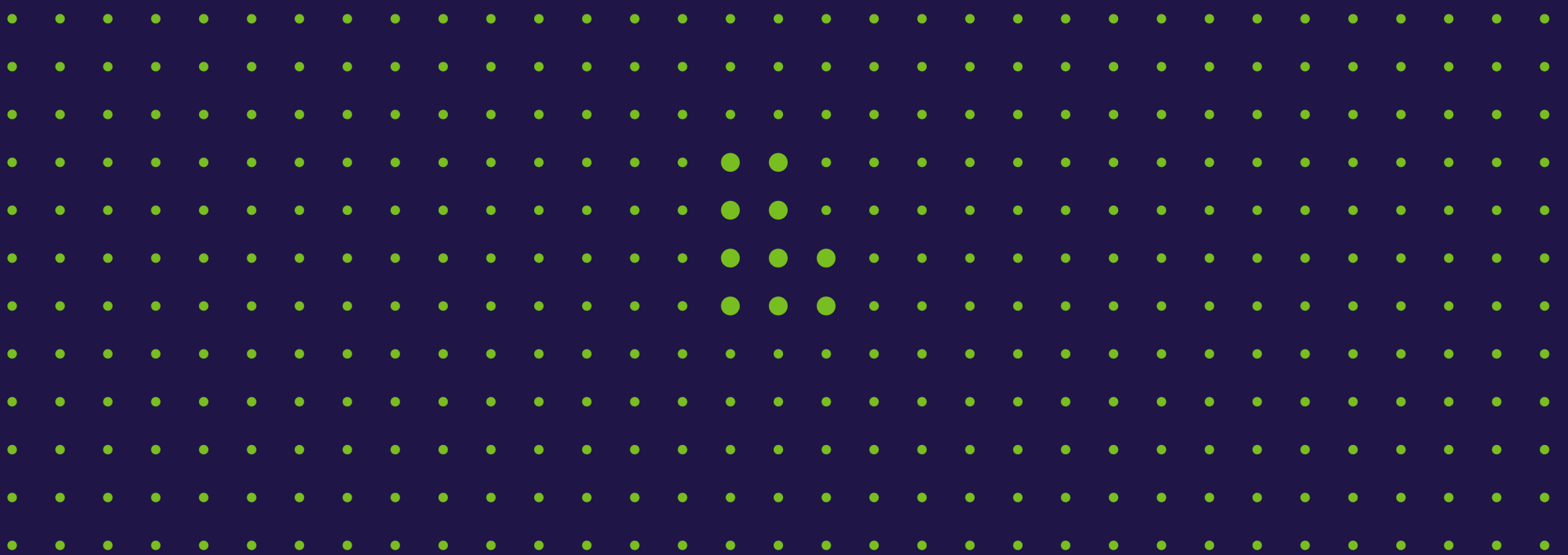




LOMBARD

Partnerships



# IoT and Telematics - Freight & Logistics

Frans Prinsloo  
Business Development & Innovation

# Insurance - Transforming from an Art to a Science

Globally Insurers have experienced widespread **disruption** in wake of weather related cat-events, the Covid-19 pandemic, the war in Ukraine and the resulting supply chain disruptions. Insurers are at an inflection point facing economic uncertainty, geopolitical headwinds, environmental challenges and capital constraints.



## Tightening Capacity

The full extent and duration of re-insurance capacity squeeze are still uncertain given the strong hardening observed in January 2023 renewals

## Competing beyond rates

**Underwriters** must define a clear source of distinctiveness to protect their margins by competing beyond rates only.

## Product Innovation

The new nature of risks require underwriters to close protection gaps through product innovation to remain relevant.

## Sophisticated Pricing

**Pricing models** will need to adapt to a fast changing risk landscape and reflect a forward-looking view. Data and advanced analytics, from external sources, needed to combine with limited loss data history.

## Risk Mitigation Solution

Expand offering beyond risk transfer to services that mitigate and prevent risk.

# The Internet of Things

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## IoT

The **Internet of Things** describes the network of physical objects that are embedded with sensors, software, and other technologies for the purpose of connecting and **exchanging data** with other devices and systems over the internet.

## Why is IoT important?

1. Helps people live and work smarter.
2. Provides business with **real-time** look into how their eco-system really works.
3. Deliver **insights** into everything from the performance of machines to supply chain and logistics operations.
4. IoT combined with the use of **artificial intelligence (AI)** and **machine learning** will aid in making data collection easier and gain meaningful insights that are more dynamic.
5. In the past underwriters of a marine policy used **proxies for risk**, like type, age and condition of the ship, operating area and cargo type.
6. Rather than relying on customers' honesty in a questionnaire, insurers can **track behaviour** and use IoT data to **personalize individual risk assessment** and insurance offerings.
7. Assist in monitoring environmental and governance risks. (**ESG**)

1

Know Your Health

**PREDICTION**

DATA AGGREGATION  
HEALTH  
WELLNESS  
BEHAVIOUR

MOBILE ASSESSMENT

HEALTHSPAN / LIFESPAN

HMME GBD RAND

2

Improve Your Health

**ENGAGEMENT**

NEXT BEST ACTION

AI-BASED PERSONALISATION

PARTNERS & GATEWAY  
APPLE WATCH GARMIN  
fitbit

HABIT AND PROPENSITY MODEL

3

Get Rewarded

**INCENTIVES**

DYNAMIC PRICING

ACTIVE REWARDS

STATUS REWARDS

PAYBACK REWARDS

Vpts VITALITY POINTS

**VALUATION**

SHARED VALUE  
MULTISTATE TRANSITION MODELS



$$\Delta Value = \frac{\Delta q_x}{\Delta habit} \times \frac{\Delta habit}{reward} - \Delta premium$$



GLOBAL BEST PRACTISE AND AUDITOR CERTIFIED

**DATA SCIENCE**



**70m+**  
LIFE YEARS OF BEHAVIORAL LINKED INSURANCE DATA

**40m+**  
LIVES IMPACTED

**+300k**  
NEW MONTHLY MEMBERS

**40**  
INSURANCE MARKETS

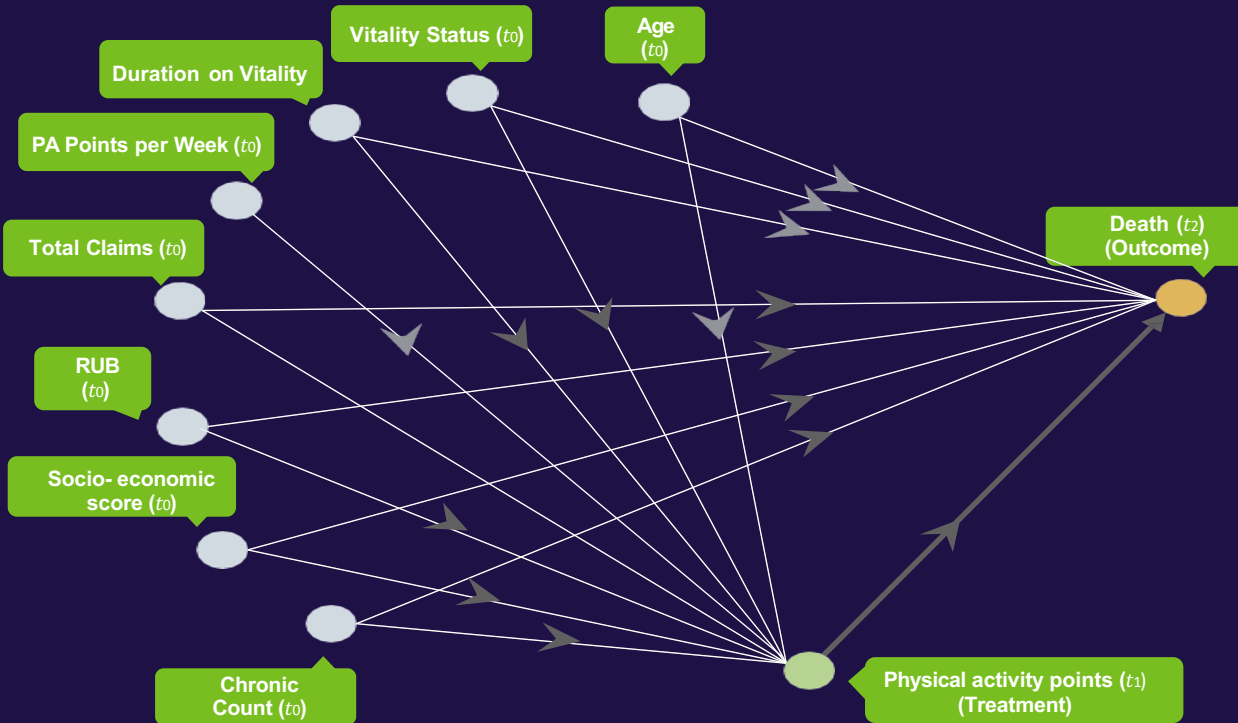
CAUSAL INFERENCE DESIGN



PROPRIETARY DATA ASSETS  
HABIT INDEX  
PROPENSITY INDEX  
RETENTION INDEX  
DIGITAL INDEX

# Discovery Vitality

## Isolating the impact of exercise



502 062

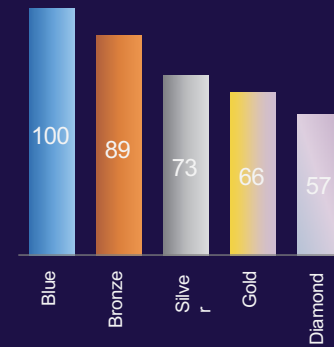
Study over 36.6bn data points

2013 - 2019

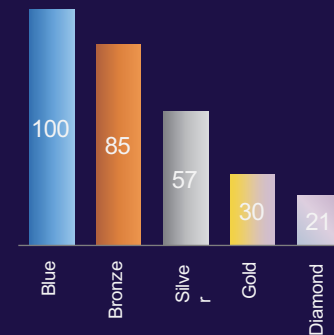
# Discovery Insure

Model is working

Loss ratio by Vitality status



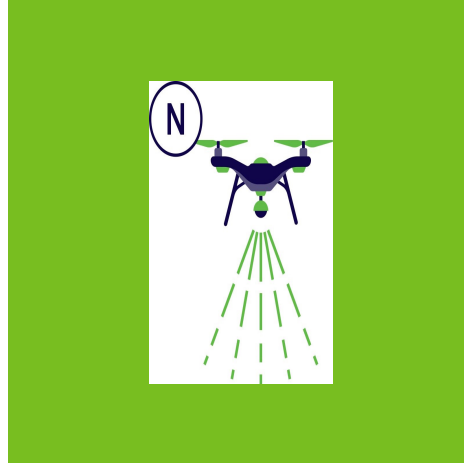
Lapses by status



# IoT Considerations for Marine Insurance

## Loss Prediction & Prevention

Insurers can use the same data a logistics company use to manage their business, to more accurately assess risk and calculate premiums. In addition, intermediaries can provide advice, based on data insights, to help customers mitigate or prevent losses.



## Claims Processing

Establishing the facts in respect of a cargo claim usually involves surveyors and an astounding amount of paperwork. The continuous stream of data from IoT sensors makes it easier to confirm facts, cut down on paperwork and speeds up claims processing.

## Risk Monitoring

IoT cargo monitoring is a booming business. Continuous remote monitoring of physical parameters not only helps insurers understand the risks, it can help the cargo owner to improve efficiencies to prevent damages and time delays.



## Privacy & Security

IoT devices can collect and transmit sensitive data. It is therefore important to secure the data and prevent it from ending up in the hands of criminals. Therefore Cyber Security and privacy concerns need to be addressed through a robust Cyber Security framework.

# Marine - Insuretech

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Loadsure is a Lloyd's backed MGA using predictive AI to underwrite shipped cargo in real-time. Clients can subscribe to domestic and international pay-as-you-go insurance products per load or opt for an annual policy. Loadsure also provides coverage for hard-to-insure products such as alcohol, frozen and chilled produce, fireworks and pharmaceuticals. The company's technology can be used across the policy lifecycle, including policy management, payments and digital claims processing. Loadsure's insurance products can be integrated into any intermediary's workflow via API.

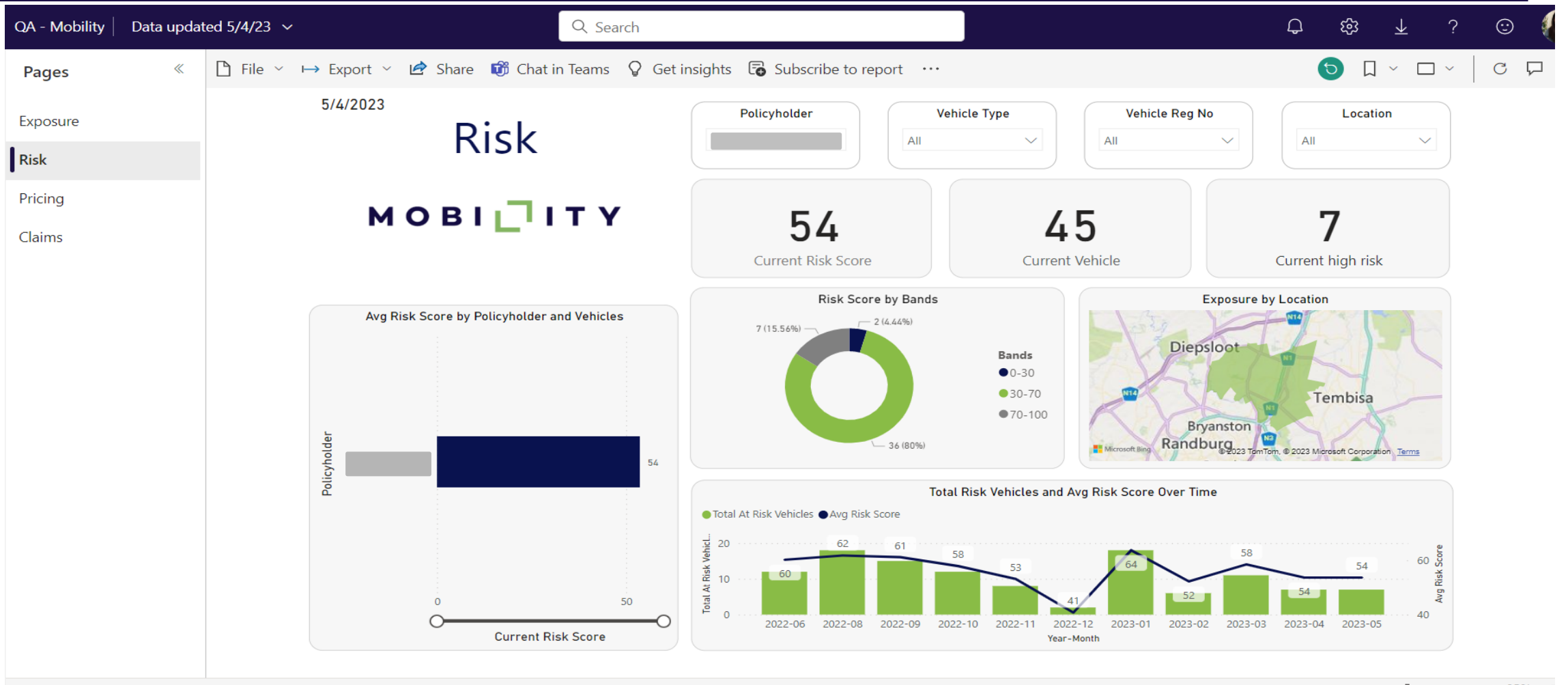
For more information, please visit: <https://www.loadsure.net>



Parsyl is an integrated risk management and insurance solution for essential supply chains in food and health. Using supply chain data from sensors and other data sources, Parsyl helps customers gain a more comprehensive understanding of what is happening to their goods in transit and in storage. ColdCover Parametric – Single peril transit cover for spoilage due to temperature.



# Lombard Mobilty

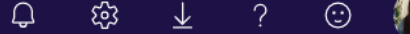


# Lombard Mobility

QA - Mobility

Data updated 5/4/23

Search



Pages

Exposure

Risk

**Pricing**

Claims

File Export Share Chat in Teams Get insights Subscribe to report

5/4/2023

## Pricing



iCab Filter

Include Telematics adjustment

Loss Ratio

0.60

Historic Loss Weighting

0.01

Loading

0.10

Policyholder

RDM Road Solution...

Vehicle Type

All

Vehicle Reg No

All

Location

All

1.94%

Smart Premium %

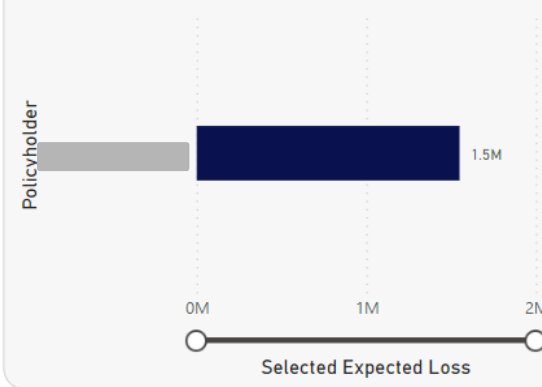
4.15%

Actual Premium %

1.5M

Selected Expected Loss

Expected Loss by Policyholder and Vehicles



Policyholder	Smart Premium %	Actual Premium %	Premium difference
	1.92%	4.15%	-3,266,388

2,839,889	6,068,242	54
Smart Premium	Actual Premium	Risk Score
146,070,197.00	200	1
Current Exposure	No of Vehicles	No of Policyholders

# Future of IoT in Marine Insurance

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- Data generated by IoT enables better risk management and provides insurers more flexibility to differentiate insurance offerings, when combined with artificial intelligence (AI) or machine learning.
- Data generated from IoT devices provides non-insurance players easy entrance into insurance market and poise a major threat to traditional insurance players.
- Vital for traditional Marine Underwriters to develop new underwriting models and look to partner with data companies within the logistics value chain that have access to data that will drive sustainable underwriting and risk management.



**Proudly Farmers First®**  
**FBN® is on a mission to create a future of farming that puts Farmers First by democratizing information, providing unbiased analytics and creating competition for farmers' business.**

