



**NOVEMBER 2021 CLIA HIGHLIGHTS** 

# **ENVIRONMENTAL COMMITMENT, INNOVATION** AND RESULTS OF THE CRUISE INDUSTRY

Pursuing the goal of

# net carbon neutral cruising

by 2050

#### SHORESIDE POWER CAPABILITY

Cruise ships may operate on shoreside electricity at 14 ports worldwide, reducing overall emisions while at port.

### **35%** GLOBAL CAPACITY

are fitted to operate on shoreside (an increase of 2.3 percentage points over 2020)

#### **22%** ADDITIONAL CAPACITY

to be retrofitted with shoreside electricity systems



### 82% NEW SHIPS

on order will be fitted with shoreside electricity systems

#### LIQUIFIED NATURAL GAS (LNG)

LNG has virtually zero sulfur emissions, a 95% to 100% reduction in particulate emissions, an 85% reduction in NOx emissions, and up to 20% reduction in greeenhouse gas emissions.

### **26** LNG-POWERED

4 ships already launched and 22 ships currently on order or under construction



### **52%** NEW CAPACITY

committed to rely on LNG for primary propulsion (an increase of 3 percentage points over 2020)

### EXHAUST GAS CLEANING SYSTEMS (EGCS)

EGCS reduces sulfur oxide levels by as much as 98%, a typical total particulate matter reduction of 50% or more, including elemental and organic carbon and black carbon, and nitrogen oxides by up to 12%.

### 76% GLOBAL CAPACITY

utilizes EGCS to meet or exceed air emissions requirements (an increase of 7 percentage points over 2020)



### 94% NEW CAPACITY

not relying on LNG will have EGCS installed (similarly high in previous years)

#### **ADVANCED WASTEWATER TREATMENT SYSTEMS (AWTS)**

AWTS systems utilize advanced tertiary-level treatment to generate effluent discharges often equivalent to best shoreside treatment plants and, consistent with CLIA policy, well beyond international requirements.

## **100%** NEW CAPACITY

up from 99% in 2020



# 74% GLOBAL CAPACITY

is served by advanced wastewater systems (an increase of 4 percentage points over 2020)