



# INNOVATION & EXCELLENCE



IPV

(International Procedural Viewer)  
fundamental part of ISS  
activity. 60,000 procedures



Highly specialised  
software development  
company



Strategic relationships with  
AON



EU and NASA award  
winners for outstanding  
Innovation



Space Clients: European  
Space Agency (ESA), NASA,  
JAXA & EUMETSAT



Offices, Ireland, Poland,  
Romania, UK & Bermuda

# About Skytek



beazley

Skytek is an award-winning software company specialising in creating innovative solutions for a range of complex and demanding industries. It has an enviable track record in developing world-class software solutions for some of the most challenging industries.

With unparalleled expertise in the Space environment, Skytek can boast decades of engagement with NASA and the European Space Agency and has developed intelligent software solutions for many other industries, including marine transportation, disaster response, aerospace, defence and insurance.

# Space Technology

It's at the heart of everything we do



INSURANCE



SECURITY



SPACE

# INSURANCE & SPACE TECHNOLOGY



## S-AIS

Collision avoidance system technology. Track mobile assets around the world.



## Earth observation

Imagery of earth from space. Perfect for pre-post analysis in near real time



## Climate Satellites

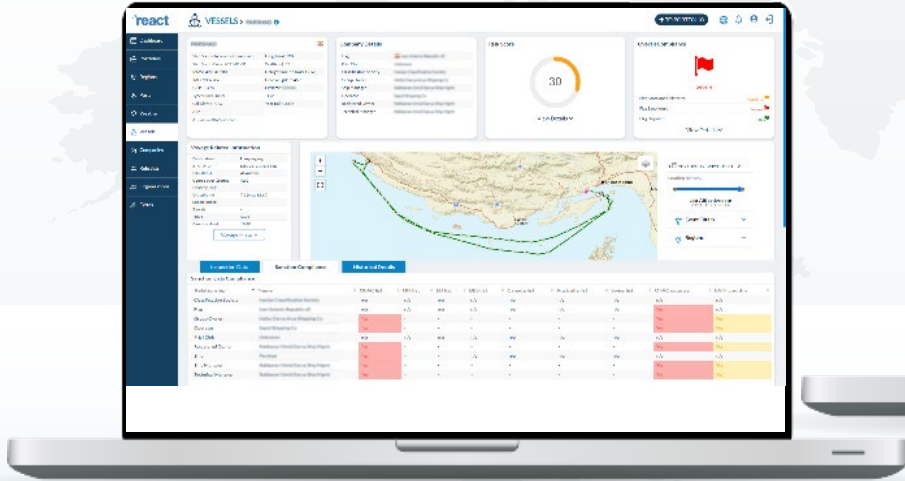
To be used for air quality and climate monitoring and forecasting



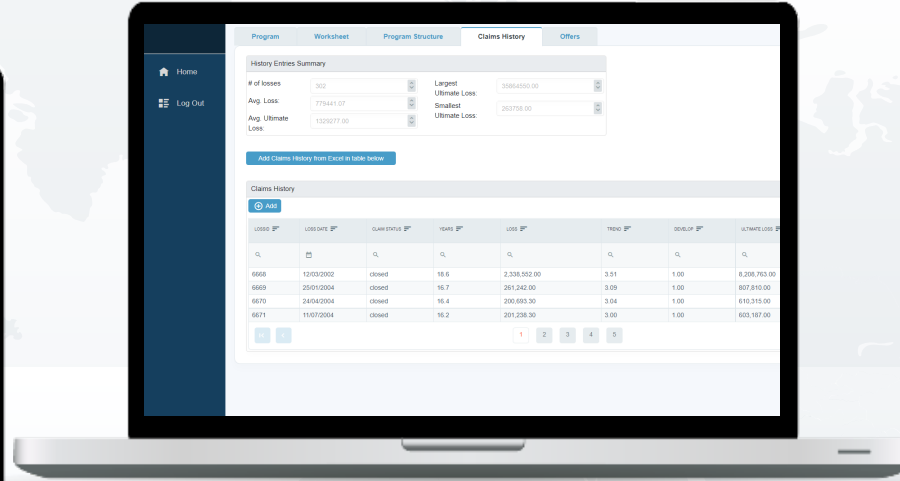
## Machine learning (ML) on Space assets

Combining EO/ML to give a near real time calculation of, S-AIS to better understand 'ground truth' and risk exposure

# THREE AREAS



**react**  
powered by Skytek



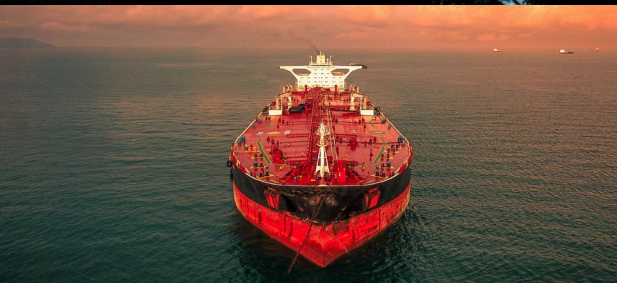
**support**  
powered by Skytek



**satellite club**  
powered by Skytek

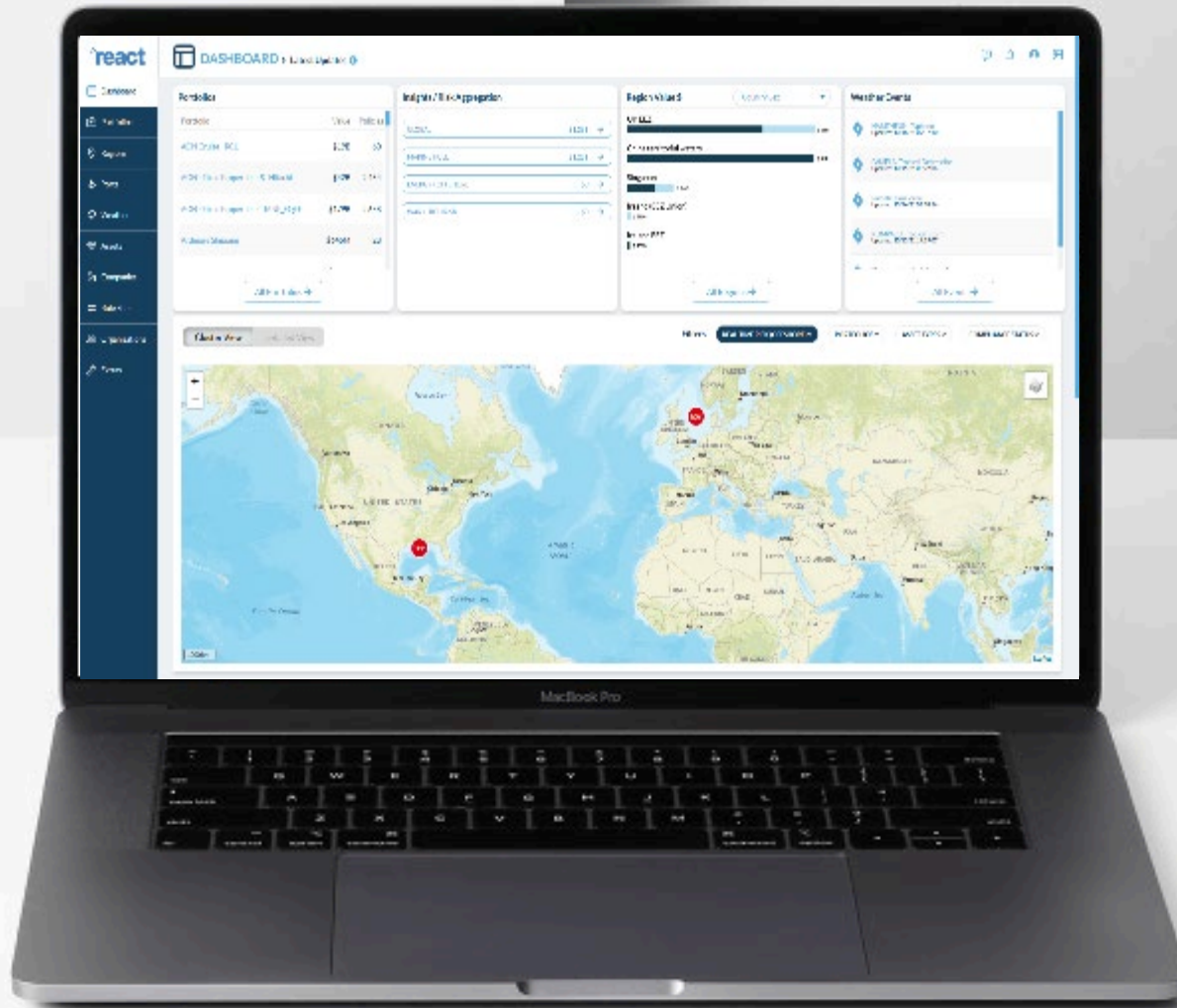
 **react**  
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One Platform to Manage your  
Global Portfolios in Real Time





# Global Risk Aggregation: Dynamic Real Time



Any asset, any location



Automated calculation of global exposure in near real time e.g. top 5 risk aggregation locations



Automated Alerts, monitored regions



**Severe Weather tool:** pre event exposure aggregation calculator. Supports additional reinsurance purchase





# CARGO ACCUMULATIONS AT PORT



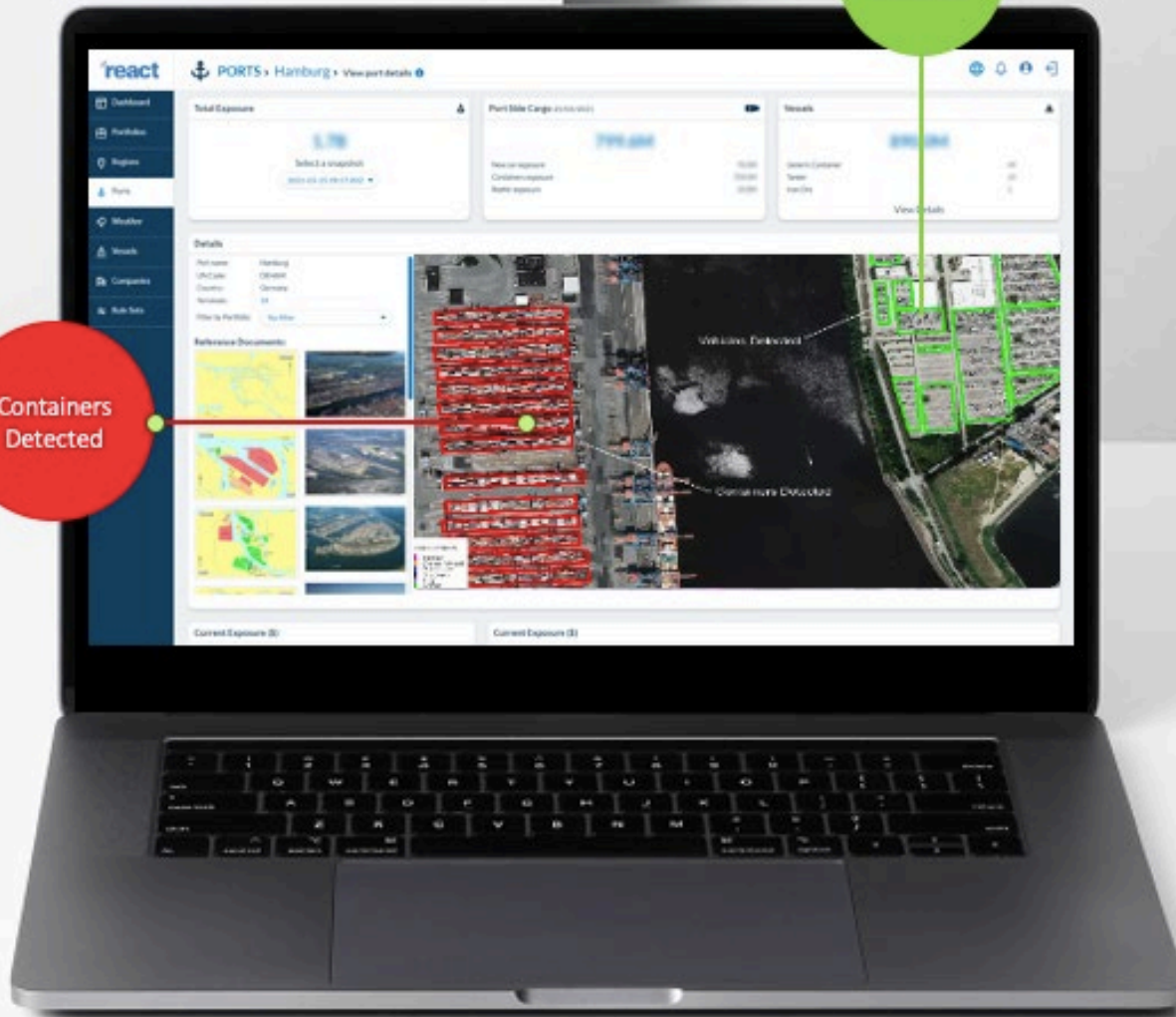
# Machine Learning








## Port Cargo accumulation

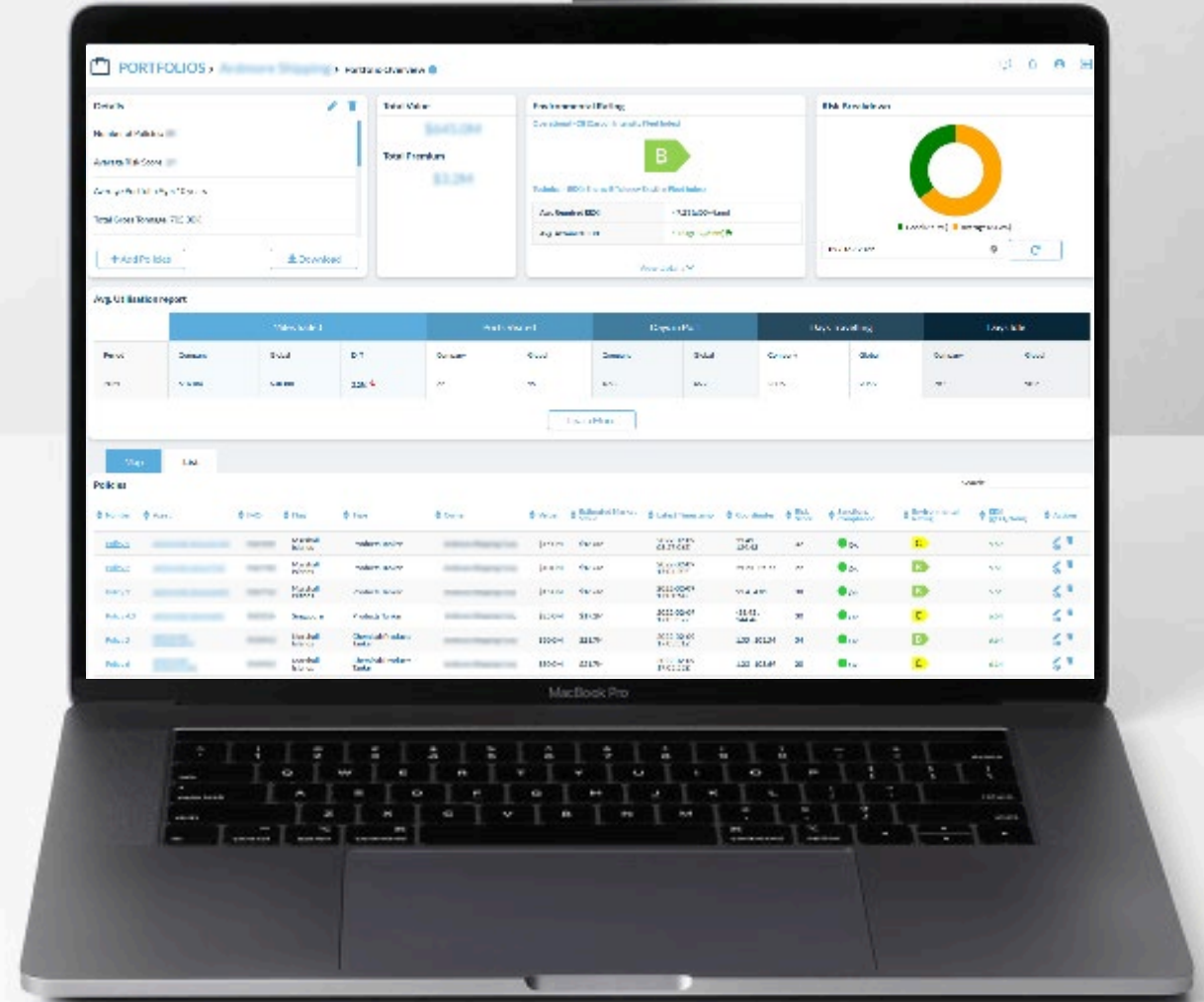
- Understand your exposure with near real time cargo analysis
- Proprietary Skytek Technology – earth observation imagery, merged with machine learning. Count containers, refrigerated containers and cars at a port
- Effective complimentary tool to support modelling system





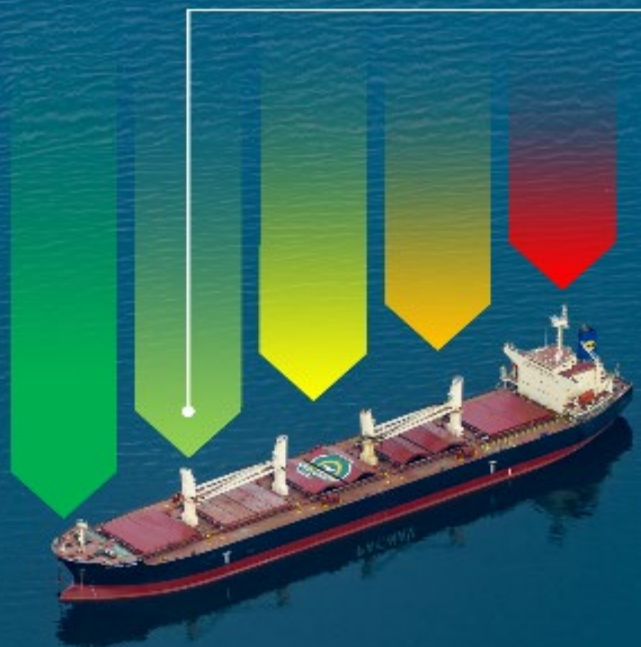
## Underwriting Risk scoring

-  Easy pre-screening of new clients
-  Claims historical analysis
-  Default **risk score** but can also be tailored by each insurance company
-  Comparative evaluation possible






## ESG Rating Score

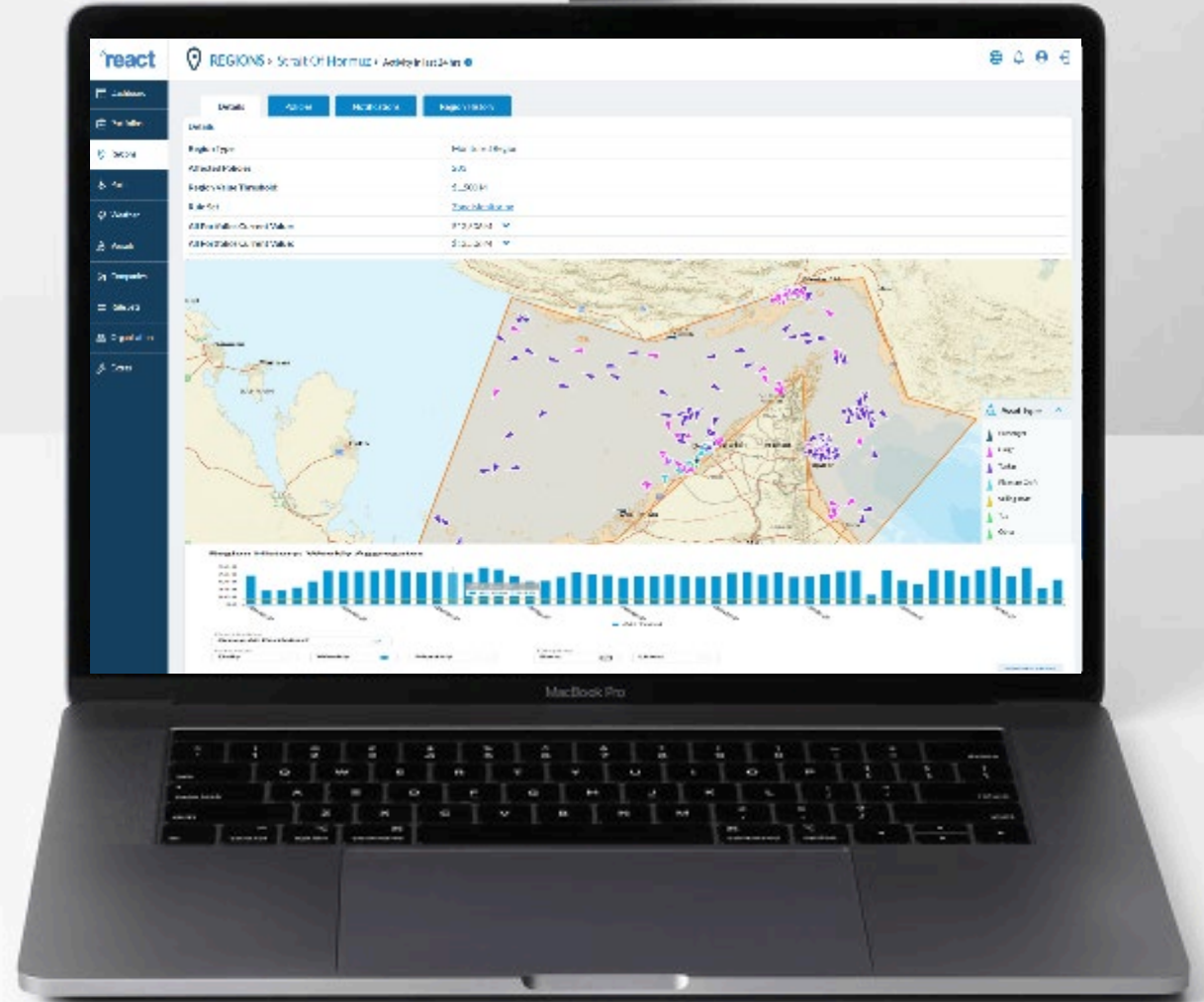
- Assist clients with compliance IMO greenhouse gas roadmap
- Now possible to rate according to Energy Efficiency
- Marine pollution monitoring, oil, dirty waters etc. supported by Earth observation imagery
- Bio-fouling compliance environmentally sensitive activity tracking





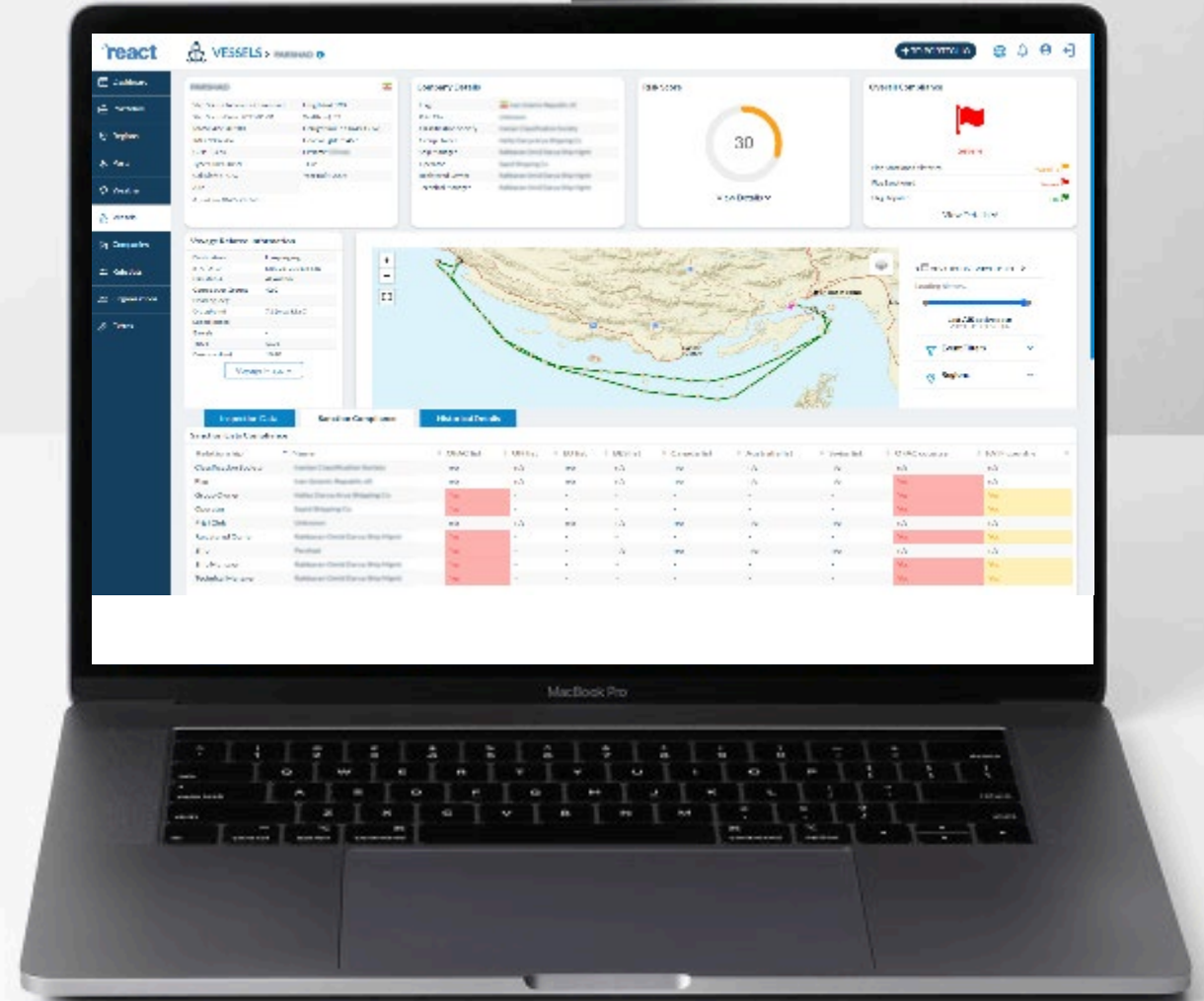
## War Risk Breach Assessment

-  Detailed region historical and real-time exposure
-  Streamline management of HRA Events. Automate the process
-  Latest JWC limits and customizable alerts



## Sanctions & Governance:

- Confirm sanction compliance
- Notifications of dark activities, suspicious ship to ship transfers (STS), calling into sanctioned ports
- Sustainability/decent employment: Monitoring areas where unsatisfactory work practices in hull cleaning and propeller polishing





# Putting Earth Observation Technology in the hands of the Insurer



# Game Changing: Impact of Ukraine Conflict

There is now global awareness of the power and quality of satellite imagery



## Support currently being provided to the insurance sector

- Insurance clients have assets trapped and damaged in Ukraine i.e property, infrastructure, ships in ports, etc.
- Providing sector with up-to-date information about their assets. PRE/POST satellite imagery
- Updating customers on the status of infrastructure on the ground
- Tactical support on personnel evacuation
- Producing user friendly reports to the end users, by combining various diverse data sources such as S-AIS, SAR, EO and data analytics

<https://satellite-club.skytek.com/ukraine/>

# Targeting the needs



**(RE)INSURANCE  
UNDERWRITERS**



**(RE)INSURANCE  
BROKERS**



**CLAIMS MANAGERS**



**LOSS  
ADJUSTERS**



**CORPORATE RISK  
MANAGERS**



**LEGAL  
COUNSEL**



**RISK  
MODELLERS**

# What are the benefits?



**Commission  
proprietary reports  
prepared by the  
Skytek expert panel**



**Access to image  
acquisition tools**



**Advice on cost-  
effective tasking and  
procurement of space  
data**



**Priority access to  
Skytek major events  
reports**



**Dedicated workshops  
on the latest space  
technology for  
(re)insurance**



**Expert witness and  
legal defence work**



**Award-winning EU &  
NASA technology**

# Ukraine: Azovstal Steel Plant

10<sup>th</sup> October 2021

Pre-Event



M14 Bridge

M14  
Motorway

Azovstal - Security  
service

Schmidt St.  
Bridge

Blast Furnace

# Ukraine: Azovstal Steel Plant

21 March 2022

Post-Event



M14 Bridge

M14 Motorway

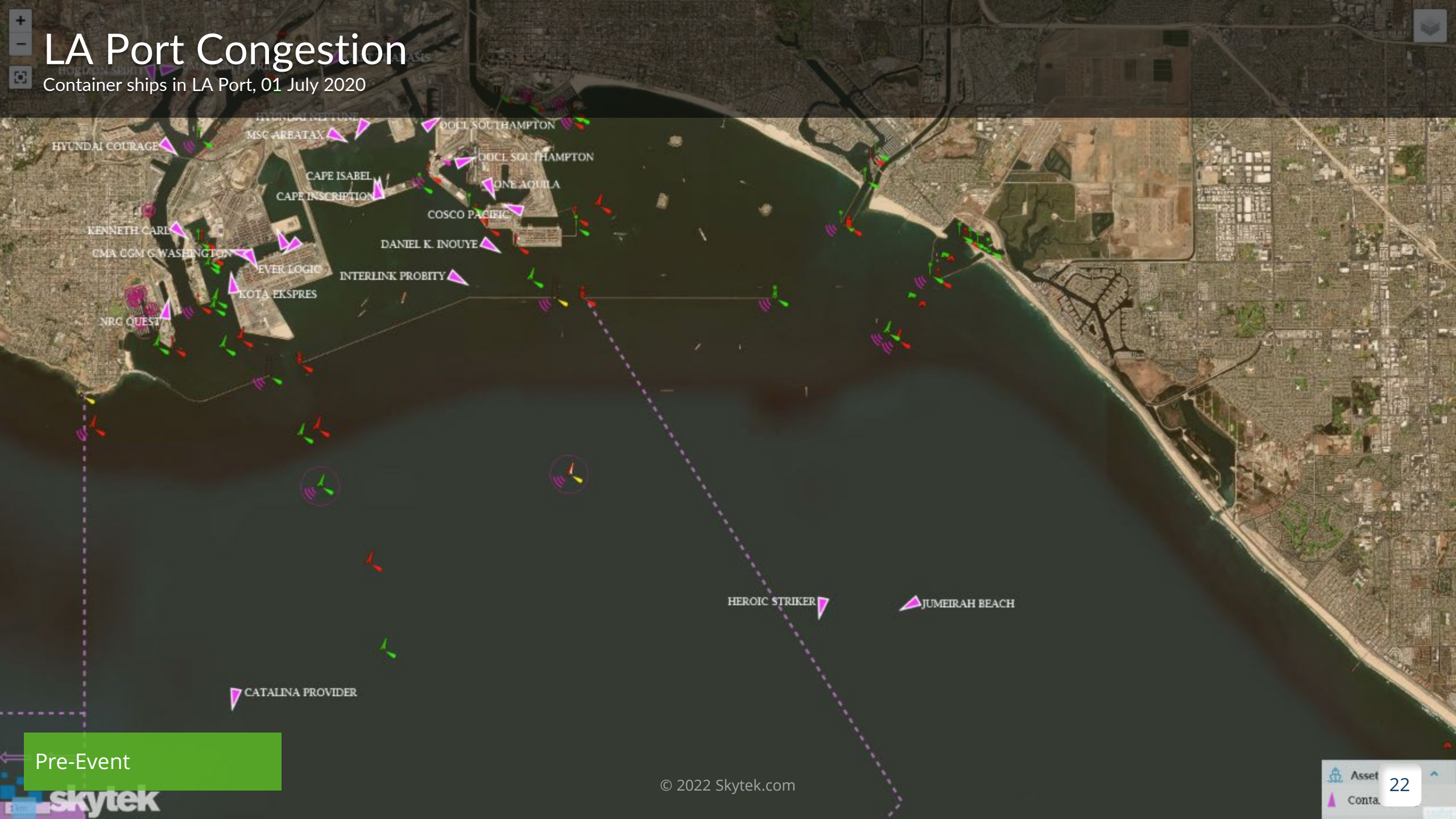
Azovstal - Security service

Schmidt St. Bridge

Blast Furnace

# LA Port Congestion

Container ships in LA Port, 01 July 2020

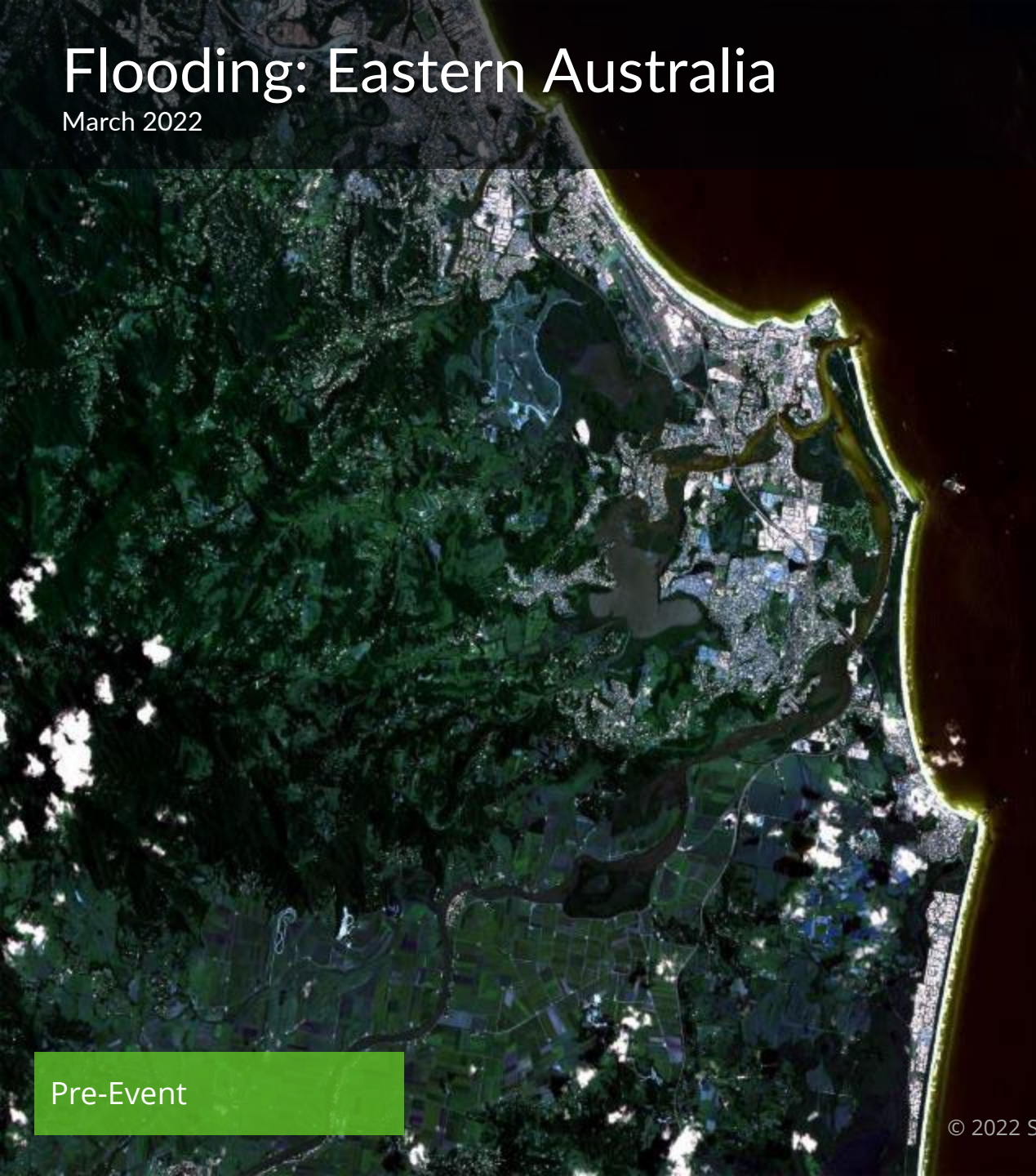


Pre-Event



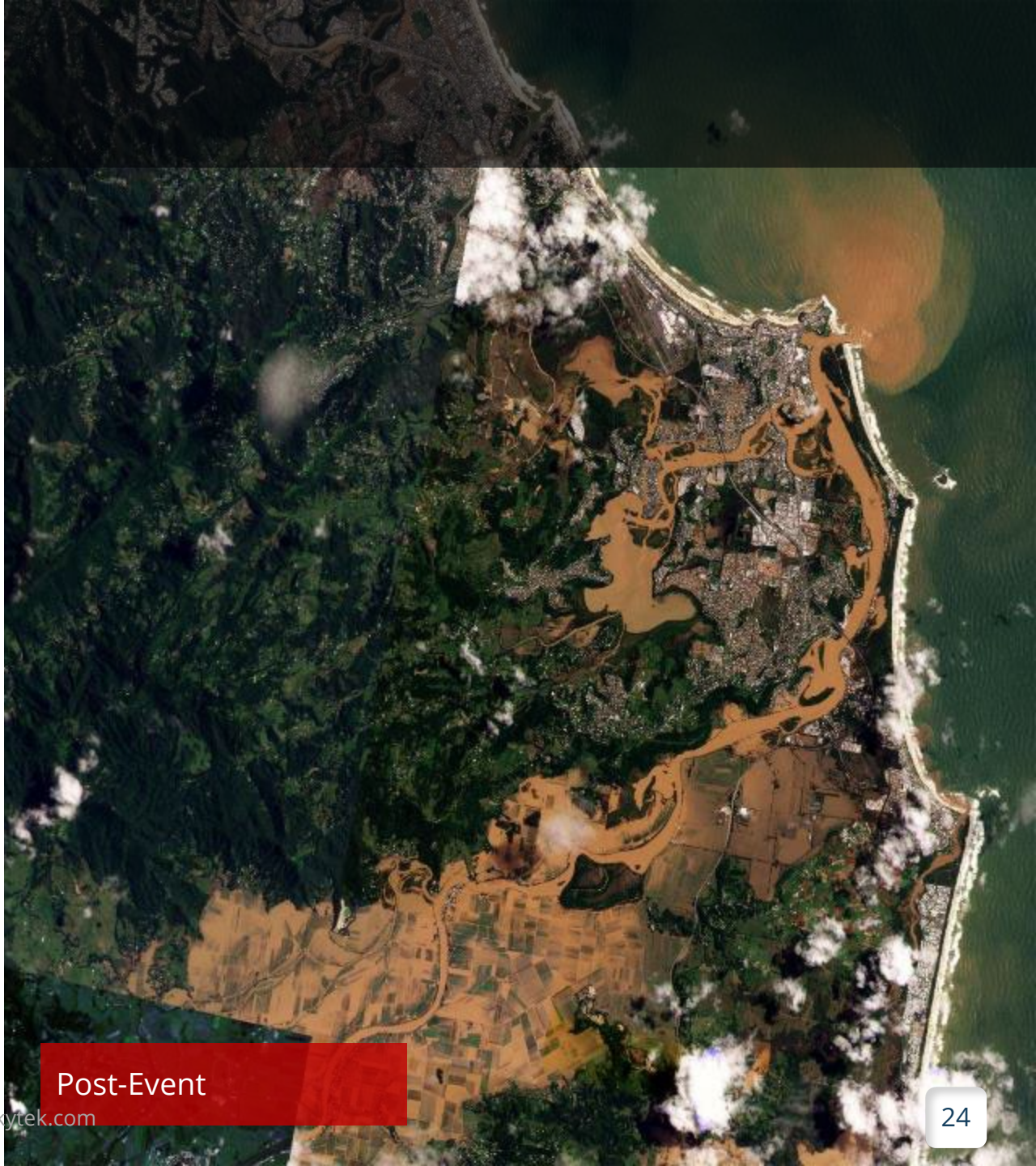
# Flooding: Eastern Australia

March 2022



Pre-Event

© 2022 Skytek.com



Post-Event

24



# Ukraine: Kherson International Airport

28<sup>th</sup> February 2022



Kherson International Airport

Runway

Planes

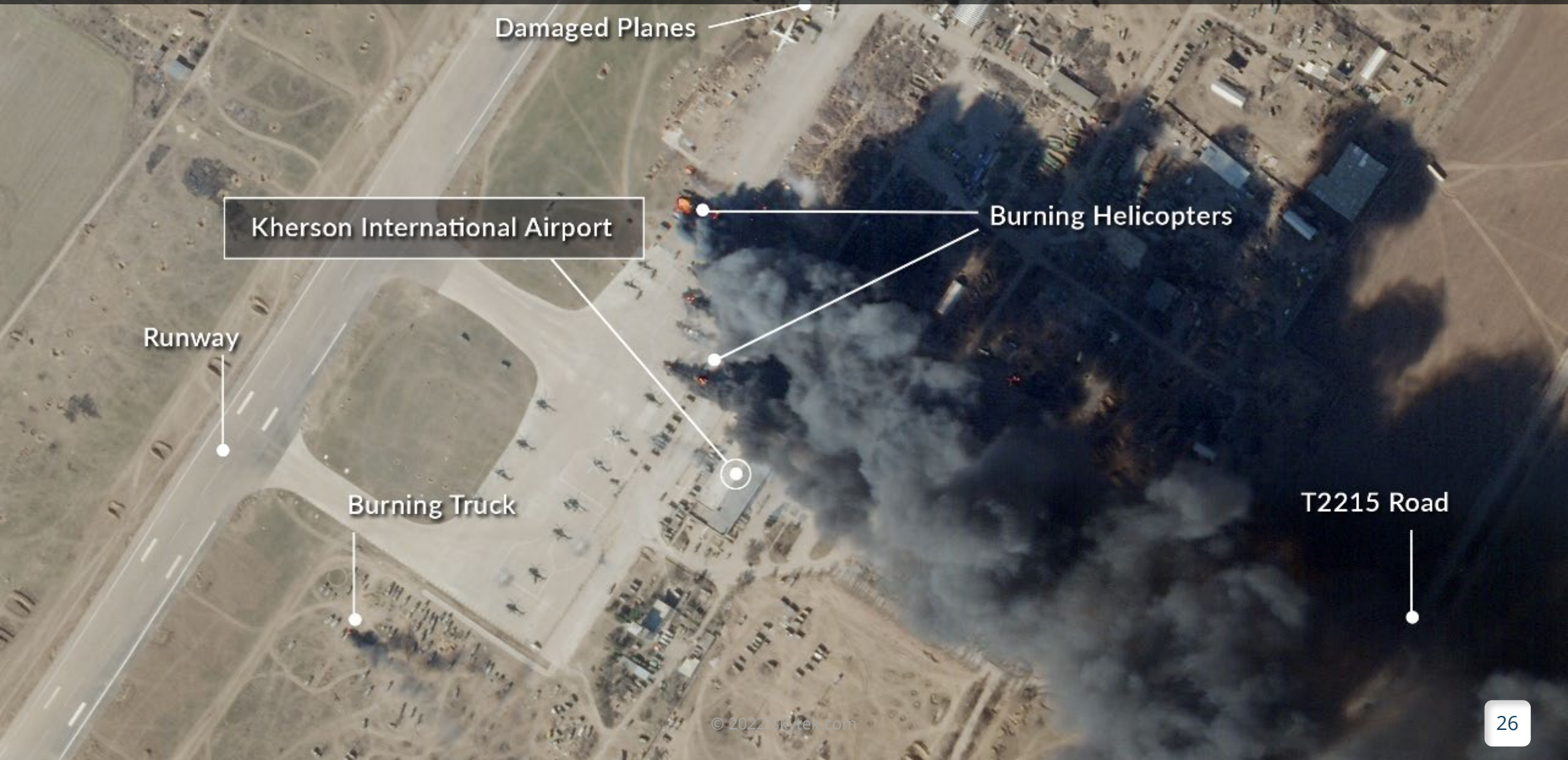
Trucks

T2215 Road

# Ukraine: Kherson International Airport

15<sup>th</sup> March 2022

Post-Event



Damaged Planes

Kherson International Airport

Burning Helicopters

Runway

Burning Truck

T2215 Road

# Ukraine: Kherson International Airport

24<sup>th</sup> March 2022



Kherson International Airport

Damaged Planes

Runway

Trucks

Protection Trench

T2215 Road

# WHY SKYTEK



Highly skilled and innovative team. NASA and EU Award winning technology



Proven track record in space and security



Long standing relationships with clients including ESA, EUMETSAT and Airbus



Strong R&D focus, talented team



Proprietary algorithms, data sets and technology



THANK YOU!