

THE MOST SUSTAINABLE CARGO SOLUTION BETWEEN FINLAND AND SWEDEN

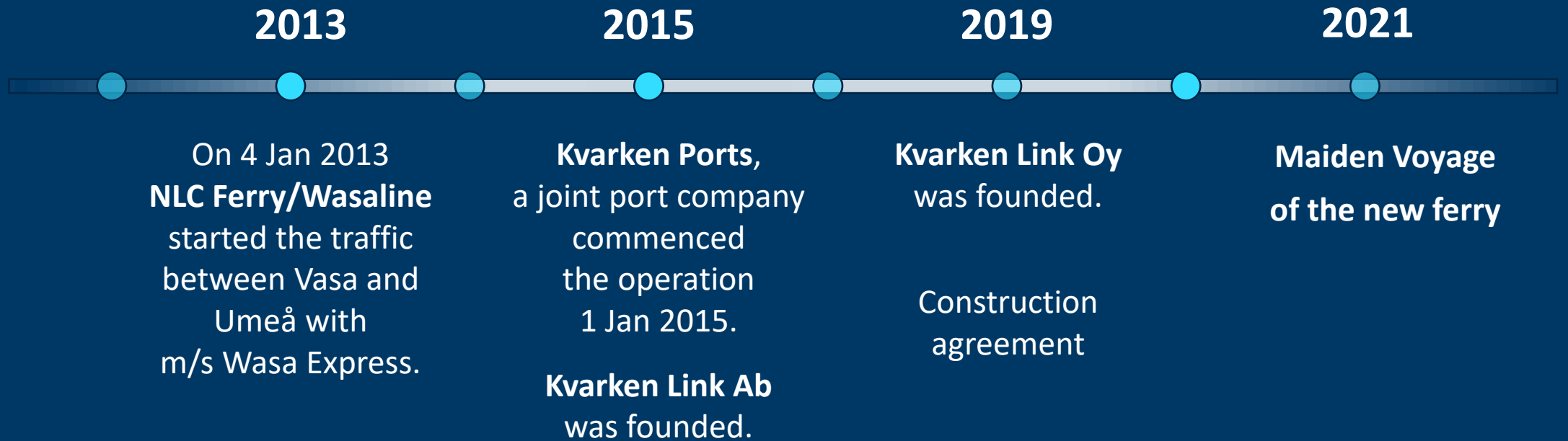
Up to 26 departures a week and a sailing time of 3,5 hours. Train and road networks connect us to the global logistics hubs of Southern Sweden and the deep-water harbors of Norway. Our route is very important for national security of supply.



Wasaline in brief



HISTORY



All companies are owned 50-50 by the City of Vaasa and Umeå Kommunföretag AB (Municipality)

WASALINE IN NUMBERS

2023



279 590
PASSENGERS



63 647
VEHICLES



20 886
CARGO UNITS



461
BUSES



1 164
DEPARTURES



-23%
CO₂ EMISSIONS



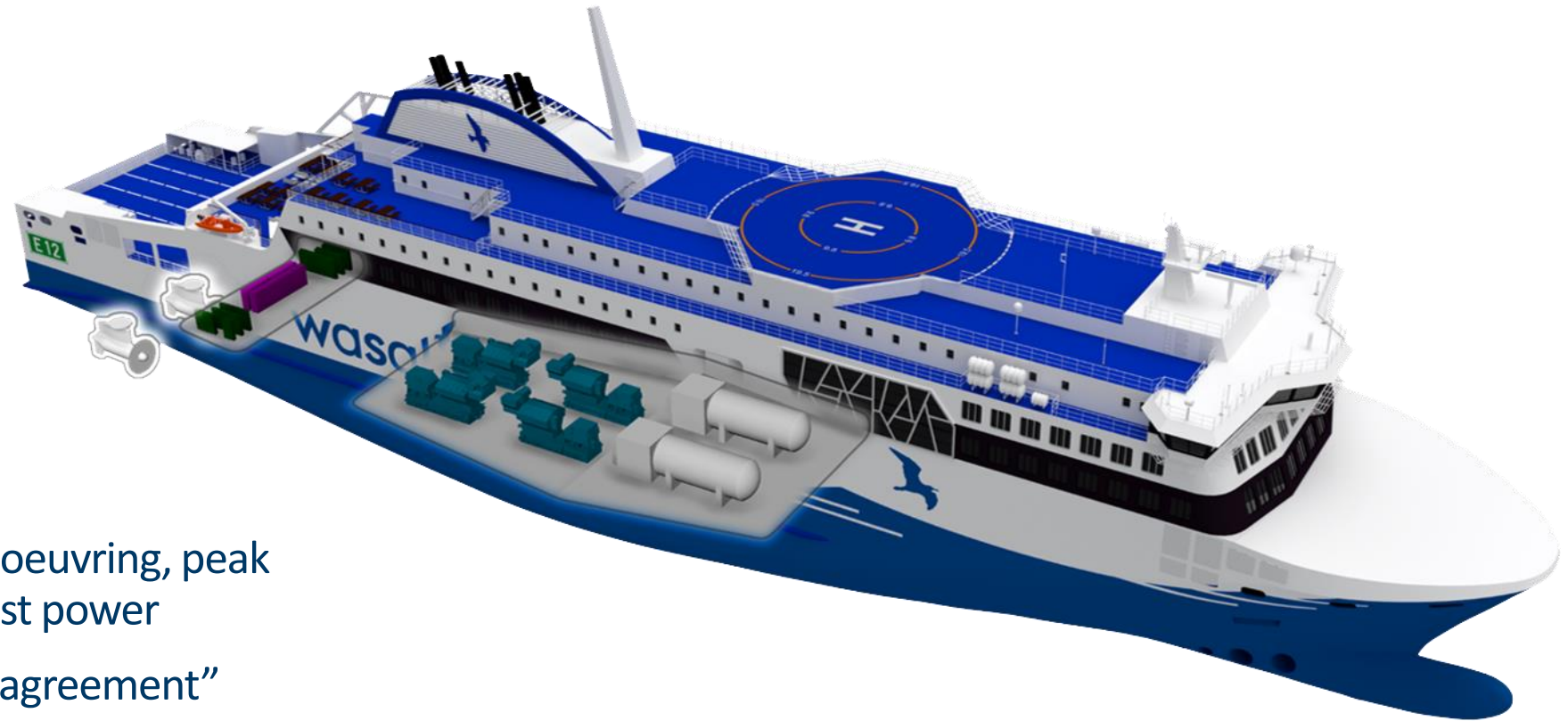
29.1 M€
REVENUE



120-150
EMPLOYEES

TECHNOLOGY

- Dual fuel with LNG as primary energy source
- Possibility to use LBG
- Electric propulsion drive with Azimuth thruster units
- Battery power for port manoeuvring, peak shaving, hotel load and boost power
- SOLAS 2020 & “Stockholm agreement” stability rules
- Marine Evacuation System
- No separators, green filter technique
- Floating Lab in cooperation with Wärtsilä
- DNV Clean Design



INNOVATIONS IN FERRY TECHNOLOGY

Aurora Botnia is a floating R&D laboratory and under continuous development and optimization.



ABB
2x Azipod pulling thrusters

Danfoss
Liquid-cooled 6 MW AC drives for power and hybrid propulsion systems

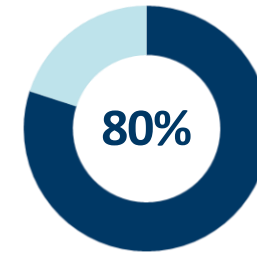
VEO
Electrical cabinets

Leclanché
2.2 MWh battery energy storage

WE Tech Solutions
Electrical design and vessel's power generation and hybrid propulsion system, propulsion switchboards, propulsion frequency converters, generators, energy management system, propulsion control system and bow thruster motors

Wärtsilä
4x 31DF engines
Nacos Platinum navigation
Tank connection space with integrated GUV LNG tank

MADE IN FINLAND



The Association for Finnish Work has awarded the Key flag symbol to Wasaline's Aurora Botnia

- The ferry was built by RMC in Rauma, Finland
- Companies of EnergyVaasa technology cluster were centrally involved in the design and manufacturing
- Aurora Botnia is over 80 % domestic made

*) The Key Flag symbol can be awarded to a product that has been made in Finland. In addition, the right to use the symbol can be awarded to products with a minimum domestic content of 50 per cent of its break-even cost.



Sustainability



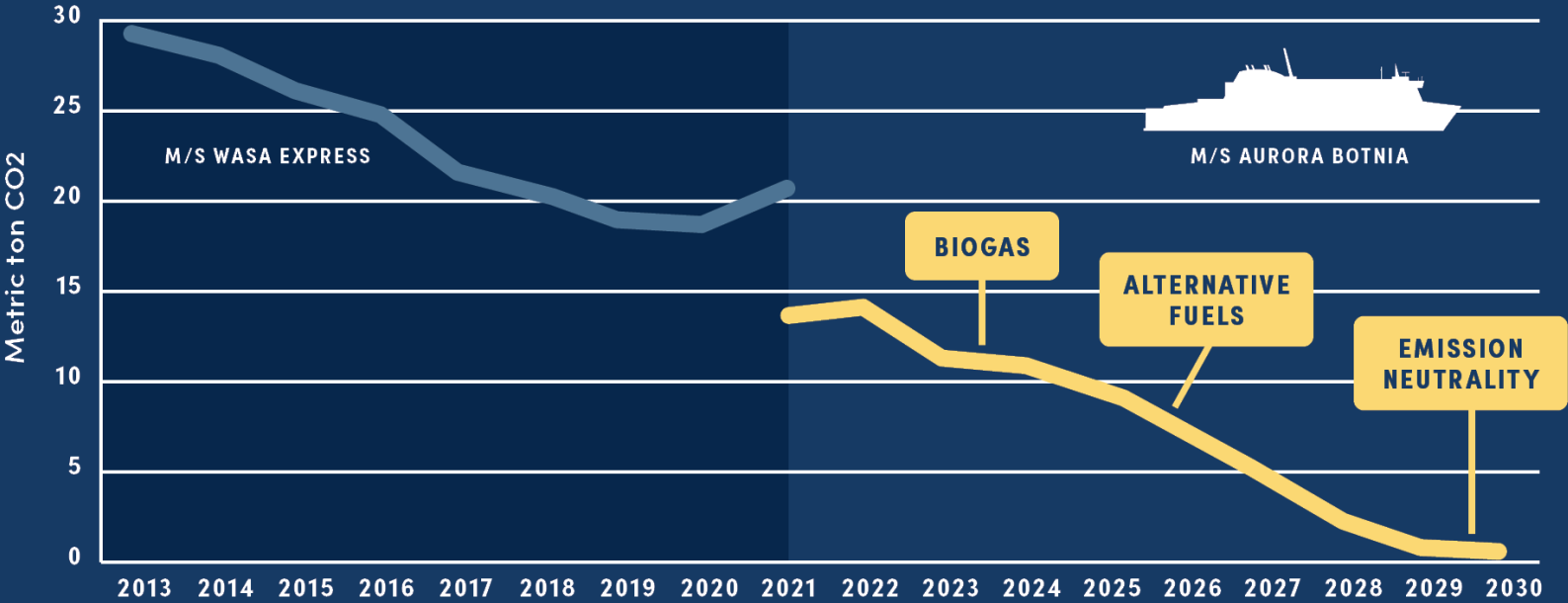
WHO SHOULD PAY FOR THE DECARBONAZATION OF THE WORLD AND HOW TO REDUCE THE CO2 FOOTPRINT? ETS WILL COME IN TO FORCE 1.1.2024

A few thoughts from Wasaline:

- Competition
- R&D
- First mover advantage – sets the benchmark
- Environmentally friendly materials
- Push for zero net emissions as quickly as possible
- Creativity
- Fuel saving – optimize departure time and energy
- Investments

PATH TOWARDS CO₂ EMISSION NEUTRALITY

Wasaline CO₂ emissions per voyage



GREEN CORRIDOR FRIDAY

- EVERY FRIDAY STARTING 13 OF OCTOBER

NO EXTRA COST FOR THE CUSTOMER 2023

POSSIBILITY TO RECEIVE A CERTIFICATE FOR THE SUSTAINABLE



Wasaline
wasaline 3,272 followers
2h • 🌐

Breaking news: 📣 Wasaline launches Green Corridor Fridays

Wasaline will start operating with certified biogas one day a week from October 13. With biogas, all Friday departures until Christmas will be climate neutral.

"Aurora Botnia is the world's most environmentally friendly ferry today, but our efforts to reduce our climate footprint continue", says **Peter Ståhlberg**, Managing Director at Wasaline.

During the pilot project, Wasaline will cover all extra costs on behalf of its customers.

Read the press release with comments from **Gasum** and **Ahola Transport**:
<https://lnkd.in/dhUKx5uD>
(sv/fi/en)

#sustainability
#maritimeindustry
#biogas



POSSIBLE TO OFFER CO2 EMISSION FREE TRANSPORTS ON VAASA – UMEÅ ROUTE

- 4-5 % of the total energy consumption on the Route is made up of green Energy
- We can allocate approx. 50 units each month for a green corridor
- Possible to create green Corridors from Vaasa to Gothenburg
- Please contact Wasaline Cargo for more information



INTERMODAL TRANSPORTS

Excellent train connections carry containers and unaccompanied trailers from the port of Umeå to the global logistics hubs of Southern Sweden and onwards to the rest of the world.

The Umeå harbour kombiterminal is right next to the ferry



TRAIN OPERATORS FROM PORT OF UMEA AND UMEA KOMBI

- Port of Umea (Green Cargo and Nurminen Logistics)
 - Green Cargo Departures every day (Wagon load system) Trailers and Containers
 - Nurminen Logistics 2 departures every week (Mainly containers but trailers also possible)
 - Umea Kombi (city Centre of Umea, small shunt by truck 15-20 min)
 - Starting 23 of May TX Logistik 2 departures per week (4 after the Summer) Gothenburg – Eskilstuna – Umea
 - TX Logistik → <https://www.youtube.com/watch?v=4Cb9ioh1sWU>
 - Real Rail → <https://sandahls.com/logistik/jarnvagstransporter/>
 - One stop shop with TT Line, Stena Line and Nurminen Logistics (Wasaline is a supplier)
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New fast lanes between Nordics

Schedules Vaasa via Port of Umea - Gothenburg

Vaasa – Gothenburg Sunday 06:00 ->Tuesday 07:30

Vaasa - Gothenburg Tuesday 21:15 ->Thursday 16:15

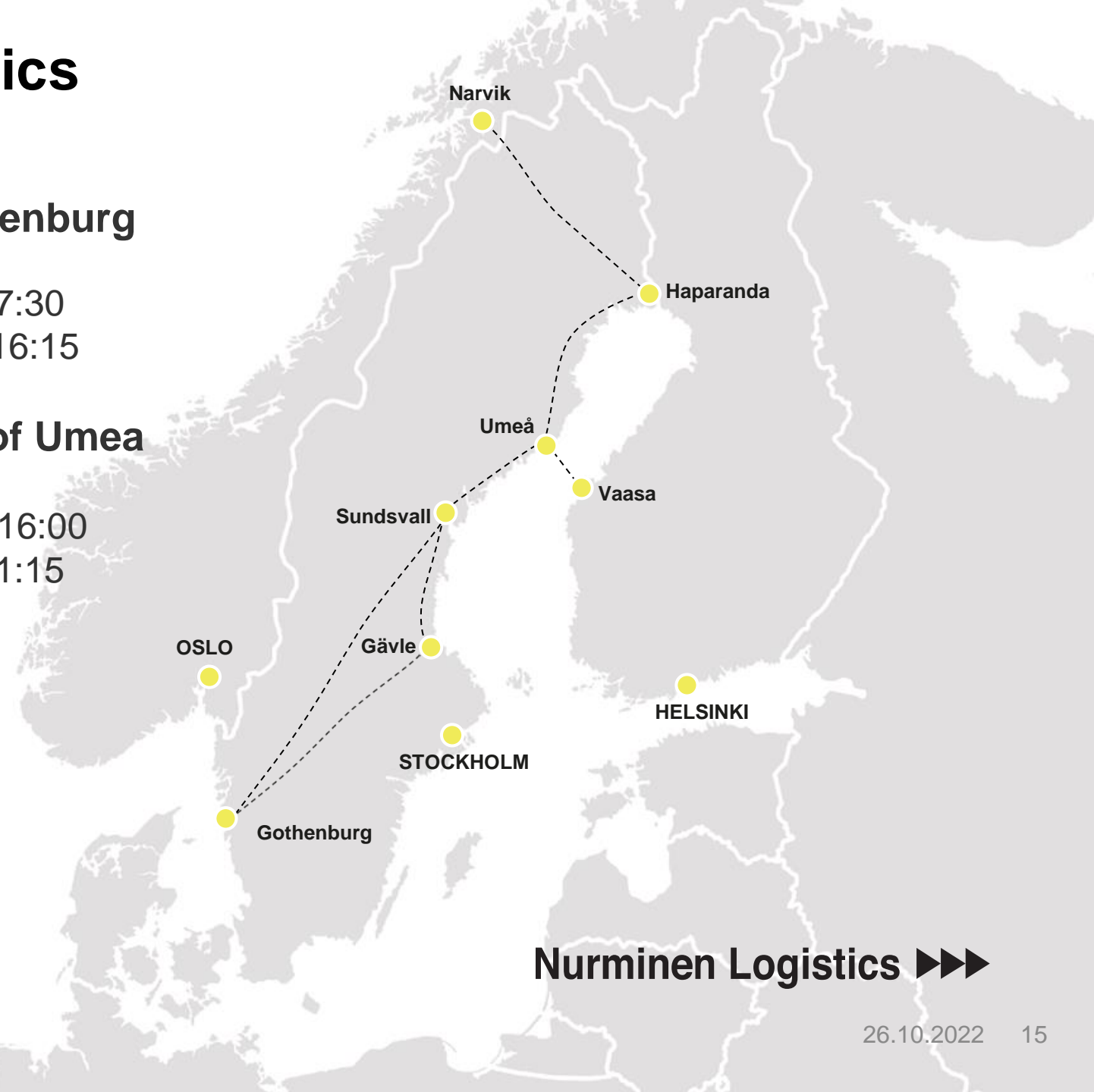
Schedules Gothenburg – Vaasa via Port of Umea

Gothenburg – Vaasa Tuesday 19:55 ->Thursday 16:00

Gothenburg – Vaasa Sunday 14:30 ->Tuesday 21:15

Bookings and operational details

rail.nordics@nurminenlogistics.com



Nurminen Logistics ▶▶▶



Southbound			
Departure		Arrival	
Vaasa	Tue 12:30	Travemünde	Thu 19:30
Vaasa	Fri 07:00	Travemünde	Mon 00:30
Northbound			
Departure		Arrival	
Travemünde	Sun 00:10	Vaasa	Tue 21:15
Travemünde	Wed 08:30	Vaasa	Fri 16:00
Southbound			
Departure		Arrival	
Vaasa	Tue 12:30	Duisburg	Fri 09:30
Vaasa	Fri 07:00	Duisburg	Tue 09:30
Northbound			
Departure		Arrival	
Duisburg	Sat 10:50	Vaasa	Tue 21:15
Duisburg	Tue 20:50	Vaasa	Fri 16:00
Southbound			
Departure		Arrival	
Vaasa	Tue 12:30	Verona	Mon 05:15
Vaasa	Fri 07:00	Verona	Wed 05:15
Northbound			
Departure		Arrival	
Verona	Fri 11:00	Vaasa	Tue 21:15
Verona	Mon 22:00	Vaasa	Fri 16:00

INTERMODAL TRANSPORTS: LOW CO₂ EMISSIONS

Intermodal transports are a unique environmental performance in combination with Aurora Botnia. Lead time 5-6 days

Example calculation: Barcelona – Vaasa via Swedish rail network and Wasaline compared to ferry transport via Germany to Finland.

70%

MORE ENERGY
EFFICIENT

80%

REDUCTION IN
GREENHOUSE
GASES

99%

REDUCTION IN
SO_x

93%

REDUCTION IN
NO_x

99%

REDUCTION IN
PM

Data Source: NTM-Calc