

Port Operations and Sail Propulsion: Neoline Development

Sea wind propulsion is a hybrid solution at hand for the shipping industry which, with the help of new technologies and digitalisation, can help to address climate change. The Neoline Pilot Project aimed to test how wind propulsion could be used and financed in a larger and long-term scale.

Throughout the development of the project, the [Sustainable Blue Economy Finance Principles](#) and the [Turning the Tide](#) guidance were applied. These resources were specifically used for due diligence processes carried out with the European Investment Bank to evaluate the exposure to social and environmental risks.

Key facts:

- **Blue economy sectors targeted:** Maritime transportation and ports
- **Project:** Neoline Pilot Project
- **Timeline of the project:** 2019-2022
- **Geography:** North Atlantic
- **Key words:** alignment; risks and opportunities

Who?

ESAFON, Neoline Development and European Investment Bank

What?

Neoline is built on an awareness of its founders, most of them maritime professionals, about the strong impacts of maritime transport on the environment based on their experience. They share the vision that wind energy efficiency coupled with innovations coming from racing sails during last decades is a great immediate solution capable of drastically reducing the environmental impacts of commercial vessels. Neoline's founders aspire to demonstrate a willingness to act quickly to provide the most respectful and responsible maritime transport

possible and to involve the shipping sector in the transition.

Neoline ships aim to reduce emissions by 80% compared to similar ships under thermic propulsion (with a mid-term objective of zero emission). They bring an industrial and competitive new transport service. These ships will strengthen the resilience and the capacity of the shipping industry to offer practical and direct solutions to combat climate change.

Neoline engages with a new sector in the shipping industry based on the optimized use of wind as a clean and renewable energy to propel ships. The development and industrialization of innovative technologies (sails, energy storage and recovery, digital tools for weather routing, among others), and the building and operation of ships is estimated to create 310 lasting jobs for a sustainable blue economy in mainland France, island territories and Europe between 2022 and 2030.

This [project](#) presents a hybrid solution to address climate change using sails as main propulsion on ships, backed by thermic or electric propulsion, to transit meteorologic systems and facilitate port operations.

From a financial standpoint, the project involves one single asset to be financed under one contract. From a risk perspective, the project implied reviewing the following questions:

- i. In case of severe accidents, what is the residual value of the asset?
- ii. How can the risk of sailing performance (i.e. fuel consumption reduction) be mitigated, considering that no shipyard accepts to guarantee sailing performance?
- iii. How can we create a compromise between the asset's productivity (together with the shipper's needs and market return on investment) while reducing GHG emissions by around 80%?
- iv. How can enough market commitment be obtained prior to the vessel's financing, given

the long shipbuilding time (approximately 31 months)?

How?

After three years of commercial exploration and prospecting, the project became bankable because of long term contracts being entered with shipping leading companies fully involved in decarbonisation of their logistic chain.

The decarbonisation approach from this project is a top-down inflow (from boards and senior management) with a bottom-up effect from staff and other stakeholders involved. This is more easily achieved because entrepreneurs are increasingly convinced that the economic risk of decarbonisation decreases largely the overall risk of not taking action. Further, the COVID pandemic has crystallised the dependency for shipping companies to massified and globalised transport with delays, unwilling stop-overs and skyrocketing shipping costs. This has resulted in shipping companies looking for ways to control their own logistic routes, to decrease their shipping costs in the long run and to ensure the decarbonisation of their chain. Therefore, the commercial risk of engaging with decarbonisation is minimized.

Looking back...

“Based on our experience with this project, we recommend to our peers involved in similar activities to be prepared to face time-consuming due diligence processes with large institutions and/or investors that are not necessarily in line with start-ups’ limited resources. Allow time to impregnate your vision into the market and the relevant public, as any disruptive proposal take some time to be welcomed. Furthermore, if investment level is high, take into consideration that many people need to be convinced before it is possible to make an innovative project happen.”

- François Golbery (ESAFON)