

## **Solvay and Andritz developed a Bicar® dry exhaust gas cleaning system certified to comply with IMO 2020 regulations**

**Brussels, September 26, 2019** --- SOLVAY and ANDRITZ announce that the innovative **BICAR®** dry exhaust gas cleaning system, designed to comply with the new sulphur emission regulations issued by the International Maritime Organization (IMO) for shipping vessels, has successfully been certified by the classification society DNV GL.

This achievement and certification are crucial milestones for the future of this technology and confirm SOLVAY's and ANDRITZ's know-how in exhaust cleaning systems. It will allow the shipping vessels to continue to use High Sulphur Heavy Fuel Oils while reducing drastically their sulphur and fine particles emissions, which will improve very significantly the quality of the air, with a positive impact on human health.

The **BICAR®** dry exhaust gas cleaning system was installed on the RoPax ferry "Piana" of the French ferry operator La Mériidionale, and has successfully been in operation since being commissioned in April 2019. First results are very promising.

The innovative technology uses the **SOLVAIR®** process principles developed by SOLVAY teams, using Bicar® as the sorbent for sulphur dioxide removal, and a pulse jet fabric filter for removal of the sulphates and particulates forming. **SOLVAIR®** was recently labeled an Efficient Solution by the **SOLAR IMPULSE FOUNDATION** as it protects the environment in a profitable way.

ANDRITZ was responsible for design and engineering of the system, delivery of the main equipment, and commissioning, while installation work and operation of the system were the responsibility of La Mériidionale.

Unlike other exhaust gas cleaning systems installed on maritime vessels, no seawater is used and no wastewater is discharged into the sea.

Compliance of this technology and system with regulations, that will be enforced as soon as January 1st, 2020, was confirmed by the Ship Acceptance Test and the MED-G certification awarded for the system by the classification society DNV GL. The certificate verifies conformity of the system with the (EU) 2018/773, item MED/2.10 regulations as well as with MARPOL 73/78. Furthermore an independent third party (CERTAM) assessed the effectiveness of the Bicar® dry exhaust gas cleaning system. The results are impressive and show that the required SO<sub>2</sub> removal to lowest values (more than 96% of SO<sub>x</sub> removed, with potential to achieve higher rates) was achieved easily. In addition, the ability of the system to remove more than 99% of particulates and ultra-fine particulates was confirmed. These figures are remarkable and demonstrate the effectiveness of the system.

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**Solvay** is an advanced materials and specialty chemicals company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers worldwide in many diverse end-markets. Its products are used in planes, cars, batteries, smart and medical devices, as well as in mineral and oil and gas extraction, enhancing efficiency and sustainability. Its lightweighting materials promote cleaner mobility, its formulations optimize the use of resources, and its performance chemicals improve air and water quality. Solvay is headquartered in Brussels with around 24,500 employees in 61 countries. Net sales were €10.3 billion in 2018, with 90% from activities where Solvay ranks among the world's top 3 leaders, resulting in an EBITDA margin of 22%. Solvay SA (**SOLB.BE**) is listed on Euronext Brussels and Paris Bloomberg: **SOLB.BB** - Reuters: **SOLB.BR**, and in the United States its shares (**SOLVY**) are traded through a level-1 ADR program. *(Figures take into account the planned divestment of Polyamides).*

**Solvay Soda Ash and Derivatives** (SA&D) is a world leader in its sector, producing soda ash serving the glass, detergent and chemical markets and developing solutions based on sodium bicarbonate and trona serving the healthcare, food, animal feed, and flue gas cleaning markets. SA&D has 11 industrial sites worldwide, more than 3,200 employees and serves 90 countries.

**ANDRITZ GROUP** is a globally leading supplier of plants, equipment, and services for hydropower stations, the pulp and paper industry, the metal working and steel industries, and for solid/liquid separation in the municipal and industrial segments. Other important fields of business are animal feed and biomass pelleting, as well as automation, where ANDRITZ offers a wide range of innovative products and services in the IIoT (Industrial Internet of Things) sector under the brand name of Metris. In addition, the international technology Group is active in power generation (steam boiler plants, biomass power plants, recovery boilers, and gasification plants) and environmental technology (flue gas cleaning plants) and offers equipment for the production of nonwovens, dissolving pulp, and panelboard, as well as recycling plants.

A passion for innovative technology, absolute customer focus, reliability, and integrity are the central values to which ANDRITZ commits. The listed Group is headquartered in Graz, Austria. With over 160 years of experience, 29,000 employees, and more than 280 locations in over 40 countries worldwide, ANDRITZ is a reliable and competent partner and helps its customers to achieve their corporate and sustainability goals.

**LA MERIDIONALE** has provided sea links between Corsica and Marseille since 1937. Today, its fleet of 3 mixed vessels (Piana, Girolata and Kalliste) serves the ports of Ajaccio, Bastia and Propriano daily within the framework of a Delegation of Public Service agreed with the Corsican public authority. Certified ISO 9001 and ISO 14001, the company meets the requirements for the management of quality and the continuous improvement of environmental performance. It obtained the Charte Bleue trophy in 2013 and 2018 in recognition of its actions in favour of the environment. It is the only Mediterranean maritime company to hook up its vessels to quayside electricity during stopovers. In 2018, La Mériidionale transported 278,200 passengers and 850 km of rolling freight. It is the maritime subsidiary of the STEF Group, the European leader for temperature-controlled logistics.

#### Media Relations

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