

Helping Ports to identify vessels at high risk of carrying invasive species through data



PortShield. A service provided by Safinah and powered by AkzoNobel

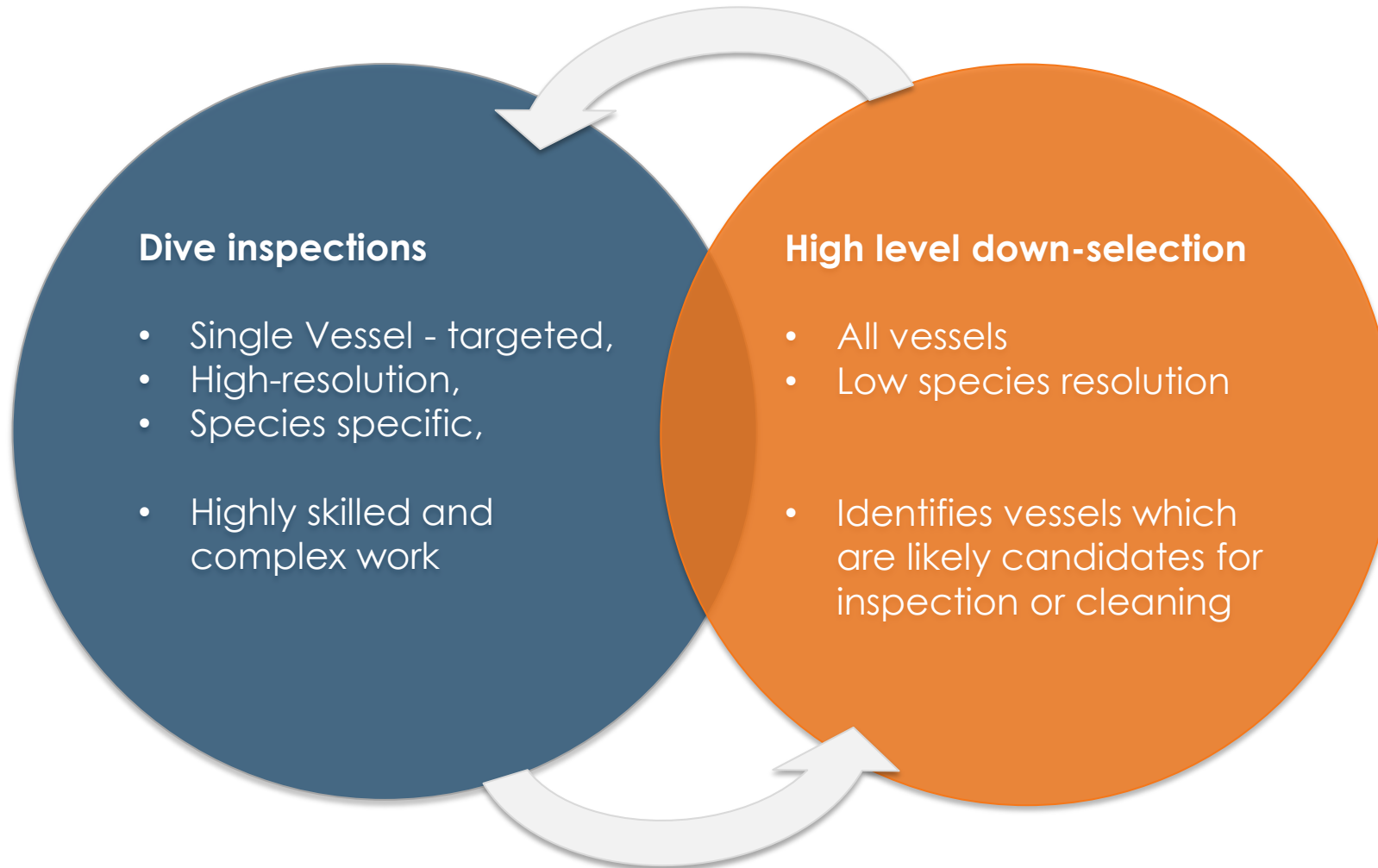
The PortShield™ venture team



- Safinah - The leading independent coating consultants working with the marine industry world-wide. Originator of the concept for PortShield and the assessment of associated risk-mitigation factors.
- AkzoNobel – A Leading marine coating company, but in this instance providing only the global fouling challenge data layer on which the risk assessment is built.



Two complementary approaches to Invasive species risk management in marine



PortShield is based on a traditional risk assessment model calculated on a large scale



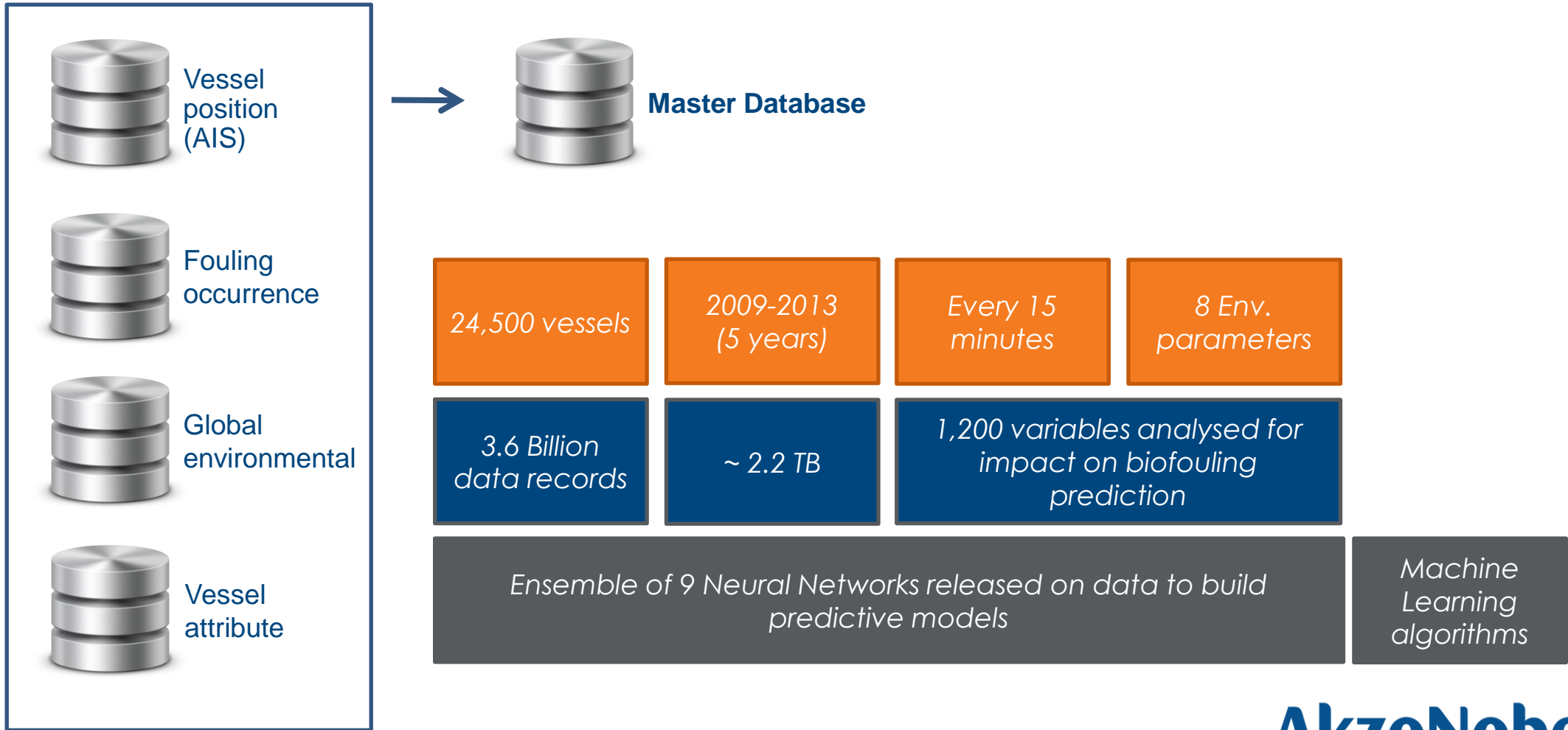
Hazard x Likelihood = Risk

AkzoNobel

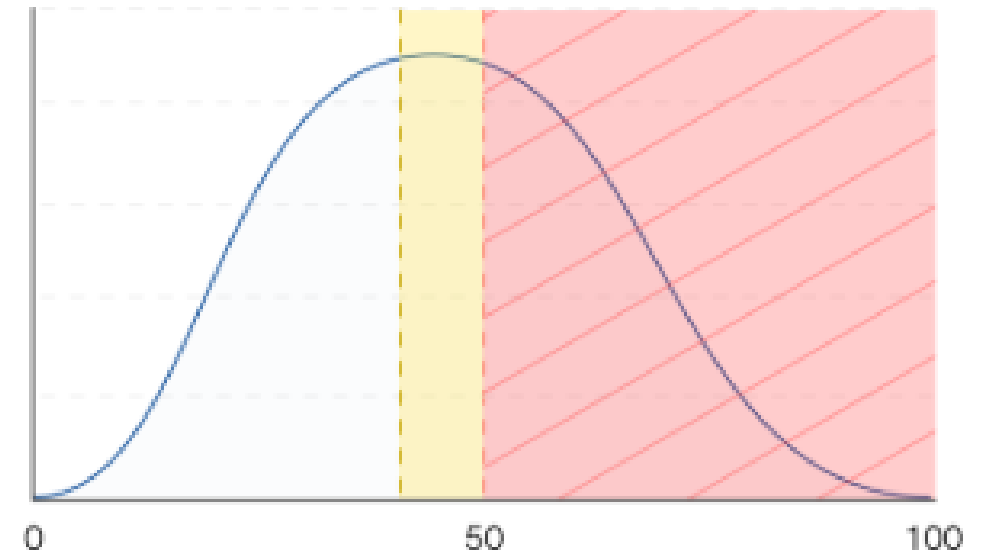
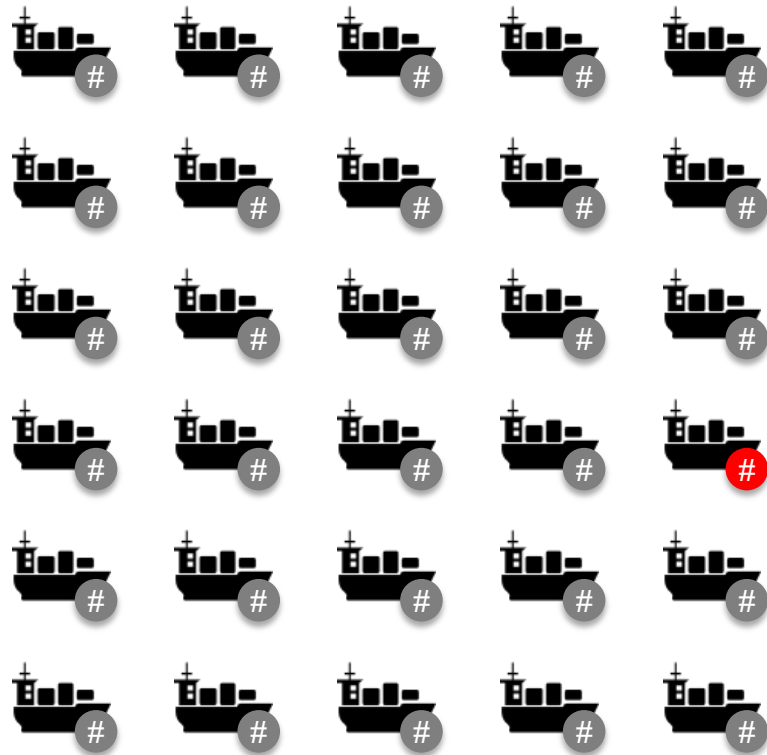


Fouling Challenge X Fouling Control Factors = Hull Invasive Species Risk

Fouling Challenge was built by combining Billions of data points



Relative cumulative challenge index established to compare vessels



Vessels can be indexed based on a population of vessels



Global Challenge Index GCI

Relative description of Challenge of a vessel compared to all other vessels in the global fleet

Port Challenge Index PCI

Relative description of Challenge of a vessel compared to all other vessels who have entered a port

Challenge Index is modified with Fouling Control Factors to generate Risk



AkzoNobel



Challenge Index (Global or Port)

The challenge experienced based on the operational profile of a vessel

Environmental data	Location data	Speed	Activity	Port calls	Environmental similarity	Transport stress
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Waving a 'red flag' to bring attention to riskier vessels



Search Vessel Name or IMO Number

WEEK 39
September 2018

Port Thresholds
▲ High Risk 88 ● At Risk 81

Mon 25 Tue 26 Wed 27 Thu 28 Fri 29 Sat 30 Sun 1

High Risk: 6 Risk: 8

STATUS	IMO #	VESSEL NAME	ETA	PCI	HIS
▲	8928392	Bel Ami	10AM	92	89
▲	1898787	Rix Leopard	12PM	92	-
▲	1893729	Esvagt Castor	1PM	94	92
▲	3865289	Paragon B391	1PM	98	-

No FCF data entered

Waving a 'red flag' to bring attention to riskier vessels

Vessel Profile: Bel Ami

98

PCI

-

HIS

Fouling Control Factors

Vessel has not updated Fouling Control Factors.

Contact

Mark as no action

Further action

Vessel Type

Cargo

IMO No.

8928392

Berthing Location

In transit

Location Area

Mediterranean Sea

ETA into Port

06:23 AM Tues 27 Sep '17

Estimated Length of Stay

5 days

Anchorage

In transit

Latitude/Longitude

N37° 2' 51" / E19° 49' 38"



Last 5 port calls as detected by AIS

DATE	PORT	STAY
02/07/17	Goa, India	3d 8h
30/06/17	Dubai, UAE	8h
17/6/17	Athens, Greece	1d 7h
11/6/17	Napoli, Italy	14h
10/6/17	Istanbul, Turkey	14h

Simple system to help ports and authorities focus on riskier vessels



- New venture team from Safinah and AkzoNobel
- A service offered by Safinah, powered by AkzoNobel Challenge data
- Global, regional and port indexes can help gain insight into risk and help direct risk mitigation strategy



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