

# Predicting ship ETAs in ports by Royal Dirkzwager



**Ship2Port**  
Powered by Royal Dirkzwager

# Royal Dirkzwager

Founded in Rotterdam in 1872.

30 employees in NL, BE, PL and JP.

The expert on port planning.

Integrated to port management systems.

Serving over 600 customers.



# Turbulent waters



Environment



People



Technology





A FOCUS ON

# Sustainability

0% net carbon emissions by 2050

"The best fuel is the one never combusted"

Fuel consumption follows an exponential curve

Average waiting time for breakbulk ships in Antwerp is 16 hours

1/3 ships must anchor because of an occupied berth



A FOCUS ON

# People

8% Lowest job satisfaction

Employees dealing with manual, administrative jobs, rank themselves in the bottom 8% of job satisfaction – Career Explorer

A simple port call generates between 40-80 e-mails

The same data is often typed over multiple times

Almost no new information is being pushed proactively



A FOCUS ON

# Technology

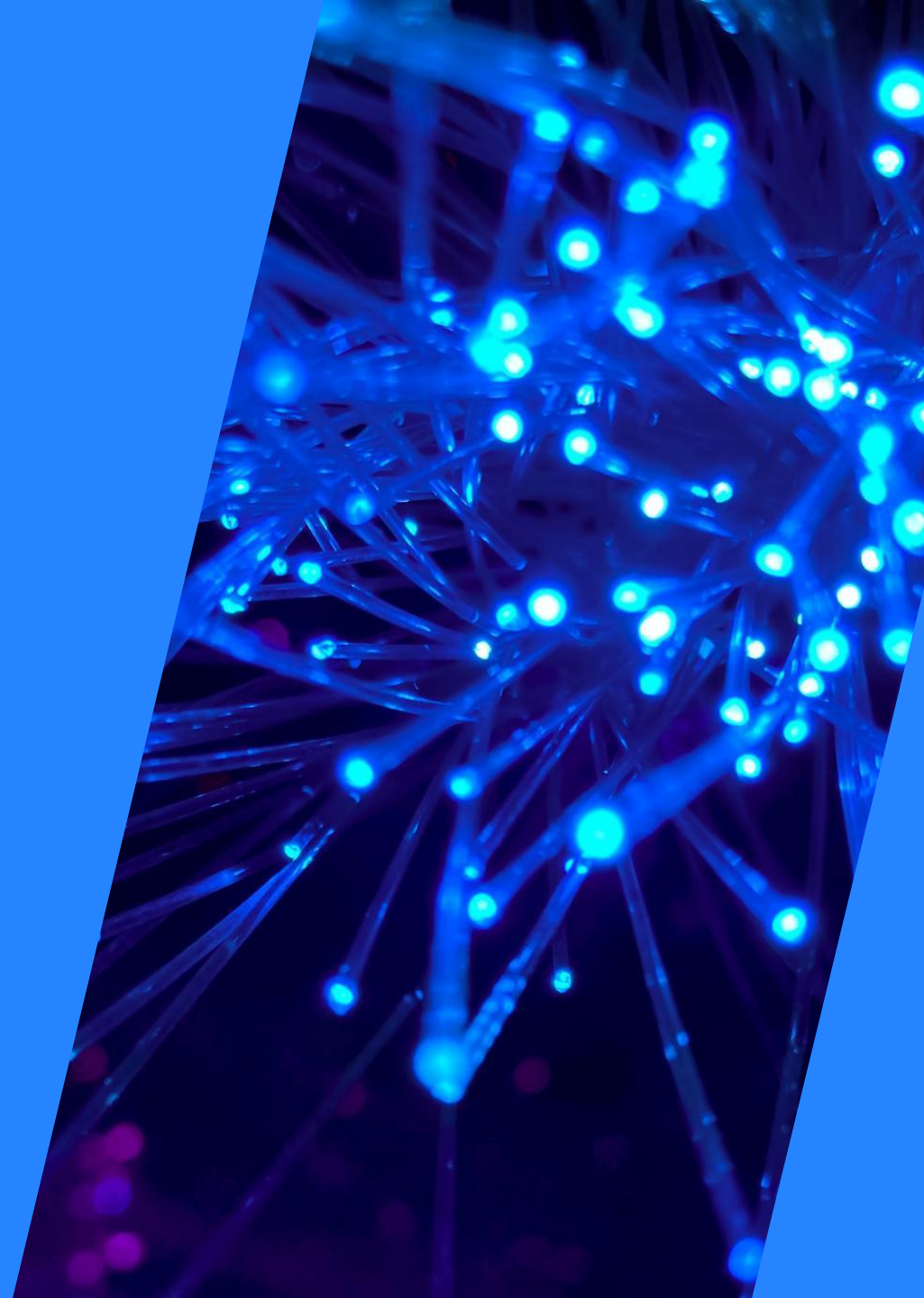
25-50% Waste in port call process

Collaboration in a highly dynamic environment

Technology as a crucial accelerator for industry trends

Internal and external data silos

Fragmentation of the supply chain



It is not rare for planners working at service providers in our sector to spend over 4 hours per day per port looking for ETA information.

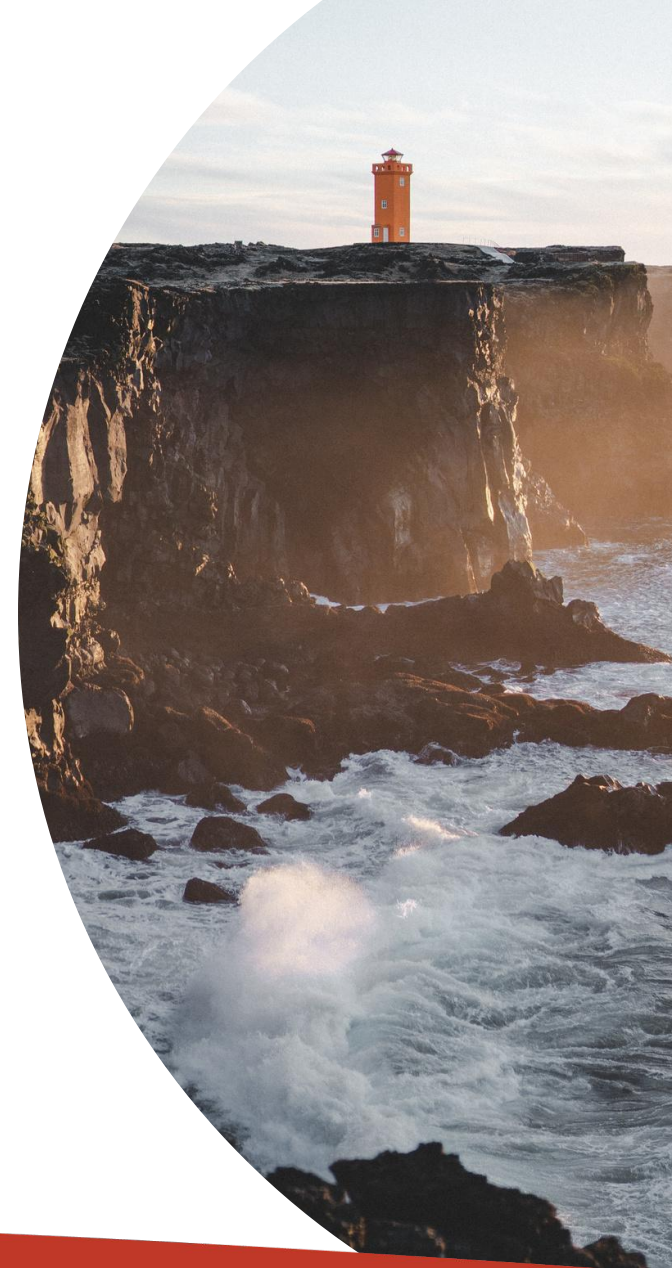
BASED ON SITE VISITS AT PORT SERVICE PROVIDERS



# A global shift is required

We must shift from a reactive and fragmented industry to an industry that takes control over its processes.

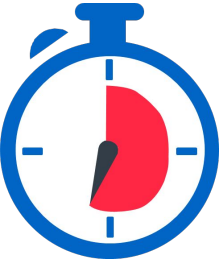
We need to shift from looking around to being seen.





# Digital collaboration

1950



Fastest pitstop  
65 seconds

2019



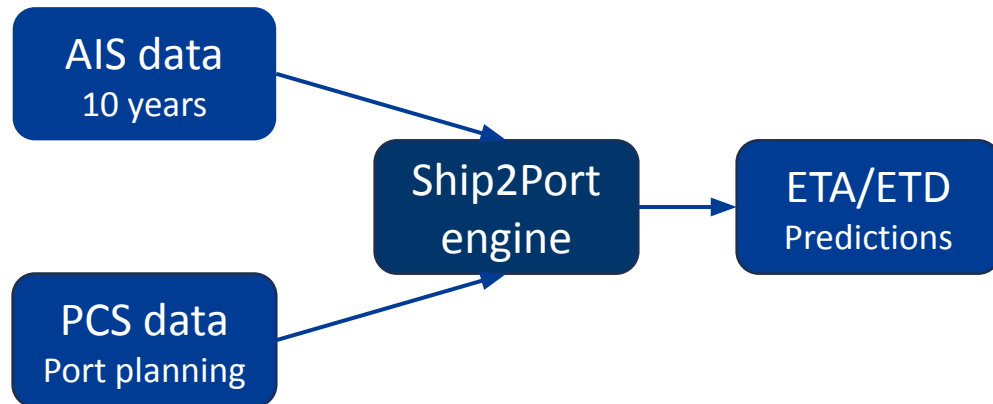
Fastest pitstop  
1.92 seconds

Lack of data  
Data silos  
Conflicting interests



## Good, qualitative data

Connect to port management systems to get qualitative planning data.



Add 10 years historical AIS data.

The result are good ETA/ETD at berth predictions.



# Digital transformation

## 01 Digitalize

---

Create a digital copy of current information.  
E-mails, phone calls, paper.

## 02 Pushing data

---

Shifting from a pull to a push system for information exchange.

## 03 Support decisions

---

Use data to support employees' decision-making process.



# Benefits of digital collaboration



**Sense of control in job**



**Waiting times and money saved**



**Fuel and emissions saved**