



# VISION AND PRESENT SITUATION OF LNG IN THE MARITIME INDUSTRY



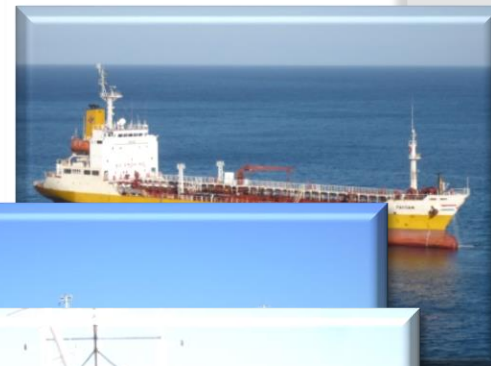
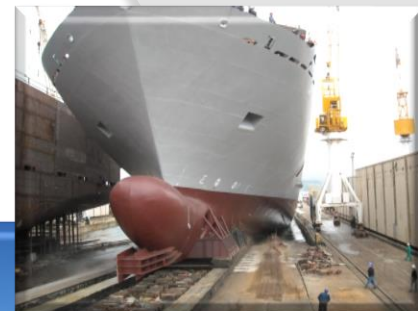
# 2008 - COTENAVAL Start up.

## GOALS:

- Maritime Consultancy and Support.
- New building and Ship Repairs Projects.
- In situ surveillance and follow up.
- Support to operating fleet.

We perform technical consultancy to different Spanish Companies in the naval area:

- Baleària
- Petrogas
- Cyes Maritime Works





**GAS**

**GASNAM**

ASOCIACIÓN IBÉRICA DE GAS NATURAL PARA LA MOVILIDAD



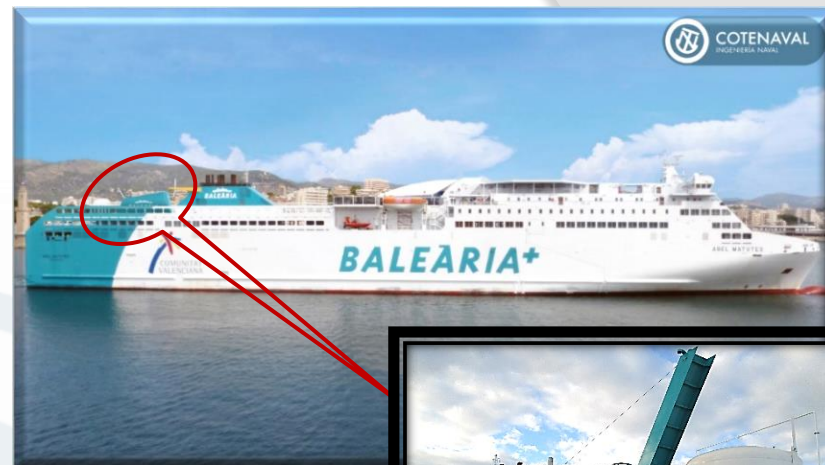
## COTENAVAL Founding member of GASNAM

We are involved  
with the  
environment  
promoting the use  
of Gas like fuel.

Also we consider the  
Research, development  
and innovation, as a  
vital necessity of  
future.

We are in constant  
collaboration with  
all the involved  
agents.

We are continuously  
improving and making  
studies of tugs, ferries,  
bunkering barges,  
RoRo,...



# MAIN PROJECTS

- ⦿ Abel Matutes
- ⦿ Pelican Gas
- ⦿ Egg Braker
- ⦿ Baleària's new Ferries



**Baleària** is one of or principal client.

- Is the unique Ferry Company connecting Spanish mainland with the Balear Islands. Also operates in the Channel as well as other routes. It has a fleet of 24 vessels.
- The mission of the Baleària is to meet the shipping needs of society, offering its customers a quality service that respects the environment.
- The vision of Baleària is to be a leader and growing, with a global presence, which is characterized by offer services of excellent quality through continuous improvement and excellence in management, and environmentally sustainable, involving strengthening and creating links between the societies to which connect with shipping lines, contributing to its development and progress.
- **Baleària** is the shipping company that has grown most in recent years.





## EMBLEMATIC PROJECTS

### “Baleària’s New Ferry”



#### MAIN CHARACTERISTICS

|                |          |
|----------------|----------|
| Length:        | 232 m    |
| Beam:          | 30,4 m   |
| Speed:         | 24 knots |
| Lineal meters: | 3.300    |
| Passengers:    | 1.633    |
| Cars:          | 350 cars |

#### GENERAL CHARACTERISTICS:

- 4 propulsion dual fuel engines
- 4 dual fuel gensets
- 2 shaft generators
- 1 emergency group
- LNG
- Solar Panels

#### GAS PLANT:

- Liquid Natural Gas (LNG)
- 2 storage tanks under deck.
- IMO GAS tanks, Type C
- Approximate capacity of 400 m<sup>3</sup> per tank



# Conclusions

- ⦿ The naval industry considers the LNG as a real and feasible solution, in economic and technical terms.
- ⦿ We are proactively promoting the use of LNG in the naval sector even though the Mediterranean area is not expected to be an ECA zone in a short term.
- ⦿ Currently in Spain there are fifteen vessels under construction, seven of those vessels will be moved by LNG
- ⦿ We are also fully involved in those association and projects that enhance the LNG use, GASNAM, ....
- ⦿ We will be interested and ready to collaborate in any similar action, both internationally and nationally



**¡MUCHAS GRACIAS!**  
**THANK YOU VERY MUCH!**  
**MERCI BEAUCOUP!**  
**VIELEN DANK!**

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