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# Evolving in a Dynamic Risk Ecosystem

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# Evolving in a Dynamic Risk Ecosystem

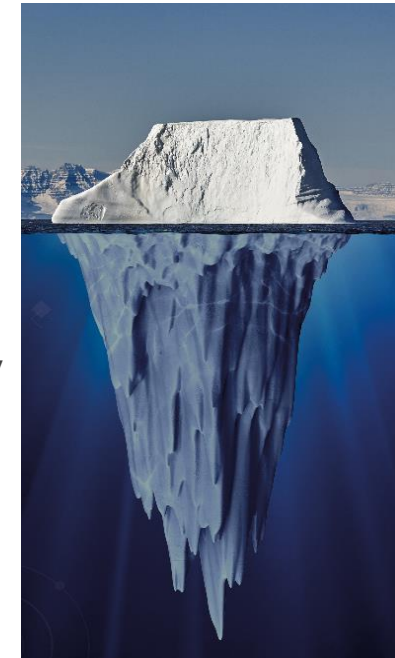


- Purpose (*enabler, provider of solutions and influencer of societal changes*)
- Recognized?
- Disrupted?
- Contested?

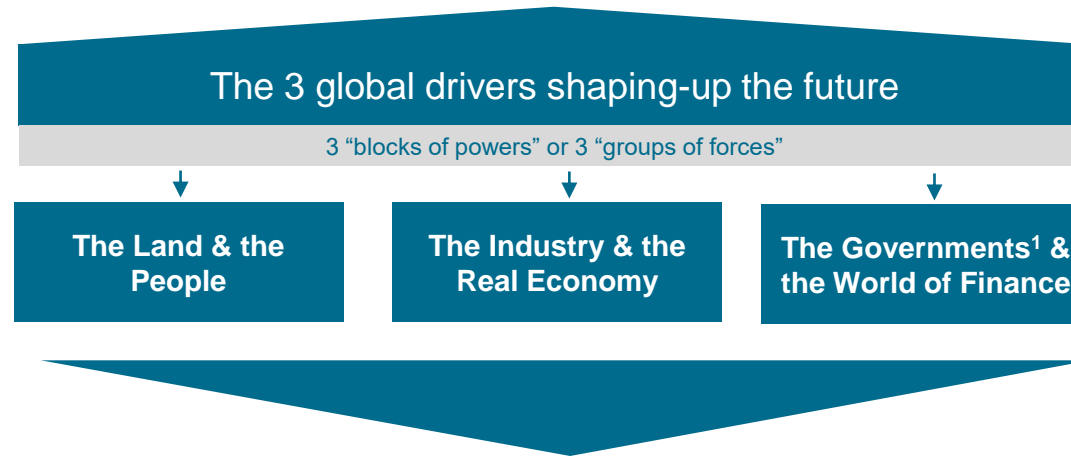


- Case Study
- An InsurTech Underwriting application

- InsurTech
- Transformer or Disruptor
- What the industry is working on



# The UN 17 Sustainable Development Goals and 10 Principles offer a useful overview of the challenges in front of the 3 global drivers



## The UN 17 Sustainable Development goals



## The 10 Principles of the UN Global Compact

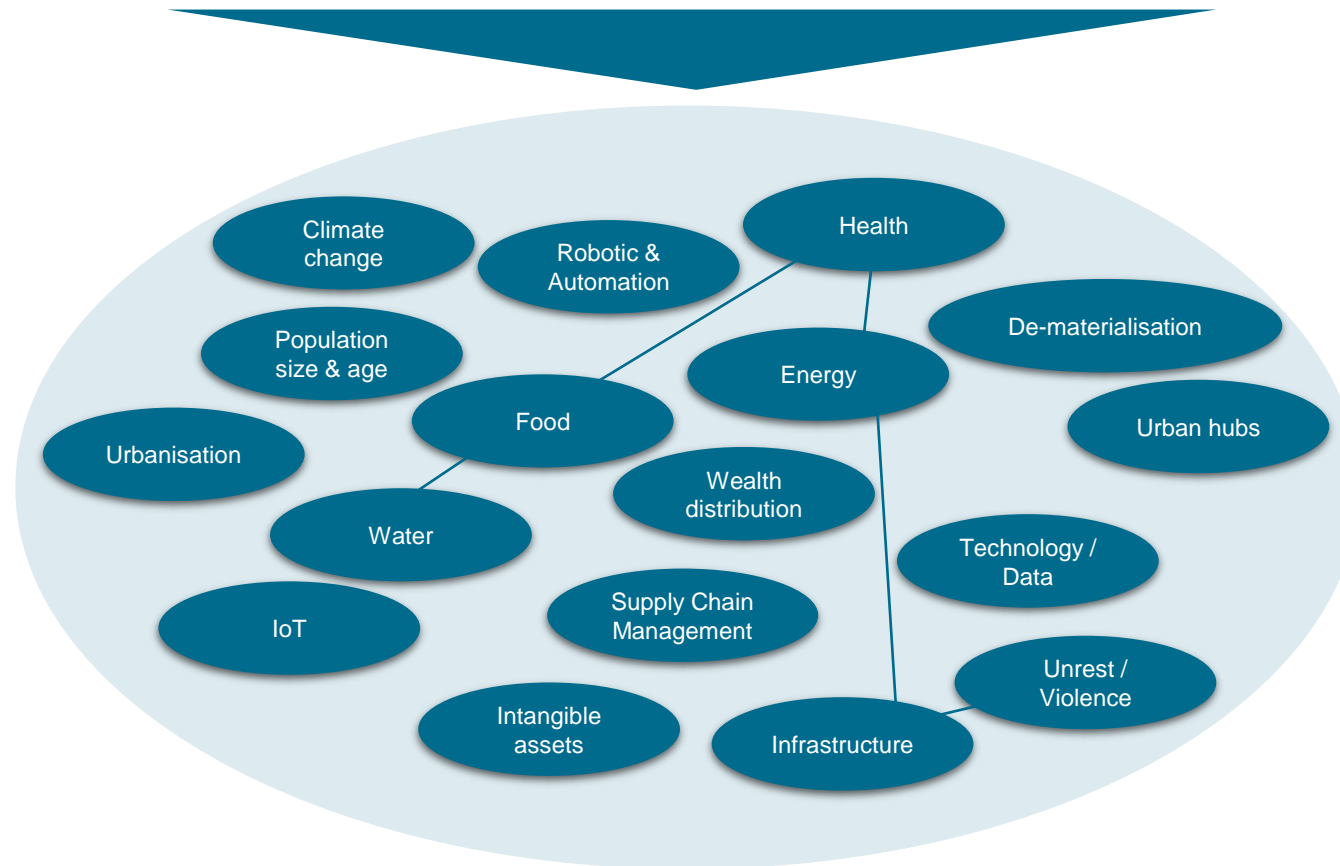
- |                        |  |
|------------------------|--|
| <b>Human Rights</b>    | <ul style="list-style-type: none"> <li>• <a href="#">Principle 1</a>: Businesses should support and respect the protection of internationally proclaimed human rights</li> <li>• <a href="#">Principle 2</a>: make sure that they are not complicit in human rights abuses</li> </ul>  |
| <b>Labour</b>          | <ul style="list-style-type: none"> <li>• <a href="#">Principle 3</a>: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining</li> <li>• <a href="#">Principle 4</a>: the elimination of all forms of forced and compulsory labour</li> <li>• <a href="#">Principle 5</a>: the effective abolition of child labour</li> <li>• <a href="#">Principle 6</a>: the elimination of discrimination in respect of employment and occupation.</li> </ul> |
| <b>Environment</b>     | <ul style="list-style-type: none"> <li>• <a href="#">Principle 7</a>: Businesses should support a precautionary approach to environmental challenges</li> <li>• <a href="#">Principle 8</a>: undertake initiatives to promote greater environmental responsibility</li> <li>• <a href="#">Principle 9</a>: encourage the development and diffusion of environmentally friendly technologies</li> </ul>   |
| <b>Anti-Corruption</b> | <ul style="list-style-type: none"> <li>• <a href="#">Principle 10</a>: Businesses should work against corruption in all its forms, including extortion and bribery</li> </ul>  |

# Risk is our raw material, and these 3 global drivers are facing changes and pressures which have direct impacts on the risk universe

The Land & the People

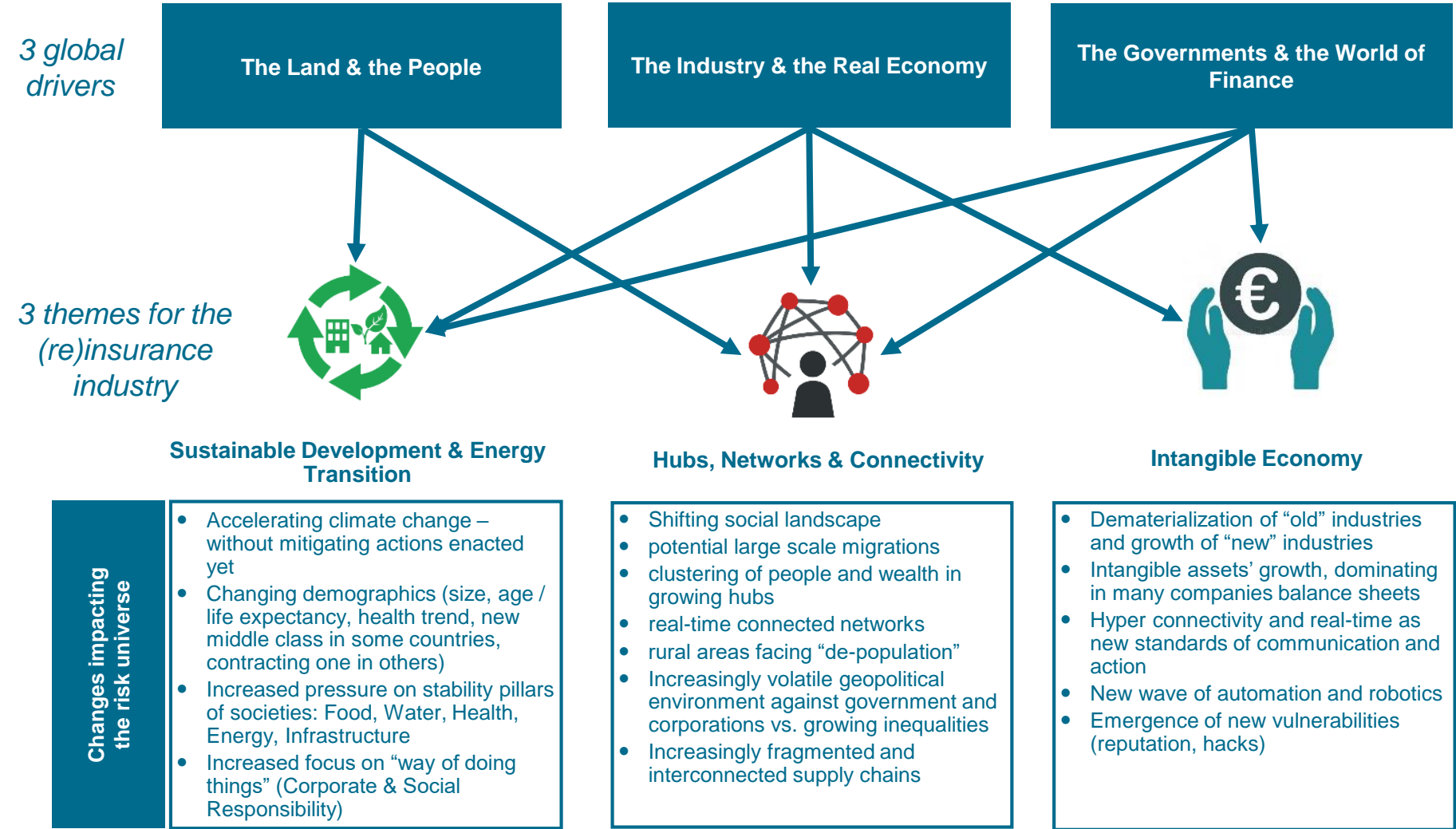
The Industry & the Real Economy

The Governments & the World of Finance



→ *These changes and pressures are often interrelated and interdependent*

# These changes affecting the 3 global drivers can be synthesized in 3 themes for the (re)insurance industry





# Specific challenges and opportunities for corporates, insurers, and reinsurers arise from each of these 3 themes



## Sustainable Development & Energy Transition



## Hubs, Networks & Connectivity



## Intangible Economy

### Challenges & Opportunities for the P&C (re)insurance sector

- Growing frequency of Nat Cat events (modelled and non modelled)
- Societal role of insurers as agents for change & facilitators of the transitions:
- funding of alternative replacement scenarios via insurance
- support traditional energy companies in their transition
- Evolution of “insurance cover” needs from Property towards Liability/Health/Savings – with geographical divergences
- Importance of ‘non-traditional’ insurance buyers / decision makers (NGOs, MLIs)
- Growing weight of CSR criteria

- Growing frequency and severity of man-made events
- Growing severity of Nat Cat events when impacting populated / costal areas
- Need for “insurance cover” to support the resilience of hubs and networks
- Increased demand for PCR, Cyber, supply-chain vulnerability covers
- Need to adapt traditional products (limits, exclusions, PMLs, definitions)

- Transformation of the nature of insurable “goods”: from tangible to intangible
- Need of “insurance covers” for new risks (e.g., cyber, reputation, residual value on non-mobile assets)
- Development of customized new covers using parametric triggers, double-trigger indemnity, and structured solutions
- Acceleration and increased interconnectivity in ‘risk chain reactions’ amplifying clash, correlations, and accumulations
- Moving from post-loss surveys & settlements to loss scenarios & pre-loss crisis management plans

# The (re)insurance industry's ability to take up the challenges and seize the opportunities goes with **2 goals and 3 objectives**

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*Goal 1*  
"De-commoditization"

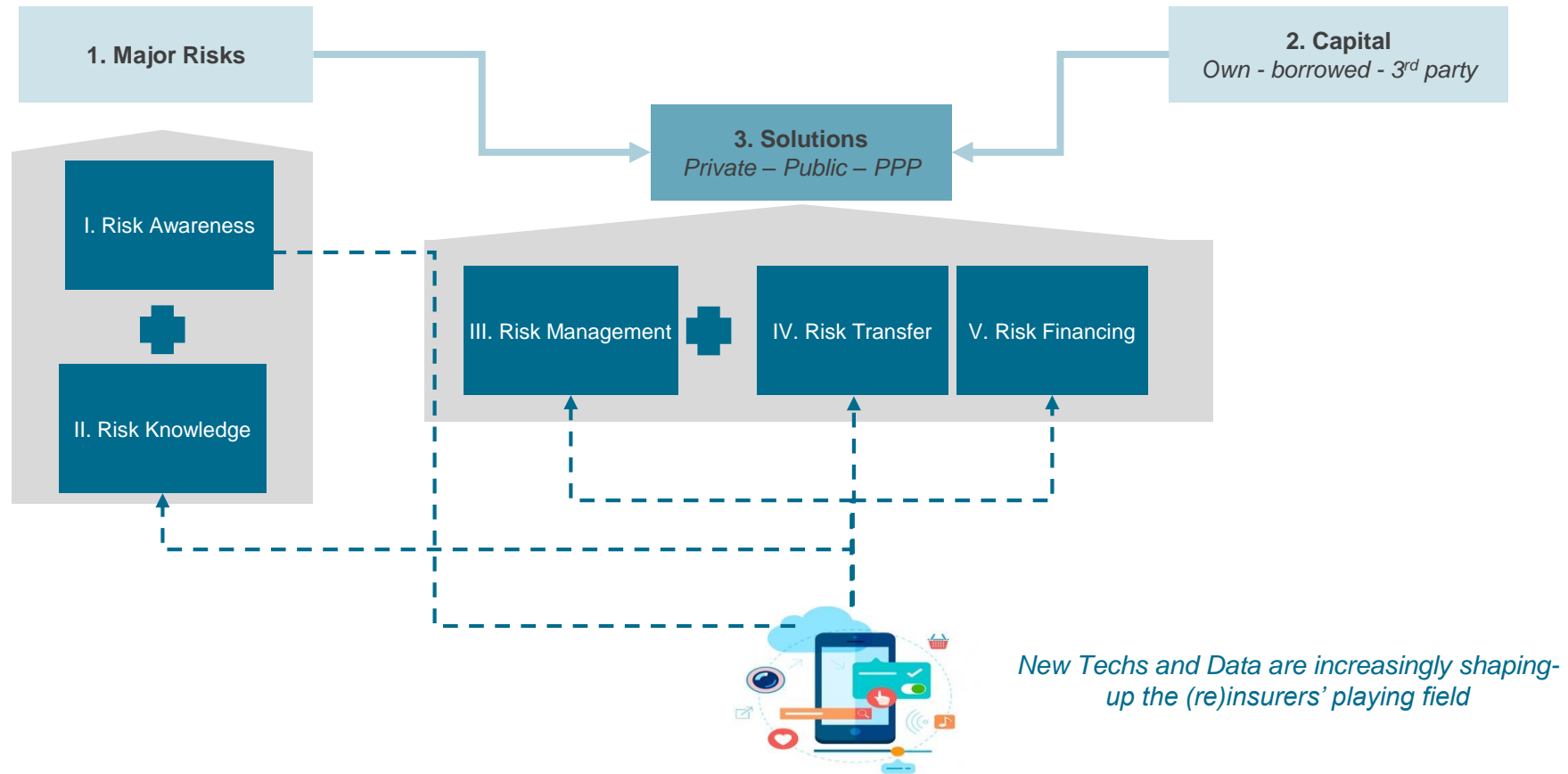
*Goal 2*  
Expand the sphere of insurable / insured risks  
& Grow penetration rates for insured risks

*Objective 1*  
Be positioned at the centre of the risk solution ecosystem

*Objective 2*  
Build and invest in people

*Objective 3*  
Transact business in the most efficient way

(Re)Insurers must aim at being at the centre of the risk solution ecosystem, to act as federators and be “project managers” for the research, development, and successful implementation of long term solutions

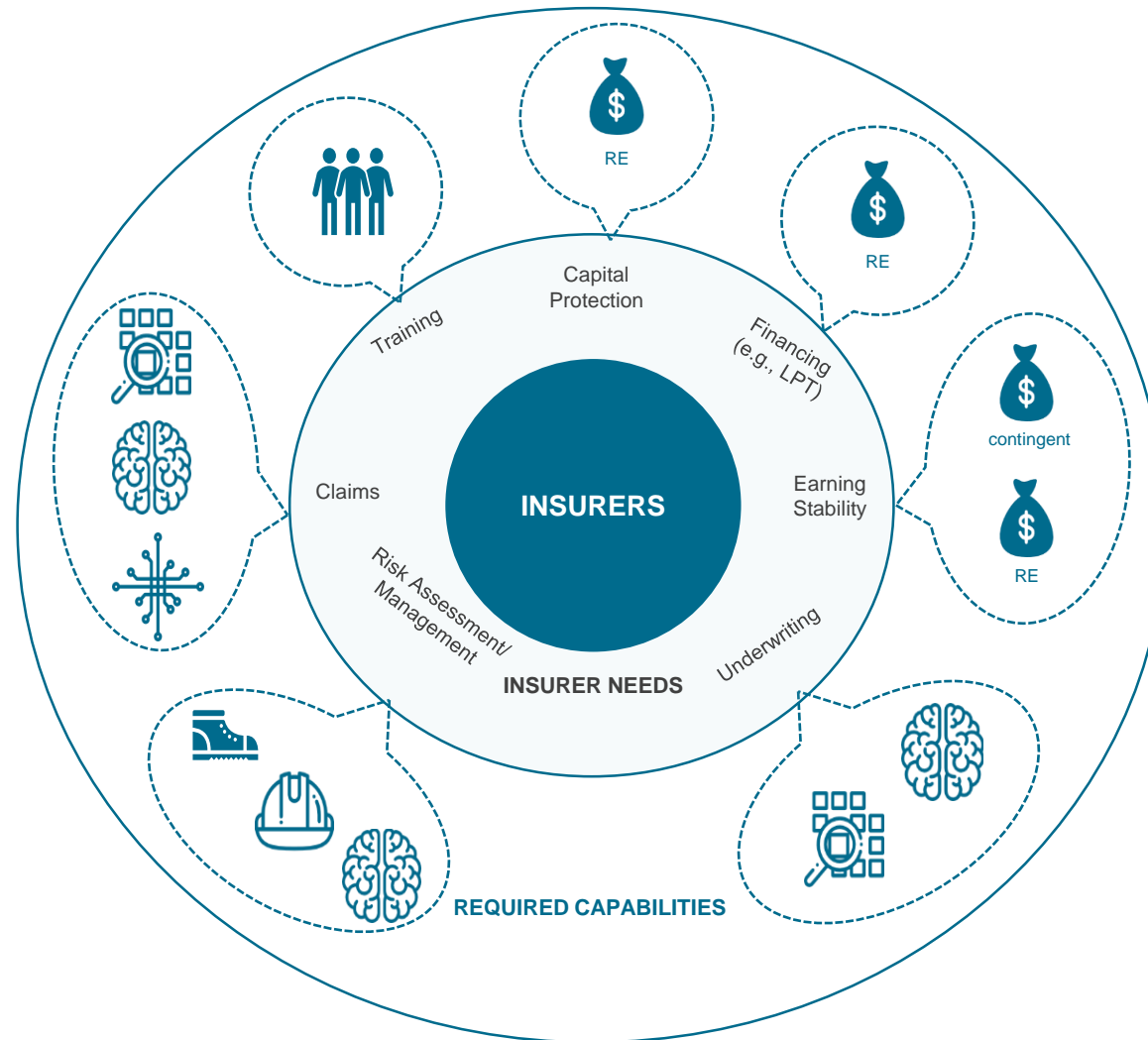


*Market participants must either be the best at a single function within the system, or preferably be multi-functional and influential across the entire system*

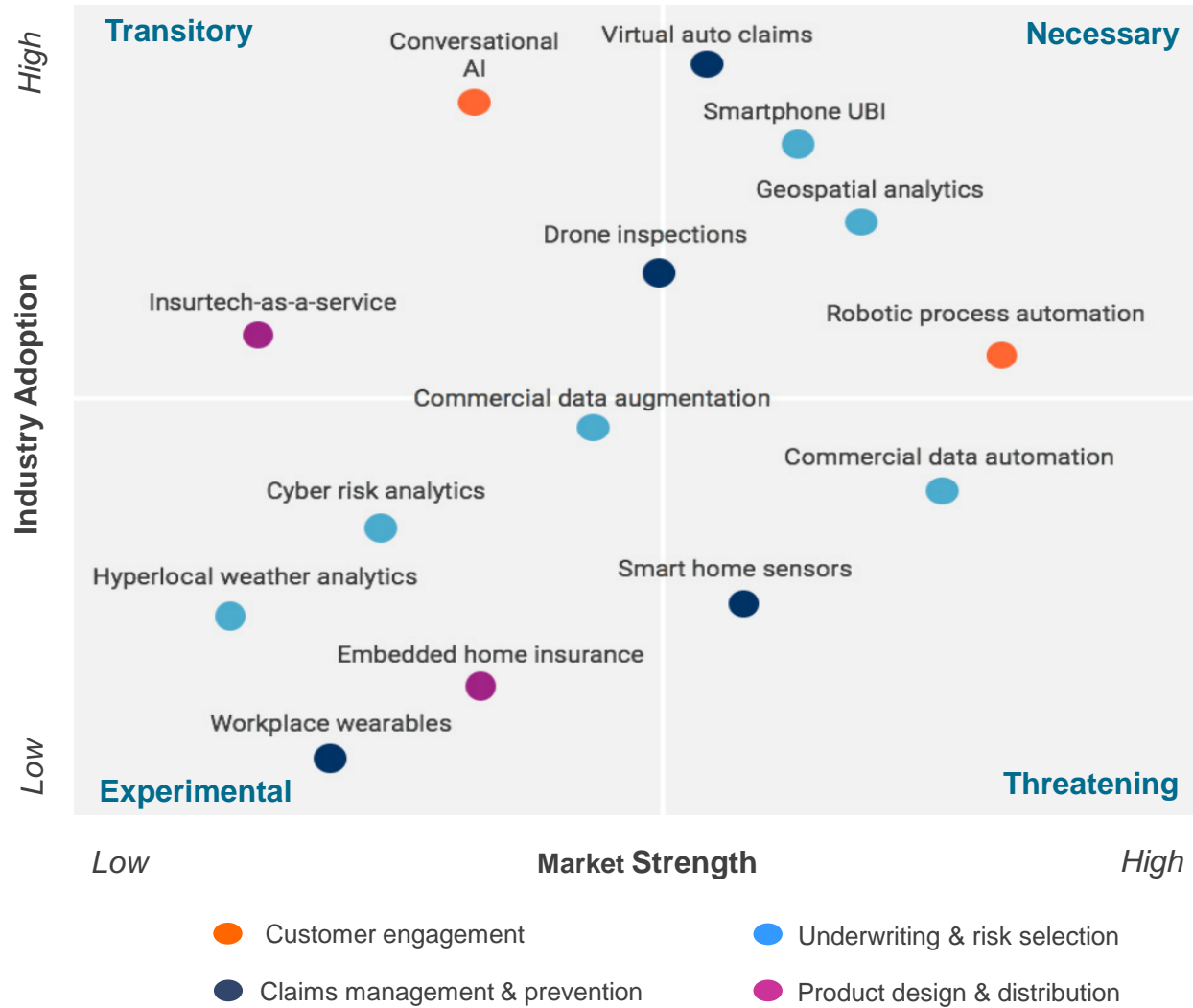




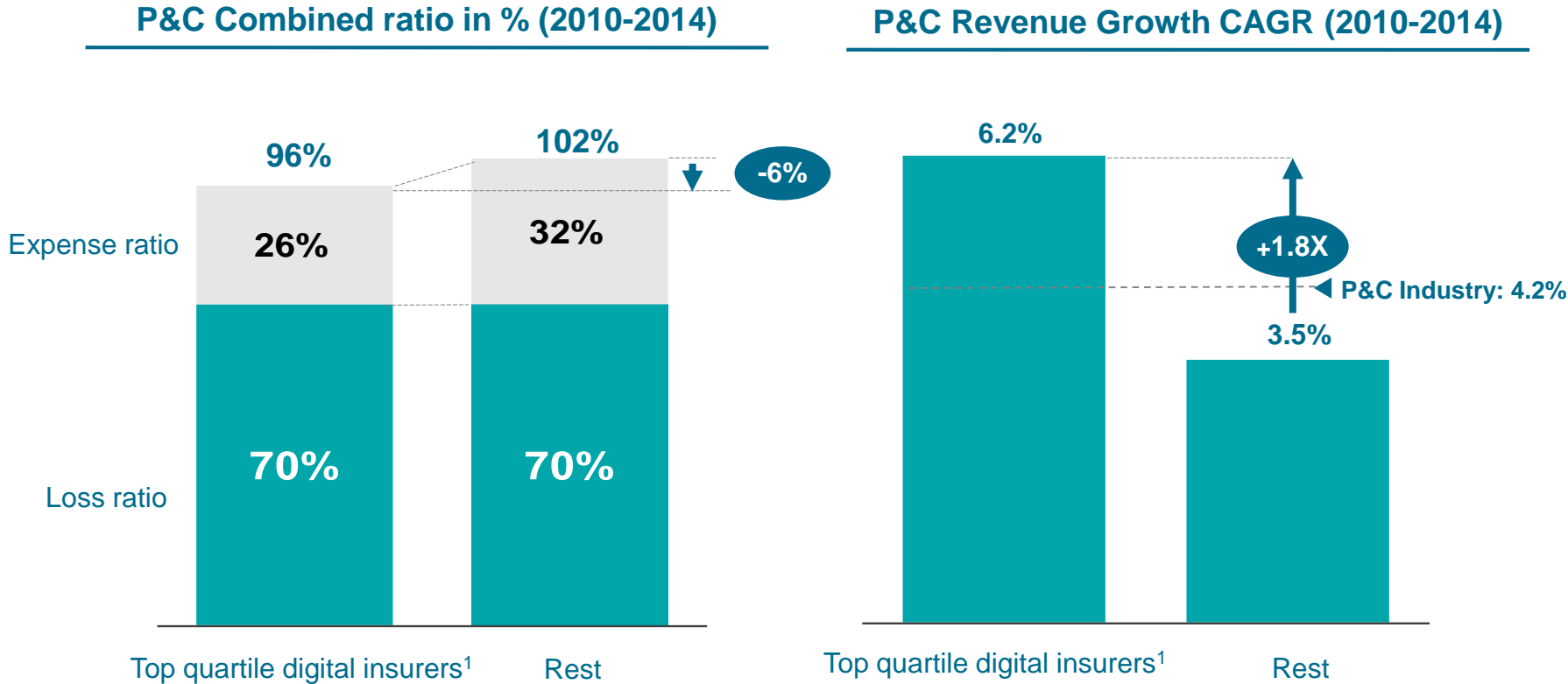
# Insurers' needs from reinsurers are expanding beyond traditional products to cover profitability, solvency, growth, and services



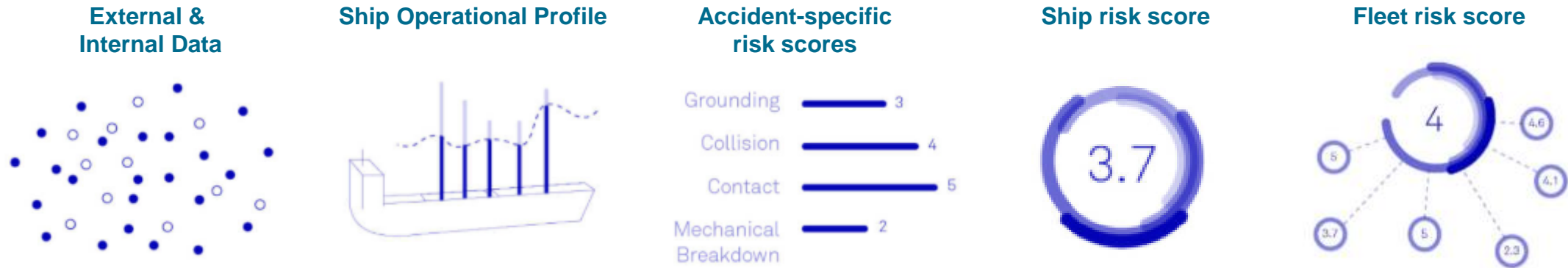
# P&C InsurTech - what the industry is working on



# A successful digital strategy for incumbents reduces expenses to enable faster growth

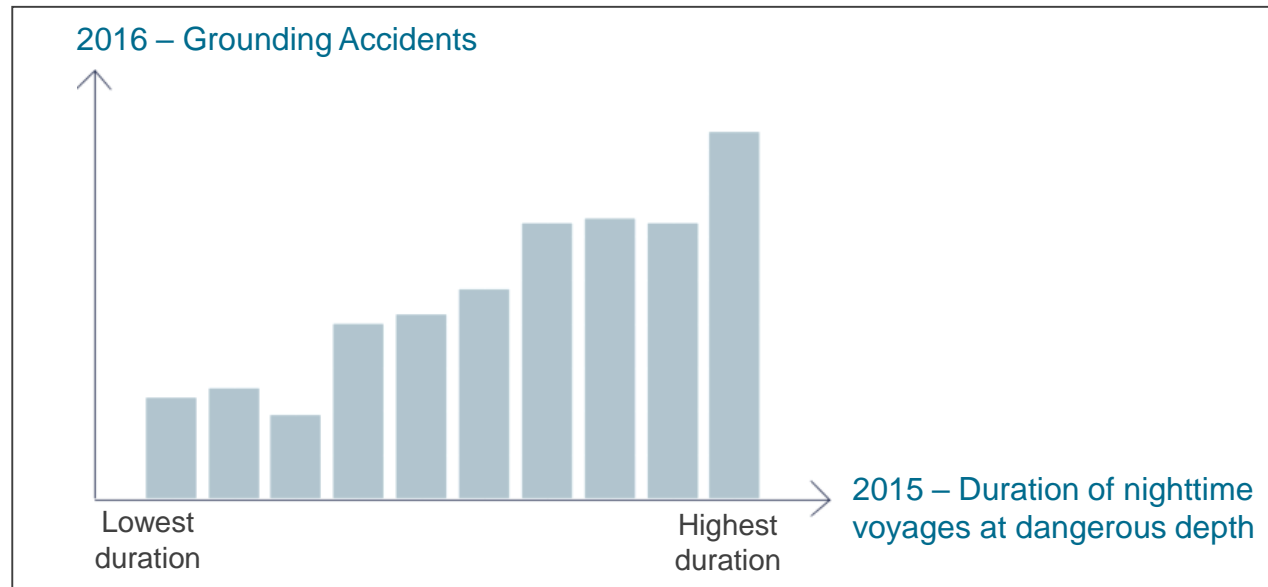
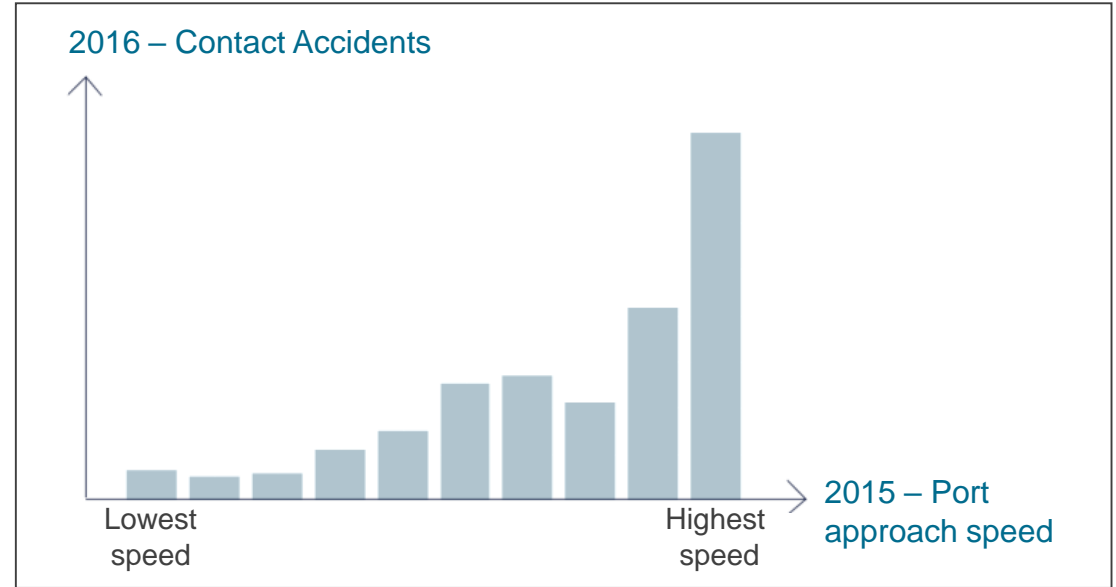
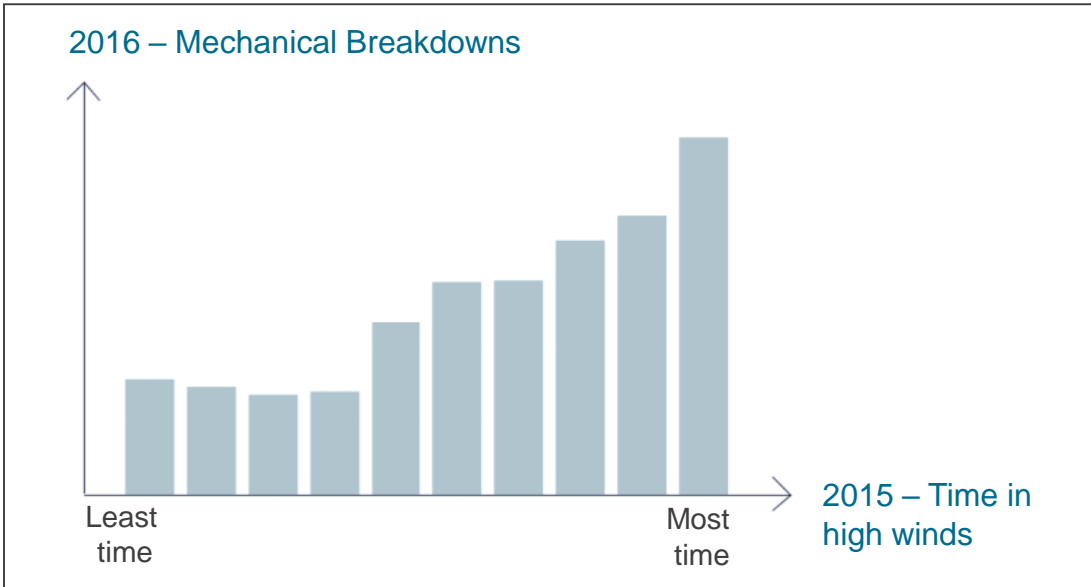


### How Windward works



- Windward’s machine learning models use vessel operating patterns to apply a risk rating to ships / fleets, measuring the likelihood of a vessel having an accident in the year ahead and supporting risk selection decisions in real-time
- Use cases include claims analysis, pricing model augmentation, evaluating new business, and predicting the risk of fleets to maximize portfolio strategy

# Certain behaviors are highly predictive of marine losses



# This is our SBS Marine portfolio

## Portfolio composition

**231**  
Fleets

**5,237**  
Vessels

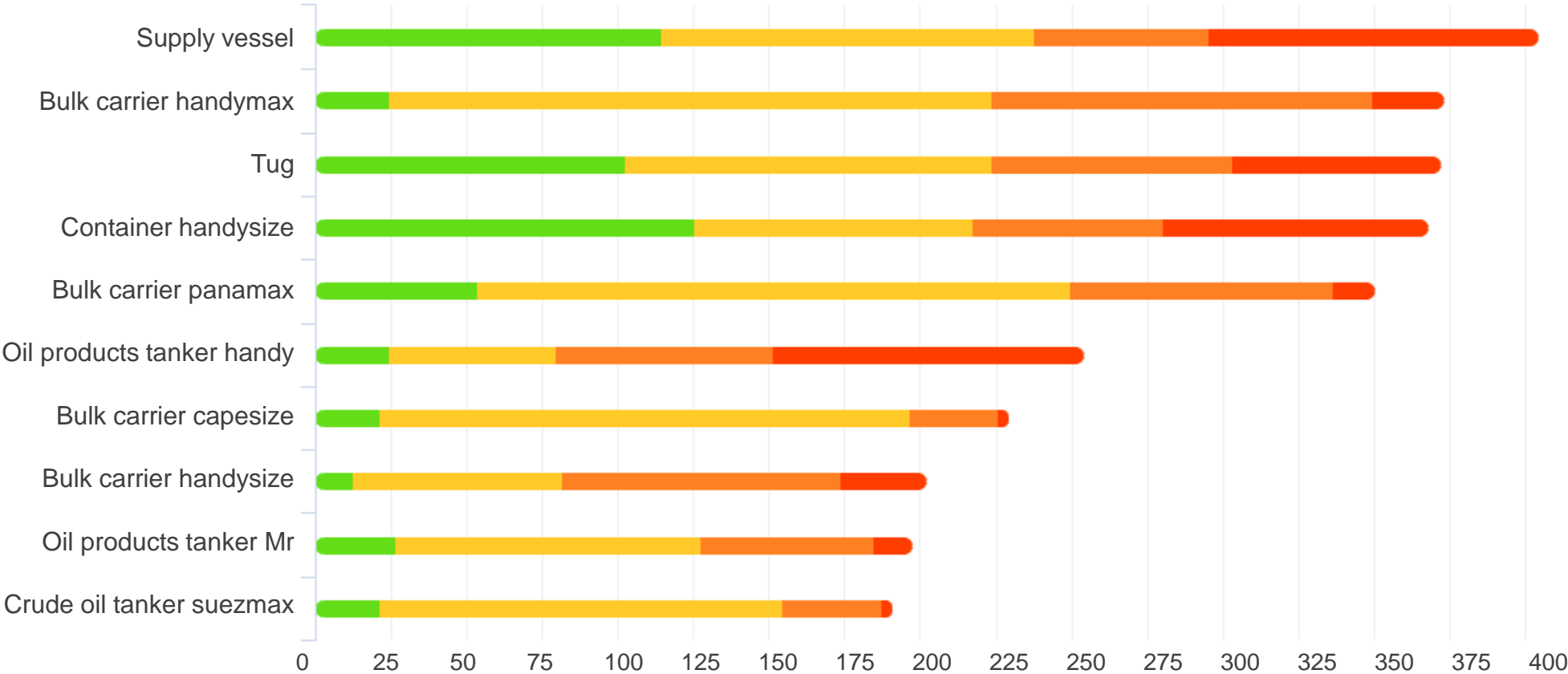


**2,392**  
Cargo

**1,687**  
Tankers

**1,158**  
Other

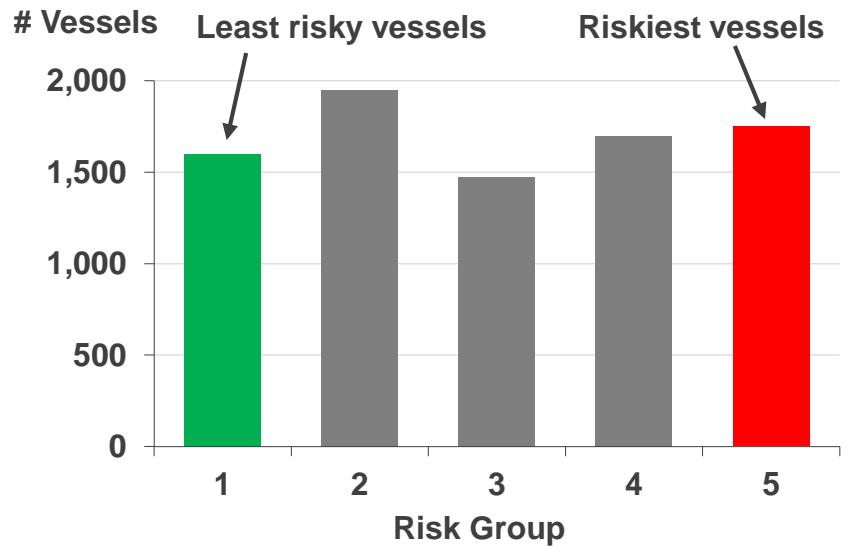
## Portfolio risk distribution – common rating categories





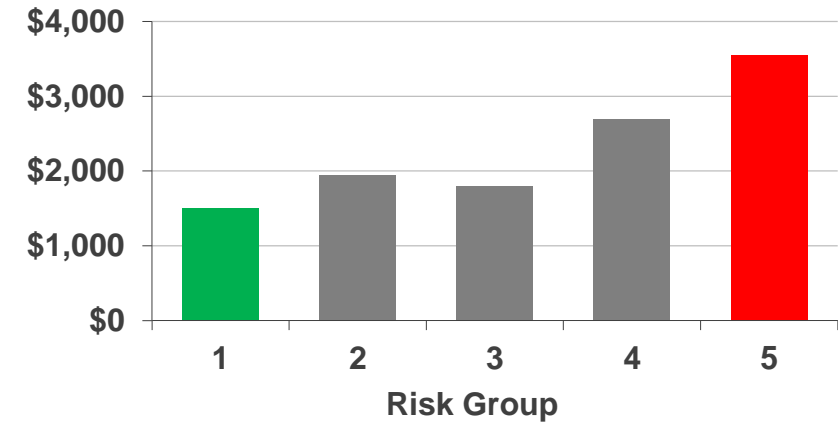
Within our portfolio, riskier ships have higher premium and losses, but “group 5” is a problem

Vessel Population by Predicted Risk Group



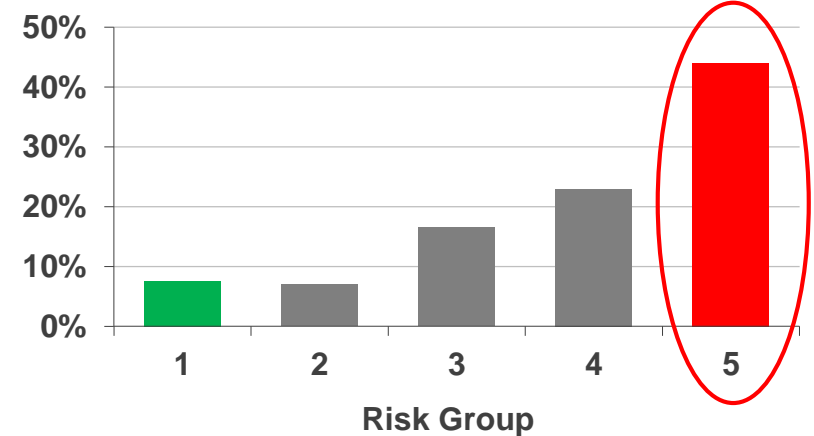
Premium by Predicted Risk Group

Premium Income



Claims (Losses) by Predicted Risk Group

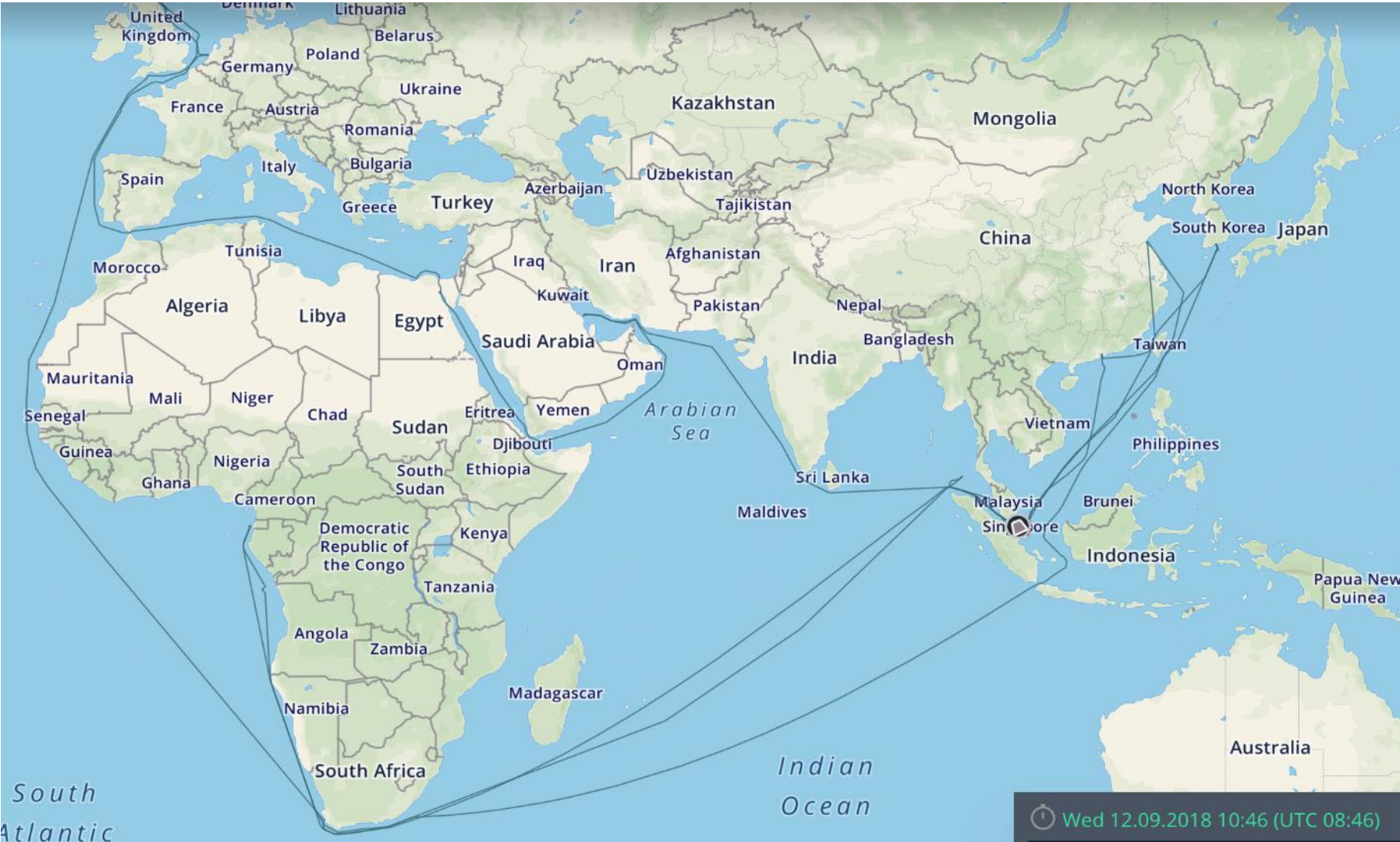
% of Actual Loss



# The strange case of the Wu Yi San

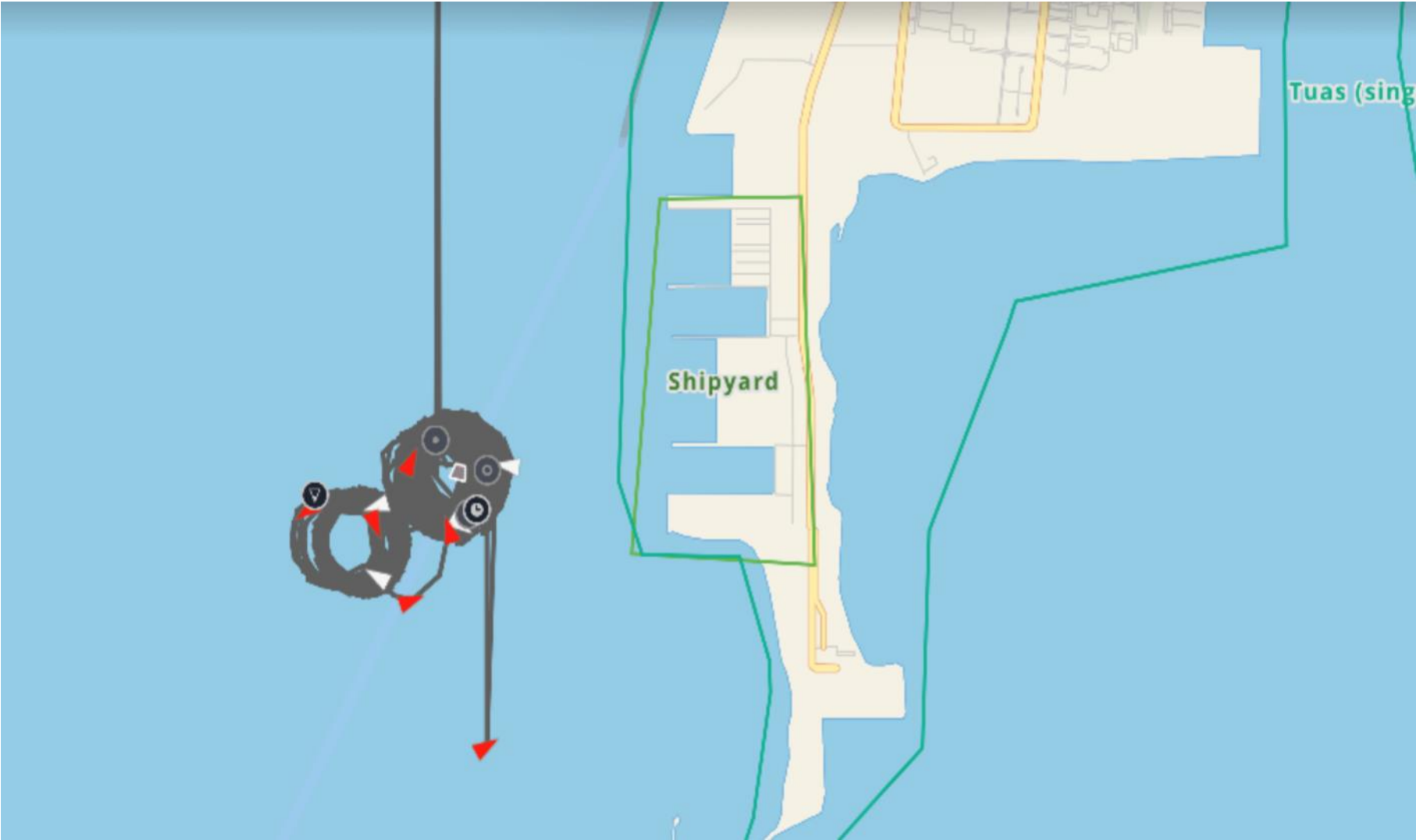


# 2017: Wu Yi San has a normal trading route



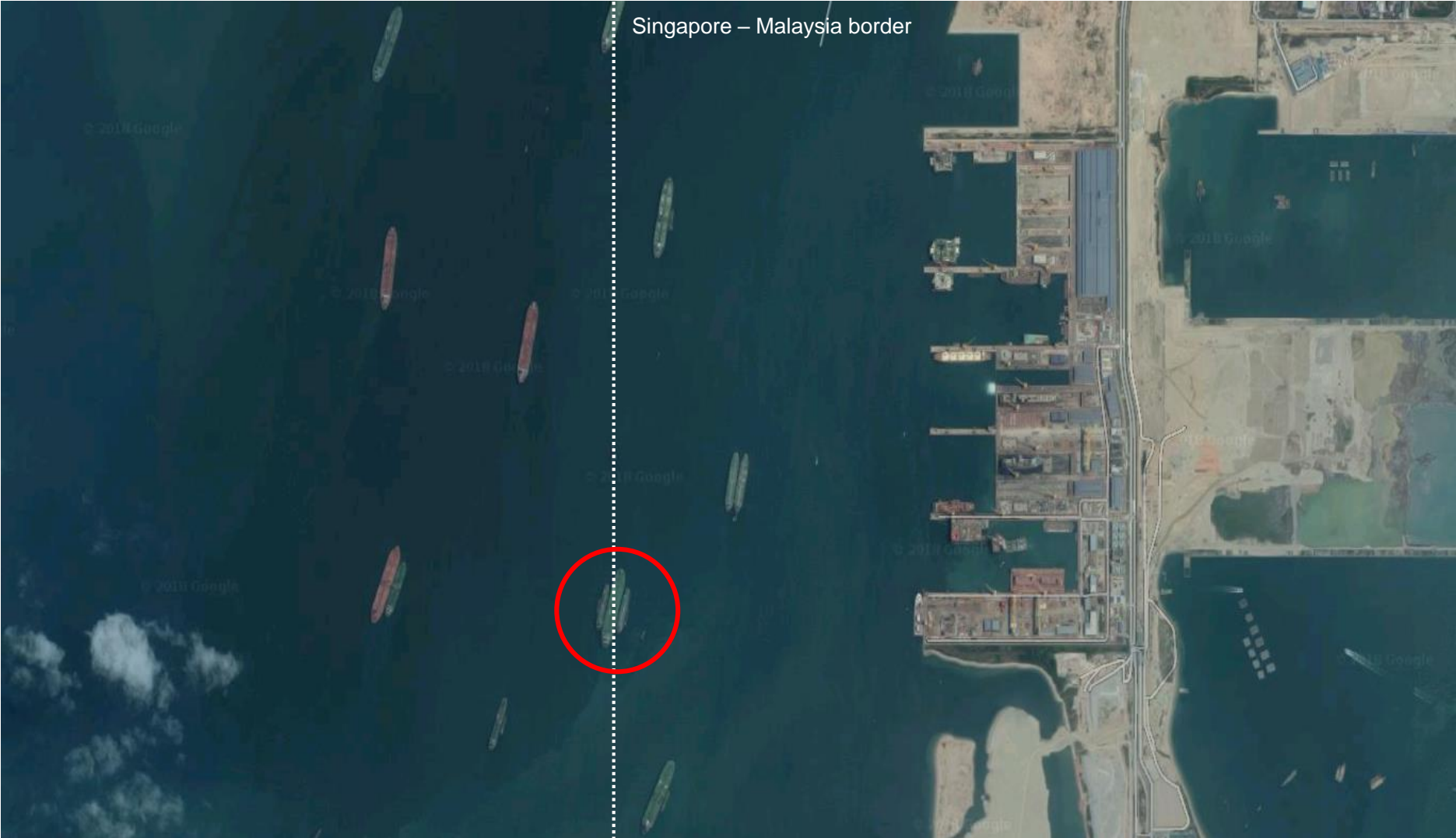
- Spent half the time in Singapore, half in Malaysia
- No port calls
- Not laid-up
- Engines nearly always on
- Average speed ~0 knots
- 121 ship-to-ship transfers

# 2018: Doing donuts off the coast of Singapore?





# Wu Yi San has a lot of friends





- Better conversations about the risk
- Price the risk more accurately
  - Collision
  - Grounding
  - Breakdown
  - Liability
  - Weather exposures
- More efficient claims handling
- Better portfolio management
- **BUT** the model won't make the decision for you