

From Trial Voyage to Weekly Service: Ningbo's Arctic Route Gains Momentum

By Zhao Yu

A few days ago, Huizhou EVE Energy Co., Ltd. sent two TEUs of lithium batteries by road to Ningbo Zhoushan Port, where they were loaded for shipment to Europe via the Arctic. The relatively small consignment was part of the company's initial attempt using the route.

On Aug. 15, the cargo was loaded onto the *Dubai Tower* at Ningbo Zhoushan Port. Ningbo, the vessel's first port of call in China, is set to handle nearly 1,000 TEUs before the ship continues to Shanghai, Taicang and Qingdao to take on additional cargo. The vessel will then sail west along the Northeast Passage, carrying nearly 1,500 TEUs in total and reaching the UK in about 20 days.

Last year, the route was operated only once. This year, seven to eight vessels will rotate on the service, with eight sailings scheduled each week during the navigable season. The China-Europe Arctic Container Express from Ningbo Zhoushan Port has entered a new phase of regular weekly service.

The rapid expansion reflects growing confidence in the Arctic route, which has evolved from a one-off trial into a regular seasonal service in just a year.

From One-Off Trial to Weekly Service

On Sept. 22, 2025, the China-Europe Arctic Express from Ningbo Zhoushan Port to Felixstowe completed its maiden voyage. The vessel sailed the full length of the Northeast Passage, reaching the UK in 20 days.

For decades, Asia-Europe maritime trade has relied heavily on the southern route through the Strait of Malacca, the Indian Ocean, the Red Sea and the Suez Canal. The Arctic route can cut the voyage by more than one-third, while also reducing the risks of overdependence on a



The cargo is loaded onto the *Dubai Tower* at Ningbo Zhoushan Port. [Photo by Tang Yan]

single shipping corridor. The Financial Times has described the Arctic as becoming a viable alternative to traditional global shipping routes.

The Arctic route runs through the Bering Strait and the Barents Sea and covers roughly 5,000 kilometers, making it the shortest maritime link between Northeast Asia and Western Europe. But for liner shipping, speed alone is not enough. What matters is a reliable schedule that allows customers to plan shipments with confidence.

That has been a key focus for route operator Sea Legend Line, which spent nearly a year working with partners to refine operating procedures, optimize fleet deployment and improve supporting facilities at ports along the route. The efforts paved the way for the China-Europe Arctic Express to move from a one-off trial to regular weekly sailings during the navigable season.

"With a stable weekly schedule during the navigable season, manufacturers can plan production, exporters can book shipping space, and European customers can prepare their

warehouse capacity accordingly," said Fang Yi, CEO of Sea Legend.

After leaving Ningbo, the service calls at major ports in Northern Europe and the Baltic region, including Felixstowe in the UK, Rotterdam in the Netherlands, Hamburg in Germany and Gdynia in Poland. The network links ports along China's coast with major European destinations.

Government support has also expanded. On Aug. 1, the Ministry of Transport released China's first public Arctic sea-ice forecast and added an Arctic route section to its website, providing shipping companies with information on ice conditions, international regulations and the requirements of Arctic coastal states.

Together, these developments are helping turn the Arctic route from a seasonal experiment into a more established link between Asian and European markets.

What It Takes to Keep the Route Running

Industry insiders say the Arctic route remains constrained

by seasonal ice conditions and is currently navigable for only a few months each year, from late July through October. It is unlikely to replace traditional shipping routes in the near term, but its role could grow as navigability improves over time.

Russian monitoring data released on Aug. 10 showed moderate to heavy sea ice in parts of the Vilkitsky Strait, the East Siberian Sea and the Chukchi Sea. Of the seven vessels operating on the route, only the *Dubai Tower* and *Istanbul Bridge* have an Ice rating under Russia's ice-class system. The other vessels may require icebreaker assistance in some sections.

Furthermore, shortage of qualified crew members is another major challenge, according to Huang Geng, director of the Chuanshan Maritime Safety Administration Office in Ningbo. "Crew members operating in polar waters must complete specialized training under the Polar Code, covering skills such as ship handling in ice, polar communications and emergency response. The training is demanding and lengthy. The number of Chinese crew members with the required qualifications remains

far below the industry's growing needs."

Maritime authorities in Ningbo are now working with Ningbo University to explore specialized training programs for crew members preparing to operate in polar waters.

Meanwhile, more shipping companies are preparing to enter the Arctic market. Together, they will provide container and multi-purpose vessel capacity of about 20,000 TEUs, as well as 1.4 million deadweight tons of dry-bulk capacity.

Interest is also growing beyond China. South Korea's PanStar plans to launch an Arctic service from Busan to Europe on Aug. 22, while the South Korean government is working to establish a more systematic framework for Arctic shipping.

The Arctic shipping market is therefore entering a more competitive phase, with both Chinese and international operators positioning themselves for future growth. Sea Legend Line has set a goal of extending the stable navigable season to about four months within three to five years, with year-round Arctic operations targeted within five to ten years.

Ningbo Semiconductor Firm Develops New Copper Packaging for SiC Devices

By Jin Lu

Ningbo-based PN Junction Semiconductor has developed a copper-interconnect packaging process for silicon carbide (SiC) power devices, intended for use in electric vehicles, AI computing and energy storage.

Founded in 2018, the company has developed more than 100 power-device products. Its SiC MOSFETs are already used by Chinese automakers and Tier 1 suppliers in data centers, 5G base stations, energy storage systems and EV charging equipment.

The company's latest process replaces the conventional aluminum interconnect structure with thick copper metallization on the surface of 8-inch SiC wafers. According to the company, the technology increases current density from about 400 A/sq cm to more than 600 A/sq cm, while reducing parasitic inductance to below 2 nanohenries and cutting switching losses by about 40%.

PN Junction Semiconductor is also developing embedded PCB power modules that integrate SiC chips directly into multilayer circuit boards. The design shortens electrical paths, improves heat dissipation and allows for more compact power systems.

The company expects sales of its AI-related products to reach 300 million to 400 million yuan (\$44 million to \$59 million) by 2027, more than 100 times current levels.

Founder Huang Xing said the company will continue to develop advanced packaging technologies and strengthen cooperation across the SiC supply chain, from wafer manufacturing and power modules to end-use applications.

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Hi Craft Brings Ningbo Culture to Moscow's Business Community

By Lu Xinyan

The Hi Craft exhibition has recently opened at the Russia Ningbo Chamber of Commerce in Moscow, bringing a selection of Ningbo's traditional crafts and city-themed materials to the local business community.

The exhibition features intangible cultural heritage handicrafts, publications about Ningbo and custom-designed engraved seals. Incorporated into the chamber's reception and business activities, the display gives Ningbo entrepreneurs' Russian partners an opportunity to learn more about the city.

Located inside the Greenwood International Trade Center, the exhibition occupies a compact space showcasing Ningbo's history, port heritage

and everyday life. Visitors can browse the books, examine the handicrafts and try the interactive exhibits.

The Greenwood International Trade Center, where the chamber is based, opened in 2011 as a major Chinese investment project in Russia. The center now hosts nearly 500 companies from more than 10 countries and serves as a platform for Chinese businesses entering the Russian market and establishing local operations. Its steady flow of business visitors makes it a natural setting for the Hi Craft exhibition.

Mao Honghui, president of the Russia Ningbo Chamber of Commerce, said the display had added a new dimension to the chamber's business interactions.

"The chamber regularly receives business executives

from Ningbo, as well as Russian business partners. In the past, our conversations focused mainly on products and business. Now, a book or handicraft can provide a natural starting point for a conversation about Ningbo," Mao said. "It allows people to see the city behind the companies they work with and gives Ningbo people living overseas a connection to home."

The display has also attracted interest from Russian visitors.

"Through the exhibition and the chamber's introduction, I've gained a much deeper understanding of Ningbo's culture," said Artem Merkulov, an assistant to the president of the chamber.

Mandrukevich Andrey Dmitrievich of Qianyi Pneumatic & Hydraulics Russia said



The Hi Craft exhibition has recently opened at the Russia Ningbo Chamber of Commerce in Moscow. [Photo provided to Ningbo Times]

the compact display had left a strong impression. "It's a small space, but it gave us a vivid and memorable impression of Ningbo," he said.

Alik Vladimir of Ningbo Qifeiya Import & Export Co., Ltd. was particularly interested in the traditional handicrafts. "It's my first time seeing these Ningbo heritage crafts. They are beautifully made and offer a glimpse into the city's distinctive cultural traditions," he said.

Rather than setting up large dedicated venues, Hi Craft makes use of existing spaces in corporate offices. A book, a handicraft or a simple conversation can offer a natural starting point for introducing Ningbo's history and culture in the course of everyday business interactions.

The displays will become part of office life, client meetings and employee activities, extending the project's reach to more local staff and business partners.

