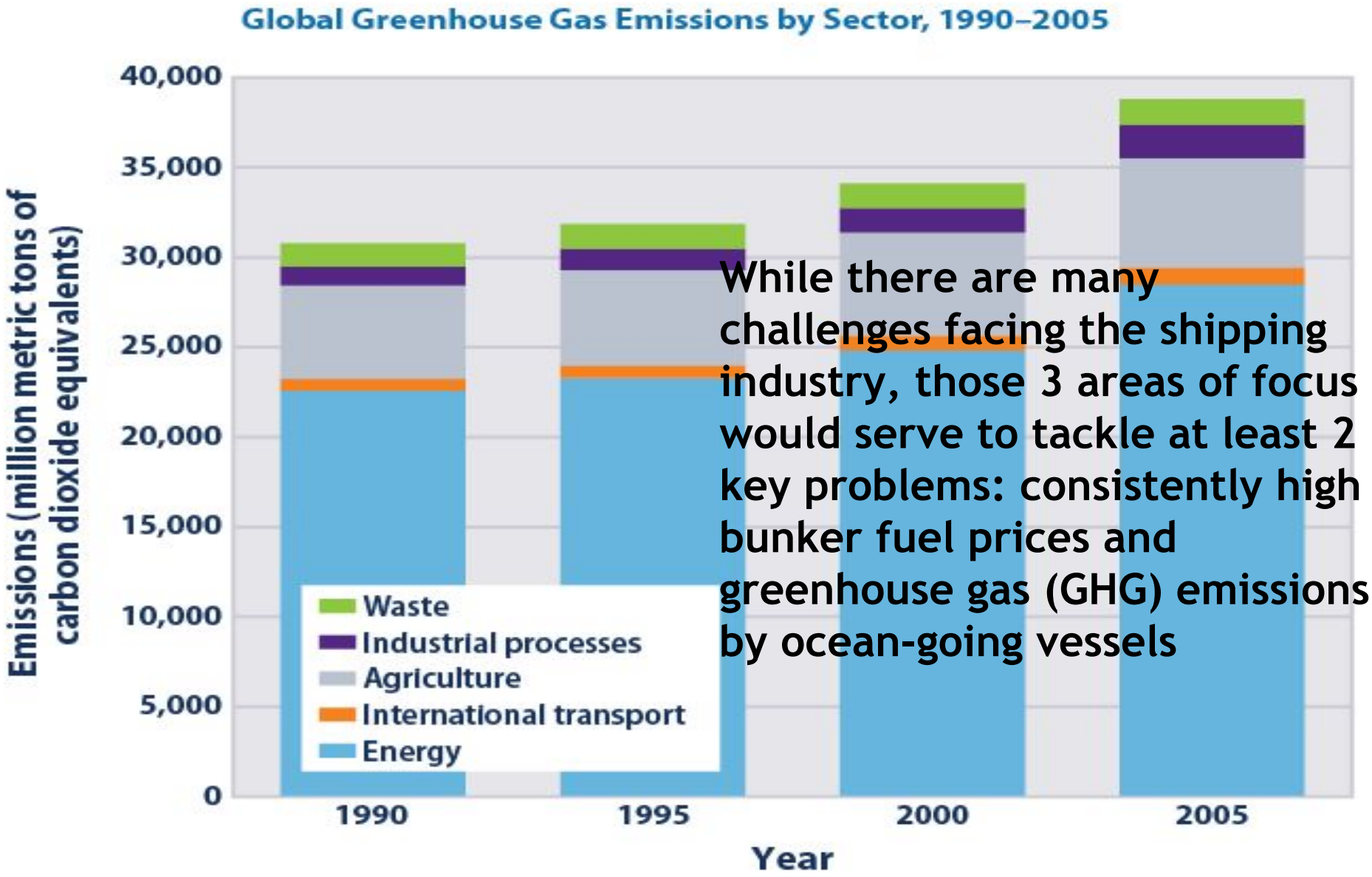
Aspects of Fuel Saving!

In our time the main problem of marine companies is a problem of fuel.

Therefore in our time, a main problem is reduction of amount of fuel due to the improvement of form, construction, shape of ship.

Yet not small an important problem is exhaust of gases into atmosphere.



Data source: World Resources Institute. 2009. Climate Analysis Indicators Tool (CAIT). Version 6.0. Accessed January 2009. http://cait.wri.org.

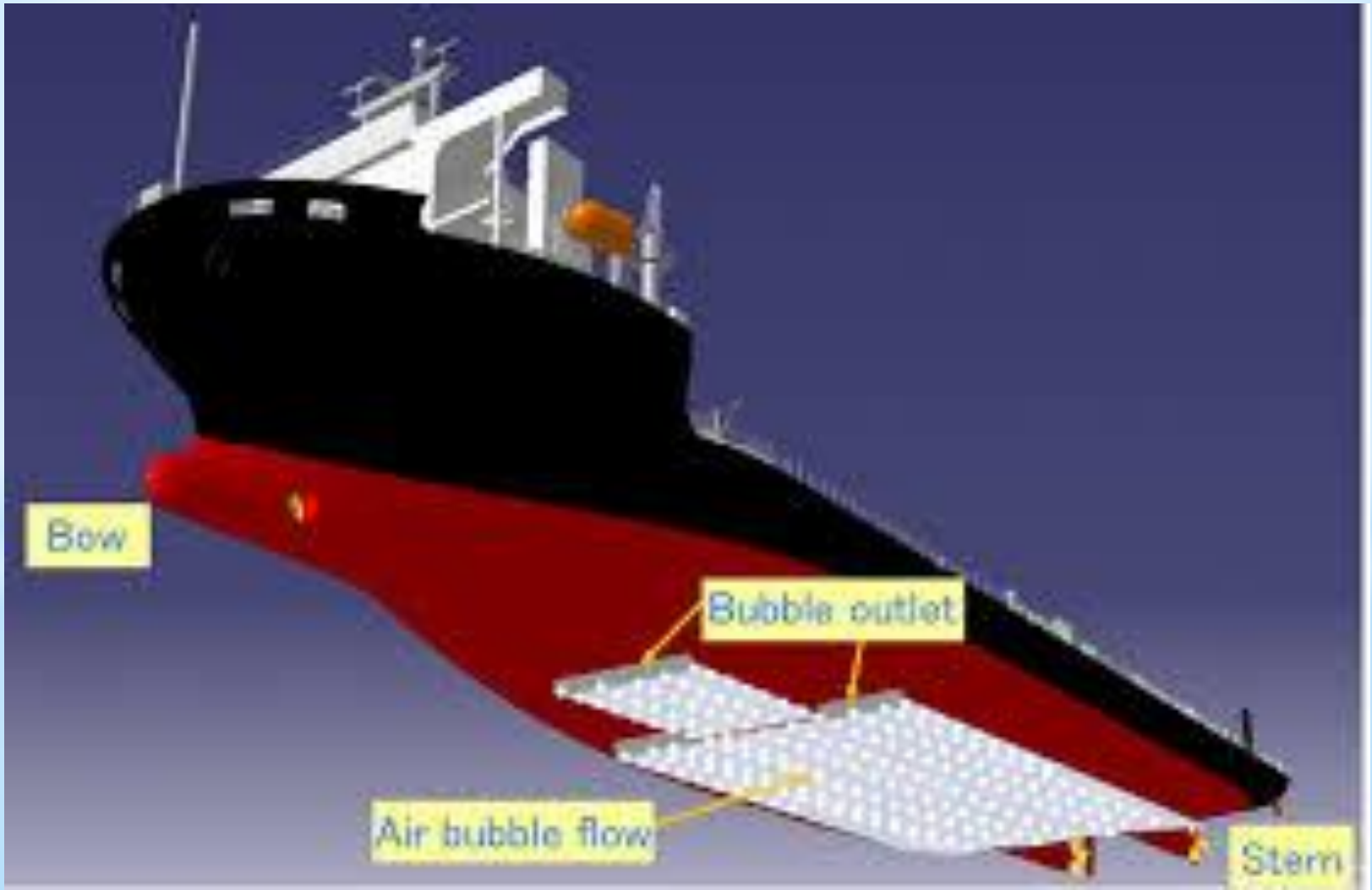
For more information, visit U.S. EPA's "Climate Change Indicators in the United States" at www.epa.gov/climatechange/science/indicators.

One of the more straightforward ways of saving fuel is to select the right engine type, according to Kazutaka Shimada, manager, planning group, diesel design department at Mitsui Engineering & Shipbuilding Co.

The newly developed ME-GI, or gas injection diesel engine, part of the G-Series, works by injecting fuel gas at the same timing as conventional oil burning engines, and its heat cycle is equivalent to the diesel cycle. It also allows seamless switching between burning fuel oil and natural gas, Shimada pointed out.

Another more complex way to achieve fuel savings is cargo heating management, as highlighted by Tang Hui, professor of mechanical and aerospace engineering at Nanyang Technological University (NTU) in Singapore. “Heating cargo oil consumes a lot of fuel. If the temperature is increased from 44 degrees Celsius to 66 degrees Celsius in 96 hours, there will be a need to consume two times the amount of fuel,” Tang said.

One more way to reduce the fuel consumption is the MHI innovation known as MALS(Mitsubishi Air Lubrication System), which blows air to the bottom of the hull to create a layer of air bubbles, has been tested to help vessels reduce about 10% of fuel cost and CO2 emissions, Kawakita claimed.



So, to sum everything up if we take into account the rates of height of amount of vessels it is necessary to decide the problem of fuel substituting him by alternative sources, such as a sunlight or wind or to reduce his expense due to the improvement of seaworthiness of ship


THANK YOU