



YoujiVest

YoujiVest Climate Solutions

Introduction to YoujiVest

Our mission, team, and position

About Us

YoujiVest transforms sustainability challenges into market alpha by combining **cutting-edge AI**, **quantitative finance**, and **climate modeling expertise** to empower asset managers, banks, insurers, and corporations to navigate climate risks, meet regulatory requirements, and capture sustainable investment opportunities.

Industry Affiliations



Founding

Founded in 2017 with five offices in Hong Kong, Beijing, Shanghai, Guangzhou and New York to support ESG investment and climate analytics.

Core Team

Core team consisted of engineers and finance practitioners from Chinese Academy of Sciences, Tsinghua Univ., Fudan Univ., UC Berkeley with decades of ESG product experience serving BlackRock, State Street, Nomura, Allianz and more.

R&D

Combining AI and deep learning techniques to build ESG Ratings, Carbon/Environmental Metrics, and Climate Risk Models.

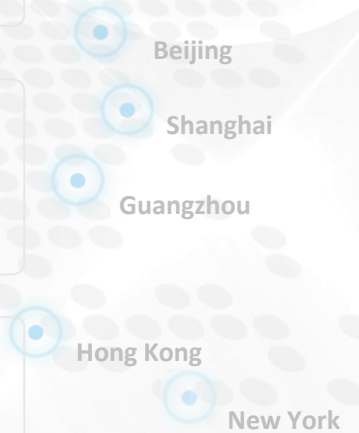
Qualifications



National high-tech enterprise



ISO9001 certification



Recognition: 2025 Hong Kong Green Fintech Map

ESG / Climate Risk Modelling & Assessment



Recognition: 2025 Global Resilience Technology Competition



After three competitive rounds and over 120 tech innovators from 17 countries, YoujiVest has taken 2nd runner-up at the global finals of the 2025 Prudence Foundation SAFE STEPS D-Tech Awards.

Representing China's innovation frontier, Youji Climate Risk Modelling System (CRMS) was recognized for pushing the boundaries of precision in early-warning systems for extreme weather and climate disasters.

YoujiVest Climate Solutions

Core Models and Technologies

Current climate risk model Issues

Limited scope

Limited extreme weather events

Uncertainty in climate change

Unable to handle uncertainty in climate change scenario generation

Data availability

Only headquartered location risk

Lack of historical hazard data

Poor local coverage

Low Resolution

Most of the climate models are based on country level

Lack of flexibility

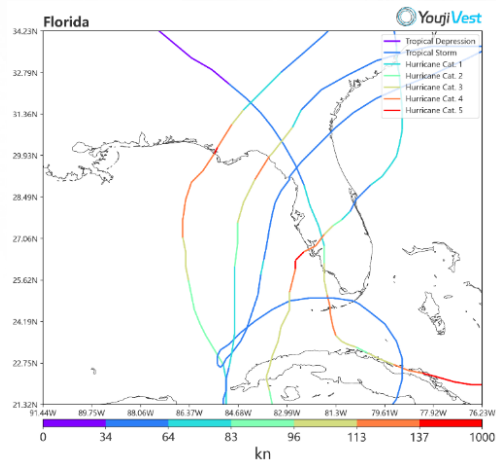
Frameworks inflexible, difficult for organizations requirements adaptation



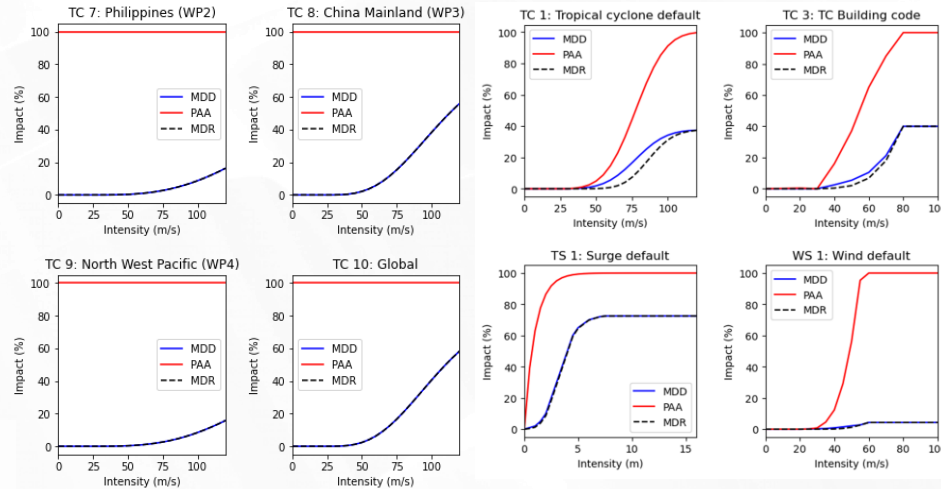
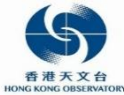
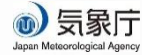
- IPCC 7 RCPs and 5 SSPs Pathway scenarios, as well as NGFS scenarios.
- All company subsidiaries, operational locations
- Full coverage in Hong Kong, China, Asia, Global model
- 5x5m resolution, with altitude choice
- Fully customisation (loss curve, assets location, duration, short-term/long term time-interval)

Comprehensive Coverage of Data

YoujiCRMS is a state-of-the-art climate risk model that integrates a wide array of **meteorological data**, **hazard data**, and **geo-economic data**. It not only incorporates extensive historical data, providing insights into past climate events and trends, but is also adaptable for use in a wide variety of future scenarios.



Historical Tropical Cyclone Data of Florida



Worldwide Damage Ratio Curve

Nearly **200 years** global historical hazard track data;

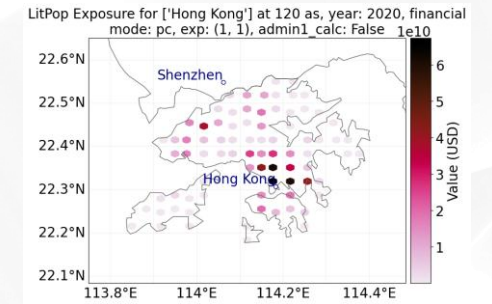
More than **9** synthetic trajectories simulated for each historical events;

Monte Carlo simulations influence distribution.

The damage ratio curve covers global locations and different scenarios.

Source: YoujiVest Climate Lab

Hong Kong as an example



Economic Exposure Distribution of Hong Kong



Expected Annual Impact of Hong Kong

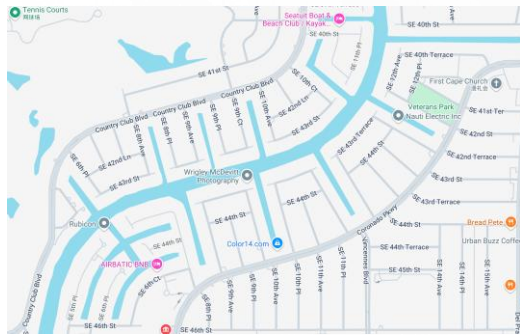
High-Resolution for Any Specific Location

YoujiCRMS provides high resolution analysis (**the highest in the market: 5m x 5m**) with satellite imaging and down-scaling techniques.

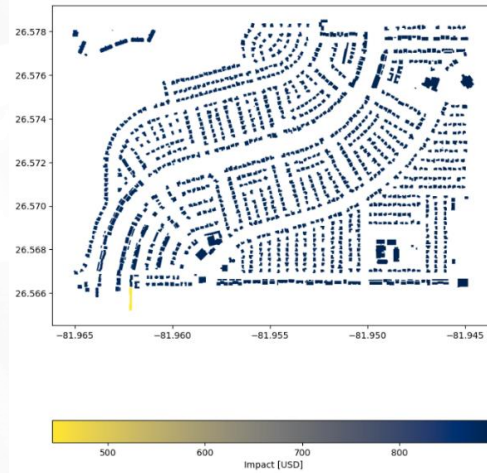
geographical analysis in high resolution



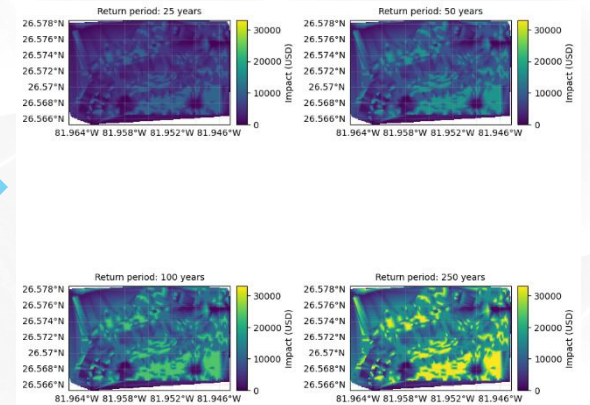
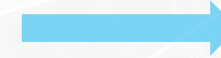
Satellite Auto Detection of Airbatic BNB's Constructions Distribution



Airbatic BNB's Actual Constructions Distribution



Expected Annual Impact Simulation of Airbatic BNB



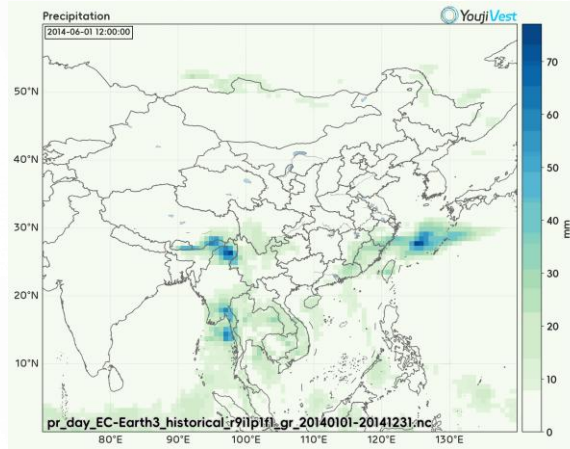
Expected Annual Impact Simulation of Airbatic BNB in different return periods

YoujiVest's estimation closely aligns with the real circumstances.

Airbatic BNB is a vacation service provider with a wide array of properties. YoujiCRMS can conduct highly accurate simulations, from modeling its **constructions distributions** to **predicting expected annual impacts**, with the analysis of these impacts extendable to **different return periods**.

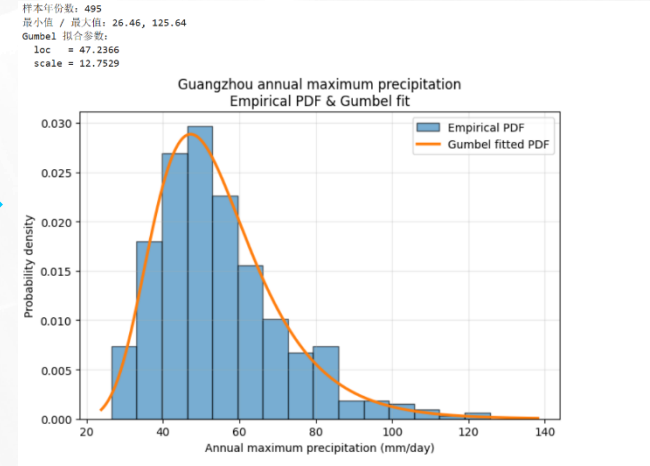
Source: YoujiVest Climate Lab

AI-Driven Flooding Prediction Model

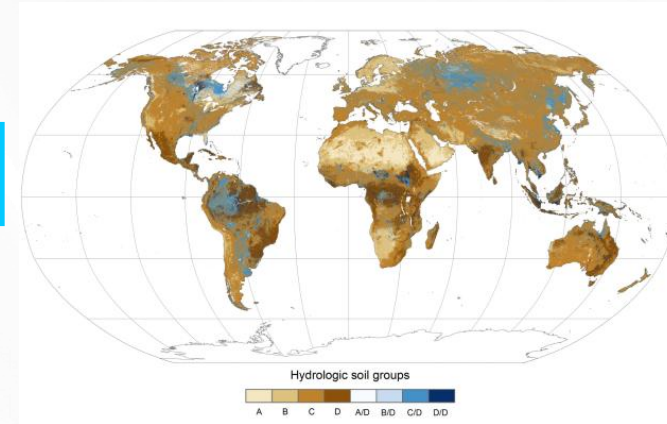


Based on historical daily rainfall parameters

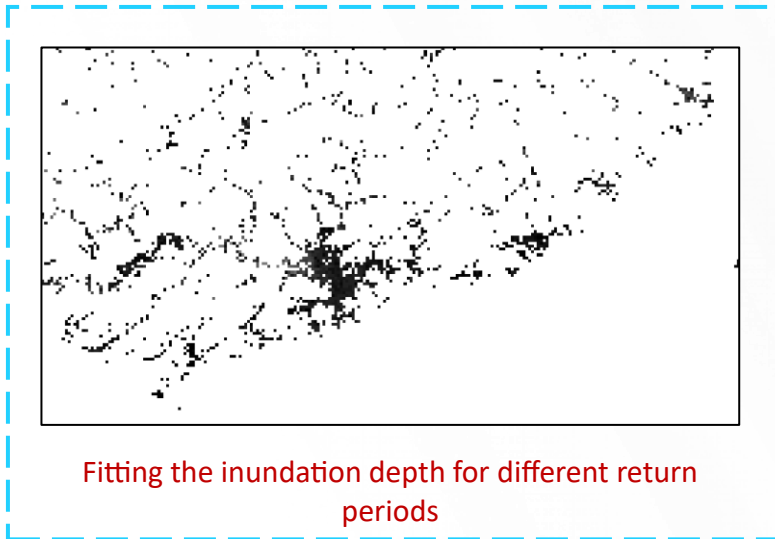
Generating 10,000 years of precipitation field data with perturbations



Simulating the intensity of flood disasters caused by precipitation events



Incorporating the 250m high-resolution global hydrologic soil group dataset



Fitting the inundation depth for different return periods

Input river runoff and urban flooding model

Case 1. Banking/Asset Management Climate Risk Stress Testing

Mandatory for SDST banks or upon request by global regulators

Overview

- As compared to the pilot exercise, there are several major enhancements in 2023-2024 CRST in respect of climate scenarios, assumptions, assessment approaches and reporting requirements

Scenario Narratives & Specifications

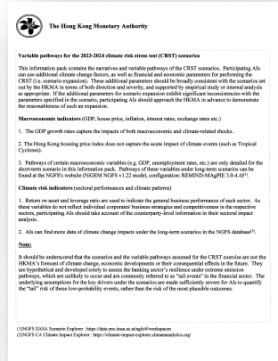
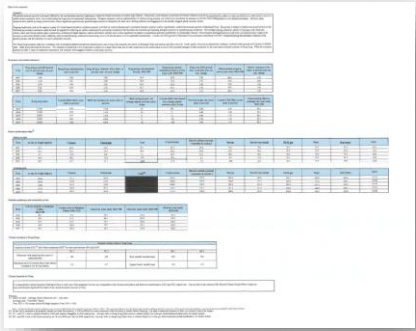
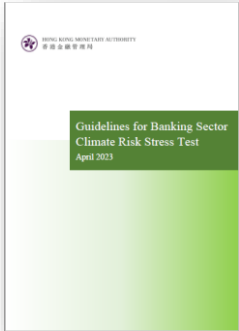
- Sectoral impacts under transition
- Short-term scenario (2023-2027): combining climate risk drivers (more frequent occurrences of extreme climate events, accelerated transition to a low-emission economy) and Macroeconomic risk drivers (global economic downturn, HK in recession, slowdown in ML)
- Long-term scenario (2023-2050): include below 2 °C, delayed transition, current policies

Assessment Requirements

- Full balance sheet covering both on and off balance sheet
- Assessment approaches, include quantitative analyses, qualitative analysis, balance sheet treatment, physical risk assessment, transition risk assessment, key assessment metrics and projection interval, model risk assessment

Submission of Results

- Results reporting
- Submission timeline (2023 and 2024 results for short-term scenario should be submitted by 20231231 and 20240630 respectively; results for long-term scenarios should be submitted by 20240630)



Hong Kong Monetary Authority
Climate Risk Stress Test (CRST)
Completion Instructions and Reporting Template - Short-term Scenario

The CRST results under the short-term scenario, together with the supplementary information, should be submitted to the Hong Kong Monetary Authority by **30 June of 2024**.

Note: Authorized institutions should not disclose the completion instructions and reporting template to any third party unless a written consent is obtained from the Hong Kong Monetary Authority.

Name of AI:

Submission Date:

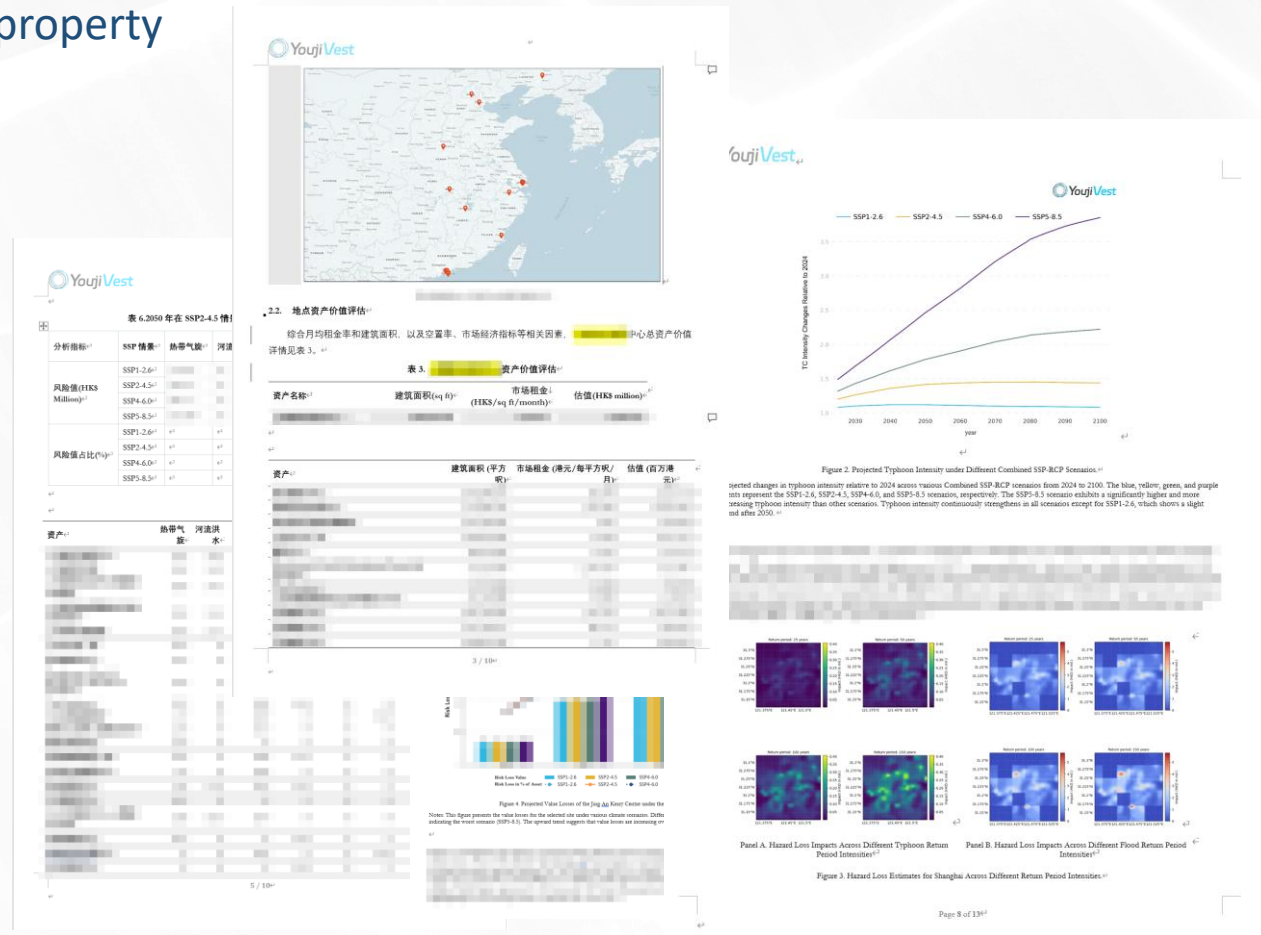
Reporting Basis:

Contact Person: Name:
 Title:
 Department:
 Telephone Number:
 Email Address:

Case 2. Real Estate Risk Map

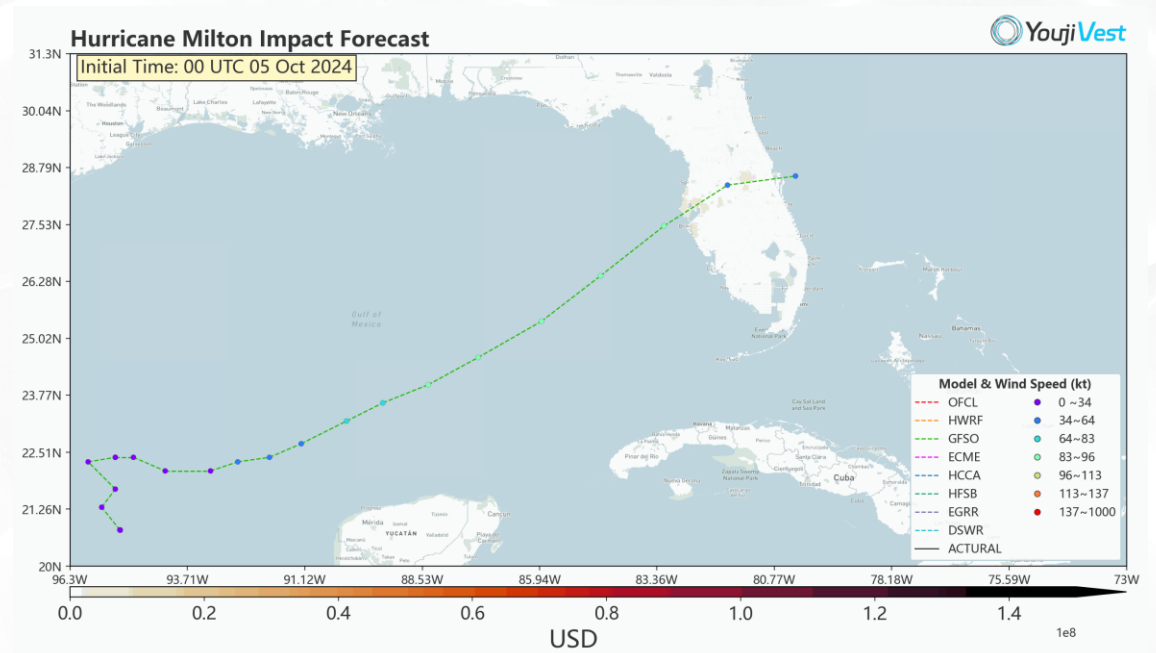
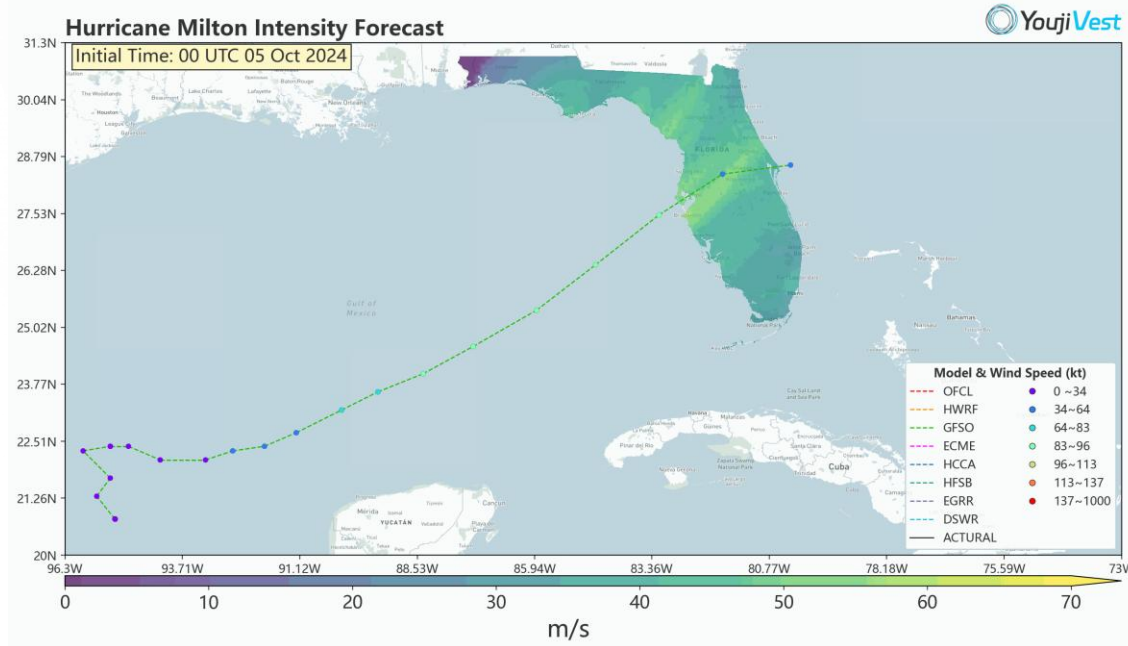
Quantitative analysis of the risk exposure of corporate property assets to climate and financial losses

- These financial quantitative risk exposure analyses enable companies to **prioritize countermeasures** against high-risk assets and hedge losses by adjusting portfolio structures or insurance strategies.
- Enable companies to **reduce the erosion** of real estate value from climate change shocks.



Case 3. Catastrophe Analysis and Loss Estimation

YoujiVest CRMS generates hurricane track and potential loss projections.



GDP(USD Millions)	AAI(USD Millions)	Percentage	AVG Wind Speed(m/s)	Max Wind Speed(m/s)
1,350,000	22,300	1.65%	24.5	80.4

AAI(USD): Total Annual Average Aggregated Impact Value.

Percentage: Percentage of AAI to annual GDP.

Speak with us about your needs

Email: ESG@YOUJIVEST.COM

C u t t i n g - E d g e E S G D a t a A d v a n c i n g S u s t a i n a b i l i t y

