What are the Roles and Perspectives of Shipbuilding Industry?

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1. An important remark describing shipbuilding industry

- **Martin Stopford’s “Maritime Economics” says...**

The density of the shipbuilding industry invites severe competitions and results in lower prices, favouring developing countries to enter the industry.

>>> This has now caused over-supply situation which we are suffering.

✓ Shipowners are naturally very sensitive to the economy of their business.

>>> Unless there are any incentives, or measures which are available to alleviate the risks, paying attention to Green Technology is unfortunately in the least of their concern.
2. Social responsibility for the environment is increasing

- **Vivid discussions are taking place at IMO**
  - Fulfilment of social responsibility of the maritime sector.
  - GHG emission reduction is now in the agenda.
  - Shipbuilders have developed energy saving technology to protect shipowners from oil price fluctuation which functions to provide solutions for EEDI requirements.

>>> In this case, incentive to shipowners and what the rules and regulations aimed enable the shipbuilders to continue to develop new technologies or to widen effective use of technologies.

**Rules and regulations linking to incentives of players are key to success.**
3. A lot of technologies have been developed but...

- **Too naïve to expect drastic improvements of today’s ship designs**
  
  Propulsive performance or hydrodynamics will be enhanced more from now, but gradually only since some considerable technical investments were already made in this area.

- Other means of saving energy such as improvement of main engine performance, use of waste energy, heat recovery system and improved propulsion systems already took place.

- Reduction of resistance e.g. superstructure and hull form was also looked into.

Application of such technologies is often found effective to limited cases. Steady efforts to seek good combination with small gains are needed.
4. New regulations will be enhanced further from now

✓ Regulations on ballast water management system or NOx / SOx reductions are already in place.
✓ Particularly for GHG emission reduction technologies have already been used in the past as countermeasure against fluctuation of oil prices.

Further technically feasible developments will certainly take more time and money. Therefore, hardware or operational costs would also increase.

e.g.) LNG as fuel will drastically improve EEDI but is costly investment and further technologies or supply infrastructure is yet on its way for a more uniform use.
5. A way forward

● **Necessity of enhancing rules & regulations is understandable**
  It is important for the stakeholders to seek further coordination to carry out careful impact analysis so that practical problems of implementation can be commonly shared in the rule making process.

● **Green Growth will create demand for newbuilding**
  But when it comes to regulatory matters, and considering the magnitude of investments to be imposed to shipowners as well as shipbuilders etc, it is never too early to realise the importance of *risk-based, date-based, and technology-based* approaches.