TRANSPORTATION

Liquified Natural Gas as a Marine Fuel

Marine Board Focus Session 29 October 2014

THE NATION

THE NATIONAL ACADEMIES Advisers to the Nation on Science, Engineering, and Medicine

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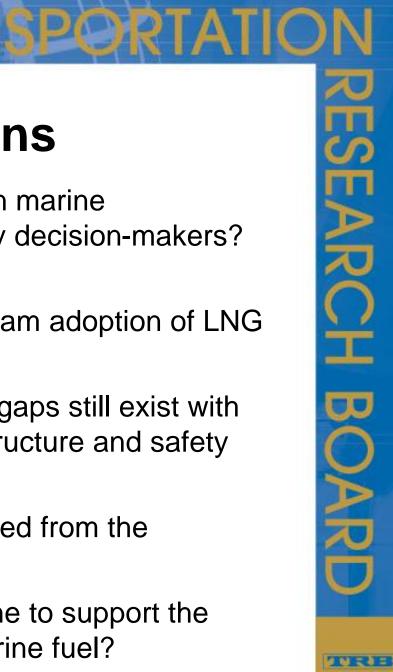
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National Academy of Sciences National Academy of Engineering Institute of Medicine National Research Council

Overarching Questions

- Why is LNG adoption occurring in marine transportation? (Key drivers? Key decision-makers? Key perspectives?)
- What are the barriers to mainstream adoption of LNG as a Marine Fuel?
- What operational and regulatory gaps still exist with respect to LNG bunkering infrastructure and safety issues?
- Are there key lessons to be learned from the experience in other countries?
- What research remains to be done to support the (wider) adoption of LNG as a marine fuel?



In the News...

Lloyd's List | DAILY BRIEFING TODAY'S SHIPPING AGENDA

PRINT TODAY'S EDITION



07 October 2014

Denmark reiterates zero tolerance for SOx cheats

Low-sulphur mandate talk is tough, but enforcement appears weak

WHILE talking tough about "zero tolerance", and saying "crime does not pay", there is little in the works on the enforcement side to ensure compliance with the costly-eco fuel use in the control

European shipowners express ability to use scrubbers

As the Jan. 1 deadline for lowering sulfur e water regulations could inhibit use of scrub

By Chris Dupin | Tuesday, October 07, 2014

<u>Clean-fuel rules 'may drive shippers</u> from shortsea to road'



Thursday 2nd October

Samskip COO says new sulphur regulations will increase line's bunker bills by 50%



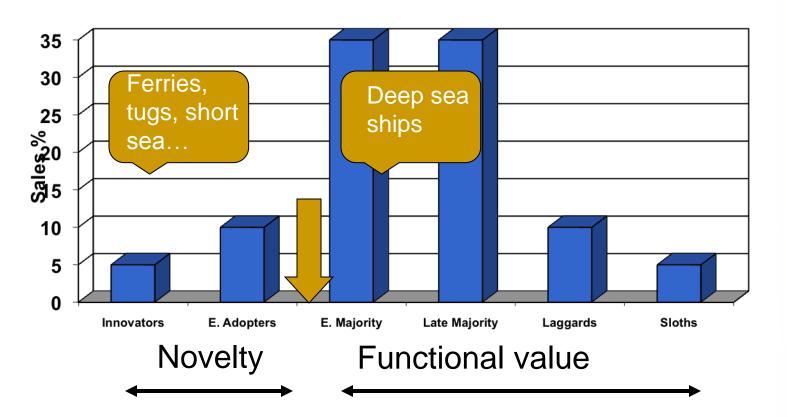
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Moore's Chasm as a Consideration

PORTA

May be called "the tipping point."

Sales by Adoption Type



1 W 2 4 2

Our Speakers (Thought Leaders)

John Quinn – MARAD

Capt. John Mauger – USCG

Roy Bleiberg - American Bureau of Shipping

Brian Taylor - Jacksonville Port Authority

Ned Moran - Moran Towing Corporation

Rules of Engagement

on the

- Each speaker has been given 15 minutes to share their perspective
- Thinking about crossing Moore's Chasm, please generate questions and thoughts for our late morning open discussion (are there risks and precursors important here?)
- Q&A of speakers after each presentation will be of a technical clarifying nature only (5 minutes)

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