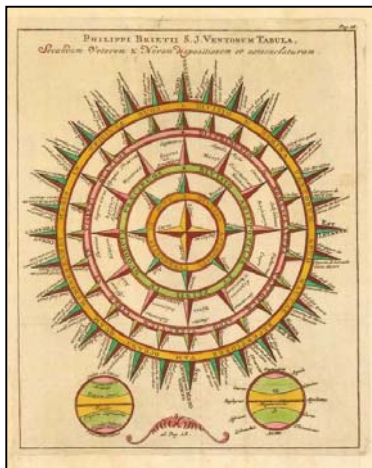
by *Silvestro Sannino*

Literary opera divided in two extensively illustrated books, shipped in an elegant box.

The market price of the opera is of € 100 + VAT + shipment costs.  
Purchasing by means of Cons.A.R. you can make use of a 10% discount over the market price.

Moreover:

- For single orders higher than 20 copies, is possible to pick, in the place of the discount, a special copy, in limited edition;
- The books purchased by means of Cons.A.R. could receive, over demand, an autograph dedication made by the writer.



The box purchasing price is of € 90,00 + VAT + shipment costs

Payment via COD (Cash on Delivery)

You can find more information over the opera on our website  
[www.consar.net](http://www.consar.net)