Economic efficiency and sustainable mobility*

At the last Euromed Convention about one year ago in Athens, we were commenting that the oil barrel had just reached an unprecedented all times record at 80 USD per barrel and that further increases could be anticipated.

Today, after experiencing the worst oil shock ever with the barrel hitting nearly 150 USD in July last, the world is growing aware that several issues connected with the economic crisis arise from oil prices. The first and immediate impact of oil rising prices is of course on bunker and gasoline, which in turn have an indirect but general impact on consumer prices through transportation. But the knock-on effect doesn’t stop here.

The use of cereal crops to produce bio-fuels as alternatives to traditional oil based fuels has directly propagated inflation to food commodities triggering a parallel food price crisis. Those direct and indirect price increases have generated widespread cost/supply driven inflation alarms that in turn have pressured central banks to tighten monetary policy through higher interest rates. An apocalyptic scenario, to make a long story short.

We are living, and are likely to live in the years to come, an era in which only those fit to resist in such a changed environment will survive. Nat-

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* Relazione presentata dall’armatore internazionale, dott. Emanuele Grimaldi, in occasione della XII EUROMED CONVENTION “FROM LAND TO SEA” del Gruppo Grimaldi Napoli - diretta a promuovere il trasporto marittimo a corto raggio in Europa - svoltasi sulla Cruise Ferry Barcelona dal 4 al 7 ottobre 2008, il cui tema questo anno è stato: “Sustainable Mobility”.

** Armatore internazionale, Grimaldi Group, Napoli.
natural selection is nothing but a natural process, and it was first unveiled by Charles Darwin some 150 years ago in his groundbreaking book *The Origin of Species*. According to Darwin, natural selection is the process by which favorable traits become more common in successive generations, while those unfavorable become less common. Individuals with favorable characteristics are more likely to survive than those with less favorable characteristics. In other words, natural selection is the mechanism by which evolution may take place in a specific population of organisms.

When it comes to business, natural selection in harsh times only allows those who adapt to a different economic scenario to survive. And adaptation for a company basically comes down to the quality of manpower: the right people with the right ideas make the whole difference. A dedicated, flexible and intelligent workforce surely represents the most valuable and scarce of assets, yet it can become a heavy liability when such qualities are replaced with mediocrity and lack of initiative.

Today our company is among the very best thanks to an outstanding team of managers who do a great work and will continue doing the same, but we have to ask even better performances in this difficult time full of challenges but also of professional opportunities.

Synergy and the creation of a constructive dialogue between our managers scattered around the world, is an important advantage and a competitive edge as far as the underlying corporate culture is clear to all. Unless it is used as an excuse to avoid integration, the difference in background and culture is an invaluable asset. Diversity within a common corporate background is a great opportunity for a benchmarking exercise aimed at finding the best practices ranging from operational procedures to technical research and innovation, and spreading them through the Group.

Natural selection in maritime sector in present times also means that those companies that do not invest in fuel efficiency, which in turn means environmental efficiency, will be swept away from the market. Therefore business survival and environmental efficiency are nowadays bond together very tightly and the quest for business and economic efficiency has finally married the ethical values of environment preservation. Environmentally sustainable mobility is no longer a choice, but an unavoidable necessity.

To tell the truth all this perfectly matches our most profound values in that the very leitmotiv of what we have done in the last decade is sustainable mobility. **Our mission and corporate responsibility is sustainable mobility.**

For Grimaldi, at corporate level, the bunker emergency translates in a 50% increase of bunker costs from 400 to 600 Million Euro a year and we would not be able to face this major shock without our multi-annual, efficiency based investment program coupled with a series of punctual initiatives realized in the last year.
Over the last three decades, we have struggled to increase fuel efficiency and reduce CO2 emissions and we have achieved outstanding results. In fact CO2 emissions have dropped from the nearly 2500 kilos per trailer transported by a Malta Express class vessel built in 1980 to the present less than 1000 of a trailer onboard a Eurocargo class unit. This virtuous path will further continue and we target to reach 750 kilos emissions by 2010, when the 10 new roro units will be delivered by Hyundai.

This is why we have fitted two additional car decks on 5 Eurocargo type vessels deployed on regular intra-Med lines. This allows us to transport additional 1500 cars with 0 additional emissions.

The same trend is registered for the Cruise class units compared with their predecessor Eurostar units. The Cruises feature twice as much the cargo capacity of the Eurostars with only 20% higher consumption. In other words the reduction in fuel consumption and CO2 emissions per unit transported is 40%.

Apart from the environmental relevance, this efficiency program has allowed us to only pass less than one fourth of the yearly 200 Million € extra bunker cost on to our Clients. About one half has been offset by efficiencies, while the balance is borne by us.

The same efficiency mechanism has been put in place for passenger transport, and this is evident when comparing again the Cruise Barcelona class units with their predecessor Eurostar. Thanks to the Cruise class units the quality of pax services has increased dramatically, while at the same time tariffs have gone down. We have transported 50% more passengers in July and August this year compared with last year and earned 30% more. Therefore clients have paid less 20% per person: much more quality for much less money. This is the very definition of progress, with efficiency being shared between Clients and the service provider.

Speaking about progress, a quick overview of our achievements since the last Euromed Convention:

– Two out of the 4 cruise ferries of highest standard ordered with Fincantieri have been delivered: the Cruise Roma and her twin Cruise Barcelona that is hosting us.
– Two more sister units will be delivered within 2010.
– Deep sea lines are about to be delivered the first of 12 new multi-purpose conro units in two weeks time. The Grande Angola will be deployed on West Africa’s Southern Express service followed by the next deliveries.

Apart from the hardware program our efforts have been focused on:

– Increasing our share in Finnlines, that is now amounting to nearly 64%.
– We have purchased a 33% share in Minoan, becoming the largest single shareholder in one of the leading passenger operators on Italy/Greece routes.
A very fruitful collaboration has been started with Minoan in such a constructive way that we directly participate in the Board of Directors. A series of synergy initiatives is underway including the creation of joint committees on the most important operational aspects.

For long term sustainability we are simultaneously addressing environmental and economic aspects through:

- Economies of scale and scope, that are potentially unlimited in the case of maritime transport, while much to the contrary they are virtually impossible for land transport because of the physical limitation and congestion of the infrastructures.
- R&D for low consumption engines, hull tailored propellers, alternative sources of energy like gas or fuel cells, efficient keel design and hydrodynamics. Our engineers closely cooperate with shipyards in this respect and we have created a corporate department in charge of technical research.
- Logistics optimization, full capacity occupation and minimum ballast legs. This is possible thanks to our commercial organization.

All the actions just mentioned are efficiency driven and together are destined to enhance sustainable mobility through the development of maritime transport. It has been demonstrated and there is common awareness that maritime mode is the most sustainable among all transport modes. If sustainable mobility is the ultimate goal for us all institutions, citizens transport operators, clients etc., any possible regulatory action from public bodies at national or international level, with a potential impact on maritime transport, must be very carefully evaluated before being implemented.

We are absolutely sensible to environment and at the forefront in preaching sustainable mobility, but the widespread and shared environmental conscience must not degenerate into fundamentalist attitudes that can ultimately act like a boomerang on the environment itself.

The main culprit of the sad and embarrassing garbage crisis that our home city of Naples has lived until last summer is green fundamentalism. The realization of garbage plants has been vetoed over the years for their environmental impact, despite knowing that the existing infrastructures had reached full capacity since a long time. This is how harmful fundamentalism can be when applied to the environment.

In the transport sector, everybody would consider a regulation for the reduction of sulphur contents of marine fuels or other similar measures to be for the sake of environment. But this very regulation would inevitably result in an increase of costs and subsequent loss of competitiveness.
of maritime transport, in favour of other, more polluting modes, ultimately creating an increase of overall pollution levels.

Any rule with an impact on a specific sector should be conceived with great prudence and preferably by the appropriate international organization – the IMO in the case of maritime transport, in order to avoid harmful speculation.

In conclusion, more than ever in this difficult moments I would like to express my sincere thanks to all Clients and representatives of Institutions, press and the ports sector, who have supported us so far. They have been the first to understand the importance of maritime transport for modal re-balance and sustainable mobility. I also wish to thank all of our more and more numerous and international staff for their commitment and for the results achieved so far that wouldn’t be possible without their contribution.
From oil prices to global crisis

Supply driven Inflation
Monetary squeeze
Economic and financial crisis

Natural selection:
Those who adapt survive through evolution
(Charles Darwin, The Origin of Species - 1859)

Natural selection in a business environment: how to survive?

1. Quality of human resources
2. Different managerial cultures within the same corporate background
3. In maritime transport: fuel efficiency = environmental efficiency
Growth of the oil bill

2007: 400 M€ / year
2008: 600 M€ / year

+ 50%

Fuel and environmental efficiency become unavoidable

Our way to environmental efficiency (1)

Route Salerno-Valencia: CO2 Emissions trend
Comparison between Trucks and Grimaldi Group RoRo Vessels

Our way to environmental efficiency (2)

2 additional car decks on 5
Eurocargo class units: 1500 cars transported with 0 costs and emissions
Our way to environmental efficiency (3)

Cruise class: 40% fuel efficiency per cargo unit compared with Eurostar Class

At corporate level only ¼ of the extra 200MC bunker costs has been passed on to Clients

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<th>Eurostar</th>
<th>Cruise</th>
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<td>200</td>
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<td>Cabins</td>
<td>200</td>
<td>470</td>
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Grimaldi: a quick one year update (1)

• Cruise Roma and Barcelona delivered respectively in March and September this year and two further sister units will be delivered within 2010

• Deep Sea Lines are to be delivered the 1st of a series of 12 multipurpose conro units in two weeks. Grande Angola will be deployed on the Southern Express line

Grimaldi: a quick one year update (2)

• We have increased our share in Finnlines to about 64%

• We are the largest shareholders in in Minoan with a 33% share and have started a fruitful collaboration including our direct participation in the Board of Directors
Long term sustainability = investing in environmental efficiency:

- Economies of scale and scope, that are potentially unlimited for maritime transport
- Research on highly efficient engines and low resistance keels
- Logistics optimization for full occupation of cargo capacity and minimizing ballast legs

Maritime transport = sustainable mobility

- Maritime transport is the most environmentally sustainable transport mode
- Regulations with potential to impact maritime transport must be taken thoroughly evaluated before their are implemented and fundamentalism must be carefully avoided
- Green fundamentalism has dramatically contributed to the garbage crisis in Naples earlier this year

Thank you