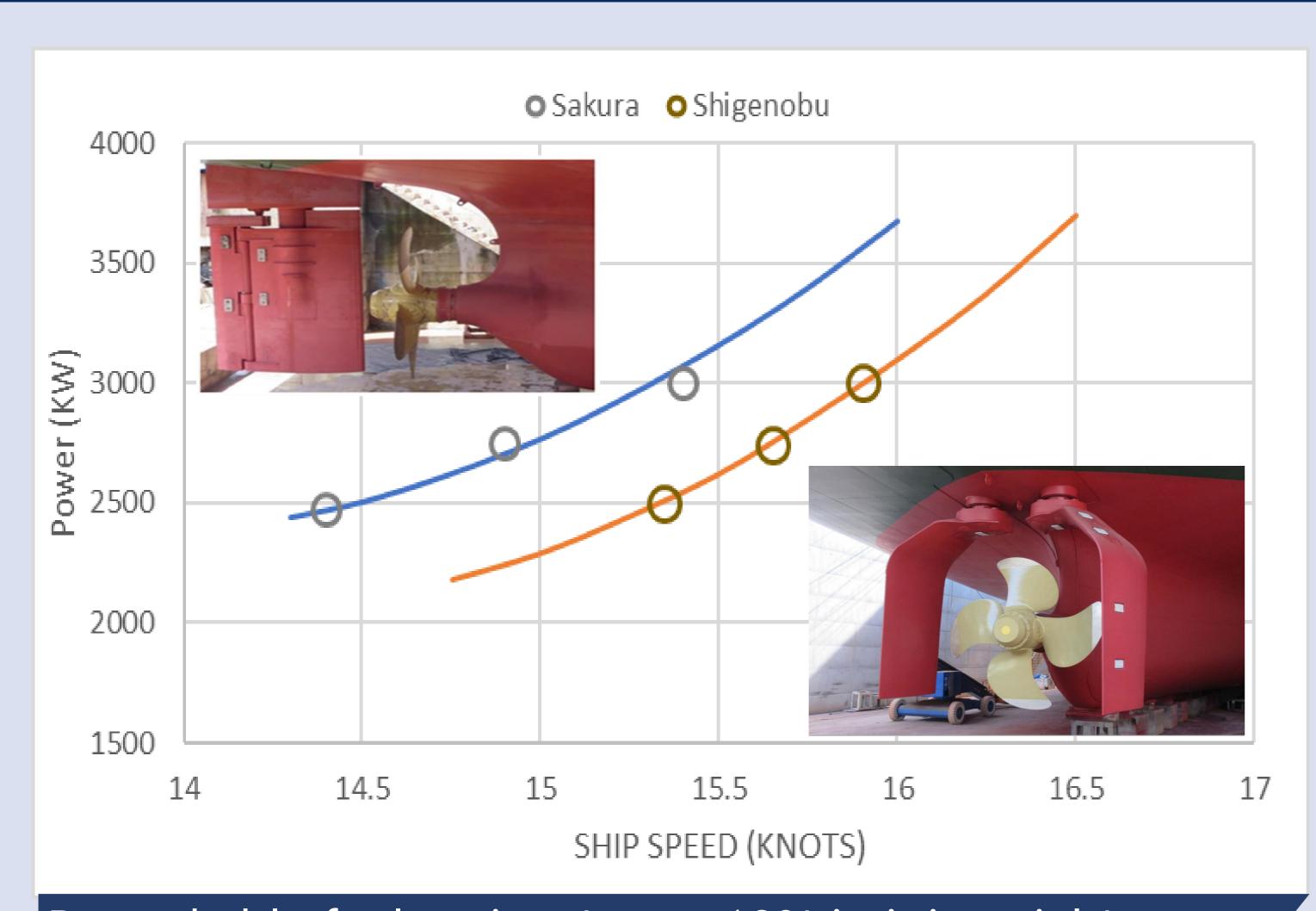


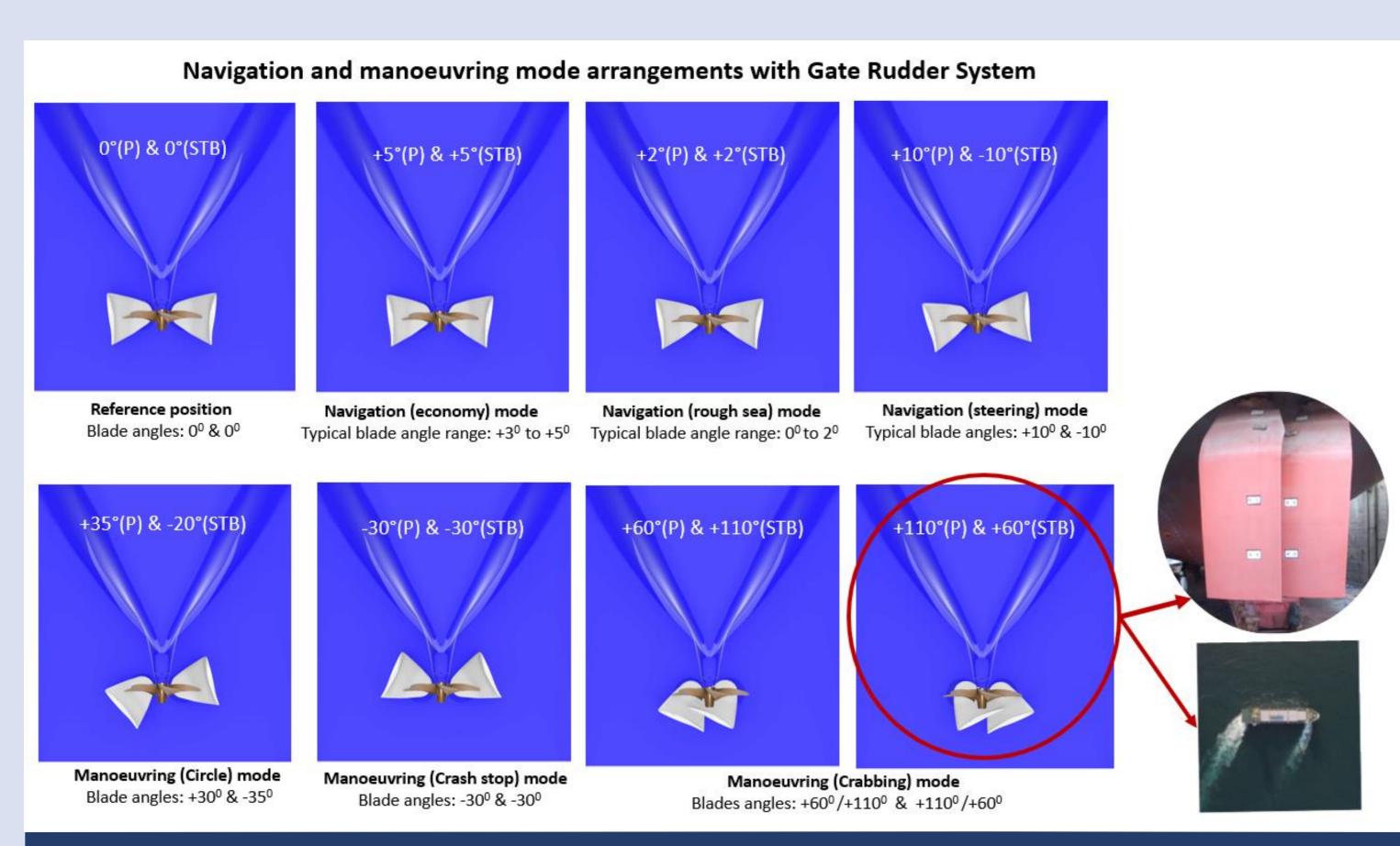
Gate Rudder System as a Retrofit for the Next Generation **Propulsion and Steering of Ships**

GATE RUDDER - The Next Generation Energy Saving & Steering Device Perfect companion Enhanced steerability and for carbon neutral manoeuvring propulsion More efficient and safer · Superior sole energy saving operations in waves device · Significantly reduced underwater Significant impact on noise and EEDI/EEXI vibrations

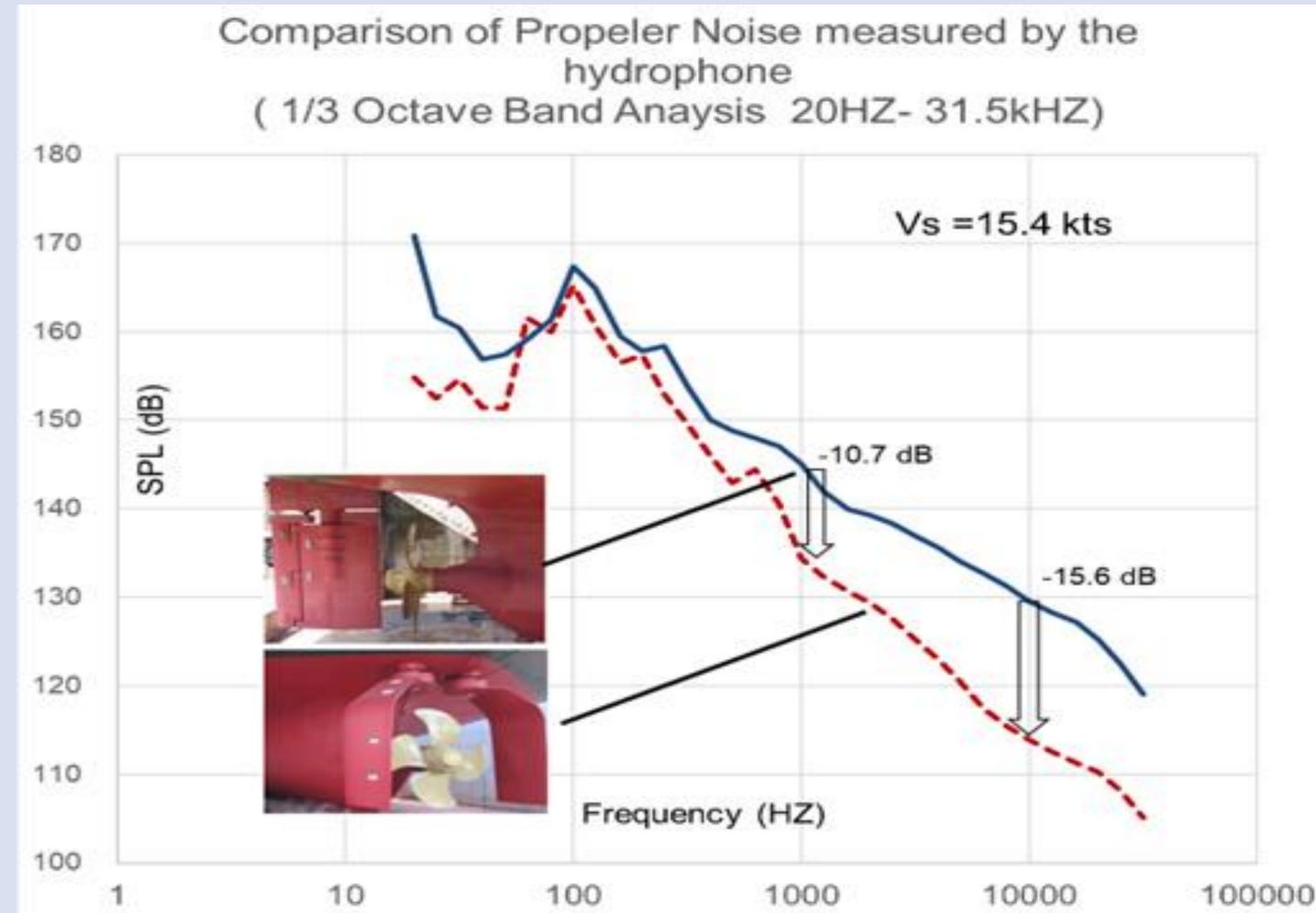
The first application of the GRS on a new-built Japanese container ship "Shigenobu"



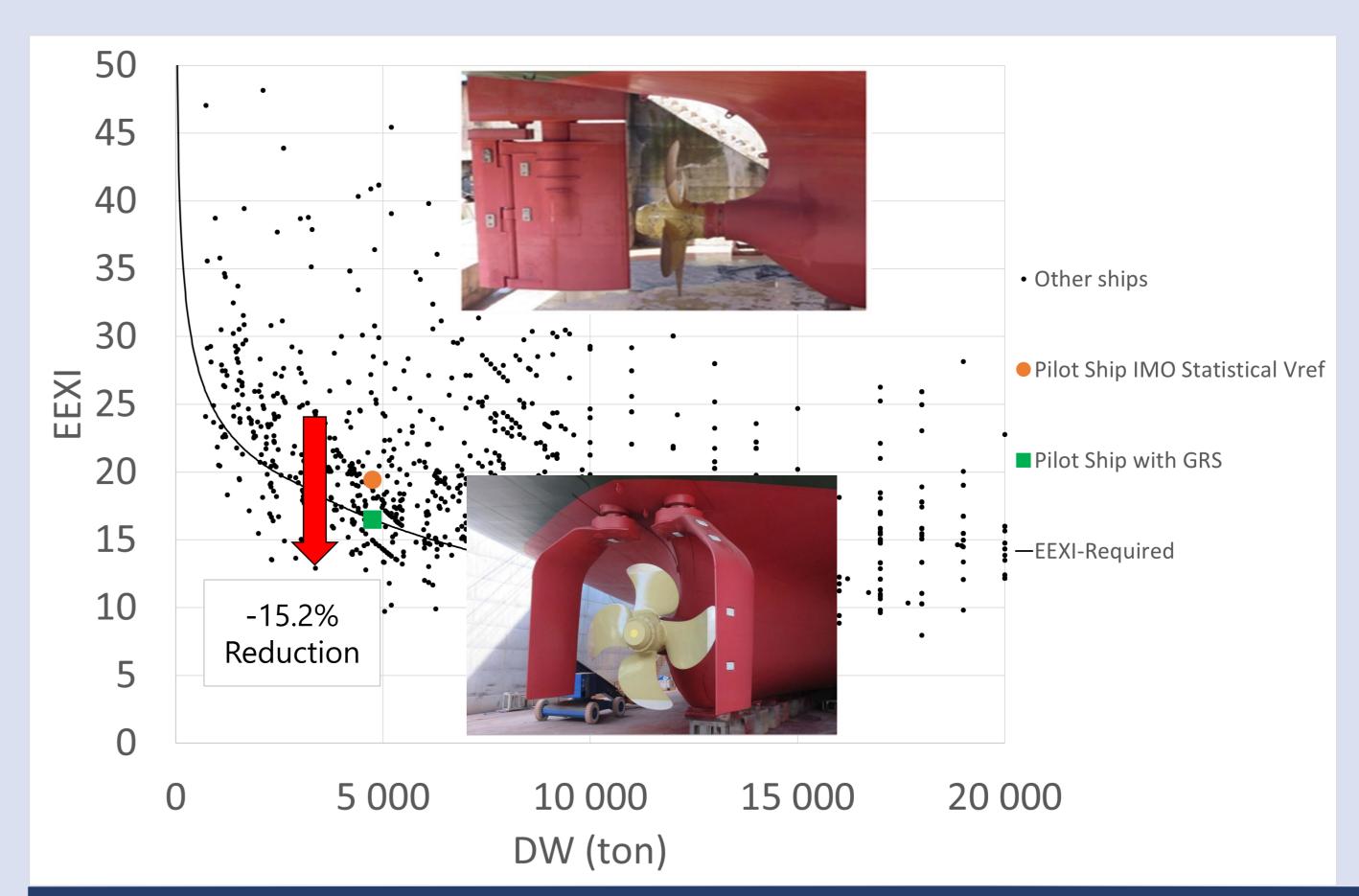
Remarkable fuel saving (up to 18% in joint trials), especially in-service and rough weather (up to 30%)



Improved steerability and manoeuvring (especially in harbours) without stern thrusters



Reduced underwater radiated noise (up to 15dB) and vibrations



Improved EEXI Compliance with sole Energy Saving



Device