

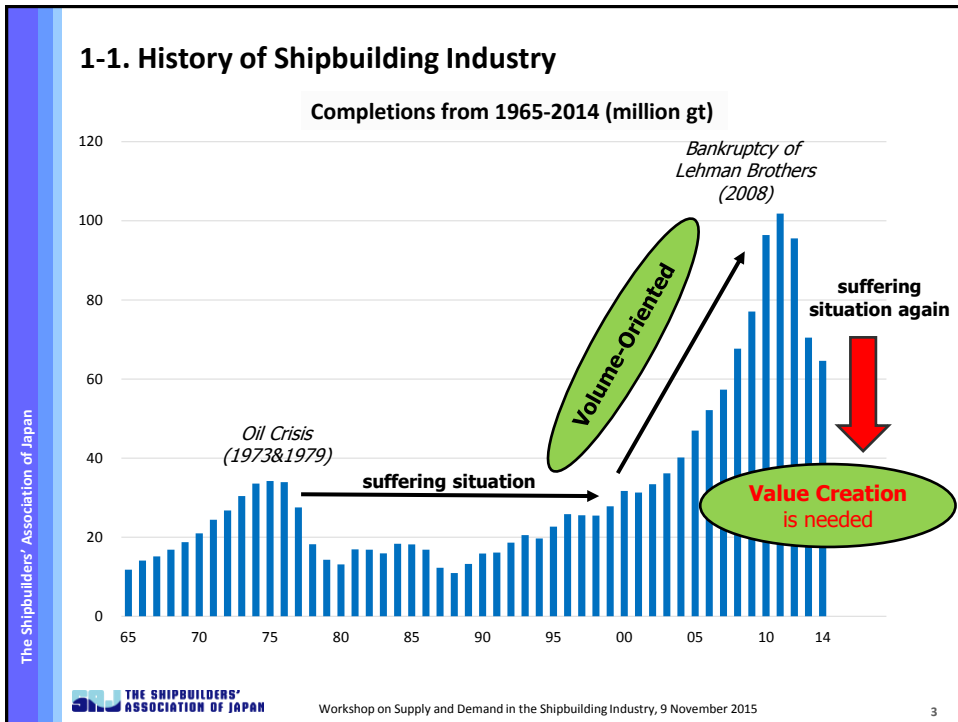
# Current Situation in the Shipbuilding Industry and Long Term World Shipbuilding Forecast (SAJ2015)

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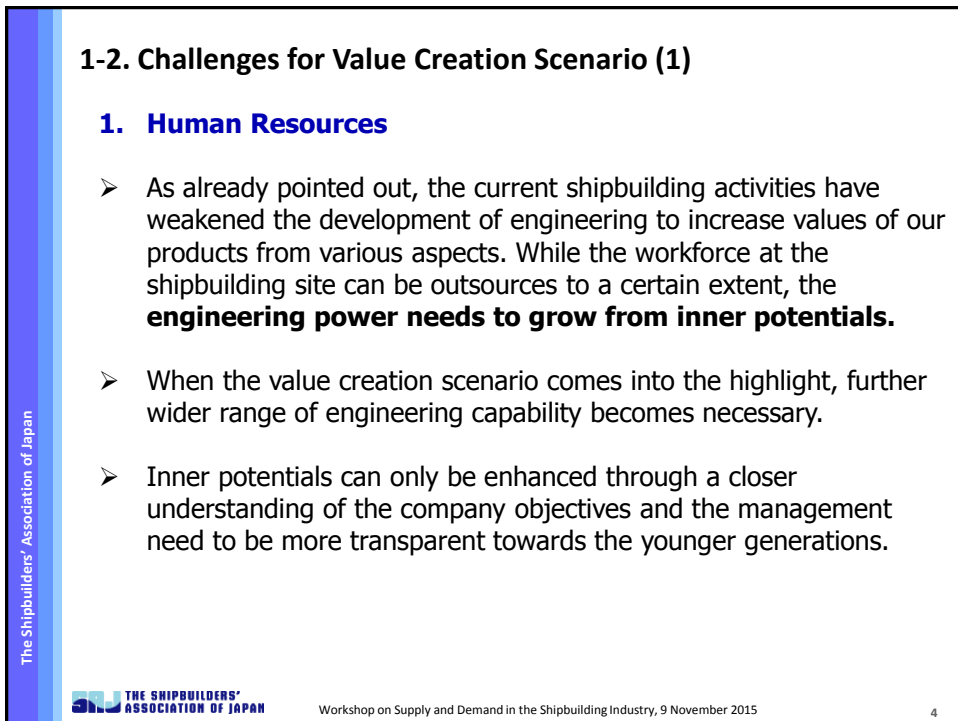
## *1. Current Situation in the Shipbuilding Industry*



### 1-2. Challenges for Value Creation Scenario (1)

#### 1. Human Resources

- As already pointed out, the current shipbuilding activities have weakened the development of engineering to increase values of our products from various aspects. While the workforce at the shipbuilding site can be outsourced to a certain extent, the **engineering power needs to grow from inner potentials.**
- When the value creation scenario comes into the highlight, further wider range of engineering capability becomes necessary.
- Inner potentials can only be enhanced through a closer understanding of the company objectives and the management need to be more transparent towards the younger generations.



## 1-2. Challenges for Value Creation Scenario (2)

### 2. Adaptability to New Marine Technology

➤ As a result of more value creation thinking there seems to be, although still limited, the ambitious attempts to apply new technology. This has particularly been so in Japan on the LNG burning engine related technologies, propulsion systems and energy saving devices, emission controls, IT related systems.

➤ Combining various technologies for environmental advantage as well as energy saving is becoming a popular idea, which involves, **hardware and software.**

➤ While **success stories are needed** to create a more powerful move in the industry, we also need to remember that against one successful results, there could well be a few if not many efforts wasted and **more thoughts may be needed to improve efficiency.**

## 1-2. Challenges for Value Creation Scenario (3)

### 3. Regulatory Development


➤ This is a great concern where more stringent regulations for safety and environmental protection are introduced every now and then. Adaptability to those regulations will be a key issue for all shipyards and it will very much depend on **how the regulations are implementation friendly.**

➤ Some regulations have been set in a rush to achieve results, and there might be political importance in doing so, but if new technology is involved in the rule making process, this needs to be done carefully in order to **prevent any undesired or unintended consequences** arising from lack of careful **impact analysis.** Once the rules are in force, it will not be easy to take corrective actions.

➤ Shipbuilders will have a large role to play in providing impact analysis.

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## 2. Long Term World Shipbuilding Forecast (SAJ2015)

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### 2-1. Introduction of SAJ Forecast

#### SAJ Forecast...

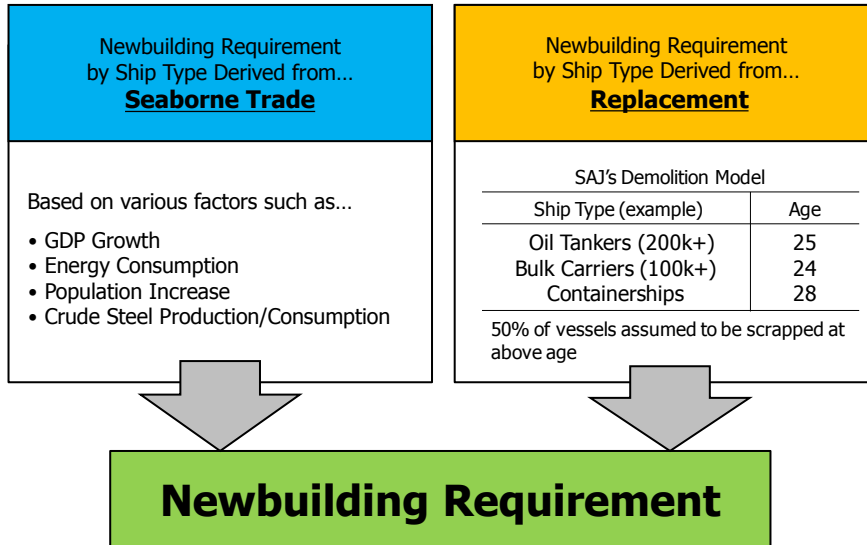
- ✓ has periodically been done since 1960's, to support long-term business strategy making of SAJ's member companies.
- ✓ is based on both forecasts of future seaborne trade development and future replacement.
  - So, speculation orders, and short-term volatility of shipping freight and shipbuilding price are **NOT** taken into account.

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## 2-2. Rough Sketch of SAJ Forecast Methodology



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## 2-3. Assumption of GDP Growth in SAJ2015

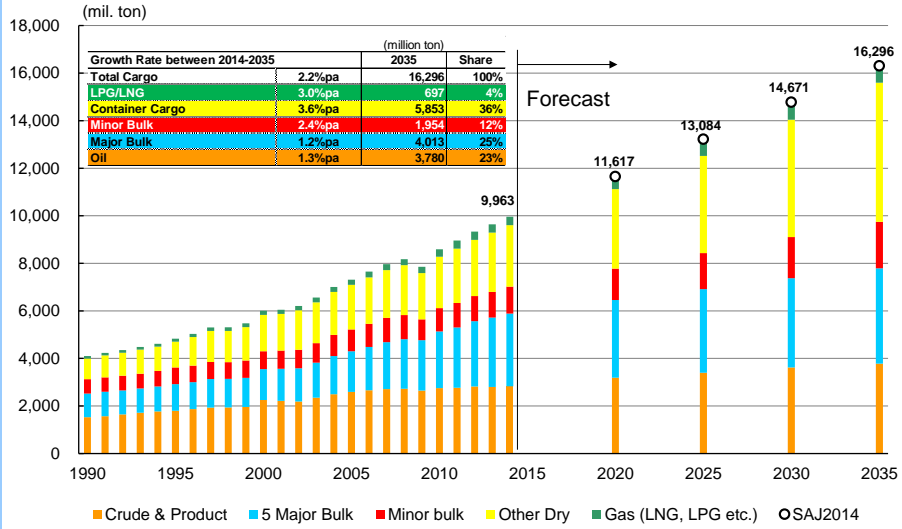
### GDP Growth Forecast (%)

	2013-35	2013-20	2020-25	2025-30	2030-35
OECD	<b>2.0</b>	2.2	2.0	1.9	1.9
Non-OECD	<b>5.0</b>	5.4	5.3	4.8	4.2
World	<b>3.7</b>	3.9	3.8	3.6	3.3

Based on economic outlooks of various organisations such as IMF, IEA and EIA

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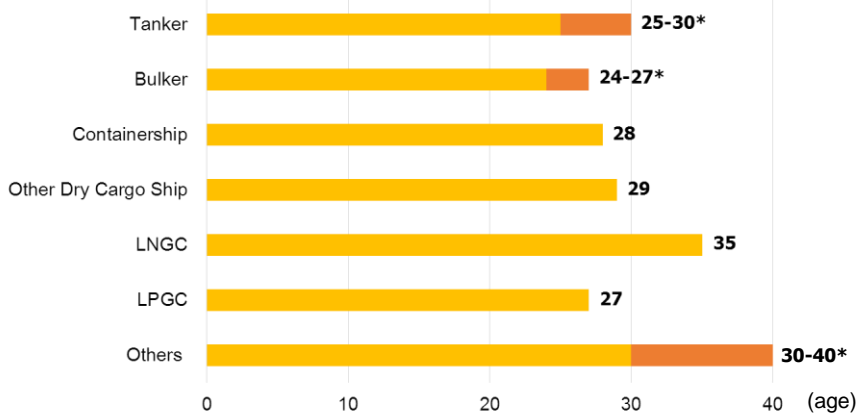
## 2-4. Seaborne Trade Forecast in SAJ2015



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## 2-5. Replacement demand in SAJ2015

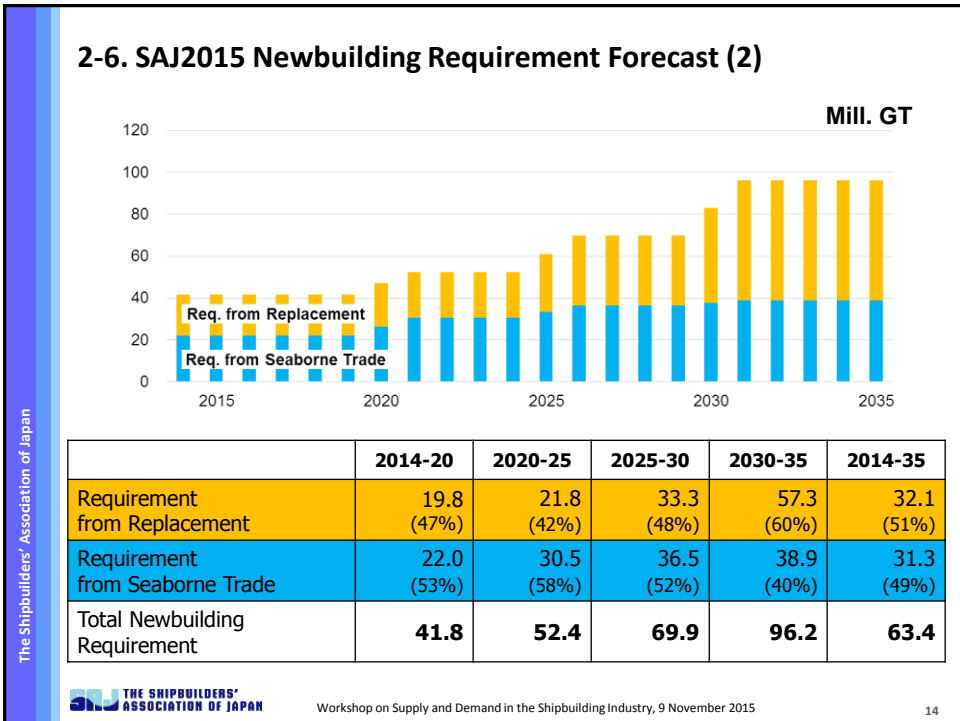
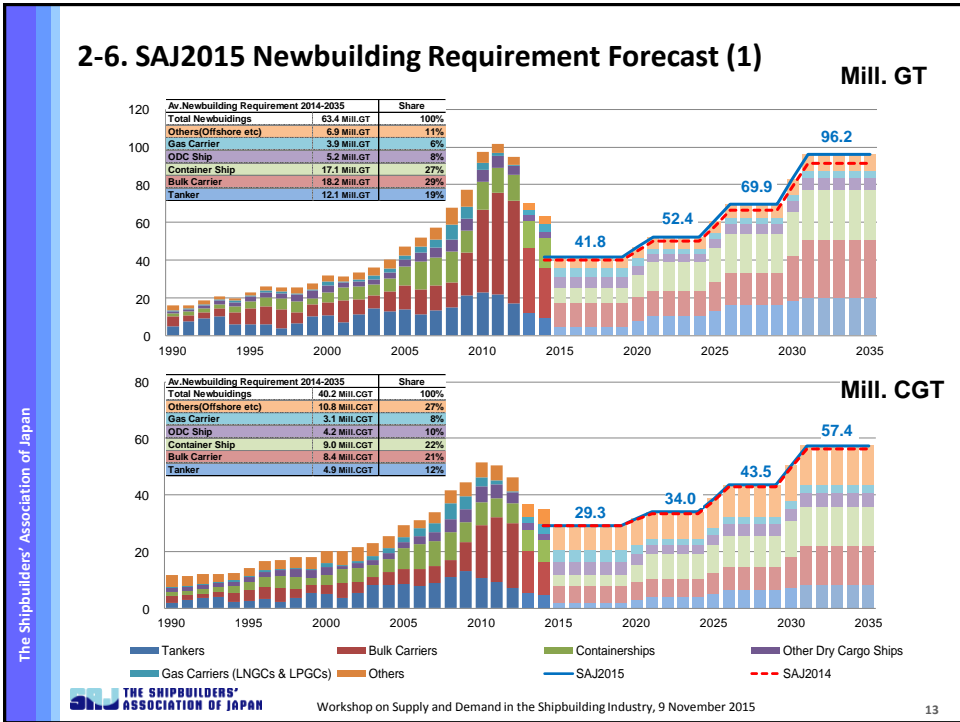
### Assumption of Average Scrap Age by Ship Type in SAJ2015



50% of vessels assumed to be scrapped at above ages and create replacement demand.

\*depends on Shipsize or Shiptype

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**Thank you for your attention**

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