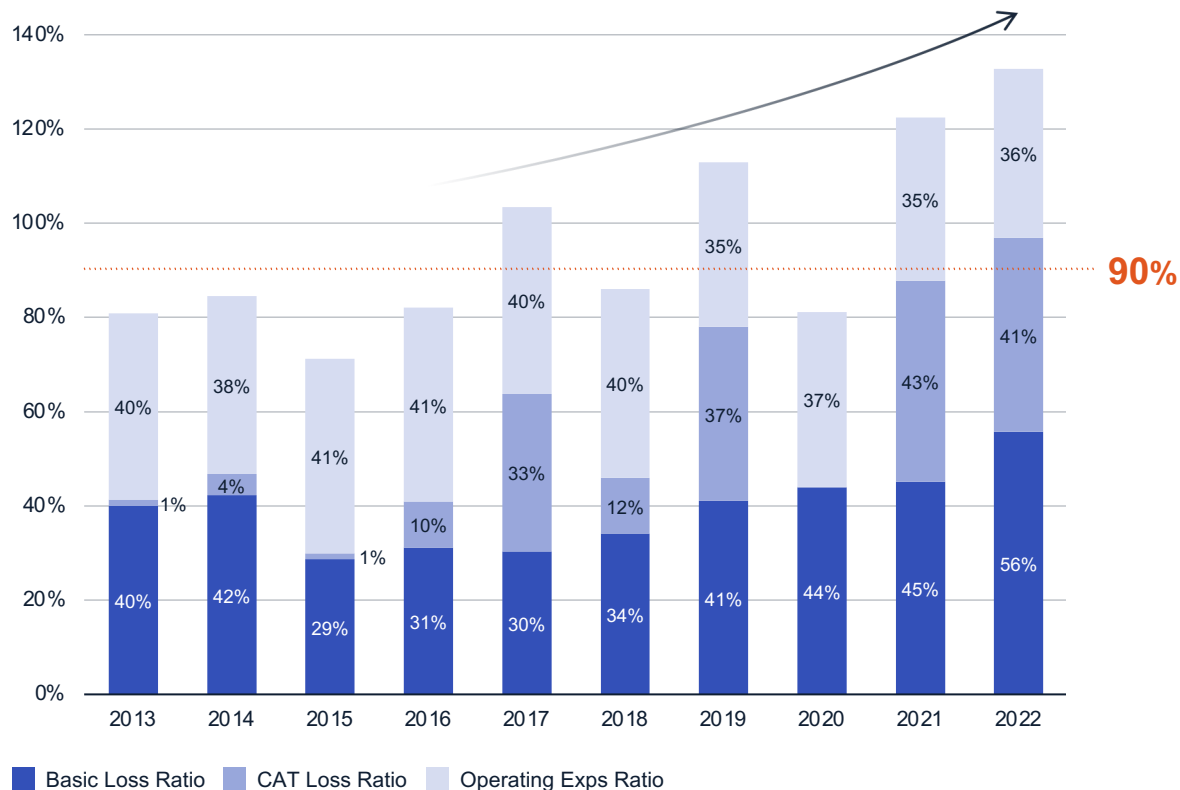


Impact of Man-made and Nat Cat losses on South African and worldwide marine profitability

Thorge Scheel

Historical Results Marine MRoA

Continuous worsening results in line with increase of Cat Loss Ratio

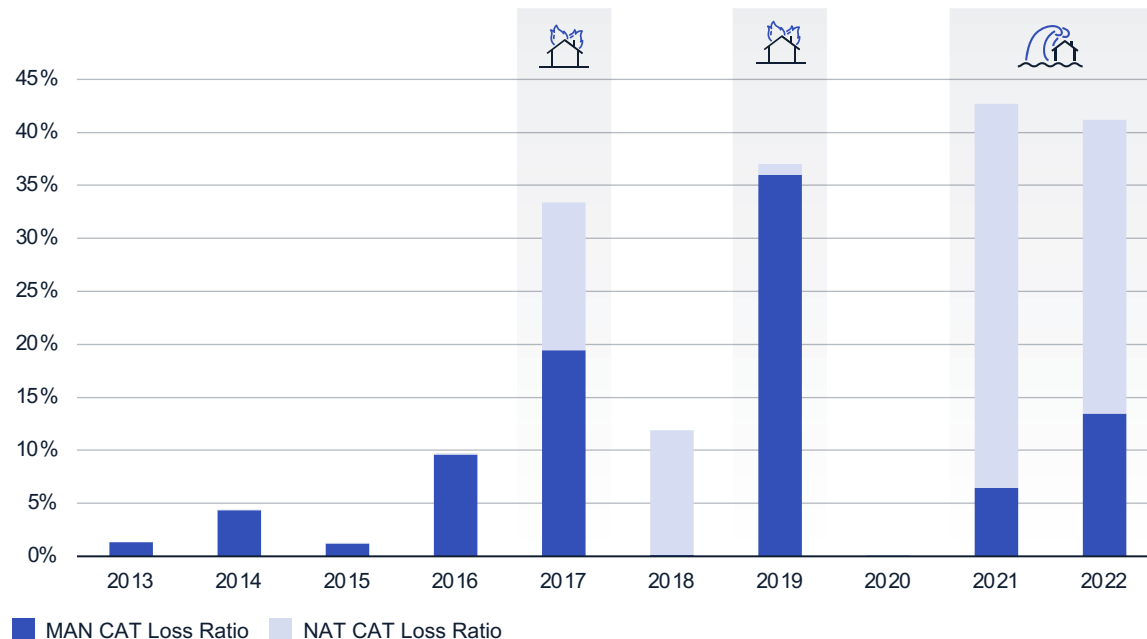







- Basic Losses are stable at a +/- **40%** level while Cat Losses (Nat Cat and ManCat losses together) are in average **33%** of Total Losses (2013–2022) being **50%** of Basic Losses
- Increase of Nat Cat losses since 2017
- Without Nat Cat losses the overall profitability is sustainable (TCR **68.7%**), only two years TCR **>90%**
- Commission ratio is not flexible to react on years with high losses

Cat Loss Ratio Split

Man-made vs. Nat Cat

Both Man-made Cat Losses and Nat Cat Losses seem to increase

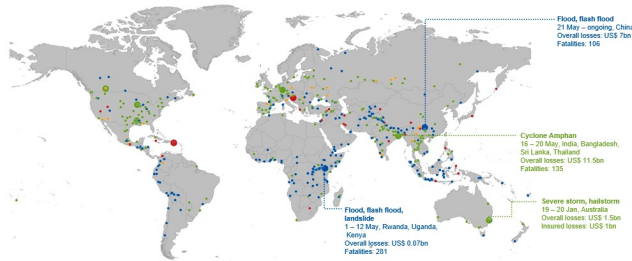


Man Cat	Warehouse Fire 
	Covid 
	(Riots) 
Nat Cat	Floods 
	Windstorm 

Future Cat margin needs a certain mark up to reflect increase of Man & Nat Cat losses.

Nat Cat loss events Africa

Africa was badly hit by floods over the last years



2020

overall losses of roughly **\$0.07bn**

[https://www.munichre.com/...](https://www.munichre.com/)



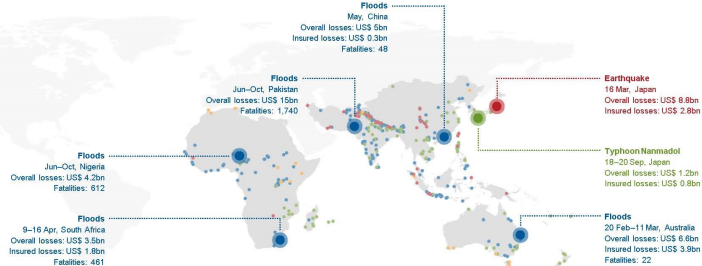
Source: Munich Re Nat Cat SERVICE

Trigger

Heavy rainfall following drought, spillover Nile.

Losses

Villages, farmland and infrastructure in Many parts of East Africa.



2022

overall losses of roughly **\$7.7bn**

[https://www.munichre.com/...](https://www.munichre.com/)



Source: Munich Re Nat Cat SERVICE

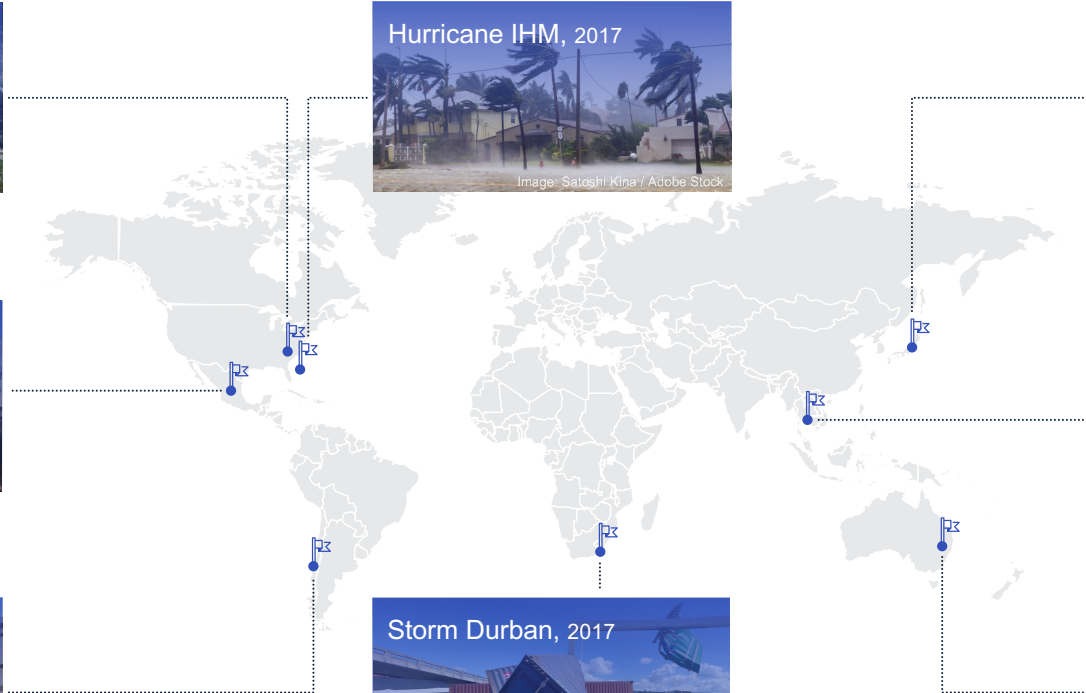
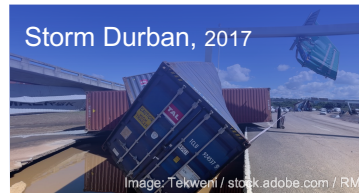
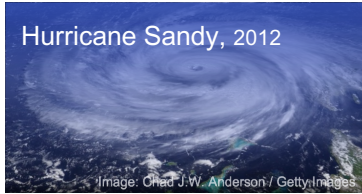
Trigger

Heavy rainfall

Infrastructure (schools, hospitals and railways) especially around the port of Durban and roads to Johannesburg and north and south of Durban; Manufacturing concerns situated near the port; contingent business interruption losses.

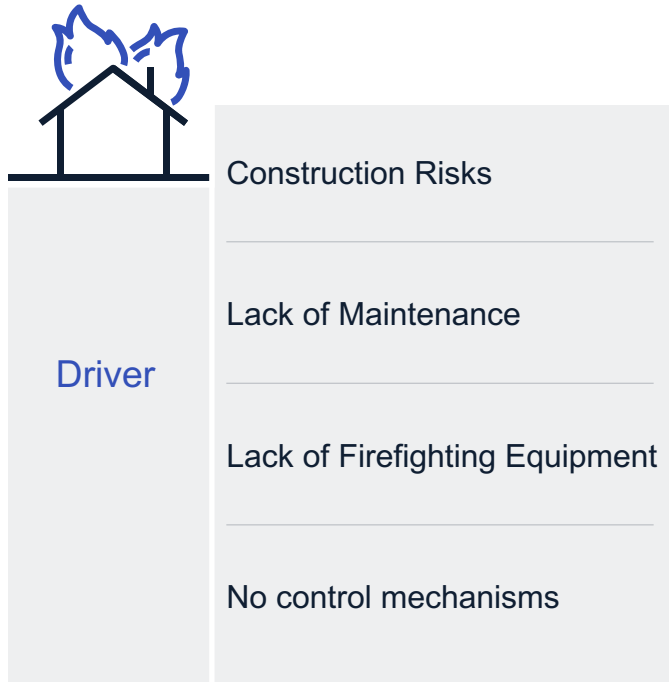
Further examples

Nat Cat Marine Events are a worldwide threat



Man Cat loss events Africa

Storage fires remain an important loss driver



IUMI Webinar

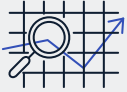
Warehouse inspections and full risk assessments in Africa

by Caroline Paul, Manager at DPS Africa (Senegal) and Mike Brews, IUMI Cargo Committee Vice-Chair & Underwriting Manager at Horizon Underwriting Managers

Example for Man-made Cat Event

Increase in frequency of civil unrest (SRCC)

Observations on increasing trend in frequency



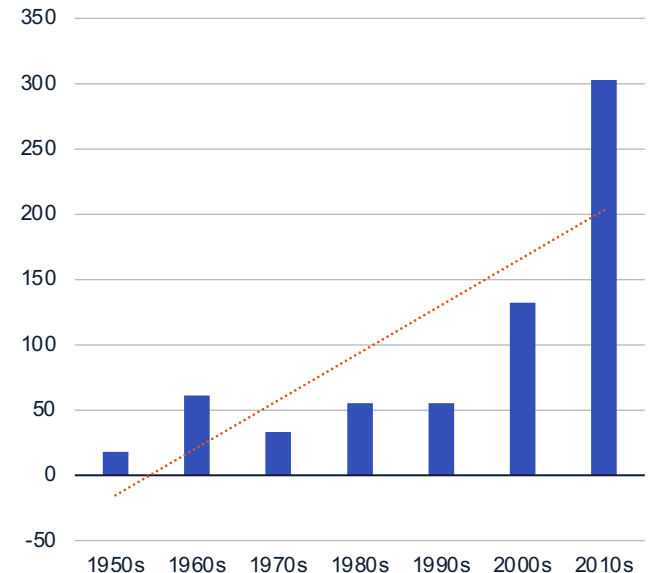
- Growing inequality between rich and poor and growing inequality between Nations
- In general a tendency towards populism, nationalism, separatism, erosion of democratic core values
- Economic disruption caused by COVID-19 which will further aggravate conflicts and civil unrest



- Data from the Global Peace Index 2021 show civil unrest (riots, strikes, anti-government demonstration) has increased by more than **200%** around the world over the last decade with the numbers of both non-violent and violent demonstrations rising sharply. (Source GPI 2021)
- According to Verisk Maplecroft **37** countries could face large protest movements in the next three years (Source foreignpolicy.com)

Number of riots per decade worldwide

1950s until 2010s



Overview of civil unrest (SRCC) events

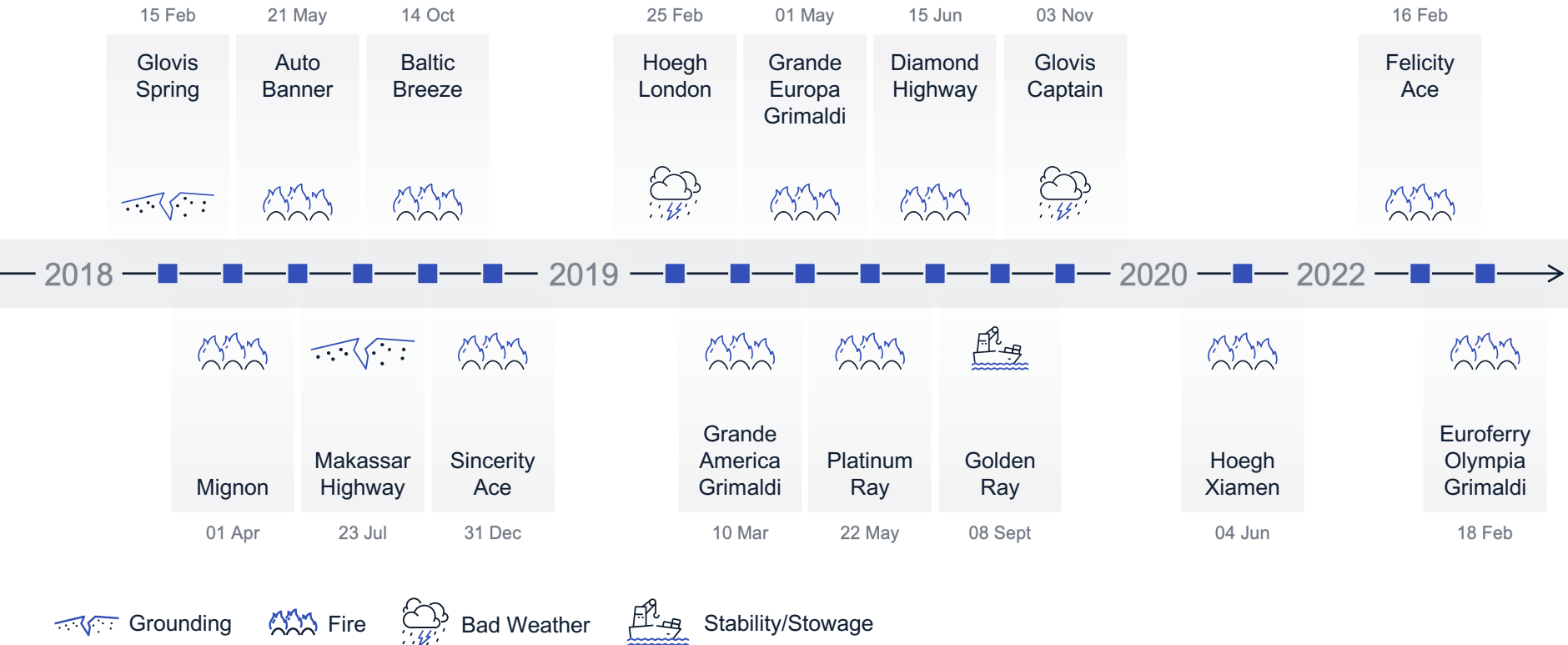
South African unrests among the most prominent event

Incident	Date/duration	Description	Location	Economic Loss	Insured Loss
South African unrests	July 2021	After jail sentence of ex-president Zuma severe riots took place in Durban and Johannesburg.	Durban and Johannesburg	\$3,400m+	\$2,500m
BLM/George Floyd protests	May – July 2020	“Black Lives Matter” protests after the death of George Floyd in various cities in US which were accompanied by riots.	26 US states	\$3,000m+	\$2,800m
Hong Kong protests	March 2019 – May 2020	Protests after introduction of bill that would permit extradition of fugitive offenders from Hong Kong to China.	Hong Kong	\$750m	\$80m
Chilean protests	October – November 2019	Increase of Metro fares initiated protests on general inequality and low wages.	Chile	\$3,000m	\$2,000m
Gilet Jaunes/ Yellow vests protests	November 2018 – March 2019	Civil movement in France which called for Nationwide protests against higher taxes on fossil fuels.	France	\$4,000m+	\$250m
Arab Spring	December 2010 – December 2012	Series of anti-government protests, uprisings, and armed rebellions that spread across much of the Arab world.	North Africa, Middle East, Arabia	> \$100bn ¹	n.a.

¹ Event has outlier character due to damages from civil war

Example for Man-made Cat Event

Recent Car Carrier Accidents 2018–2022



Example for Man-made Cat Event

Top 3 Car Carrier Events 2019–2022



Felicity Ace

16.02.2022

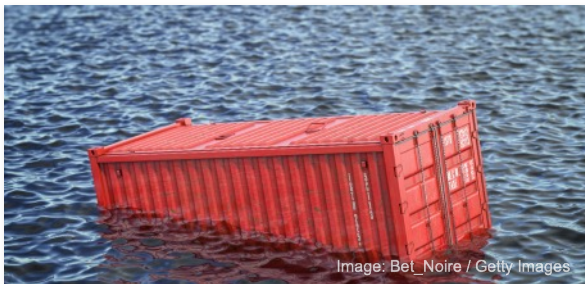
Number of damaged cars:
4,000 (VW Group)

Cause of loss

Fire

Loss amount

- Cargo: \$290m
- Hull/P&I: \$32m



Diamond Highway

15.6.2019

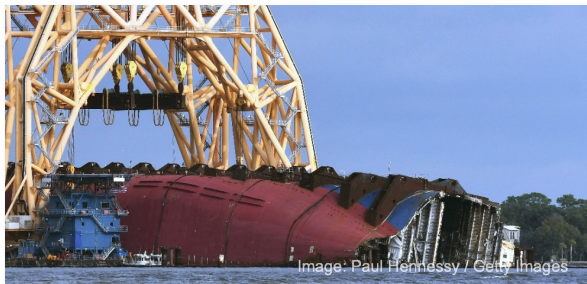
Number of damaged cars:
3,500 (BMW, VW)

Cause of loss

Fire

Loss amount

- Cargo: \$97m
- Hull: \$25m



Golden Ray

8.9.2019

Number of damaged cars:
4,200 (KIA, Hyundai, Mercedes Ford)

Cause of loss

Loss of stability

Loss amount

- Cargo: \$150m
- Removal: > \$800m
- Hull: > \$60m
- Total: approx. \$1bn

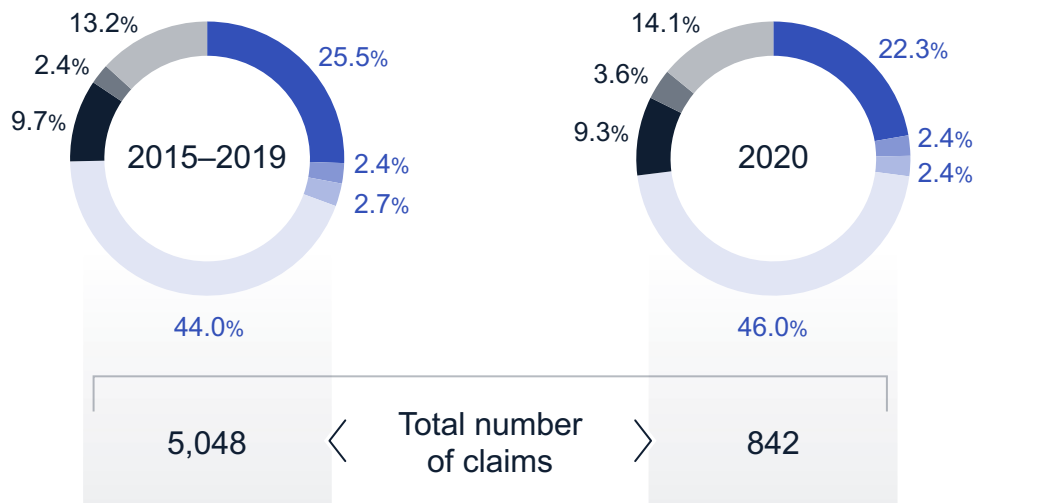
Further examples

Fishing vessel – cause of loss

Fishing vessels – claims by type

Paid & outstanding as reported, no IBNR reserve added

Claims by Claims type – Number of claims



Source: Cefor/Nordic Marine Insurance Statistics

Implications

- Very little development regarding cause of losses
- Human error remains most important claims driver
- Natural causes only play minor role, e.g., heavy weather



The next Catastrophe will occur – let's prepare ourselves and our clients for it!



Do we charge sufficient Cat premium for the risks that we are writing?



Do we have sufficient insight into our marine accumulation?



Is the “marine bank” for Africa large enough to pay Cat losses?

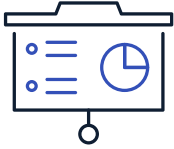


Thank you for your attention!

May 7, 2023

Electric Cars

Is there a change of risk? Future developments



“ALBERO” project

funded by the German Federal Ministry of Education and Research

(Oct. 2018)

Transport of alternatively powered vehicles on RoRo ferries

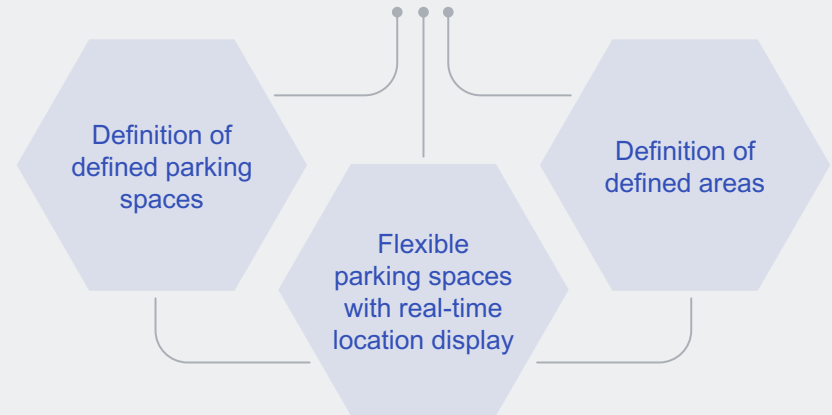
www.alberoprojekt.de



- Within the ALBERO project technical, structural and organisational measures shall be developed that enable safe transport and (for electric vehicles) safe charging during the passage
- In addition to suitable pre-sorting concepts during boarding, special parking and charging areas with innovative hazard detection and safety systems shall be developed and implemented and tested in initial laboratory and field tests
- Furthermore, recommendations for effective measures in an acute hazardous situation as well as training concepts and training materials for Ro-Ro ship crews shall be developed



During the course of the project, **three possibilities for a parking space concept emerged**



Faster initial fire growth rate and higher overall peak heat release rate for the ICEV's.

Higher peak heat release rate for BEV's – during water application.

This is partly associated with fire progress in the battery pack.

Fire re-growth immediately after the termination of the water application, except for BEV1.



The fire scenarios

Battery pack burnt out during the time of water application (BEV1) or during and shortly thereafter (BEV2).

During the post-application stage, the unburnt exterior combustibles (as front and rear parts and paint) and the interior were completely consumed.

Significant post-application heat release rate peaks observed in all tests.