**PRESS RELEASE**

**Industry seminar explores the potential of green steel in decarbonizing shipping and shipbuilding**

**26 January, 2024 (SEOUL) –** On Friday, January 26, 2024, Solutions for Our Climate (SFOC) and the Sustainable Shipping Initiative (SSI) [hosted a special industry seminar to discuss “Green Steel & Circularity: Role of Shipbuilding and Shipping Industries for Carbon Neutrality”.](https://www.sustainableshipping.org/news/events/green-steel-circularity-role-of-shipbuilding-and-shipping-industries-for-carbon-neutrality/) The seminar convened shipping, shipbuilding, and steel industry stakeholders, with speakers from Lloyd’s Register, Schneider Electric Korea, SFOC, Steel Scrap Research Center, and SSI sharing their expertise on decarbonization and corporate climate leadership.

Joojin Kim, CEO of SFOC, and Steven Jones, CEO of SSI, opened the seminar, which brought together over 100 industry stakeholders, both in person and online. It provided a unique platform for leaders from steel, shipbuilding, and shipping sectors to convene and foster a shared understanding of decarbonization challenges, while exploring collaborative solutions to address steel emissions.

Shipping and steel industries’ decarbonization is interrelated, and South Korea plays a pivotal role in both. In 2021, South Korea was ranked as the world’s 6th largest steel-producing country, accounting for a 3.8% share of crude steel global production (corresponding to 71.4 million tonnes of crude and steel). Additionally, the South Korean steel industry is an important material supplier for major industries, including shipbuilding – South Korean shipbuilding accounted for nearly 30% of global shipbuilding in 2022. Haebin Gahng, Senior Researcher at SFOC, highlighted how decarbonizing the steel sector will require policy support, such as easing waste regulations to facilitate the import of scrap steel (in force since January 2024), cross-industry cooperation between demand and supply sectors, and the use of technology to improve steelmaking and scrap sorting.

As the steel sector decarbonizes, there will be increasing competition for the supply of high-quality recycled scrap steel. Andreea Miu, Head of Decarbonization at the SSI, highlighted key points from the Green Steel and Shipping report, published by SSI in 2023. The report illuminates the synergies between shipping and steel’s decarbonization efforts with a focus on the potential for green steel in shipping and steel circularity. Ship recycling is a vital source of scrap steel, with volumes expected to grow in the coming years as the global fleet transitions in line with shipping’s decarbonization. Andreea highlighted the untapped potential for shipping within this space – as a demand sector for steel, shipping can show demand for green steel with work with others to create a market and secure future supply.

Se-Jun Kim, New Construction Product Manager at Lloyd’s Register, discussed the increased pressure that companies are facing from regulators, finance, and other stakeholders to measure and reduce Scope 3 emissions. Shipping needs to widen its decarbonization efforts beyond fuel emissions to include embedded emissions, such as during shipbuilding where steel plates contribute significantly.

A dynamic 45-minute hybrid panel discussion brought out valuable insights from industry actors Kyungsik Kim, Head of the Steel Scrap Research Center, Hemy Bae, Manager of Sustainability Strategy Consulting at Schneider Electric Korea, and Se-Jun Kim, New Construction Product Manager at Lloyd’s Register. With South Korea as a focus, panelists explored the challenges and opportunities for inventive green steel production, the use of scrap steel, and the uptake of green steel by the shipbuilding sector.

Key points from the panel discussion include:

* Emerging policies and regulations on lifecycle emissions indicate a growing trend
* Need for improvements within the steel sector to make domestic scrap steel more accessible and attractive.
* Scrap steels’ potential to reduce the energy-intensity of steel production, overcoming current limitations around green hydrogen supply.
* South Korea’s unique position as a key market for both steelmaking and shipbuilding, leading to competitiveness benefits.

The industry seminar fostered a shared understanding of decarbonization opportunities in both primary and secondary production of steel, the role of scrap steel, and the relevance of green steel for shipping. It aimed to raise awareness and build momentum for collaborative efforts among shipping and steel value chain stakeholders, encouraging win-win cooperation for decarbonization.

**Quotes**

**Hemy Bae, Sustainability Strategy Consulting, Schneider Electric Korea:** “Lifecycle assessment is unfamiliar to us yet, but policies regulating the lifecycle emissions have already started. The EU is already implementing lifecycle-based CO2 standards for new cars and vans, and recently officialised the EU Battery regulation which obligates battery makers to account and declare a product’s carbon footprint throughout the lifecycle from 2025. The issue is that these regulations are not only applied to European companies, but all products imported to Europe. The scope of lifecycle emissions regulation will be further expanded to broader sectors such as electronics in the future. The shipbuilding industry should be aware of this trend and be prepared considering the sector is quite carbon intensive”

**Haebin Gahng, Senior Researcher, Solutions for Our Climate (SFOC):** “Until innovative decarbonization technology is commercialized, the Electric Arc Furnace (EAF) will drive the decarbonization of the steel sector. Therefore, a global competition for securing steel scrap is anticipated. To increase the domestic procurement rate of steel scrap in Korea, where steel accumulation is low and import dependency is high, it is necessary to establish a circular economy system throughout the entire lifecycle of steel, from production to disposal. Nurturing a small-scale scrap industry and promoting cross-sectoral cooperation between steel producers and consumer industries could be viable approaches in this regard.”

**Steven Jones, CEO, Sustainable Shipping Initiative (SSI):** “Together, we are united by our vision to drive action for a sustainable shipping industry. We recognise that addressing the systemic issues we face today requires collaborative efforts to maximise impact, and the focus on green steel and shipping is part of that. Shipping scraps high quality steel and should demand green steel in return. But production barriers, availability and quality perceptions remain. Pioneering commitments from industry leaders will promote wider adoption, but collaboration is crucial. The link between our industries highlights the urgent requirement for combined efforts to cut emissions and transition to circular business models.”

**Joojin Kim, CEO, Solutions for Our Climate (SFOC):**“South Korea has the world’s sixth-largest steel industry and has the third-largest steel consuming industry. Last year, the Minister of Trade, Industry and Energy established a plan to build an ecosystem for the steel scrap industry, develop the world’s first hydrogen fluidized bed reactor technology, and complete the value chain for steel for future green ships. In order to implement these plans, the government needs to strengthen cooperation between shipping and shipbuilding industries. I hope that today’s event will serve as an opportunity for the Korean steel, shipbuilding, and shipping industries to come together to discuss decarbonization and resource circulation in their respective industries, and how they can enhance their domestic and global competitiveness while responding to the climate crisis.”

**Kyungsik Kim, Head, Steel Scrap Research Center:** “To foster a sustainable society, prioritizing resource recycling is essential. The most significant example is steel scrap; by utilizing it, you reduce the CO2 emission intensity of the produced steel. Government support is needed to increase the scrap collection rate and its utilization. From a steelmakers’ perspective, delivering high-quality steel at an affordable cost and on time is crucial, underscoring that a stable and cost-effective steel scrap supply chain is required to reach steel decarbonization.”

**Se-Jun Kim, New Construction Product Manager, Lloyd’s Register:***“*When it comes to the ship construction stage, the largest source of GHG emission is coming from steel plates. The industry and regulators now focus on measures to reduce GHG emissions from the operation of a ship, and this will result in the reduction of GHG emissions gradually. The next focus will be on steel plates. In the near future, the supply chain and distribution chain will drive the transition from alternative fuels to green steel as the upcoming trend.”

**Andreea** **Miu, Head of Decarbonization, SSI:** “The steel sector is both a buyer of shipping services as well as a supplier of steel for shipbuilding. The opportunity for emission reduction when shipping and steel work together is huge, with recent research estimating that shipping could save nearly 800MtCO2 cumulative emissions by 2050 by progressively adopting green steel. South Korea, responsible for 30% of global shipbuilding in 2022 as well as the 6th largest steel producer worldwide has a crucial role to play in supporting the simultaneous sustainability transition of these industries, and we look forward to continued progress and leadership to achieve zero emission by the middle of this century.”

**ENDS.**

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SSI’s “Green Steel and Shipping” report is available for download here: <https://www.sustainableshipping.org/resources/green-steel-and-shipping/>

A complete summary of the event is available here: <https://www.sustainableshipping.org/news/events/green-steel-circularity-role-of-shipbuilding-and-shipping-industries-for-carbon-neutrality/>

**About the Sustainable Shipping Initiative**

The Sustainable Shipping Initiative (SSI) is a member-led group of leaders catalysing change across the maritime ecosystem. Since 2010, SSI has brought together shipowners, operators and managers; banks and financial stakeholder; cargo owners; classification societies; non-profits; ports; and service providers to advance environmental, social and economic goals for a sustainable shipping industry.

[www.sustainableshipping.org](https://www.sustainableshipping.org/)

**About Solutions for Our Climate**

Solutions for Our Climate (SFOC) is a nonprofit organization established in 2016 for more effective climate action and energy transition based in Seoul, South Korea. SFOC is led by legal, economic, financial and environmental experts with experience in energy and climate policy and works closely with domestic and international players.

[www.forourclimate.org](http://www.forourclimate.org/)