



Connecting Sea-Port-Land with a digital platform

SMI-UTU Webinar

28th Apr, 2021

PRESENTER:

Sami Kaksonen

VP of Sales & Marketing





TRANSITIONING TO SUSTAINABLE AND INTELLIGENT MARITIME LOGISTICS



“Digital platform for connecting SEA port and LAND
actors for collaborative operational planning”

40 %

**Ships are rushing
to wait at ports**

40 %

**Ships routinely sail
partially empty**

40 %

**Emission reduction
targets set by IMO**

- Knows only 24h forward what will be operational status
- Lots of expensive evening and weekend work
- Planning with excel or pen/paper



- Waiting about 6h for every pick up
- Changes not communicated

- Using e-mails, phone calls and even faxes to communicate
- Doesn't know recommended time of arrival & departure



“Solving inefficiencies caused by actors working in silos”

HOLISTIC SMART PORT PLATFORM

for Real-time Collaboration,
Planning and Optimisation



END USERS

SHIP OPERATORS

TERMINAL OPERATORS

FREIGHT FORWARDERS

ETC...

PORT ECOSYSTEM

API

API

API

API

awake.ai PLATFORM

Fleet
Connector

TOS
Connector

API

Fleet
Connector

ERP
Connector

Awake.AI platform core services

Machine Learning algorithms

Port and company specific modules

AIS data

Weather data

Camera Data

IoT sensors

NSW / VTS



Customized

Application

Platform



CONFIDENTIAL

awake.ai

ENABLING SYSTEM OPTIMIZATION

5 LAND TRANSPORT

4 STORAGE AND WAREHOUSE

3 PORT

2 BERTH

1 SEA VOYAGE

Visibility of Short Sea,
vessel positioning and
Port status.

Efficient berth
planning and
resource
optimization

Predicting and
optimising port
operations.
Efficient cargo
unloading and
loading

Predicting,
monitoring and
optimising yard
& storage usage

Awareness of
land transport
and cargo flow
beyond port
gate.

awake.ai

Smart Port as a Service™

FROST & SULLIVAN

BEST
2021 PRACTICES
AWARD

EUROPEAN MARITIME
LOGISTICS ENTREPRENEURIAL
COMPANY OF THE YEAR AWARD





TRUST
IS THE KEY
FOR COLLABORATION



TRUST IS THE KEY - CYBER RESILIENT SYSTEM

- **High Availability** and **Fault tolerant** hosted solution
- Automated **Real Time Security Threat detection** service is running 24/7 to keep your data safe
- **Security by design** security assurance approach enforced in building **hosted services**.
- Multiple **separated** automated **environments** (DEV, QA, PROD) for **ensuring quality** and reliable roll-out of new software releases.



TRUST IS THE KEY - WORKING TOGETHER WITH OUR ECOSYSTEM



WHAT IS THE
VALUE OF THE
DATA?

MONEY

"LESS THAN 1% OF DATA
IN BUSINESSES IS
ANALYZED AND TURNED
INTO BENEFITS."

- SAP -



TANGIBLE BUSINESS BENEFITS

Smarter decision making with AI and machine learning

+

Effective communication across the port community.

+

Sharing Situational Awareness and predictions through user interface and APIs

=

**Reduced vessel turnaround times
and CO2 emissions**



27 %

Terminal Operators

cost savings in port operations

21 %

Port Authors

cost savings with less delays

20 %

Ship Owners

cost savings with reduced turnaround times

20 %

Cargo Owners

cost savings with reduced lead time

Smart Port as a Service™ - AI predictions

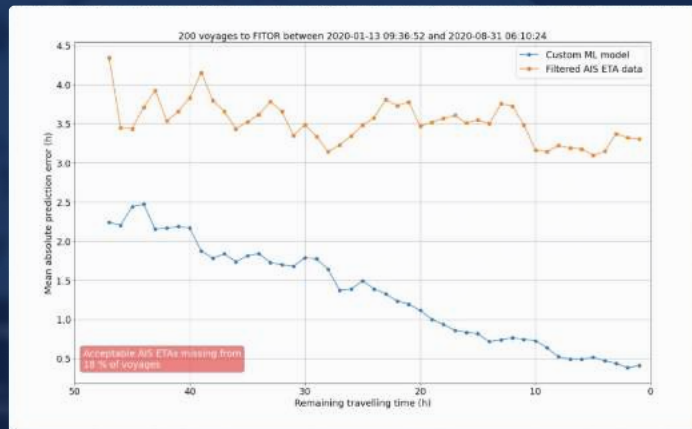
USE CASE: ACCURATE ETAs

Awake.AI services perform over **100 000** voyage predictions per day globally, based on billions of miles of analyzed data.

80% more accurate predictions using ML models

ETA API

for systems communication



WES AMELIE
CONTAINER
DESTINATION: FIVSS
ETA: 17/12/2020, 12:23:59
SPEED: 17.0 knots
AIS UPDATED: 29 min ago

Anne Marttinen 8:26
Good morning. Wes Amelie will arrive on schedule.

Awake.AI 8:32
Wes Amelie arrived to VTS zone Helsinki-Sector 2.

Awake.AI 11:38
Wes Amelie arrived to PBA zone Helsinki-Sector 2.

Awake.AI 12:04
Wes Amelie departed PBA zone Vuosaari-Satama.

Awake.AI 12:31
Wes Amelie arrived to Port area zone Vuosaari-Satama.

Linda Johnson 12:32
Please, prepare for mooring.

Type your message

VUOSAAREN SATAMA

Arrival Berth
VD4

Departure Berth
VD4

Departure Port Area
VUOSAAREN SATAMA

Departure PBA
HELSINKI-SECTOR 2

Departure VTS

USE CASE: ACCURATE ETAs SAVES THOUSANDS OF EUROS PER PORT CALL!

The numbers below represent annual savings or increase in revenue assuming with an average arrival delay per ship of

1000 ships per year
5.00 hours

Cost savings

Port operations (docker personnel + machinery)	Per ship	Per year
Total delays (in hours)	5	5,000
Total cost without delays, €	11,539	11,539,314
Total costs associated with delays, €	4,329	4,328,728
Total cost with delays, €	15,868	15,868,042
% cost saving		27%

Sea operations	Per ship	Per year
Total delays (in hours)	9	9,000
Fixed cost without delays, €	14,983	14,983,333
Fixed costs associated with delays, €	3,750	3,750,000
Total fixed cost with delays, €	18,733	18,733,333
% fixed cost saving		20%
Variable costs without delays, €	20,781	20,781,250
Variable costs associated with delays, €	-	-
Total variable cost with delays, €	20,781	20,781,250
% variable cost saving		0.00%
% total cost saving		10.49%

Port authority	Per ship	Per year
Total delays (in hours)	5	5,000
Total cost without delays, €	900	900,000
Total costs associated with delays, €	185	185,250
Total cost with delays, €	1,085	1,085,250
% cost saving		21%

27 %

Terminal Operators

cost savings in port operations

21 %

Port Authors

cost savings with less delays

20 %

Ship Owners

cost savings with reduced turnaround times

20 %

Cargo Owners

cost savings with reduced lead time

SMARTER BERTH PLANNING

Developed together with Port of Gothenburg

AI ASSISTED TOOL FOR PREDICTIVE BERTH PLANNING

- Situational Awareness driven berth planning
- Transparent and real-time plan sharing with partners
- Dedicated webinar on May 12th, 09:00-09:45 (CEST)
- More information online <http://bit.ly/berth-planner>

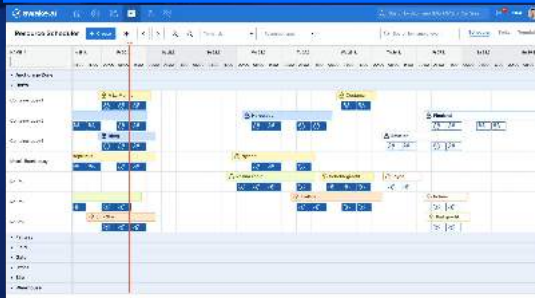


Smart Port as a Service™ Features

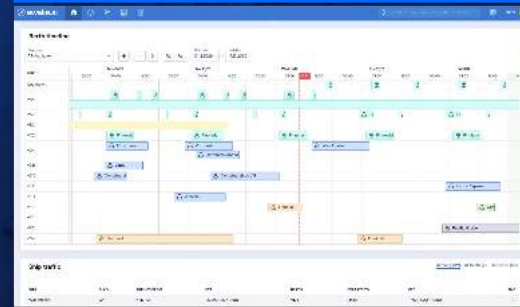
All-round mapping & Dynamic fleets



Task & Resource planning



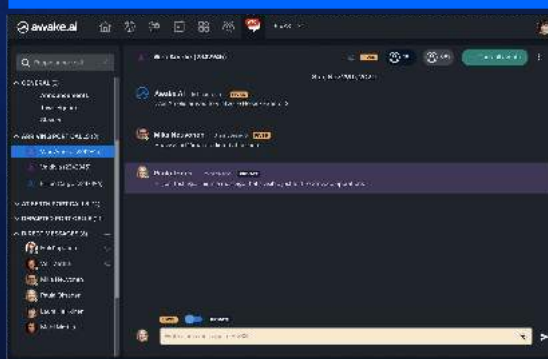
Dashboard for quick situational awareness



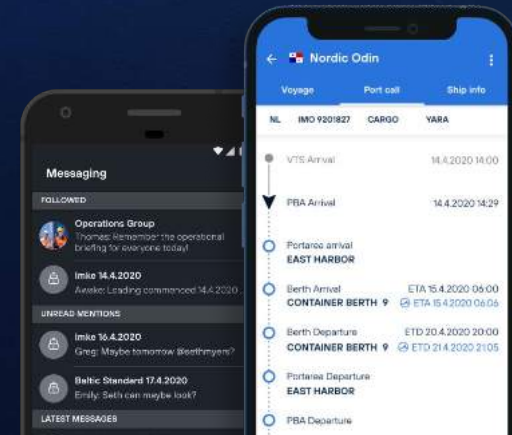
Berth planning



Multimodal communications incl. automated events



Comprehensive Mobile App



“An comprehensive set of applications and APIs”

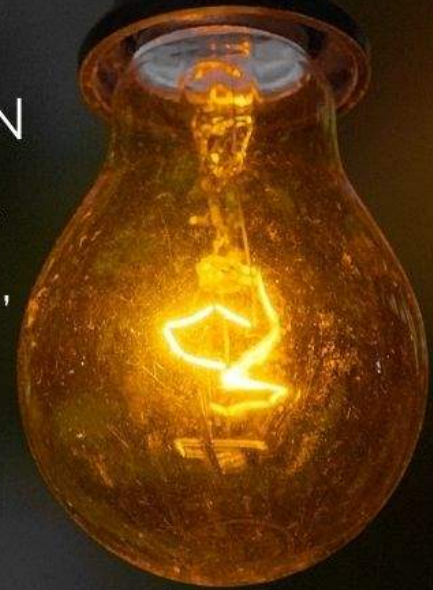


RAPID DEPLOYMENT MODEL



"IN TODAY'S ERA OF VOLATILITY, THERE IS NO OTHER WAY BUT TO RE-INVENT. THE ONLY SUSTAINABLE ADVANTAGE YOU CAN HAVE OVER OTHERS IS AGILITY, THAT'S IT. BECAUSE NOTHING ELSE IS SUSTAINABLE, EVERYTHING ELSE YOU CREATE, SOMEBODY ELSE WILL REPLICATE."

- JEFF BEZOS, FOUNDER, AMAZON -



EXAMPLE - PILOT PROJECT SCHEDULE



Fastest Smart Port technology deployment in the market, tailored based on customer needs.



TRANSITIONING TO SUSTAINABLE AND INTELLIGENT MARITIME LOGISTICS

FURTHER READING ONLINE

- Company overview: <http://bit.ly/awakeai>
- Using Artificial Intelligence for predictions: <http://bit.ly/AI-prediction-blog>
- Berth Planner: <http://bit.ly/berth-planner>



CONTACT FOR MORE INFORMATION

Sami Kaksonen, VP of Sales & Marketing
sami.kaksonen@awake.ai, +358 50 5147169