

A TRADITION OF TRAILBLAZING TECH

50 YEARS BOLD

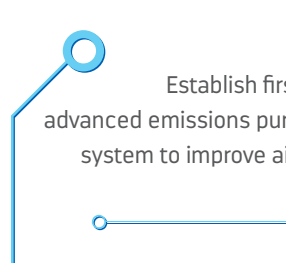
1969  2019

Visionaries don't settle for ordinary. They forge their own path, miles away from mainstream. Since day one, Royal Caribbean® has pioneered new technology at sea — charting a course from today's innovations to tomorrow's unforgettable vacations.

ENVIRONMENT

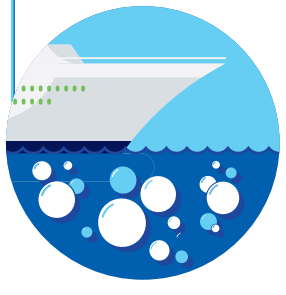


2004
Launch advanced wastewater purification system twice as stringent as U.S. Federal standards



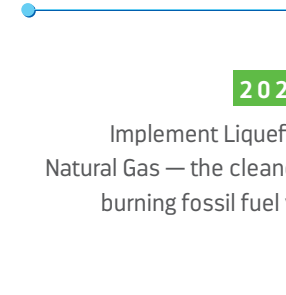
2012

Establish first hybrid advanced emissions purification system to improve air quality



2014

Innovative air lubrication system increases fuel and energy efficiency



2022

Implement Liquefied Natural Gas — the cleanest burning fossil fuel yet



2014

First ship featured on Google's Street View — *Allure of the Seas*®



2014

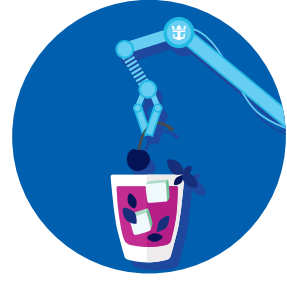
Quantum of the Seas® introduces wearable RFID technology and Virtual Balcony™ staterooms

DRINKS & DINING



2009

The Rising Tide introduces the first moving bar at sea on *Oasis of the Seas*®



2014

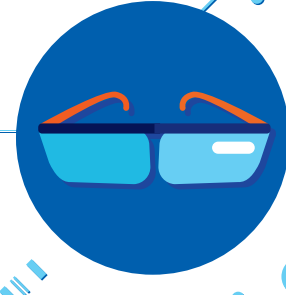
First robotic bartenders at Bionic Bar®



2016

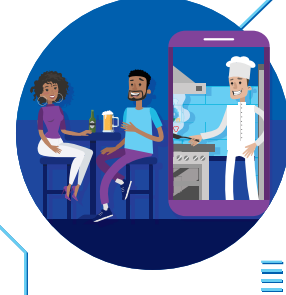
VOOM® — the fastest internet at sea launches fleetwide

GUEST EXPERIENCE



2017

Innovation Center introduces VR simulator for design and architecture renovation



2018

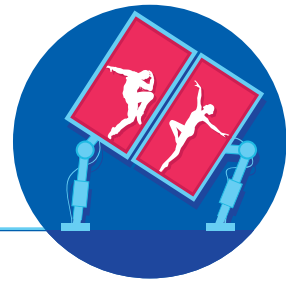
App launches behind the scenes X-ray vision onboard *Symphony of the Seas*®



2019

Facial recognition technology makes boarding a breeze

ENTERTAINMENT



2014

Quantum of the Seas® brings robo-screens and Vistarama® to sea at *Two70*®



2018

Symphony of the Seas® showcases 3D flying technology and drones in shows



2019

Two70® features augmented reality adventures onboard *Spectrum of the Seas*®

RESEARCH & DEVELOPMENT