

Carbon Capture, Usage and Storage



# Solumar

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<https://www.solumar.org/>

#ClimateTech

## Highlights

Solumar is part of the **Masdar Innovate** initiative,<sup>363</sup> and notes participating in the Emirates Global Aluminium accelerator by C3, Oslo Innovation Week, the Atlantic Smart Ports program in Portugal, the **World Economic Forum Blue Economy Challenge**, as well as in the **MENA Maritime Accelerator** and the **Mohammed Bin Rashid Innovation Fund**.<sup>364</sup>

Solumar reports receiving a number of awards, including **Women in Tech by DIFC and Standard Chartered**, and counts the **KAUST Innovation Accelerator**<sup>365</sup> and **Innovation Norway** as its initial investors to support further maritime and oil and gas technology development.

## Strategic alliances

- Maritime Industry and Shipping Companies
- Shipping Ports Operators and Shipyards
- Industrial Manufacturers
- Supply Chain Partners
- Government and Climate / Sustainability Organisations
- Universities

## List impact technologies

Carbon Capture, Usage and Storage

## Headquarters:

United Arab Emirates

## Middle East operational countries:

Saudi Arabia

## Summary

Solumar provides an **exhaust gas filtering technology** that captures pollutants like black carbon, particulate matter, volatile organic compounds (VOCs), nitrogen oxides and carbon oxides in a compact unit that can be retrofitted to vessels and other industrial, maritime and oil and gas equipment. It claims to be the only commercially available solution that can collect **black carbon, ash, sand, dust, CO<sub>2</sub>, VOC and other mechanical particles and gases simultaneously**.

The captured **black carbon is processed into carbon powder** and sold to industries, including manufacturers of plastic, rubber, tire, construction materials and carbon fibre as well as multiple other industries, enabling a **sustainable circular economy**. Solumar also states that it provides advanced air quality monitoring and management systems to keep decision-makers informed about air quality metrics.

## Impacts

Solumar claims that each unit of its product installed on a vessel can capture up to **167 million MT of black carbon** and **32 million MT of CO<sub>2</sub>**, which it estimates contributes the equivalent positive environmental impact of two million electric cars. It suggests that its solution can potentially cut 80-90% of emissions from industrial operations, ships, ports, and oil and gas operations.

