



MSC CRUISES TO BECOME FIRST GLOBAL CRUISE LINE WITH CARBON NEUTRAL MARINE OPERATIONS

- All of CO₂ emissions from MSC Cruises' fleet to be offset as of 1 January 2020 through high-grade that will increasingly rely on Blue carbon credits
- Announcement comes as part of broader vision to support UN Sustainable Development Goals and in tandem with continued investments in the accelerated development of advanced environmental technology that will allow for zero-emissions ship operations

Geneva, Switzerland, 8 November 2019 – Today on the occasion of the celebrations held in Hamburg, Germany for the coming into service of its most environmentally-advanced cruise ship yet – MSC Grandiosa – MSC Cruises announces its commitment to become the world's first fully carbon neutral major global cruise line.

Pierfrancesco Vago, MSC Cruises Executive Chairman said: *"Our focus on innovation since we built our first cruise ships only in 2003 ensures that we have one of the most modern fleets at sea as well as one of the highest environmentally performing. And, thanks to our long-term planning, this will allow us to already achieve a fleet-wide 29% reduction in carbon intensity (rate) by 2024 vs. 2008, well on our way to meet the 40% reduction target set for 2030.*

"Additionally, last week we announced that the LNG-powered fuel cells PACBOAT project will be hosted on board MSC Europa – the first of 5 LNG-powered cruise ships that are due to join our fleet. This is not only a world-first for a technology that promises to be most efficient for high-power maritime operations but also yet another concrete example of our firm commitment to partner and support the accelerated development of the next-generation technologies that will lead us and this industry to zero-emissions ship operations."

"As we recognize that today's even most advanced maritime environmental technology alone is insufficient to immediately reach carbon neutrality, the further commitment we make today ensures that our fleet makes no negative contribution to climate change, starting 1 January 2020. We are a company with over 300 years of maritime heritage and an historical focus on the long-term that is especially typical of family-owned businesses like ours. For us, this is another step forward in our long-standing commitment to protecting the oceans, the destinations we visit and the port communities we touch."

MSC Cruises will offset all direct carbon dioxide (CO₂) emissions from its fleet marine operations through a blend of carbon offset projects developed according to the highest standards by leading international entities that take immediate action on greenhouse gas emissions. All costs for the offsets as well as any other associated items will be covered directly and in full by the Company.

Mr Vago added: *“We will work with leading providers in carbon credits able to offset CO₂ emissions with the highest level of integrity. Our vision is to also invest in projects that provide quantifiable community benefits, protect the environment and support the UN Sustainable Development Goals.”*

In particular, MSC Cruises aims to develop a carbon offset portfolio that incorporates projects which protect and restore Ocean and coastal habitats while also absorbing more CO₂ than currently occurs. As Blue Carbon projects focused mainly on coastal habitats are currently scarce, MSC Cruises will itself support the development of what aims to become the first carbon credits to be generated from the earth's vast ocean, constituting an important new means for protecting and enhancing marine biodiversity and to support communities that rely on the highly pressurized resources of the sea.

Mr Vago concluded: *“Blue carbon offsets will be a specific area of focus of our commitment to ensure carbon neutrality with immediate effect. We will put our people and our resources to work to also support the development of the specific type of projects, and the enabling certification processes, that can generate this innovative form of offsets which directly benefit the oceans and communities that live by the sea. As more of these become available, we will steadily increase our reliance on them as an additional area of focus within our overall long-term commitment to achieving zero-emissions operations.”*

MSC Cruises' commitment to delivering zero-emissions operations also includes a specific focus on energy efficiency and other aspects of its end-to-end operations beyond emissions. In particular, since 2017 all MSC Cruises new ships come equipped with ship-to-shore power facilities, a feature that would allow cruise ships to immediately go “zero-emissions” in any port that is ready for this technology. And this will provide even greater overall benefit when the ultimate source of shore power is renewable.

Details of MSC Cruises' carbon neutral initiative will be revealed later today at a dedicated media briefing on board MSC Grandiosa, MSC Cruises' newest flagship and one of the most environmentally-advanced ships at sea yet. MSC Grandiosa was delivered to the Company only last week. On the same day, MSC Cruises started construction on MSC Europa, its first of five liquified natural gas (LNG)-powered cruise ships that will come into service between 2022 and 2027.

MSC Grandiosa and MSC Europa together represent significant additional progress in terms of delivering against MSC Cruises' objective to minimize and continuously lowering its fleet environmental footprint. Please see Notes to Editors for more details.

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MSC Grandiosa, which will be christened tomorrow in Hamburg, features a state-of-the-art selective catalytic reduction (SCR) system which helps reduce nitrogen oxide emissions by 80 per cent through advanced active emissions control technology. Nitrogen oxide from the engine operations is conducted through a catalyst – a high-density device made from noble metals – and converts them into nitrogen and water, both harmless compounds.

MSC Grandiosa will also be fitted with shore-to-ship power which connects cruise ships while at berth to a port's local power grid to further reduce the ship's air emissions while in port to zero. This is a feature that has come as standard across all MSC Cruises new builds since 2017.

These new features add to other effective environmental technologies deployed on the ship and across the Company's fleet to minimise and continuously reduce environmental impact, including: cutting-edge hybrid Exhaust Gas Cleaning Systems (EGCS) that remove up to 97% sulphur oxide from ship emissions; advanced waste management and wastewater treatment systems; ballast water treatment systems; latest-technology systems for the prevention of oil discharges from machinery spaces and various state-of-the-art energy-efficiency improvements – from heat recovery systems to LED lighting.

Currently, MSC Grandiosa and 10 other ships in MSC Cruises' fleet of 17 ships are equipped for cleaner emissions with hybrid (closed-loop) EGCS. The line's six other ships will be retrofitted with the technology by the end of 2023 and until then will rely on the use of low sulphur fuels to always fully comply with the strictest existing as well as new maritime regulations.

MSC Europa, the Company's first liquified natural gas (LNG)-powered ship, will deliver more than 99% reduction in SOx and up to 85% NOx emissions, while also largely eliminating particular matter from the exhaust. LNG will also allow for a 20% reduction in CO2 emissions.

MSC Grandiosa's detailed environmental specifications:

- **Energy-efficient hull and overall design:** 28 per cent less fuel compared to Fantasia Class ships (entered in service between 2008-2013) which represents a reduction of 255kg less carbon dioxide per passenger, per cruise.
- **Hydrodynamics:** optimised hull design and latest generation azipods and propellers.
- **Hybrid Exhaust Gas Cleaning System (EGCS):** 97 per cent less sulphur oxide through a system which can operate in closed loop.
- **Selective Catalytic Reduction system:** 80 per cent less nitrogen oxide through active emissions control technology.
- **Shore-to-ship power:** fully ready to connect to local power grid to reduce emissions while at berth in port.
- **Advanced waste management:** comprehensive systems to reduce, recycle and reuse all waste aspects on board.
- **Ballast water treatment system:** a system to avoid introducing invading species through ballast water.

- **Advanced wastewater treatment:** the system treats wastewater to a very high quality and the end product is of a better standard than most shoreside municipal waste standards around the world.
- **Smart heating, ventilation and air conditioning system (HVAC):** two high- and low-heat recovery loops to intelligently redistribute heat and cold from the laundry room and machinery spaces to warm up the swimming pools or other parts of the ship.
- **Trim Optimisation:** a software application to monitor and optimise trim, the ship's stability, in real-time. This technology supports ship officers to keep the vessel's trim optimised to reduce fuel consumption and optimise performance.
- **Energy-saving LED lighting:** all MSC Cruises ships use only energy efficient LED and fluorescent lighting.
- **Hull paints:** the hulls of all MSC Cruises' ships are coated with special environmentally-friendly paints which impede the growth of barnacles, algae and marine organisms in order to reduce drag significantly.

About MSC Cruises

MSC Cruises is the fastest growing cruise line in the world. Headquartered in Geneva, Switzerland, MSC Cruises is part of the Cruises Division of MSC Group, the privately-held Swiss-based leading shipping and logistics conglomerate.

MSC Cruises' fleet of 17 modern and innovative ships is one of the most environmentally-advanced in the industry. The Company is committed to environmental stewardship and works to minimise and continuously reduce the environmental impact of its fleet both while at sea and ashore by employing innovative marine and environmental technologies.

An industry-unprecedented €11.6 billion plan will see MSC Cruises' fleet increase to 25 ships by 2027. Additionally, MSC Group's Cruises Division is investing an additional €2 billion in a new luxury cruise brand comprising four super-yacht ships, launching one per year between 2023 and 2026.

Sailing to more than 200 destinations across five continents, MSC Cruises brings together more than 180 nationalities from around the world, offering an enriching and immersive cruise experience inspired by the Company's European heritage. Expect to find international dining, world-class entertainment, award-winning family programmes and the very latest guest-friendly technology onboard.

Learn more about MSC Cruises' environmental stewardship practices at <https://www.msccruises.fi/about-msc/sustainability>