Session ii:
The Changing Structure of World Shipbuilding

Innovation & Intellectual Property Rights

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Overview

- Introduction
- Market drivers
- “Vicious Cycle” 2008
- Establish improved quality appreciation
- Importance of Intellectual Property
- Introduction of GuardSHIP
Shift of Market Share

- Market shares have moved
  Europe ⇒ Japan ⇒ Korea ⇒ China etc.
  Europe’s contribution to global transport capacity is 2-3% (orderbook in dwt)

- Mostly reasoned with labour cost advantages

- Decreasing production depth lowers this effect
  - Ø 70% of vessel price is for material & equipment
  - 30% cheaper labour cost results in 9% price adv.
Other Reasons

- Productivity / efficiency
- Pricing
- Design and product quality
- Reference to “vicious cycle” model
The Vicious Cycle
Comments made at OECD Hearing in April 2002

Shipbuilding
- Imbalance of supply and demand
- Additional, unsustainable Capacity
- Low newbuilding price levels
- Distortion of market incentives
- Government intervention (Bail-out of shipyards)
- Unsustainable business

Shipping
- Incentive to buy newbuilding
- Increase speculation & volatility
- Book value of existing fleets decreases
- Imbalance of supply and demand
- Low price levels
- Unsustainable business
- Additional, unsustainable Capacity

AWES, Brussels March 2002
…and even affects Safety

Shipbuilding
- additional, unsustainable Capacity
- Distortion of market incentives
- Government intervention (Bail-out of shipyards)
- Unsustainable business
- Low newbuilding price levels
- Affects newbuilding standards
- Affects capabilities of technical departments
- Affects Safety

Shipping
- additional, unsustainable Capacity
- Imbalance of Supply and demand
- Incentive to buy newbuilding (Increase speculation & volatility)
- Book value of existing fleets decreases
- Low price levels
- Strong cost pressure
- Affects capabilities of technical departments
- Affects Safety

AWES, Brussels March 2002
The Vicious Cycle - 2008

Over-investment

Imbalance of supply and demand

Incentive to buy newbuilding, increase speculation & volatility

Low newbuilding price levels

Book value of existing fleets decreases

Low price levels

Distortion of market incentives

Government intervention, Bail-out of shipyards

Sustainability business

Additional, unsustainable Capacity

Unsustainable business
Impact 2008: Two Additional Challenges

**Shipbuilding**
- Over-investment
- Additional, unsustainable capacity
- Distortion of market incentives
- Government intervention (bail-out of shipyards)
- Unsustainable business
- Low newbuilding price levels

**Shipping**
- Incentive to buy newbuilding
- Increase speculation & volatility
- Imbalance of supply and demand
- Book value of existing fleets decreases
- Low price levels

**Environmental Challenges**
- Skill-shortage
  - Affects newbuilding standards
- Affects capabilities of technical departments
- Affects Safety
Problems Related to Overheated Market

- Low quality material & equipment
- Shortage of qualified & experienced labour force at yards
- Shortage of man-power in supervision and inspection
- Shortage of qualified seafarers
  - More accidents
    - reaction by public and by regulators
Environmental Challenges Call for Innovation

- **Noise**
- **NO\textsubscript{x}, SO\textsubscript{x}, CO\textsubscript{2}**
- **CFC, HCFC (Carbohydrates)**
- **VOCs (tanker) Volatile organic comp**
- **Waste water**
- **Bilgewater / Oil**
- **Garbage**
- **Antifouling**
- **Ballast Water**
Who pays??
Encourage Quality Appreciation

- Quality will not increase the cost of transportation significantly
- Need to reverse the Vicious Cycle
  - Balance of supply & demand
  - Normal value discipline
- Enhance innovation
- Respect Intellectual Property

\[ \text{Policy makers} \]
\[ \text{Industry} \]
Return on Investment

- Innovation is investment in intellectual **Property**
- The return on investment is driving innovation
- Many leakages = difficult & costly to prevent
- Yards pay little attention = invitation to business partners to take benefit
Multiple Leakages

- Consultants
- Design Offices
- Universities / Research Centres
- Classification Societies
- Suppliers
- Ship Owners
- Software Vendors
Introducing GuardSHIP®

- Join forces!
- Dedicated shipbuilding IPR competence
- Use political influence and PR
- Practical and cost-efficient services

Change the mind-set in the industry:
IPR violation is **theft**!
... and undermines the whole community
Services offered

- Handbook – practical guidance
- Consulting on IPR company policy
- Patent and market monitoring
- Infringement counteraction support
- IPR Brokerage
- GuardSHIP label
Handbook

- Provides practical guidance for daily work
- Part I – conceptual session:
  - Problem description, definition of terms and instruments
- Part II – practical session:
  - Guidance by yard departments
  - Standard contract terms for various business relations
- Bi-annual amendments
Patent brokerage

- Offers patent holders to exploit market opportunities
- Offers interested parties assistance in acquiring new technologies
- Advocates transfer of technology at agreed terms & conditions
+++ Thank you for your attention +++

more info at

www.cesa.eu
www.Guardship.eu