

FACT SHEET

2023



Interreg
North Sea Region
AVATAR

European Regional Development Fund
Sustainable urban freight transport with autonomous zero-emission vessels



EUROPEAN UNION

AIS Analysis

The AIS system was originally designed for radar augmentation and vessel traffic services, but AIS data can be used to collect information about traffic in a given area, which can be exploited in research, thereby has AIS become a source of big data.

For more than a decade, researchers have used AIS data to a greater extent to analyse maritime traffic in several areas such as ship surveillance, tracking, security, collisions, shipping noise levels, and vessel emissions.

Suitable for accessing KPIs

To assess the performance of the operations there are several options of KPIs based on AIS data.

For the purpose of city distribution, the evaluation of the route between quays and the time spent at the quays are relevant KPIs.

The sailing trip on the route can be divided into a number of “sub-trips” between two quays. For each sub-trip it is relevant to both assess no of total trips, sailing time between the quays and the speed between the quays.

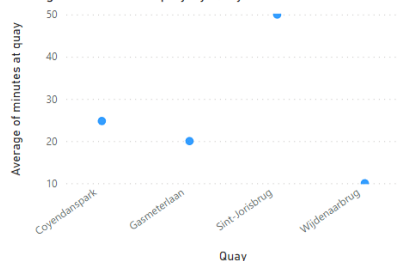
AVATAR AIS Analysis dashboard

rowid	quay	minutes_at_quay
2	Gasmeterlaan	20.00
3	Sint-Jorisbrug	80.00
4	Coyendanspark	10.00
5	Sint-Jorisbrug	20.00
6	Gasmeterlaan	
7	Coyendanspark	39.50
8	Sint-Jorisbrug	50.00

Number of trips to each quay



Average of minutes at quay by Quay



Number of trips between quays

last_quay	Coyendanspark	Gasmeterlaan	Sint-Jorisbrug	Wijdenaarbrug
Coyendanspark		1	2	
Gasmeterlaan	1		1	
Sint-Jorisbrug	1			1

Travel time between quays

quay	Coyendanspark	Gasmeterlaan	Sint-Jorisbrug	Wijdenaarbrug
Sint-Jorisbrug	20.00	20.00		6.00
Gasmeterlaan	20.50		120.00	
Coyendanspark			15.00	