

NYK's CO₂ reduction target

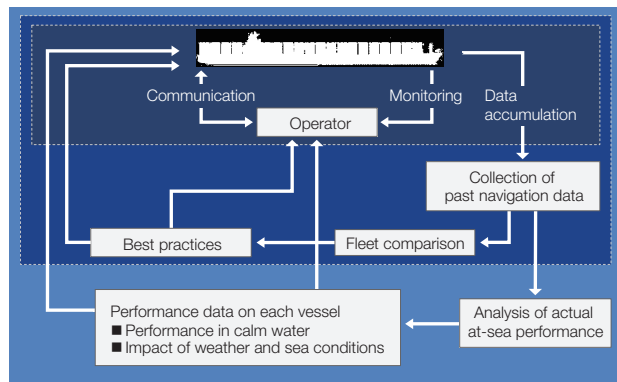
Long-term vision: Contribute to global efforts to cut greenhouse gases in half by 2050

Reduction target :

1. Reduce CO₂ emission rate per unit of transportation from vessels to 10% below 2006 levels by 2013 ⇒ Achieved 18.1% reduction
2. Improve fuel-efficiency rate to 10% above 2010 level by 2015
3. Improve fuel-efficiency rate to 15% above 2010 level by 2018

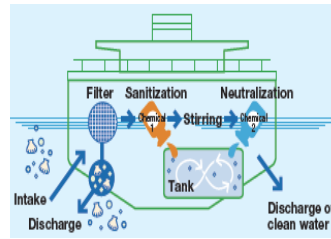
Achieving an Optimal Balance among Safety, the Environment, and the Economy

We have implemented the Innovative Bunker and Idle-time Saving (IBIS) project on our containerships to achieve optimal economical ship operations. This is done by sharing information that includes weather and sea forecasts, sea-current data, ship-operation data (e.g., speed, engine performance), voyage plans, etc., between land and ships in real time. Furthermore, analyzed results and accumulated data will allow us to additionally improve vessel operations. Moreover, the knowledge and know-how acquired by IBIS is now being used for other types of vessels.



Ballast Water Management Systems Protect Biodiversity

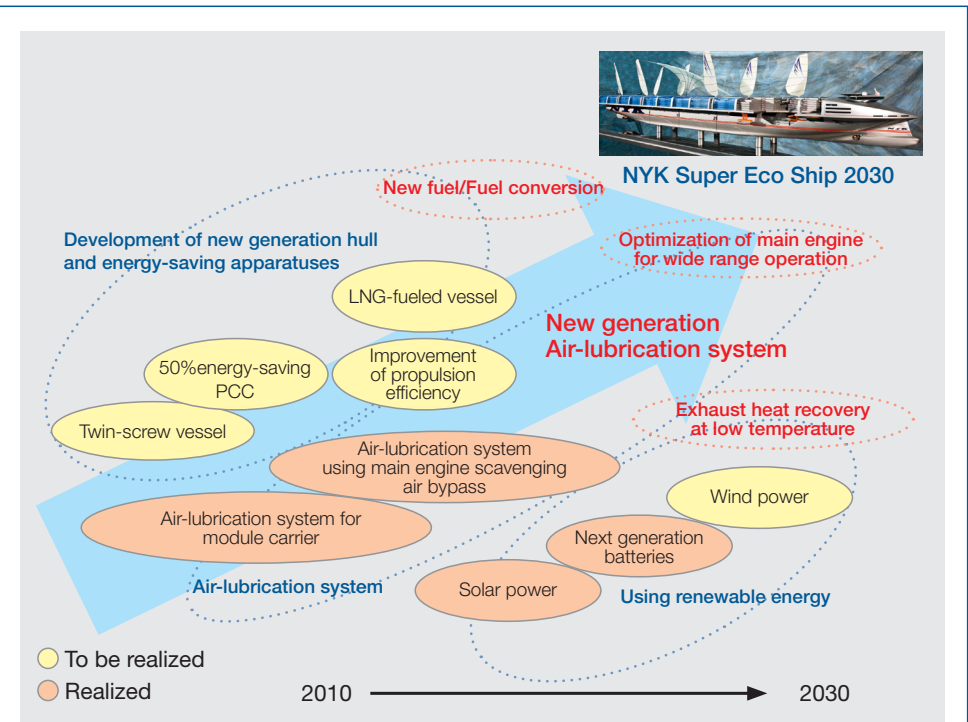
To prevent the cross-boundary movement of aquatic organisms affecting the marine environment, the IMO adopted the International Convention for the Control and Management of Ship's Ballast Water and Sediments in 2004. A number of countries are currently moving to ratify the convention and in preparation for it entering into force. 46 of the NYK Group's vessels had already installed ballast water management systems as of the end of March 2014.



Example of Chemical Treatment

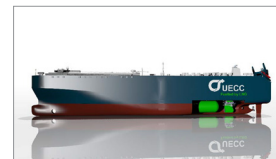
Development of fuel-efficient vessels for the future

Our future concept ship-NYK Super Eco Ship 2030 contains advancements in three key categories; (1) a new generation hull and complementing energy-saving apparatuses, (2) an air-lubrication system, and (3) the use of renewable energy.



Shift to LNG to fuel Car Carriers and Tugboats

The use of LNG significantly reduces CO₂ emissions, as well as almost eliminating sulphur oxide emissions and other particles.



The use of LNG significantly reduces CO₂ emissions by 30%, nitrogen oxide (NO_x) by 80%, and almost eliminates sulphur oxide (SO_x) emissions compared with the use of conventional fuels.